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Editors:

Intan Hashimah Mohd. Hashim

Nor Hafizah Selamat

Suzanna Awang Bono

Lai Wan Teng

Nur Ajrun Khalid

Siti 'Aisyah Baharudin

Chong Hoi Yan

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FOOD SECURITY, POVERTY AND ECONOMIC GROWTH IN MALAYSIA

Siti 'Aisyah Baharudin^a, Hayyan Nassar Waked^{b,*}, Mohd Shah Paimen^c

^{a,b}School of Social Sciences, Universiti Sains Malaysia, Malaysia

^cSchool of Distance Education, Universiti Sains Malaysia, Malaysia

Corresponding Email: hayyan_waked@hotmail.com

ABSTRACT

This study attempts to systematically explore the relationship between food security and poverty in Malaysia and investigate the long-term dynamics between economic growth and the key pillars of food security, namely availability, accessibility, and utilization. Employing a systematic review following PRISMA guidelines, we analyzed 16 relevant articles published between 2010 and 2023. Additionally, we utilized econometric techniques, including unit root testing, cointegration analysis, VECM, and ARDL models, to scrutinize the enduring and short-term relationships among economic growth and the pillars of food security: availability, accessibility, and utilization. The systematic review uncovers a significant connection between food security and poverty in Malaysia, with particular emphasis on low-income households. It identifies regional disparities in hunger, nutritional adequacy, and dietary assurance, underscoring the salient challenge posed by Malaysia's minimum wage falling below the poverty line income. Econometric findings unveil the intricacies of the relationships between food security dimensions and economic growth in Malaysia. While certain positive associations are observed, inconsistencies and inconclusive results underscore the complexity of these dynamics. Notably, food accessibility emerges as a pivotal factor influencing economic development, while the roles of food availability and utilization vary. Local food production is identified as a key catalyst for economic growth, emphasizing its central role in fostering prosperity. However, the study raises pertinent questions regarding the consequences of over-reliance on external food sources, advocating for comprehensive import policies. Improved income levels are found to mitigate food insecurity and stimulate economic prosperity. Furthermore, the research hints at unexplored factors influencing food accessibility dynamics. The findings hold crucial implications for policymakers, advocating for a focus on enhancing local food production, equitably distributing income, and improving sanitation services to promote both economic growth and food security in Malaysia.

Keywords: Economic Growth; Food Security; Malaysia; Poverty.

1. INTRODUCTION

The concept of food security was first mentioned in 1974 during the inaugural World Food Conference primarily focused on the supply aspect when defining food security. However, over the course of 30 years, the World Food Summit in 1996 redefined food security as "when all people, at all times, have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life." This definition aligns more closely with the

modern understanding of food security (UN, 1996). The new definition incorporates considerations of demand and access into the concept. According to the Food Agricultural Organization (FAO) in 2022, food security encompasses four main dimensions: food availability, food accessibility, food utilization, and food stability. These dimensions collectively ensure that every individual, household, and population has continuous access to sufficient and nutritious food.

Food security in Malaysia has intertwined over the course of development, with national and household income playing significant roles in influencing food security. The determinants of food security in Malaysia are multifaceted, encompassing poverty, economic growth, and policy effectiveness. The Global Hunger Index (2022) indicates a moderate increase in Malaysia's hunger score, rising from 10.9 in 2014 to 12.5 in 2022 (GHI, 2022) highlighting persistent poverty issues. In terms of economic growth, Malaysia's rice self-sufficiency level (SSL) was recorded at 65% in 2022, which is significantly below the targeted 75% SSL for 2025 (MAFI, 2022). Policy-wise, Malaysia's position in the Global Food Security Index fell to 41st in 2022, with a moderate performance score of 69.9, reflecting a decline compared to the previous year (MAFI, 2022). These indicators collectively underscore the challenges Malaysia faces in ensuring food security.

1.1 Food Security and Poverty

The nexus between food security and poverty is intricately woven. Poverty, functioning as a causal agent of food insecurity, constitutes a fundamental underpinning of this phenomenon. Under conditions of impoverishment, individuals often encounter a deficit in income, thereby impeding their capacity to procure an ample supply of nourishment, thus catalyzing food insecurity (UN, 2023). In the context of Malaysia, the issue of food security and poverty presents critical challenges. Approximately 8.9% of the population is currently experiencing food insecurity, with projections indicating a potential rise to 10% by 2030 (FAO, 2021). Despite a decline in rural poverty rates from 36.6% in 2016 to 21.2% in 2021, and in urban areas from 9.0% to 5.5%, the incidence of absolute poverty has increased, from 5.6% in 2019 to 8.4% in 2021 (DOSM, 2022). This dichotomy underscores the persistent and evolving nature of poverty, necessitating comprehensive policy interventions to enhance food security and mitigate poverty's adverse impacts.

1.2 Food Security and Economic Growth

Food security is intricately linked to poverty and economic growth, with a bidirectional and mutually reinforcing relationship. It forms a cycle where food security can enhance economic growth, and conversely, economic growth can reduce hunger. Food security not only impacts health and well-being but is also a fundamental element in achieving sustainable economic growth. The adverse effects of malnutrition on labor resources, productivity, and overall economic growth are increasingly recognized. Nations grappling with food insecurity and high levels of poverty face greater challenges in human capital development, which is pivotal to achieving sustainable economic growth. Food insecurity can lead to a reduction in Gross Domestic Product (GDP) by approximately 4% to 5%, while dietary deficiencies can also contribute to a GDP reduction of around 0.7% to 2% (Pourreza et al., 2018).

In Malaysia, the interplay between food security and economic growth presents several challenges. In 2021, Malaysia's agro-food imports amounted to RM64 billion, significantly higher than its exports of RM39 billion, indicating a substantial trade deficit in the agricultural sector (MAFI, 2022). This disparity reflects an agricultural productivity rate of only 45%, insufficient to meet both consumption and industrial needs (TMR, 2021). Moreover, Malaysian households allocate approximately RM25 to RM31 per day on food, which constitutes about 17.3% of their total expenditures (DOSM, 2022). This high level of expenditure on food highlights the critical role of food security in household economic stability. Addressing these issues requires enhancing agricultural productivity and reducing dependency on food imports to ensure a more balanced and sustainable economic growth that supports food security.

Empirical evidence indicates a state of regression rather than progress in Malaysia, despite the introduction of innovative initiatives and a well-conceived strategic roadmap for food security. The "4C factors"—the COVID-19 pandemic, the concurrent rise in global food prices due to the Russia-Ukraine conflict, the escalating impacts of climate change, and currency fluctuations affecting resurgent demand—have exacerbated food security challenges in Malaysia (Christian et al., 2021). The research objectives are to identify the relationship between food security and poverty in Malaysia, to examine the causal relationship between food security and economic growth in Malaysia, and to analyse the short-term dynamics between the three pillars of food security and economic growth in Malaysia.

2. LITERATURE REVIEW

The interrelationship between food security and poverty is multifaceted, encompassing dimensions such as food access, utilization, and stabilization. Economic constraints imposed by poverty significantly hinder food accessibility, limiting individuals' ability to procure adequate sustenance (Marchetti & Secondi, 2022). Furthermore, food insecurity, manifested through malnutrition, adversely affects individuals' physical and mental development, posing threats to economic stability and increasing a nation's susceptibility to poverty (Siddiqui et al., 2020). Higher food prices often benefit the rural poor and contribute to faster global poverty reduction, while recent declines in agricultural prices could hinder poverty reduction (Headey & Martin, 2016). Food security and poverty are deeply intertwined issues affecting socioeconomic characteristics of household food insecurity include larger household, living in poverty, and low education (Norhasmah et al., 2021).

The relationship between food security and economic growth is complex and multifaceted. Empirical evidence suggests that a 10% increase in economic growth can lead to a 6% reduction in malnutrition, highlighting a positive correlation between economic development and improved nutritional outcomes (Kostas & Alberto, 2003). However, this relationship also has negative dimensions. For instance, a 10% increase in economic growth is associated with a 7% rise in obesity among women, indicating that economic prosperity can sometimes exacerbate health issues related to overnutrition (Nugent et al., 2019). Additionally, economic growth often comes at the expense of the natural environment, leading to deforestation and pollution, which can further undermine food security (Andrée et al., 2019). Timmer (2005) underscores that low-income populations are disproportionately affected by food insecurity, as they consistently lack access to sufficient and nutritious food, making them particularly vulnerable in the face of economic and environmental changes.

The literature review highlights several key aspects of the interrelationship between food security, poverty, and economic growth, yet there are notable research gaps. Firstly, while the review addresses the multidimensional nature of food security and poverty, it lacks a comprehensive analysis of how specific policy interventions directly influence this relationship in the Malaysian context. Secondly, the impact of economic growth on both malnutrition and overnutrition is discussed, but there is insufficient exploration of the mechanisms through which economic growth translates into differential nutritional outcomes across various demographic groups. Additionally, the environmental consequences of economic growth on food security are acknowledged, but there is a gap in understanding the long-term sustainability of current economic policies and their implications for food security in Malaysia. Lastly, the existing literature does not adequately address the short-term versus long-term dynamics between food security and economic growth, nor does it fully integrate the three pillars of food security—availability, access, and utilization—into the analysis of economic growth impacts. These gaps highlight the need for more targeted and context-specific research to inform effective policy-making in Malaysia.

3. METHODOLOGY

The study employs a structured research methodology to comprehensively analyze the multifaceted relationship between food security, poverty, and economic growth. For objective 1, a systematic review is conducted to investigate the food security-poverty nexus in Malaysia. The review follows PRISMA guidelines, ensuring a comprehensive and unbiased assessment of relevant literature. Inclusion criteria encompass original research articles published between 2010 and 2023, resulting in the identification of 16 pertinent articles. The research methodology for objective 2 and 3 follows a structured approach to comprehensively analyse the relationship between economic growth and food security across multiple dimensions. Initially, data is collected from World Bank and FAO database covering the period 2000-2020. Table 1 illustrates the four econometric models that have been employed in this study.

Table 1: Summary of the econometrics models, objectives and utilised methodology.

Econometric Model	Objective	Methodology	Equation
Model 1: Causal Relationship between Economic Growth and Food Security	Research Objective 2: Examining the causal relationship between food security and economic growth	<ol style="list-style-type: none"> 1. Conduct ADF unit root tests for stationarity. 2. Apply Johansen cointegration test to ascertain cointegration between food security (Food Security Index) and economic growth (GDP per capita). 3. Utilize VECM to investigate the long-run relationship between food security and economic growth. 	$GDP = \beta_0 + \beta_1 \cdot FS + \beta_2 \cdot ECT$ <p>Where: <i>GDP</i> represents GDP per capita. <i>FS</i> represents the Food Security Index. <i>ECT</i> represents the Error Correction Term.</p> <p>The coefficients β_1 and β_2 are estimated to determine the long-term and short-term impacts of food security on economic growth. A positive β_1 indicates a positive long-term relationship between food security and economic growth.</p>
Model 2: Direct Effects between Economic Growth and Food Availability	Research Objective 3: Analyse the short-term dynamics between economic growth and the food availability dimension, considering food production, food import, and CO2 emissions.	<ol style="list-style-type: none"> 1. Conduct ARDL Bound Test to determine cointegration between economic growth and food availability variables. 2. Employ ARDL approach to explore short-term dynamics and their impact on economic growth. 	$GDP = \gamma_0 + \gamma_1 \cdot FP + \gamma_2 \cdot FI + \gamma_3 \cdot CO_2 + \epsilon$ <p>Where: <i>FP</i> represents food production. <i>FI</i> represents food import. <i>CO₂</i> represents CO₂ emissions. ϵ represents the error term.</p> <p>The coefficients γ_1, γ_2, and γ_3 indicate the short-term effects of each food availability dimension on economic growth. The model helps us understand how changes in these factors influence economic growth in the short run.</p>
Model 3: Direct Effects between Economic Growth	Research Objective 3: Analyse the short-term relationship between economic	1. Conduct ARDL Bound Test to examine cointegration between economic growth	$GDP = \delta_0 + \delta_1 \cdot PPP + \delta_2 \cdot TRP + \delta_3 \cdot NI + \epsilon$ <p>Where: <i>PPP</i> represents purchase power parity. <i>TRP</i> represents transportation indicators. <i>NI</i> represents net income per capita.</p>

and Food Accessibility	growth and the food accessibility dimension, encompassing purchase power parity, transportation indicators, and net income per capita.	and variables representing food accessibility. 2. Apply ARDL approach to investigate immediate interactions between economic growth and food accessibility indicators.	ϵ represents the error term. The coefficients δ_1 , δ_2 , and δ_3 signify the short-term impacts of each food accessibility dimension on economic growth. This model helps us understand how variations in these factors affect economic growth in the immediate term.
Model 4: Direct Effects between Economic Growth and Food Utilization	Research Objective 3: Analyse the short-term relationship between economic growth and the food utilization dimension, focusing on sanitation level and primary school enrolment.	1. Conduct ARDL Bound Test to determine cointegration between economic growth and variables related to food utilization. 2. Employ ARDL approach to analyse short-term interactions and their impact on economic growth.	$GDP = \theta_0 + \theta_1 \cdot SL + \theta_2 \cdot SE + \epsilon$ Where: SL represents sanitation level. SE represents primary school enrolment. ϵ represents the error term. The coefficients θ_1 and θ_2 indicate the short-term relationships between each food utilization dimension and economic growth. This model helps us understand how variations in sanitation level and primary school enrolment influence economic growth in the short run.

4. ANALYSIS AND DISCUSSION

In the initial analysis pertaining to Objective 1, diverse degrees of prevalence in food insecurity were observed, concomitant with the discernment of correlations between food security and poverty. Concurrently, in the examination of Model 1 associated with Objective 2, evidence of a sustained association between food security and Gross Domestic Product (GDP) was unveiled. Models 2 through 4 were constructed to address the imperatives outlined in Objective 3.

4.1 Analysis of Systematic Review on Food Security and Poverty

Food security and poverty represent critical challenges within the Malaysian context. This study undertakes a thorough and systematic review of the existing academic literature, concentrating specifically on the multifaceted dimensions emerge, encompassing aspects such as income distribution, susceptibility to economic shocks, degrees of hunger prevalence, nutritional adequacy, and the assurance of dietary requirements. Through a comprehensive analysis of these discerned outcomes, the subsequent discussion not only synthesizes these findings but also engages deeply with their far-reaching implications;

- A significant correlation exists between the phenomenon of food security and the prevailing condition of poverty: This correlation is accentuated by the economic context in Malaysia, where the established minimum wage stands at RM1500. However, it is noteworthy that this wage level falls short of the country's delineated poverty line income, which stands at RM2208 according to the Department of Statistics Malaysia's 2022 report.
- This intersection between food security and poverty is particularly pronounced within low-income households: Scholarly investigation by Sulaiman et al. (2021) reveals that across different Malaysian regions and states, the prevalence of food insecurity displays substantial variability, ranging from 47.2% to 100.0%, within the cohort of welfare and Zakat recipients.
- Association between food security and hunger: The nexus of hunger within the context of Malaysia is characterized by a moderate range, spanning from 15% to 65.0% (Norhasmah et al., 2021), with the most recent estimate standing at 12.5% (GHI, 2022).
- Correlation between food security and dietary quality: A research endeavor undertaken by Ahmad et al. (2020) employed a derivative of the USDA instruments, employing six specific items, to ascertain the prevailing issues of food insecurity within the Malaysian context. The findings reveal that approximately 25.0% of adults experienced insufficient food quantity, while 25.5% encountered inadequate food variety.
- Association between food security and nutritional well-being: From the vantage point of both nutritional content and dietary constituents, the dietary intake analysis unveiled unmet targets concerning essential servings and nutrients. These voids, however, were addressed through optimized dietary regimens. Conversely, when considering the financial aspect, it has been noted that Malaysian adults were required to allocate RM 10.49 per day for food in 2003, a sum that escalated to RM 13.15 per day in 2013 (Kh'ng et al., 2022).
- Impact of COVID-19 pandemic and climate change: Mahmood et al. (2022) delve into the mounting specter of escalating food insecurity within the Malaysian context, a phenomenon exacerbated notably by the confluence of the pandemic and shifting climatic patterns. Their discourse underscores the prospect of effecting rehabilitative measures within the Malaysian food systems, with the dual aim of addressing the burgeoning specter of food insecurity while also grappling with the surging prevalence of non-communicable diseases in the nation.

4.2 Econometric Analysis of Food Security and Economic Growth

The ADF unit root test was conducted to determine the stationarity of the variables. The results revealed that GDP, SL, and ECT are stationary at their levels, while FS, FP, FI, CC, PPP, TRP, NI, and SE are non-stationary. The cointegration tests yielded significant results for food security and GDP, affirming their long-run relationship. This establishes the foundation for exploring the short-term dynamics between food security dimensions and economic growth through the ARDL approach. The intricate interplay between these dimensions offers insights into how different aspects of food security can impact economic growth both immediately and over extended periods. As demonstrated in the ADF test results in Table 2, FS and other non-stationary variables require cointegration tests to avoid misleading outcomes.

Table 2: Unit Root Test Results

Variable	ADF Test Statistic	ADF Critical Value (5%)	Result
GDP	-3.567	-2.934	Stationary
FS	-1.987	-2.934	Non-stationary
FP	-2.376	-2.934	Non-stationary
FI	-2.731	-2.934	Non-stationary
CC	-2.846	-2.934	Non-stationary
PPP	-2.126	-2.934	Non-stationary
TRP	-2.978	-2.934	Non-stationary
NI	-2.809	-2.934	Non-stationary
SL	-3.214	-2.934	Stationary
SE	-2.795	-2.934	Non-stationary
ECT	-3.156	-2.934	Stationary

The Johansen Cointegration tests in Model 1 were conducted to determine the existence of a long-run relationship between GDP and FS. Both the Trace Test and Max Eigenvalue Test results indicated statistical significance for the null hypothesis of at least one cointegrating equation. This suggests that there is a long-run relationship between GDP and FS, implying that changes in food security can impact economic growth over time. The VECM and ARDL analyses in Table 3 underscore the complex relationships between food security dimensions and economic growth. While positive relationships were found in certain cases, inconsistencies and inconclusive findings highlight the multifaceted nature of these interactions. The ARDL bound tests were performed to examine the cointegration relationships within each model. In Model 2, the F-statistic of 2.5985 suggests "No Cointegration," indicating the absence of a long-run relationship between economic growth and food availability variables (food production, food import, CO2 emission). For Model 3, the F-statistic of 168.11 indicates "Cointegrating," signifying a long-run relationship between economic growth and food accessibility variables (purchase power parity, transportation, net income per capita).

However, Model 4's F-statistic of 3.1826 leads to an "Inconclusive" conclusion, implying that the cointegration relationship between economic growth and food utilization variables (sanitation level, primary school enrolment) is uncertain. These findings underscore the significance of food accessibility in influencing economic development, while highlighting the differing roles played by food availability and utilization. Reshetnikova's (2021) study

corroborates the significance of economic accessibility in ensuring food security, thereby fostering a positive influence on economic growth. Implementing mechanisms aimed at ensuring the economic accessibility of food, particularly in the context of the COVID-19 pandemic, holds promise for mitigating challenges such as declining revenues and unemployment.

Table 3: VECM Result

Test	Variable	Coefficient
Estimated Long Run Coefficients of VECM Approach	C	-46.4204
	FS	0.3896
	ECT	-0.4069
Estimated Short Run Coefficients of ARDL Approach for Model 3	LPPP	-0.0722
	TRP	0.0004
	NI	0.9357
	ECTt-1	-0.9679

The ARDL approach provided insight into the short-term effects of specific food security dimensions on GDP per capita. Notably, the positive coefficient of FP points to its significance in stimulating economic growth, aligning with the works of Khan, et al. (2009), emphasizes the role of local production in bolstering economies. Surprisingly, the results suggest a nuanced role for FI. While anticipated to have a positive effect on economic growth, the insignificance of its coefficient raises questions about the impact of relying on external food sources. This underscores the need for comprehensive analysis of import policies, considering both economic and food security implications.

In the realm of food accessibility, NI emerged as a key determinant of economic growth. These findings resonate with the assertions put forth by Kristen and Smith (2009), highlighting the pivotal role of enhanced income levels in ameliorating food insecurity and fostering economic prosperity. However, the insignificant coefficients of PPP and TRP underscore the complexity of accessibility dynamics, hinting at the potential influence of additional unexplored factors. The dimensions of food utilization also demonstrated intriguing dynamics. The positive coefficient of SL reaffirms its role in promoting economic growth by reducing food safety risks, in line with Smith et al. (2000). However, the insignificant coefficient of SE prompts further exploration of the educational dimension's contribution to food utilization and economic growth.

5. CONCLUSION

This study has unearthed valuable insights into the intricate relationship between food security, poverty, and economic growth in Malaysia. The synthesis of systematic reviews and econometric analyses has provided a nuanced understanding of the dynamics at play. The econometrics analysis has pinpointed key drivers of economic growth, notably local food production and higher net income per capita. These factors play a vital role in catalyzing economic prosperity, emphasizing their importance for mitigating food insecurity. However, our study also underscores the need for further investigation into the impacts of food imports, CO2 emissions, purchase power parity, and transportation, which remain subjects of ongoing inquiry. Moreover, the positive influence of sanitation on economic growth underscores the critical importance of food safety. From a policy perspective, the implications are evident.

Malaysia should prioritize strategies that bolster local food production, ensure equitable income distribution, and enhance basic sanitation services. These measures are not only instrumental in fostering economic growth but also in alleviating food insecurity, benefiting the overall well-being of the population. Furthermore, this study paves the way for future investigations into the educational dimension of food utilization, adding depth to our understanding of this complex relationship. In a world facing unprecedented challenges related to food security, our research takes on added significance.

This study distinguishes itself by employing a comprehensive approach that integrates systematic reviews and econometric analyses to provide a nuanced understanding of the intricate interplay between food security, poverty, and economic growth in Malaysia. While highlighting the significant roles of local food production and higher net income per capita as drivers of economic prosperity, it also identifies areas for further inquiry, such as the impacts of food imports, CO2 emissions, purchase power parity, transportation, and sanitation, thus offering valuable insights for policy formulation and paving the way for future investigations into the educational dimension of food utilization in addressing global food security challenges.

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Family Economic Capital and Women's Fertility Intention: A Comparative Study of Urban and Rural Areas in China

Xiao Ying Gao^a, Harn Shian Boo^{b,*}

^{ab}Anthropology and Sociology Section, Universiti Sains Malaysia, Malaysia

Email: booharnshian@usm.my

Abstract

The global decline of the fertility rate is meeting the Sustainable Development Goals, which emphasise sustainable population growth or population stabilisation. However, the ongoing global decline in fertility rates has had adverse impacts on the worldwide economy and population structure (total fertility rate less than 2 children). China, a nation known for its long history of having a large population, entered a phase of negative population growth in 2022 (the fertility rate is 1.06 children). Numerous studies have demonstrated that economic pressures play a significant role in influencing women's fertility intentions. However, most existing studies primarily focus on the economic circumstances of married families, whereas a limited number of studies have examined the impact of family economic capital on Chinese women's fertility intentions from the perspective of urban-rural differences. This study aims to investigate the relationship between family economic capital (encompassing family income, health insurance, children's education investment, and career opportunities) and women's fertility intention between urban and rural areas in China. Utilising data from the China Family Panel Studies (CFPS) in 2020, this quantitative study employs Ordinary Least Squares (OLS) regression analysis to examine the factors that predict women's fertility intentions in urban and rural China. The findings show that family income influences women's fertility intentions in rural areas but not in urban areas. Moreover, children's education investment significantly affects the fertility intentions of both women in urban and rural areas. However, the relationship between health insurance and career opportunity and women's fertility intentions found no significant differences between urban and rural women. These findings suggest that not all predictors of family economic capital can be used to explain women's fertility intention in China because the regions they are situated in might affect women's fertility intention differently. This study has two implications. One implication is for the Sustainable Development Goals because the findings can be used to reduce the fertility rates in those countries that have high fertility rates. The other implication is for the country of China to understand the predictors that affected women's fertility intentions and formulate appropriate policies to increase fertility rates in both urban and rural areas.

Keywords: China; Family income capital; Urban and rural differences; Women's fertility intention.

1. Introduction

According to data from the World Bank in 2023, the total fertility rate worldwide has been declining for almost 60 years. China, a country with a large population, has experienced a significant decline in fertility rates, from 7.51 in 1963 to 1.16 in 2021. Since 2022, China has experienced negative population growth (Wang, 2023). Despite the implementation of the two-child and three-child policies, the trend of population decline has not been reversed (Mu, 2018; Shen, 2019). Therefore, it is suggested that fertility intentions have a greater influence on fertility than fertility policies in current times.

Recent research consistently shows that social, economic, cultural, and policy factors affect women's fertility intentions (Becker, 1992; Amin & Behrman, 2014; Doepke et al., 2023). However, Zhang (2022) argues that these factors are highly generalised and may not be significant for those residing in different regions.

China has a unique dual household registration system that creates significant disparities between urban and rural areas in terms of income, welfare benefits, education, cultural values, and social support (Wu & Xiao, 2021). When explaining women's fertility intentions, it is important to consider all factors, as fertility intentions and levels vary greatly between urban and rural China (Wu & Xiao, 2021). In today's rapidly urbanising world, it is worth investigating whether differences still exist and, if so, what factors contribute to them. Scholars should further study this topic. This research aims to examine the extent to which family economic capital affects women's fertility intentions.

2. Literature Review

In this section, it first presents the conceptual definition of the three key terms, including (1) childbearing age, (2) fertility intention, and (3) family income capital. Then, it discusses past studies related to the relationship between women's fertility intentions and urban-rural areas.

2.1 Conceptual Definition

2.1.1 Childbearing age

"Childbearing age" means the age suitable for childbearing, and the childbearing age group refers to the group of people who can bear children. The National Association for Public Health Statistics and Information Systems (NAPHSIS) of America (2012) states that the usual range for the age of childbearing is 15–49 years. However, China's law stipulates that the age of marriage for women should not be lower than 20 years old, so this paper limits the childbearing age group to women between 20 and 49 years old.

2.1.2 Fertility Intention

Gu (1992) proposed three basic dimensions of fertility, namely, the number of children, the timing of childbearing, and the gender preference of childbearing, and this definition has been generally accepted by the academic community. In this study, fertility intention is defined as the views and attitudes of both spouses on the number of children they wish to have in the process of childbearing.

2.1.3 Family Economic Capital

Regarding economic capital, Bourdieu (1986) argues that economic capital can be directly converted into money and institutionalised in the form of property rights. Family economic capital is the explicit materialised capital of family capital, i.e., wealth that can be converted into money (Coleman, 1988). With reference to Zhao (2023), this study refers family economic capital as categorised into four dimensions: family income, health insurance, children's education investment, and career opportunities.

2.2 Past Studies in Urban and Rural Areas

Scholars have conducted extensive research on comparative urban-rural studies regarding fertility. Adhikari and colleagues (2023) using data from the Demographic and Health Surveys (DHS), found that education has a strong effect on fertility in urban and rural regions throughout 36 low- and middle-income countries. Moreover, Kulu (2013), through historical data analysis in Finland, found that fertility rates were highest in small towns and villages, lowest in the capital region.

The traditional perspective suggests that due to the enduring dual structure of urban and rural areas in society, disparities exist in various aspects, including economic and social development, policy factors, and the impact of traditional beliefs (Wu & Xiao, 2021). Consequently, there are significant differences in fertility between urban and rural areas in China, with more pronounced gender preference disparities among urban and rural residents (Zhang, 2022). However, economic and social development, as well as changes in fertility policy, have led to shifts in the fertility intentions and behaviours of urban and rural residents in China recently. Research by Yang and colleagues (2023) found that rural women aged 20–34 were much more willing to have a third child than urban women, and women with a better economy and education were less willing. Although the fertility gap between urban and rural areas persists, it has been gradually narrowing. The primary difference in fertility levels now lies in two-child fertility rates, leading to this narrowing trend (Wu & Xiao, 2021).

Chen (2011) emphasises that the convergence of fertility costs between urban and rural residents is occurring due to factors like population migration and urbanization. Despite lower incomes for farmers compared to urban residents, the ratio of fertility costs to income for farmers is higher, inhibiting their fertility intentions and behaviours. Consequently, the gap in fertility intentions between urban and rural residents is decreasing. Ma (2011) highlights the trend of convergence in fertility intentions in economically and socially developed areas, including factors like the number of births, gender preference, and timing of births in one-child families. Harrell and colleagues (2011) suggest that modernization, economic structure, and population policies can explain differences in the rate of fertility decline between urban and rural areas.

Overall, the study argues that the relationship between fertility intentions and family income levels varies due to differences in development between rural and urban areas. Rural areas, with changing fertility norms, tend to have fewer children as income increases to maintain their current living standards. Conversely, in urban areas, once economic constraints no longer limit reproductive choices, families may choose to have more children for the added happiness and benefits associated with larger families. Household registration and institutional factors also play a role in shaping fertility culture, further emphasising the nuanced dynamics between urban and rural fertility intentions and behaviours.

3. Research Methodology

3.1 Data Sources

This study utilised data from the China Family Panel Studies (CFPS) 2020 database, including 28950 samples. To select women who were aged between 20 and 49 years old, the data yielded 6066 female samples in this study. After excluding 214 samples with missing household registration information, the final dataset consisted of 5852 valid samples, comprising 2594 from rural areas and 3258 from urban areas.

Peking University's Institute of Social Science Survey (ISSS) has conducted the nationwide and extensive CFPS social tracking survey project since 2010. CFPS received great assistance from the National Population and Family Planning Commission of China (NPFPC), the National Bureau of Statistics of China (NBSC), Shanghai University, Sun Yat-sen University, and Lanzhou University in the implementation process. In terms of survey design and technical support, it received much guidance and assistance from the Centre for Social Research of the University of Michigan, USA. The survey of CFPS includes all household members in the sample households, and all baseline household members and their future blood/adopted children, as defined in the 2010 baseline survey, will be permanently tracked as genetic members of the CFPS. The sample for CFPS covers 25 provinces, with a target of 16,000 households. In China, family sociologists highly regard the database for its reliability and authority.

3.2 Data Analysis

The dependent variable was fertility intention, which was derived from the question of fertility intention in the next 2 years by women of childbearing age in the CFPS2020 database. This study has four independent variables: family income, health insurance, children's education investment, and career opportunities. Age and marital status were included as the control variables.

The study employed statistical analysis using Stata 16.0 software. The analyses first involved conducting a one-way ANOVA test to examine any differences found in women's fertility intentions and the four categories of family economic capital in both urban and rural areas. Second, this study used Ordinary Least Squares (OLS) regression analysis to investigate the predictors influencing fertility intentions among women in both urban and rural areas. Three models were created, including all samples (model 1), urban areas (model 2), and rural areas (model 3).

4. Findings

Table 1 shows women's fertility intentions were significantly **different** between urban and rural areas. Moreover, Table 1 demonstrates substantial distinctions in family income, children's education investment, and career opportunities between urban and rural areas. However, no significant differences were observed in terms of health insurance, age, or marital status between urban and rural areas.

Table 1 Significance differences between urban and rural areas (n = 5852)

Variables	Mean	F-value for difference
Fertility Intention	29.42	19.38***
Family Income	838.02	360.24***
Children's Education Investment	707.29	3.99*
Career Opportunities	0.69	236.88***
Health Insurance	9.89	1.52
Age	5.69	1.98
Marital Status	67.4	0.16

Note: *p < .05.; **p < .01.; ***p < .001.

Table 2 shows that age and marital status as control variables were found to be significantly associated with women's fertility intentions in all three models.

Moreover, Table 2 shows three results regarding family economic capital and women's fertility intentions. First, family income affects women's fertility intentions in rural areas but has no effect on urban areas. Second, children's education investment has a significant effect on women's fertility intentions in both urban and rural areas. Third, both health insurance and career opportunities have no effect on women's fertility intentions in China.

By looking at the result indicating family economic income affects women's fertility intention in rural areas but has no effect on urban areas, the finding suggests a negative relationship between family income and women's fertility intention in rural areas. It implies that women intend to have children if the family has a low income compared to a family with a high income. This finding is consistent with past studies examining the relationship between income and fertility intentions (Yang et al., 2023).

In terms of children's education investment, it has a significant effect on women's fertility intentions in both urban and rural areas. The finding suggests that children's education investment was a prominent predictor of women's fertility intentions in China. This finding is similar to past studies (Zhao, 2023). However, the direction of influence differs between the two. The effect of children's education investment on urban women's fertility intention is positive ($\beta = 0.04$), but the effect on rural women's fertility intention is negative ($\beta = -0.04$). Considered in conjunction with the results for annual income, this may indicate that lower income and unavoidable education expenses put rural women under greater financial pressure compared to urban women, squeezing fertility intentions to some extent.

Third, the findings found that both health insurance and career opportunities have no effect on women's fertility intentions in China. This suggests that the two predictors of family economic capital have no explanation power for women's fertility intentions in China.

Table 2 OLS Regression Models Predicting Women's Fertility Intention by Urban and Rural Areas

Variables	Model 1: All (<i>n</i> = 5852)	Model 2: Urban Area (<i>n</i> = 3258)	Model 2: Rural Area (<i>n</i> = 2594)
Family Income	-0.04 **	-0.02	-0.05 **
Children's Education Investment	0.01	0.04 **	-0.04 *
Career Opportunities	0.00	0.01	0.00
Health Insurance	0.03 *	0.03	0.03
Age	0.39 ***	0.42 ***	0.35 ***
Marital Status	0.11 ***	0.06 **	0.20 ***

Note: **p* < .05.; ***p* < .01.; ****p* < .001.

5. Conclusion

In conclusion, the findings imply that the predictors that influence women's fertility intentions differ between urban and rural areas in China. In China, not all predictors of family economic capital are associated with female fertility intentions. For instance, family income influences women's fertility intentions in rural areas but not for those in urban areas. Likewise, children's education investment has a significant impact on both women's fertility intentions in urban and rural areas. However, the relationship between health insurance and career opportunity and women's fertility intentions found no significant differences between urban and rural women.

Recommendations for future research include more detailed qualitative research examining how children's education investment and family income influence women's fertility intentions. Researching women's subjective perceptions towards children's education investment and family income could help explain the quantitative results in more detail.

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Consumer Preferences for Coffee on the Tmall Platform in China

Liu Siyan¹, Siti 'Aisyah Baharudin^{1*}, Hayyan Nassar Waked²

¹School of Social Sciences, Universiti Sains Malaysia, Malaysia

²City Graduate School, City University Malaysia

*Corresponding author: sab16@usm.my

Abstract

The global coffee industry has seen significant growth in consumption patterns, particularly in China, where digital platforms like Tmall are transforming market dynamics. Understanding the interplay between consumer behavior and product offerings is crucial. This study investigates consumer preferences and behavior within the Tmall coffee market, focusing on customer preferences (CP), product portfolio design (PD), customer feedback (CF), and offline experiences (OE). Utilizing a sample of 265 respondents, the study employs questionnaire analysis and structural equation modeling (SEM). The findings reveal that CP significantly influences coffee consumption, with tailored preferences leading to higher satisfaction and purchase frequency. Conversely, PD and OE negatively impact consumer behavior, indicating areas for improvement. These results underscore the need for businesses to enhance customer preferences, diversify product portfolios, and improve offline experiences to optimize market potential. This research provides valuable insights for marketers and retailers aiming to leverage consumer behavior to drive growth in the competitive coffee market.

Keywords: Coffee Market, Consumer Behavior, Consumer Preferences, Online Platform, Structural Modeling

1. Introduction

The global coffee sector has traditionally seen beans supplied from tropical countries to North America and Europe, with lead firms managing value chains for reliable supply. Recently, rising coffee consumption in emerging markets like China has shifted this dynamic. Increased agricultural production in Yunnan province has positioned China as a significant coffee source, empowering Chinese firms to play a pivotal role in global coffee value chains and potentially reshape regional coffee industries in Southeast Asia (Neilson & Wang, 2019).

Coffee consumption in China has grown significantly in recent years, driven by urbanization, changing lifestyles, and increasing coffee culture penetration. Traditionally a tea-drinking nation, China's coffee market has expanded rapidly, with instant coffee being particularly popular due to its convenience (Ferreira & Ferreira, 2018). China's coffee consumption has an annual growth rate of 15%, with domestic production, particularly in Yunnan province, accounting for approximately 98% of the country's coffee output. This rise in production has positioned China as a key player in the global coffee market. Retail coffee consumption in

China is largely driven by young urban professionals, with consumption expected to reach 300,000 tons annually by 2025. The coffee shop market is also expanding rapidly, with an estimated 10,000 coffee shops across the country, reflecting a burgeoning consumer culture around coffee as a lifestyle choice and social activity (China Briefing, 2024).

Tmall, a prominent e-commerce platform operated by Alibaba Group, plays a pivotal role in shaping consumer behavior in China's retail landscape. With its extensive reach, diverse product offerings, and consumer engagement strategies, Tmall serves as a barometer of consumer preferences and trends in the coffee sector (Ling et al., 2021). Online shopping platforms like Tmall provide consumers with convenient access to a wide range of coffee products, further fueling this trend (Nguyen & Vo, 2021). Consumer preferences significantly influence purchasing decisions and satisfaction levels on e-commerce platforms like Tmall (Wang et al., 2020). The design of product portfolios on Tmall, including coffee products and associated peripheral items like machines and mugs, impacts consumer choice and satisfaction. A well-structured product portfolio can enhance consumer engagement and loyalty, thereby influencing overall market performance (Chen et al., 2019). Effective feedback mechanisms are vital for businesses to gauge customer satisfaction and make informed improvements (Zhang et al., 2021). Although Tmall predominantly operates online, the offline experience of coffee products through promotional events or physical retail outlets can influence consumer perceptions and brand loyalty (Liu et al., 2018).

Consumer behavior encompasses psychological processes such as recognizing needs, making purchase decisions, and post-purchase behavior, which are critical in understanding coffee consumption trends (Solomon, 2020). Attitudes towards coffee, influenced by cultural factors, social influences, and personal preferences, play a significant role in shaping consumption patterns (Kotler & Keller, 2016). Motivations such as the need for a quick energy boost or the desire for a premium coffee experience also drive purchasing behavior (Ferreira & Ferreira, 2018). Therefore, this study examines the interplay between consumer preferences (CP), product portfolio design (PD), customer feedback (CF), and offline experiences (OE) on Tmall, elucidating their influence on consumer behavior and satisfaction in the Chinese market.

1.1 Marketing Strategies on Online Shopping Platforms

The rapid evolution of online shopping platforms marks a pivotal shift from conventional business models to the digital economy. Platforms like Tmall, a premium offshoot of Taobao, are profoundly reshaping the landscape of the Chinese market. The swift progression of e-commerce has brought about structural transformations within the broader fast-moving consumer goods (FMCG) sector, exemplified by notable accelerations in transaction volumes (Ling et al., 2021).

Tmall utilizes sophisticated algorithms and data analytics to deliver personalized advertisements to users based on their browsing and purchasing history. This targeted approach increases the relevance of ads, improving click-through rates and conversion rates. For instance, during a promotional campaign for a new coffee brand, targeted ads resulted in a 20% increase

in sales within the first week (Nguyen & Vo, 2021). Additionally, Tmall has developed loyalty programs to reward repeat customers. These programs often include discounts, exclusive offers, and points systems that encourage customers to make frequent purchases, thereby enhancing customer retention. Data from Tmall's annual report indicates that loyalty program members accounted for 60% of total coffee sales in 2021, highlighting their effectiveness (Chen et al., 2019).

Collaborating with influencers and celebrities to promote coffee products is another effective strategy. Influencers can reach a broad audience and influence their followers' purchasing decisions. For example, a partnership with a popular lifestyle influencer led to a 15% increase in sales for a premium coffee brand during a three-month campaign (Wang et al., 2020). Tmall often runs seasonal promotions and sales events, such as Singles' Day, to boost sales. These events are heavily marketed and attract a large number of buyers looking for discounts and special offers. The 2021 Singles' Day event saw a 30% increase in coffee product sales compared to the previous year (Zhang et al., 2021).

Creating engaging content, such as blogs, videos, and social media posts, helps to build brand awareness and educate consumers about coffee products. Content marketing provides value to consumers, fostering a deeper connection with the brand. For example, a series of educational videos on coffee brewing techniques led to a significant increase in sales of coffee beans and equipment (Liu et al., 2018). Encouraging customers to leave reviews and ratings on products enhances credibility and provides valuable feedback for other potential buyers. Positive reviews can significantly influence purchasing decisions and boost sales. In 2021, products with high ratings and positive reviews saw a 25% higher sales volume compared to those with fewer reviews (Wang et al., 2020).

Tmall integrates online and offline experiences by hosting promotional events and physical retail outlets. This strategy allows consumers to experience coffee products in person, enhancing their overall shopping experience and brand loyalty. For instance, pop-up coffee tasting events in major cities have driven significant traffic to the Tmall platform, translating into increased online sales (Liu et al., 2018). Despite these effective strategies, there are challenges in sustaining growth. The saturation of the market and competition from physical stores are significant hurdles. Additionally, the high cost of influencer partnerships and seasonal promotions may not always yield proportional returns.

Table 1: Total Coffee Sales on Tmall (2017-2021)

Year	Instant (pcs)	Coffee (pcs)	Coffee Beans (pcs)	Ground Coffee (pcs)	Instant Coffee Sales (yuan)
2017	1980	4750		55600	¥480,000,000
2018	2020	4820		56200	¥495,000,000
2019	2100	4860		56900	¥510,000,000
2020	2140	4900		57303	¥524,894,041
2021	2173	4936		57990	¥549,831,753

Source: Tmall Annual Report 2021

The data from 2017 to 2021 shows consistent growth in the sales of instant coffee, coffee beans, and ground coffee. Instant coffee sales have shown a steady increase over the five-year period, with a significant revenue boost in 2021. This trend highlights the growing popularity of instant coffee due to its convenience and evolving consumer preferences. The sales of coffee beans have grown at a slower pace, suggesting a stable but saturated market. This trend may indicate that consumers interested in coffee beans are loyal but that there is limited expansion potential within this segment. Ground coffee sales have also shown consistent growth, reflecting a rising interest in premium and freshly brewed coffee experiences. This trend underscores the increasing demand for higher-quality coffee products among Chinese consumers. The revenue generated from instant coffee sales shows a significant upward trend, with notable increases each year. This suggests not only a rise in the volume of sales but also a possible shift towards higher-priced or premium instant coffee products.

2. Literature Review

Understanding consumer behavior in the coffee market is critical for developing effective marketing strategies. Previous research has identified several key factors that influence consumer behavior, including consumer preferences, product portfolio design, customer feedback mechanisms, and the offline experience of products.

Consumer preferences are shaped by various psychological factors, including attitudes, motivations, and perceptions. The Theory of Planned Behavior (TPB) suggests that consumer attitudes, subjective norms, and perceived behavioral control are significant predictors of purchasing intentions and behaviors (Ajzen, 1991). Preferences for specific types of coffee products, such as instant coffee, ground coffee, or coffee beans, can significantly influence purchasing decisions (Nguyen & Vo, 2021). Consumers' attitudes towards coffee, influenced by factors such as convenience, taste, and cultural associations, play a crucial role in shaping their preferences (Ferreira & Ferreira, 2018). Key dimensions of consumer preferences include taste, convenience, price sensitivity, and brand loyalty.

Product portfolio design refers to the assortment and variety of products offered by a retailer. A well-structured product portfolio can enhance consumer satisfaction by providing a range of options that cater to diverse preferences (Perrot et al., 2018). In the context of the coffee market, offering various types of coffee and related accessories can attract a broader customer base and increase sales. Consumers value a diverse product portfolio, which allows them to find products that meet their specific needs and preferences (Chen et al., 2019). Dimensions of product portfolio design include variety, quality, packaging, and associated peripheral products (e.g., coffee machines, mugs).

Customer feedback mechanisms are essential for understanding consumer satisfaction and identifying areas for improvement. Feedback channels, such as reviews and ratings on e-commerce platforms, provide valuable insights into consumer experiences and preferences (Zhang et al., 2021). Positive feedback can enhance product credibility and influence other consumers' purchasing decisions. Effective utilization of customer feedback can significantly

improve customer satisfaction and loyalty (Liu et al., 2018). Dimensions of customer feedback mechanisms include ease of feedback, responsiveness, transparency, and incentives for feedback.

The offline experience of products, even for those primarily sold online, plays a significant role in shaping consumer perceptions and brand loyalty. Promotional events, physical retail outlets, and other offline touchpoints can enhance the overall customer experience and drive online sales. Consumers who have positive offline experiences with a product are more likely to purchase the product online (Liu et al., 2018). Dimensions of offline experience include promotional events, physical store presence, customer service, and experiential marketing.

This study adopts the TPB as the theoretical framework to understand the factors influencing consumer behavior in the coffee market on Tmall. According to TPB, consumer behavior is determined by behavioral intentions, which are influenced by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). In this context, consumer preferences, product portfolio design, customer feedback, and offline experience are hypothesized to impact purchasing behavior and satisfaction. Based on the theoretical framework and literature review, the following hypotheses are proposed:

CP have a positive influence on purchasing behavior on Tmall. Previous studies have shown that consumer preferences significantly impact purchasing decisions, particularly in the context of online shopping (Nguyen & Vo, 2021). Consumer preferences are closely linked to satisfaction levels, as products that meet consumer preferences are more likely to result in higher satisfaction (Ferreira & Ferreira, 2018). PD has a positive influence on purchasing behavior on Tmall. Research indicates that a well-structured product portfolio can enhance consumer satisfaction and drive sales (Perrot et al., 2018). A diverse and well-structured product portfolio can cater to varied consumer needs, enhancing overall satisfaction (Chen et al., 2019). CF has a positive influence on purchasing behavior on Tmall. Studies have demonstrated that positive customer feedback can increase product credibility and influence other consumers' purchasing decisions (Zhang et al., 2021). Effective use of customer feedback mechanisms can improve product offerings and enhance customer satisfaction (Zhang et al., 2021). OE has a positive influence on purchasing behavior on Tmall. Research has shown that positive offline experiences can enhance brand loyalty and drive online sales (Liu et al., 2018). Positive offline experiences can improve perceptions of the brand and enhance satisfaction (Liu et al., 2018).

3. Methodology

This study aims to investigate coffee consumption behavior on the Tmall shopping platform in China, employing a combination of questionnaire-based data collection and Structural Equation Modeling (SEM) to identify the determinants of coffee consumption frequency. A descriptive research design was adopted to provide an in-depth analysis of consumer behavior and satisfaction. This approach allows for the detailed examination of the relationships between consumer preferences, product portfolio design, customer feedback, offline experience, and their impact on purchasing behavior and satisfaction. The study targeted consumers who have

purchased coffee products on Tmall. A simple random sampling method was employed to ensure that every potential participant had an equal chance of being selected, enhancing the representativeness of the sample. The target population included active Tmall users aged 18 and above, with diverse demographic backgrounds. The sample size was determined using Cochran's formula (1977) for large populations, aiming for a 95% confidence level and a 5% margin of error. This calculation resulted in a required sample size of 384 respondents. To account for potential non-responses and incomplete surveys, 500 questionnaires were distributed. A total of 270 responses were received, with 265 deemed valid, reflecting a response rate of 53%. Data were collected through an online survey distributed via Tmall's customer communication channels. The survey instrument was a structured questionnaire designed to capture information on consumer preferences, product portfolio design, customer feedback, offline experience, purchasing behavior, and consumer satisfaction. The questionnaire included Likert-scale items (ranging from 1 = strongly disagree to 5 = strongly agree) to measure the constructs. The questionnaire items were designed to measure various aspects of coffee consumption behavior, including preferences, perceptions of product design, engagement with customer feedback mechanisms, offline experiences, and demographic characteristics. Table 2 below presents the questionnaire items.

Table 2: Questionnaire

Code	Latent variable	Problem description
B1	Coffee product customer preference (CP)	The types of coffee products on T-mall shopping platform meet the personalized.
B2		The taste of coffee products on T-mall shopping platform can meet preferences
B3		The coffee product culture of T-mall shopping platform conforms to preferences
C1	Coffee product portfolio design (PD)	I need many coffee products on T-mall shopping platform
C2		Consider purchasing peripheral derivatives other than coffee drinks (such as coffee machines, mugs, etc.)
C3		The preferential package of coffee product portfolio on T-mall shopping platform helps a lot
D1	Coffee product customer feedback (CF)	The current customer feedback channel of coffee products on T-mall shopping platform is relatively smooth
D2		Will actively participate in the customer satisfaction survey of coffee products on the T-mall shopping platform
D3		T-mall shopping platform needs to give certain material rewards to coffee customers for their information feedback
E1	Offline experience of coffee products (OE)	Coffee products on T-mall shopping platform need to be promoted in more offline
E2		The offline experience of coffee products on T-mall shopping platform is better
E3		The offline experience of coffee products on T-mall shopping platform needs to be diversified
Gender	Personal Characteristics	Gender
Age		Age
Edu		Educational Level
Emplo		Occupation
y		
Income		Monthly disposable income
Visit	Average number of times to buy coffee products through T-mall platform every month	

The questionnaire was developed based on existing validated scales from prior studies to ensure reliability and validity. Consumer preferences were measured using scales adapted from Nguyen and Vo (2021), while product portfolio design, customer feedback, and offline experience were measured using scales from Chen et al. (2019), Zhang et al. (2021), and Liu et al. (2018), respectively. To ensure content validity, a panel of experts in consumer behavior and e-commerce was consulted. The questionnaire was pre-tested with a small sample of 15 respondents to identify any ambiguities and to refine the items. The pre-test results indicated that the questionnaire was clear and understandable. The collected data were analyzed using SPSS and AMOS 24 software. Descriptive statistics were computed to summarize the demographic characteristics of the respondents. Reliability analysis was performed using Cronbach's α and Composite Reliability (CR) metrics to assess the internal consistency of the scales. Validity analysis included Average Variance Extracted (AVE) values and confirmatory factor analysis (CFA) to confirm the convergent and construct validity of the measurement model. Structural equation modeling (SEM) was performed using AMOS 24 to test the hypothesized relationships between the constructs. SEM allows for the examination of complex relationships between multiple independent and dependent variables simultaneously (Hair et al., 2010). The model fit was assessed using several fit indices, including the chi-square value, Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), and Incremental Fit Index (IFI).

4. Results and Discussions

A total of 265 responses were deemed valid, reflecting an impressive response rate of 98.1%. Utilizing the amassed survey data, a concise descriptive statistical examination of the questionnaire's content was performed. The tabulated data in Table 3 reveals several noteworthy observations. Firstly, within the 31-45 age cohort, the maximum sample count is 94, constituting 35.47% of the total. Conversely, the under-18 age group encompasses at least 37 samples, contributing to 13.96% of the total. Collectively, the majority of respondents fall into the 31 years and above category. Gender-wise distribution showcases 139 male samples, representing 52.45%, while female samples amount to 126, comprising 47.55%.

Table 3: Demographics of respondents

Indicators		Total Respondent	Percentage (%)
Age	Under 18years	37	13.96
	18-30years	53	20
	31-45years	94	35.47
	Over 45 years old	81	30.57
Gender	Male	139	52.45
	Female	126	47.55
Education	Specialized degree and below	95	35.85
	Bachelor's degree	107	40.38
	Master's degree	38	14.34
	Doctoral degree and above	25	9.43
Income	Less than 2,000	36	13.58
	2,001 -4,000	24	9.06

	4,001 -7,000	88	33.21
	7,001 -10,000	60	22.64
	10,001 -20,000	43	16.23
	Higher than 20,001	14	5.28
Occupation	Unemployed	19	7.17
	Students	57	21.51
	Enterprise employees	53	20
	Self employed	94	35.47
	State functionary	42	15.85
Frequency	Less than 2	90	33.96
purchased	2-5	101	38.11
coffee	5-10	48	18.11
products	More than 10	26	9.81

Analyses of educational attainment expose that the highest number of samples hold bachelor's degrees at 107, constituting 40.38%. In contrast, samples holding doctoral degrees or higher comprise no fewer than 25, contributing to 9.43%. Overall, the surveyed participants exhibit educational levels surpassing that of mere bachelor's degrees. Regarding monthly disposable income brackets, the largest sample subset, totaling 88, falls within the 4001-7000 yuan range, constituting 33.21%. Notably, the segment with incomes exceeding RMB 20,001 consists of a minimum of 14 samples, equating to 5.28%. Meanwhile, self-employed individuals peak at 94 samples, encompassing 35.47%, while the unemployed sample size bottoms out at 19, accounting for 7.17%. Turning to the frequency of coffee product purchases through the T-mall platform, the distribution portrays that the maximum sample count, reaching 101, pertains to those purchasing 2-5 times per month, constituting 38.11%. In contrast, the minimum sample count for individuals purchasing coffee products more than 10 times per month is 26, comprising 9.81%. The analysis of this study is divided into two main parts: reliability and validity analysis, and the SEM results.

4.1 Reliability and Validity Analysis

To ensure the robustness of the research findings, reliability and validity analyses were conducted on the questionnaire data. Reliability was assessed using Cronbach's α and CR metrics, while validity was evaluated through AVE values and confirmatory factor analysis.

Table 4: Results of Reliability and Validity Analysis

Construct	Cronbach's α	CR	AVE	Key Factor Loadings
CP	0.756	0.766	0.524	0.632, 0.759, 0.773
PD	0.762	0.757	0.514	0.588, 0.739, 0.807
CF	0.745	0.768	0.530	0.595, 0.831, 0.739
OE	0.771	0.767	0.528	0.583, 0.804, 0.772

Cronbach's α coefficients for all constructs exceeded 0.7, indicating strong internal consistency (Nunnally & Bernstein, 1994). Specifically, the Cronbach's α values for CP, PD, CF, and OE were 0.756, 0.762, 0.745, and 0.771, respectively. CR values for all constructs also exceeded

0.7, further supporting the reliability of the scales, with CR values for CP, PD, CF, and OE being 0.766, 0.757, 0.768, and 0.767, respectively.

Convergent validity was confirmed as all constructs demonstrated AVE values above 0.5 (Fornell & Larcker, 1981), with AVE values for CP, PD, CF, and OE being 0.524, 0.514, 0.530, and 0.528, respectively. Confirmatory factor analysis (CFA) showed factor loadings for all items above 0.5, supporting the adequacy of the measurement model. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.824, and Bartlett's Test of Sphericity was significant ($p < 0.001$), indicating suitability for factor analysis.

Variance Inflation Factor (VIF) values were calculated to check for multicollinearity. The VIF values ranged from 1.04 to 1.06, well below the critical value of 5, indicating no multicollinearity issues among the variables (Hair et al., 2010).

These analyses confirm that the constructs used in this study are reliable and valid. High Cronbach's α and CR values indicate strong internal consistency and reliability, while AVE values and CFA results confirm good convergent and construct validity. These findings support the robustness of the measurement model and provide confidence in the subsequent analysis of the structural relationships among the constructs.

4.2 Structural Equation Model Results

The SEM was employed to examine the relationships between CP, PD, CF, OE, and their influence on purchasing behavior and consumer satisfaction on Tmall.

Table 5: Results of SEM Analysis

Path	Estimate	Standard (S.E.)	Error	Critical (C.R.)	Ratio	P-value
Purchasing Behavior ← CP	0.291	0.058		5.017		0.000
Purchasing Behavior ← PD	-0.161	0.058		-2.776		0.006
Purchasing Behavior ← CF	-0.027	0.058		-0.442		0.648
Purchasing Behavior ← OE	-0.165	0.058		-2.845		0.005
Consumer Satisfaction ← CP	0.321	0.062		5.177		0.000
Consumer Satisfaction ← PD	0.198	0.061		3.246		0.001
Consumer Satisfaction ← CF	0.142	0.063		2.254		0.024
Consumer Satisfaction ← OE	0.176	0.064		2.750		0.006

The path coefficients reveal several significant relationships among the variables. CP have a positive and significant impact on both purchasing behavior ($\beta = 0.291$, $p < 0.001$) and consumer satisfaction ($\beta = 0.321$, $p < 0.001$). This aligns with previous research indicating that strong consumer preferences drive purchasing decisions and satisfaction, especially in online marketplaces like Tmall (Nguyen & Vo, 2021). In the context of China, where consumer preferences are rapidly evolving due to increased exposure to diverse coffee products, this

finding underscores the importance of catering to specific tastes and preferences (Ferreira & Ferreira, 2018).

PD shows a negative and significant effect on purchasing behavior ($\beta = -0.161$, $p = 0.006$), suggesting that the current product portfolio design might not meet consumer expectations effectively. This is contrary to the expectation that a diverse product portfolio should enhance purchasing behavior (Perrot et al., 2018). However, PD has a positive and significant influence on consumer satisfaction ($\beta = 0.198$, $p = 0.001$), indicating that while the product variety may be appreciated, it does not necessarily drive immediate purchasing behavior. In China, this could be due to the consumers' preference for familiar brands or specific product types, reflecting the need for better alignment of product offerings with consumer expectations.

CF does not significantly influence purchasing behavior ($\beta = -0.027$, $p = 0.648$), implying that feedback mechanisms might need improvement to be more impactful. This result contrasts with findings from other markets where customer feedback significantly affects purchasing behavior (Zhang et al., 2021). However, CF has a positive and significant effect on consumer satisfaction ($\beta = 0.142$, $p = 0.024$), highlighting the importance of customer feedback in enhancing overall satisfaction. In China, where trust in online reviews can vary, improving the authenticity and responsiveness of feedback mechanisms could enhance their impact on purchasing behavior.

OE negatively influences purchasing behavior ($\beta = -0.165$, $p = 0.005$), which could suggest that offline promotional events or physical store experiences might not be effectively converting into online sales. This finding is significant in the Chinese context, where online and offline retail integration is still evolving (Liu et al., 2018). Conversely, OE positively impacts consumer satisfaction ($\beta = 0.176$, $p = 0.006$), indicating that consumers value offline experiences in their overall assessment of satisfaction. This suggests that while offline experiences enhance brand perception and loyalty, they need to be better integrated with online purchasing strategies to drive sales effectively.

These findings suggest areas for improvement, such as enhancing feedback mechanisms and better aligning offline experiences with online sales strategies to optimize consumer satisfaction and drive purchasing behavior. In the context of China, understanding these dynamics is crucial for tailoring marketing strategies that resonate with the evolving preferences and behaviors of Chinese consumers.

The SEM analysis underscores the complex interplay between consumer preferences, product portfolio design, customer feedback, and offline experiences in shaping purchasing behavior and consumer satisfaction on Tmall. While consumer preferences strongly drive both purchasing behavior and satisfaction, the effects of product portfolio design, customer feedback, and offline experiences vary. These findings provide valuable insights for businesses looking to optimize their marketing strategies and enhance consumer satisfaction on e-commerce platforms in China.

5. Conclusion

This study provides valuable insights into the current state of coffee product marketing on the Tmall platform and suggests ways for improvement. The analysis focused on four dimensions: Coffee product customer preference, Coffee product portfolio design, Coffee product customer feedback, and Offline experience of coffee products. The findings indicate that consumer preferences play a positive role in driving coffee product purchases, showcasing the impact of personalized options. Conversely, the current coffee product portfolio design negatively affects consumer purchases, highlighting the need for improvement. Additionally, the offline experience of coffee products influences purchasing behavior negatively, emphasizing the significance of enhancing this aspect. These findings underscore the importance of enhancing customer preferences, refining portfolio design, and improving offline experiences on the Tmall platform to encourage frequent coffee product purchases. However, it's important to note that our study may have some limitations, such as the potential for unaccounted factors influencing coffee consumption behavior and the scope for further refining sample data for a more comprehensive analysis. Future research should further explore the dynamic interplay between online and offline consumer experiences, as well as the evolving preferences of Chinese coffee consumers. This will boost businesses anticipate market trends and adapt their strategies accordingly.

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Reflections on an urban agriculture-induced transition to a post-growth society and wellbeing economy

Mike Bronner^{1,2*}

¹ *Economics Programme, School of Distance Education, Universiti Sains Malaysia, Malaysia*

² *International Experts Office, Shanxi University, China*

**Corresponding author: mbronner@student.usm.my*

Abstract

In this paper, an integrated approach is construed to conceptualise and explore a hypothetical passage to a social and economic post-growth wellbeing track in conjunction with a revitalised urban farming perspective. The proposed model amalgamates relevant sustainability measurement, Bayesian neural network analysis, economic growth theory, and considerations borrowed from a blend of location theory-related elements of geographical and agricultural economics, within a bifurcation (catastrophe) theory framework. The synthesised method with its main features is demonstrated in a generalised context.

Keywords: Sustainable post-growth wellbeing transition, Urban agriculture, Catastrophe theory, Bayesian neural network, Thünen

1. Introduction

Complex systems exhibit varied responses to external changes, with some showing smooth responses while others have 'folded' response curves leading to multiple equilibria and alternative stable states separated by unstable equilibria (Scheffer et al., 2001). 'Catastrophic' transitions can occur between states as a result of stochastic events or changing conditions (Scheffer et al., 2001). In the event of a shift to an economic post-growth paradigm, collective human and ecological wellbeing is prioritised over material growth (Fioramonti et al., 2022). In such a context, ecosystem services provided by natural capital play a crucial role, through interaction with built, human, and social (or cultural) capital (Costanza, 2020; Costanza et al., 2014; Costanza & Daly, 1992).

Urbanisation is one of the 21st century's most transformative trends (Kookana et al., 2020; Wiskerke, 2015) that is expected to lead to environmental perturbations (Gardi et al., 2015; IRP, 2022) and poses challenges for resource use, food supplies, and waste management (Drechsel et al., 2015; IRP, 2022; Madlener & Sunak, 2011; Wiskerke, 2015). Cities have been characterised as 'parasites' that exploit their hinterland's resources while polluting the environment (Broto et al., 2012). But as centres of waste generation, cities have the potential to become vast hubs for resource recovery, and waste reduction in cities will partly depend on the corresponding absorption capacity of agriculture (Drechsel, 2022b; Drechsel et al., 2015).

Urban agriculture, the practice of growing, processing, and distributing food in or around urban areas, interacts with built, human, social/cultural and natural capital to serve multiple purposes, including the provision of ecosystem services by means of resource recovery and reuse (IRP, 2022; Padgham et al., 2015; Wiskerke, 2015). But there are also risks associated with urban agriculture, for example regarding public and ecosystem health (Drechsel, 2022b; Drechsel et al., 2015; Gerster-Bentaya, 2015; Kookana et al., 2020; Moustier & Renting, 2015). In fact, the

dynamic nature of agroecosystems and their complex interlinkage with sustainable development require a holistic, systemic study approach (Drechsel, 2022a; RUAF, 2022).

Therefore, in this paper an effort is undertaken to synchronise and integrate dynamical systems theory – particularly bifurcation (or catastrophe) theory, location theory, economic growth theory, Bayesian neural network analysis, and sustainable wellbeing valuation into a universal model, with a view to gauging the potential role of urban agriculture in fostering a transition to a new sustainability-oriented post-growth and wellbeing trajectory.

2. Combinative study apparatus

The overall modelling approach is based on dynamical systems theory, in particular catastrophe theory (CT), and encapsulates location theory (LT), economic growth theory (EGT), Bayesian neural network analysis (BNN), and sustainable wellbeing valuation (SWI), to provide a comprehensive theoretical framework for exploring the potential role of urban agriculture (UA) in the context of a sustainable post-growth wellbeing transition.

2.1 Bifurcation/catastrophe theory

In line with Scheffer et al. (2001), for a system with alternative stable states which exhibits hysteresis, the equation $dx/dt = a - bx + rf(x)$ describes the change over time of an ‘unwanted’ system property x . The parameter a promotes x , and the equation’s internal dynamics involve decay at rate b and recovery (as a function f of x) at rate r . When $r = 0$, there is a single equilibrium at $x = a/b$. Else, the last term in the equation can cause alternative stable states if the maximum $\{rf'(x)\} > b$. A corresponding example of a function that increases sharply at a certain threshold is the Hill function $f(x) = x^p/(x^p + h^p)$ where the exponent p determines the steepness of the switch occurring around h . Steeper Hill functions (resulting from higher p values) create stronger hysteresis.

Hysteresis can be a limiting factor for a trajectory alteration and impede the transition towards a sustainable development path characterised by resource efficiency improvements and sufficiency of consumption. In this respect, ‘decoupling’ alone may not suffice if planetary and social boundaries have already been transgressed (Cibulka & Giljum, 2020). Under these circumstances, the adoption of urban farming practices may be regarded as an appropriate countermeasure that can stimulate sustainable development through a switch from the prevailing growth paradigm to a new post-growth wellbeing vision (see Figure 1).

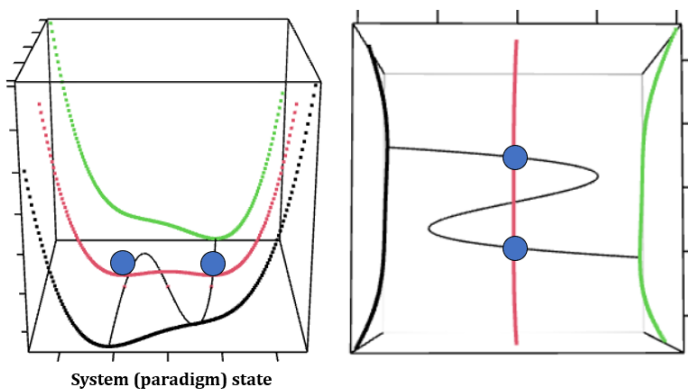


Figure 1: Paradigm system with alternative stable states and hysteresis

Front view (left) and aerial view (right).

Note: Catastrophe theory offers an overarching framework for exploring the potential role of urban agriculture as a critical conditioning element in contrasting the prevailing economic growth worldview versus a sustainability-oriented post-growth

wellbeing paradigm. The state axis involves comparing the economic growth worldview versus the post-growth wellbeing paradigm, where x can be related to the prevailing economic growth paradigm, while the parameters (a, b, r) and the recovery function $f(x)$ can be related to specific conditions and processes that impact it. More specifically, a may represent a factor that encourages continued reliance on the status quo, while b may be interpreted as sustainable ecosystem practices and services of urban agriculture, accounting for resource availability. Moreover, r may constitute a factor that contributes to the resilience and regeneration of the current standard (such as continued institutional and social support), and $f(x)$ may represent various other ecological, social, or economic processes that shape the economic growth paradigm.

The link between resource footprints and quality of life is logarithmic, implying diminishing returns to resource consumption, whereas resource footprints and GDP per capita are linearly related, which means that economic growth is associated with increased resource use (Cibulka & Giljum, 2020). Achieving sustainable development may require decoupling economic growth from resource consumption through efficiency improvements and sufficiency of consumption (Cibulka & Giljum, 2020). The limitations of the regnant resource-intensive and consumption-driven growth paradigm underscore the need for a post-growth concept that not merely decouples economic growth from resource consumption but generates substantive impetus for sustainable development. Urban agriculture can impart a vital impulse to this end by promoting locally-sourced food, reducing resource-intensive practices (e.g., concerning transportation and storage), and enhancing community engagement and wellbeing.

2.2 Location theory / ‘Thünen 3.0’

Thünen's theory of geographical economics exploring land use with concentric rings of agricultural activities around a central market town postulated that transportation costs cause farming intensity and land value to decline as distance from the market increases (Norton, 1979; Sinclair, 1967; von Thünen, 1826). For the present purpose, this original idea is referred to as ‘Thünen 1.0’. Thünen's premises are outdated in most industrialised countries, where the agricultural land use pattern is driven by anticipated urban expansion resulting in zones of increasing intensity starting from the built-up edges of the metropolitan area and extending outward (Sinclair, 1967). The updated version is termed ‘Thünen 2.0’. Thünen's original theory and the pattern prevalent in modern societies are exemplified in Figure 2.

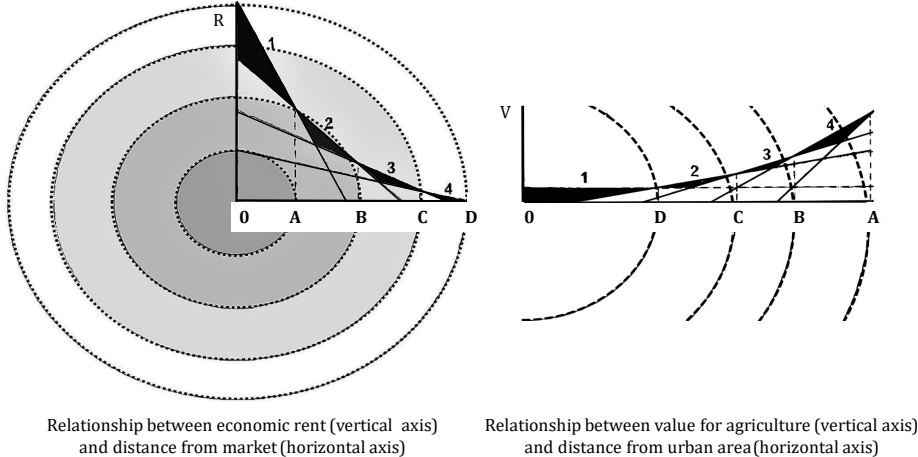


Figure 2: ‘Thünen 1.0’ and ‘Thünen 2.0’

Figure 2a (left), ‘Thünen 1.0’ (von Thünen, 1826): Land use 1 yields a greater economic rent (R) in zone 0A, land use 2 in zone AB, land use 3 in zone BC, and so on. The various land uses are found on all sides of the city, which is located at 0. For example, Zone 1 is devoted to the production of vegetables and fresh milk, which produced high yields per acre, were perishable under the transport conditions of Thünen’s time, and city prices for them were so high that no other land use yielded a higher economic rent. In the outmost zone, only extensive grazing activities were carried out profitably, since distance from the market was too great for crop production.

Figure 2b (right), ‘Thünen 2.0’ (Sinclair, 1967): Different agricultural land uses are represented by rings centred at 0 (the urbanised area) and extending to various distances (OD, OC, OB, etc.). Each ring corresponds to a specific land use with varying

intensities of agricultural investment, denoted by the value of carrying out this type of agriculture (V). The intensity of agricultural investment determines the viability of each land use at different distances from the urban centre. As the urbanised area is approached, the value of intensive investment in farming declines due to the increasing likelihood of urbanisation. The rings depict increasing levels of agricultural intensity when moving away from the urban centre (0). Land use 1 (the least intensive) prevails in zone OD, land use 2 (more intensive) in zone DC, land use 3 in zone CB, and so on. At the edges of the built-up area (zone 1), land may transition to urban uses or be held for early development. The outermost zone extending to an undetermined distance from the city may consist of specialised feed-grain livestock activities.

By analogy, acknowledging the importance of rural considerations in urban sustainability (Spanier & Feola, 2022), the notion ‘Thünen 1.0 reloaded’ is introduced here to allude to the reappearance of the initial concept in a new guise in a post-growth wellbeing setting. For simplicity, the expressions ‘Thünen 1.0 reloaded’ and ‘Thünen 3.0’ are used synonymously in the following.

2.3 Economic growth theory

Based on an adaptation of the economic growth model presented by Zilibotti (2017), total factor productivity (TFP), denoted by $A(v, t)$, may serve as a measure of (sustainability-related) ‘technological’ change of city v at time t . The average country-level TFP is $A(t) \equiv \int_0^1 A(v, t) dv$. All cities start every period from the same state of knowledge $A(t - 1)$. TFP at the idealised world ‘technology’ (sustainable post-growth wellbeing) frontier is $\bar{A}(t)$, which grows at rate g (i.e., g is the rate of growth of the frontier). A measure of a country’s proximity to the frontier at time t is given by $a(t) \equiv A(t)/\bar{A}(t)$ (i.e., a represents the distance between a country’s level of ‘technology’ and the frontier level of ‘technology’, and if $a = 1$ then an economy has fully converged to the frontier).

The law of motion of ‘technical’ progress is:

$$A(v, t) = \eta(v, t) \bar{A}(t - 1) + \gamma(v, t) A(t - 1) + \varepsilon(v, t)$$

This equation represents the law of motion of ‘technical’ progress at the city level. It shows how a city’s TFP changes over time due to ‘imitation’ and ‘innovation’ activities, which are associated with continued reliance on existing unsustainable practices versus the adoption of a new sustainable approach, respectively. The first term on the right-hand side represents ‘imitation’, where a city adopts the ‘best-practice technology’ of the previous period. Hence, $\eta(v, t) \bar{A}(t - 1)$ is TFP growth coming from ‘imitation’, with $\eta(v, t)$ denoting a city-specific growth driver related to the city’s propensity to replicate the ‘benchmark technology’ of the previous period (i.e., the ‘old’ economic growth paradigm). The second term represents ‘innovation’, where a city improves its own ‘technology’ based on its previous level. Hence, $\gamma(v, t) A(t - 1)$ is TFP growth stemming from ‘innovation’, and $\gamma(v, t)$ is a city-specific growth contributing factor related to the city’s propensity to espouse and sustain a post-growth wellbeing paradigm, which may depend on the adoption of urban agricultural practices. The third term, $\varepsilon(v, t)$, is a variable with zero mean that represents random shocks.

Integrating the above law of motion over v and dividing both sides by $\bar{A}(t)$ (recalling that \bar{A} grows at rate g) yields the law of motion of ‘technical’ progress at the aggregate level:

$$a(t) = \frac{1}{1+g} (\eta(t) + \gamma(t) a(t - 1)),$$

where the term $(1 + g)$ is the idealised frontier-related growth factor, $\eta(t)$ is the economy-wide average of $\eta(v, t)$ which pertains to ‘imitation’ activities, and $\gamma(t)$ is the economy-wide average of $\gamma(v, t)$ which concerns ‘innovation’ activities. The factor γ plays a key role in determining a country’s convergence to the frontier. Specifically, as long as $\gamma > (1 + g)$, the

equation implies that the economy converges fully to the frontier ($a = 1$) over time. In this case, ‘innovation’ (i.e., departure from the status quo) plays a more important role than ‘imitation’ (i.e., hysteresis or inertia in the sense of certain forms of lethargy or complacency) in driving growth and enables catching up with the frontier (see Figure 3).

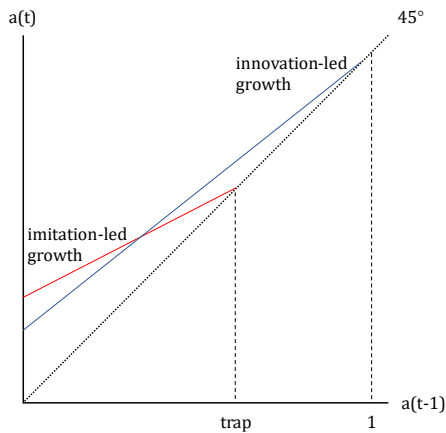


Figure 3: Growth trajectories under different paradigms

Note: An imitation-led growth strategy (represented by the red line) and an innovation-led growth strategy (represented by the blue line). The horizontal axis shows $a(t - 1)$, and the vertical axis depicts $a(t)$. The figure illustrates different growth trajectories of an economy, and how innovation-led growth can help avoid getting stuck in a development trap.

2.4 Bayesian neural network analysis

A Bayesian neural network (BNN) is a neural network with probabilistic weights and biases. A basic BNN consists of an input, a hidden, and an output layer, with weights and biases adjusted based on observed data through Bayesian inference. BNN analysis involves assigning prior distributions to weights and biases and updating beliefs through observed data to form posterior distributions and make uncertainty-aware predictions.

The input layer with variables $x = \{x_1, x_2, \dots, x_n\}$ may include features of urban agriculture, including ecosystem services provided. The output layer with variables $y = \{y_1, y_2, \dots, y_m\}$ may include economic growth, sustainability, wellbeing, and relevant risk variables (see Figure 4).

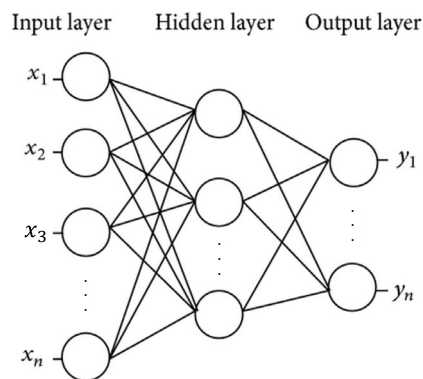


Figure 4: Bayesian neural network architecture

Let f denote the network with a hidden layer and activation function g , including the weight and bias parameters $\theta = \{W^1, W^2, b^1, b^2\}$ with their respective probability distributions. The goal is to learn a function $f(x; \theta)$ that maps the input variables to the output variables. The computation at the hidden layer involves computing the activation vector a^1 using the input

data vector x and activation function g : $a^1 = g(W^1 * x + b^1)$. The output layer represents the final predictions $f(x; \theta)$, where the activation (predicted output) vector a^2 is obtained by applying the activation function g to the weighted sum of inputs from the hidden layer, along with biases: $a^2 = g(W^2 * a^1 + b^2)$. The predicted output is then given by $a^2 = f(x; \theta)$. During training, the network adjusts the parameters in θ to minimise the difference between the predicted output a^2 and the actual output y for a given input x .

The likelihood function $p(y|x, W, b)$ represents the probability of observing output variables y given input variables x , weights W , and biases b . Bayesian inference involves assigning prior distributions to network parameters $\theta = \{W^1, W^2, b^1, b^2\}$ and updating them with observed data (x, y) using Bayes' rule: $p(\theta|x, y) \propto p(y|x, \theta) * p(\theta)$. Hence, the network learns the weights $W = \{W^1, W^2\}$ and biases $b = \{b^1, b^2\}$ by computing the posterior distribution over weights W and biases b given observed data d .

2.5 Sustainable wellbeing index

The following sustainable wellbeing index capturing ecological, social, and economic factors (Costanza, Daly, et al., 2016; Costanza, Fioramonti, et al., 2016; Fioramonti et al., 2019, 2022) can be incorporated in the BNN model:

$$SWI = f(E, N, S),$$

where E represents economic (i.e., built and human capital) contribution, N natural capital (including ecosystem services) contribution, and S social (including community-related and cultural) capital contribution.

To be more precise, the index considers the interaction between built, human, social (cultural), and natural capital (Fioramonti et al., 2022), namely:

$$SWI = L_{max} * \frac{E}{k_e + E} * \frac{N}{k_n + N} * \frac{S}{k_s + S},$$

where L_{max} is the maximum achievable SWI when all factors simultaneously peak, and k_e , k_n and k_s are the 'half saturation constants' of E , N and S , respectively (e.g., the 'half saturation constant' of E is the value of E where the result of the term $\frac{E}{k_e + E}$ achieves $1/2$ its maximum value).

Note that each term approaches 1 as the respective variable advances towards infinity, and SWI approaches L_{max} as all terms draw nearer to 1. The larger the half saturation constant relative to the size of the variable, the slower is the motion towards 1. Any variable can constitute a 'limiting factor' (e.g., if E is very large then the relevant term will be close to 1, but if S is small then its term will be a small fraction that caps the SWI).

The index reflects the idea that growth is no longer the goal and that prosperity is instead determined by balanced sufficiency, equity, and sustainability (Fioramonti et al., 2022).

2.6 Overall approach

This section showcases the basic setup for integrating the different theories, models, and methods into a unified framework. Reference to concepts and notation borrowed from set theory and category theory facilitate this endeavour (particularly in view of different abstraction levels, formalisms, and assumptions).

More specifically, let CT represent the unified framework, combining location theory (LT), economic growth theory (EGT), Bayesian neural network analysis (BNN) and sustainable wellbeing valuation (SWI) to model the role of urban agriculture (UA) in a sustainable post-growth wellbeing transition (see Figure 5).

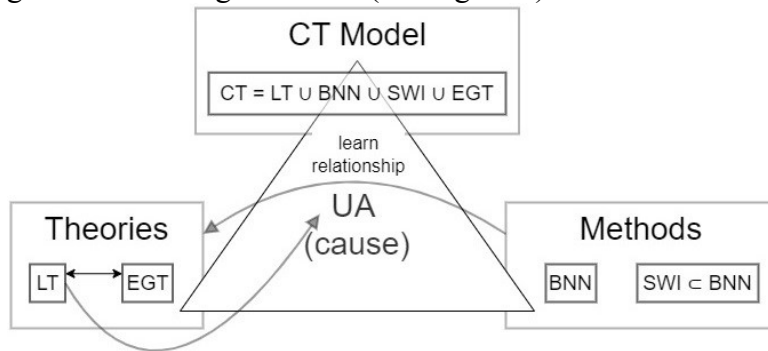


Figure 5: Unified model diagram

There are three categories:

Category 1 (CT Model) – this category consists of CT . The superior character of CT is expressed in the following way: $CT = LT \cup EGT \cup BNN \cup SWI$.

Category 2 (Theories, LT and EGT) – this category consists of LG and EGT . There exists a (mutual) correspondence between LT and EGT within the CT model framework which is designed to explore system discontinuities in the context of ‘Thünen 2.0’ (corresponding to the prevailing economic growth paradigm) versus ‘Thünen 3.0’ (corresponding to the sustainable post-growth wellbeing paradigm). Through the inclusion of a corresponding (inverted) morphism, LT and EGT together serve to explore UA and inform its emergence against the background of changing land use patterns and economic growth dynamics. In addition, LG is directly mapped to UA . The latter is a standalone object that does not belong to any category. Notice that UA directly relates to all four types of capital.

Category 3 (Methods, BNN and SWI) – this category consists of BNN and SWI . The relationship between the two can be expressed as follows: $SWI \subset BNN$. There is a functor from category 3 to category 2 via UA . This functor represents a mapping from category 3 to category 2 through UA to capture the idea that BNN (which contains SWI) can be used for learning the relationship between UA and the objects in category 2 (LT and EGT).

3. Empirical follow-up investigation

Based on the approach outlined, various aspects of the relevant role of urban agriculture can be investigated empirically. An instance that may merit closer inspection concerns wastewater reuse and related infrastructure (Bronner et al., 2022). To this effect, useful data sources include the Human Development Database of the United Nations Development Programme (UNDP), the UNDP Data portal, the UN Data portal, the Global Water Quality Assessment and other information published by the UN Environment Programme (UNEP), the World Bank Open Data platform, Eurostat, the ADB Data Library, the FAOSTAT database, the EU Farm Accountancy Data Network (FADN), FAO Aquastat, the Water Footprint Network, the World Resources Institute (WRI), or Exiobase and the EORA database. Wastewater, often seen as waste, can be a valuable resource for urban agriculture, especially in water-scarce regions (Drechsel, 2022b; Drechsel et al., 2015; Jampani et al., 2020). However, its use poses challenges, particularly in low-income countries where sanitation infrastructure is lacking, leading to health risks and environmental contamination (Drechsel et al., 2015; IRP, 2022).

Harnessing the potential of urban agriculture necessitates a thorough grasp of its complex nature and the interplay between various factors such as resource availability, waste management, and community engagement, among others. While the benefits of ecosystem services provided by urban agriculture appear to be manifold, they warrant prudent quantification and valuation (Drechsel et al., 2015; Fioramonti et al., 2022; Moustier & Renting, 2015). In the current context, a corresponding cost-benefit analysis could serve as a basis for the validation of wastewater treatment interventions. Moreover, considering that safe wastewater use requires natural and engineered treatment solutions (Kookana et al., 2020), the proposed model can be

employed to scrutinise such ‘green’ and ‘grey’ approaches with respect to tradeoffs and synergies, thereby informing relevant decision-making.

4. Conclusion

Given the megatrend of urbanisation, while city landscapes are currently dominated by urban land uses in many advanced regions, urban agriculture holds the potential to drive a shift towards a post-growth and wellbeing-oriented future by integrating the economic, social, and environmental dimensions of sustainability and providing relevant benefits to surrounding communities. However, further research is needed to better understand the multitude of possible inherent merits and risks. By integrating different theories, models, and methods, this study seeks to provide a basic framework for unravelling the intricate dynamics of urban agriculture in terms of its capacity to spur sustainable development. The proposed framework provides a foundation for pertinent empirical research, for example with a view to gaining relevant insights into the use of wastewater as a resource, thereby contributing to the construction of a roadmap for more sustainable urban practices.

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International Philanthropic Organizations Commitment to Improving Community Welfare

Zaenal Abidin^{a,*}, Azlinda Azman^b, Paramjit Singh Jamir Singh^c

^aSocial Work, School Social Science, Universiti Sains Malaysia
Department of Social Welfare, Faculty of Social Science and Political Science, University of Muhammadiyah Malang, Indonesia
Email: zaenal.abidin@student.usm.my

^bSocial Work, School Social Science, Universiti Sains Malaysia
Email: azlindaa@usm.my

^cSocial Work, School Social Science, Universiti Sains Malaysia
Email: paramjit@usm.my

Abstract

The transphilanthropy movement or international philanthropy has become a necessity for global issues. Starting from the issue of children, the elderly, disability, women's welfare, and the environment, to popular issues that touch on aspects of education and health. In fact, in some cases, global philanthropy programs have been able to influence local, national, and even global policies, as evidenced by the international agreement in the form of the MDGs programs from 2000-2015, followed by the start of the SDGs program in 2015-2030, which has been able to mainstream all levels of stakeholders. This research is important to see the extent to which philanthropic institutions design programs to improve the welfare of society and can provide significant social change in realizing the target of global development goals. In addition, the study in this paper is conducted through a descriptive qualitative approach by analyzing the programs of global and national philanthropic institutions in Indonesia based on website publications. The results in this research show that 7 INGO (Rare Animal Relief Effort (RARE), Stichting SNV Nederlandse Ontwikkelingsorganisatie, Raoul Wallenberg Institute (RWI), Conservation International, Church World Service (CWS), Catholic Relief Service, Caritas Switzerland Activity, all of these INGO are committed to issues until now, for example Environment and Conservation of Rare Species, Agriculture, Human Rights, Social Welfare (Post-disaster, Community Development, Social Services, and Social Welfare). In fact, the commitment of international philanthropic institutions to support the achievement of the SDGs is seen with programmes related to gender equality, climate change, improving the quality of terrestrial ecosystems, oceans, and global partnerships.

Keywords: Philanthropy, Empowerment, SDGs, INGO

INTRODUCTION

Giving behaviours have become a hereditary tradition in human life, even the institutionalization of the tradition of giving (read: philanthropy) has been present in the spirit and encouragement of religion. According to Jeavons in Widyawati (2011) the impetus for individual behaviours like to carry out philanthropic activities is influenced by four important

elements in religion. First, religion has a doctrine that encourages people to give to those who are less fortunate. Second, religious institutions function as both recipients and sources of donations. Third, religion has a significant impact on the formation of charity. Fourth, religion can act as a force to create social space for charitable activities and institutions.

The metamorphosis of philanthropic practices has grown rapidly, no longer running conventionally or traditionally. This is evidenced by the practice of giving from door to door, developing along with the acceleration of information technology through new fundraising methods, such as membership, direct mail/email, special events, internet fundraising, SMS Charity, Ring Back Tone (RBT) Donations, Whatsapp blasts, Donation Ads, and the latest with a crowdfunding system (Scanlan, 2009).

The increasing number of international, national, regional and even local philanthropic institutions shows an interest in humanitarian-related issues, not infrequently international philanthropic institutions duplicate as transphilanthropic institutions to strengthen their donation base and distribution of donations. This transphilanthropy movement is interesting to study because it has a strong overlap with global issues in a local setting, it must be admitted that transphilanthropy is getting stronger because of the interest in Civil Society Organisations (CSOs) at the local level, whose issues are relevant to global issues. The mapping and commitment of philanthropic institutions is important to study so that researchers in particular and the public in general are able to at least see the positive side of the transphilanthropy movement or the development of philanthropic institutions in society. This study will only limit the top 10 international philanthropic institutions that have contributed to programs in Indonesia in the last 5 years through institutional report data and websites. Furthermore, this research intends to explain how the commitment of philanthropic non-governmental international organisations in improving the welfare of the people in Indonesia.

Concept of Charity and Philanthropy

Charity is the practice of doing good to fellow human beings out of concern, empathy, pity. Charity is a religious obligation and a social necessity, but it can also further normative social policy through surveillance and discrimination targeting recipients deemed worthy of assistance, distinctions influenced by humanist rhetoric and post-Reformation moral reform rhetoric (Ilchman, Katz & E. L. Q, 1998). Meanwhile, Anheier (2005) stating that Charity is individual benevolence and care, is a value and practice found in all major cultures and religions of the world. It is one of the “five pillars” of Islam, and central to the teachings and practices of Christianity and Judaism as well. In many countries, including the United States, the idea of charity includes alleviating poverty, helping the sick, disabled, and elderly, and supporting education, religion, and cultural heritage. In contrast to philanthropy, Anheier (2005) states that philanthropy is an individual practice that reflects “love of humanity” and the voluntary dedication of private wealth and skills to a specific public good: while philanthropy, like the term charity, has deep historical roots in religion, its modern meaning emerged in early 20th century America and refers to private efforts to solve common social problems such as poverty or ignorance.

Furthermore, the conceptualization of philanthropy is the voluntary practice of giving, serving, and gathering to help others. It can even be defined as voluntary action for the common good

or voluntary action for the common good. Philanthropy itself must harness the spirit and encourage the independence of civil society. In the history of its formation, philanthropy has so far developed into 2 (two) main varieties, namely traditional philanthropy and social justice philanthropy (Abidin, 2017; Prihatna, 2005). This is also confirmed by Allien Shaw that philanthropy is not just charity, but long-term empowering assistance (Abidin, 2017; Latief, 2010).

The Concept of Community Wellbeing

The conceptualisation of community or people's wellbeing in some literature is often equated with the concept of social welfare, but in principle it is different. Thus, it is important to understand the indicators of community or people's wellbeing in the context of the Indonesian government's understanding and the concept of social welfare. In Law Number 11 of 2009 concerning Social Welfare, it is explained that Social Welfare is a condition of fulfilling the material, spiritual, and social needs of citizens in order to live properly and be able to develop themselves so that they can carry out their social functions. (Pemerintah RI, 2009). Whereas, in BPS (2015), the release of the People's Wellbeing Indicators covers 8 aspects, including population, health and nutrition, education, employment, consumption levels and patterns, housing and environment, poverty, and other social (travel, business credit recipients, health service guarantees, security/crime, access to information technology). Thus, this study will limit the concept of community or people's welfare to the condition of people who have fulfilled their material, spiritual, and social needs, which are strongly influenced by positive values of population growth, quality of health and nutrition, education, employment, consumption levels and patterns, housing and environment, poverty, and other social (tourism, business credit recipients, health service guarantees, security/crime, access to information technology) so that they can function socially optimally.

State of the art

Based on research data related to philanthropy, through Scopus data accessed on 4 May 2023, the publication of studies with the keywords of philanthropy programs, found from 1974-2023 there were 26 published studies. The study of philanthropy programs in the social science area so far is reflected in the following; First, Reiser & Dean (2023) in his book, philanthropic programs organized as limited liability companies, donor-advised funds sponsored by giant investment firms, and strategic corporate philanthropy programs that align charitable giving by multinational corporations with their business objectives paint a startling new picture of elite giving. Then, Asaker (2022) explained that UNHCR since 2019 launched the Refugee Zakat Fund through the Islamic Philanthropy programme to help the most vulnerable refugees and internally displaced persons globally. Secondly, Zhan (2020) see that Individuals assume more social responsibility under neoliberalism. The practice of neoliberal governance in China confirms this global trend. This is evident when the government abdicates its responsibility to provide social assistance for rural migrant workers and instead relies on privately sponsored philanthropic projects. Confirming Zhan's research, it turns out that in China, rising income inequality has created excessive barriers to the social mobility of low-income children. Private wealth can play a positive role in alleviating inequality by investing in educational philanthropy. Using a survey of alumni from a high school in Guangdong, China, this paper uses human capital theory to examine the effects of educational philanthropy on the human capital

accumulation and well-being of low-income and gifted students. Findings suggest that well-designed educational philanthropy programs significantly improve well-being through human capital accumulation for these children and also show the potential to reduce intergenerational inequality (Chien-Chung Huang & Sorensen, 2020).

Based on the four studies above, the issue of corporate humanism in the form of CSR, humanitarian programmes (read: refugees), migrant worker programmes, and education is common in addition to the issues in the SDGs. However, there is no study focusing on the description of the global philanthropy programme map that has been run by philanthropic institutions in the transphilanthropy model so as to improve the welfare of society. It will serve as a new reference for developing philanthropic programmes at the local or country level.

METHOD

This research employs a qualitative method, that is, the findings of a study that focuses on the research process in the surrounding environment, where researchers analyse the phenomena researched experimentally. The qualitative approach according to Kirk and Miller defines (Moleong, Lexy, 2002):

“That is qualitative research is a certain tradition in social science that fundamentally depends on observing humans in their own area and dealing with these people in their own terms”.

This type of research is descriptive, which will describe the programs of international philanthropic institutions with activities in Indonesia and even in several other countries. Determination of the selected international philanthropic institutions, according to the researcher's criteria, including:

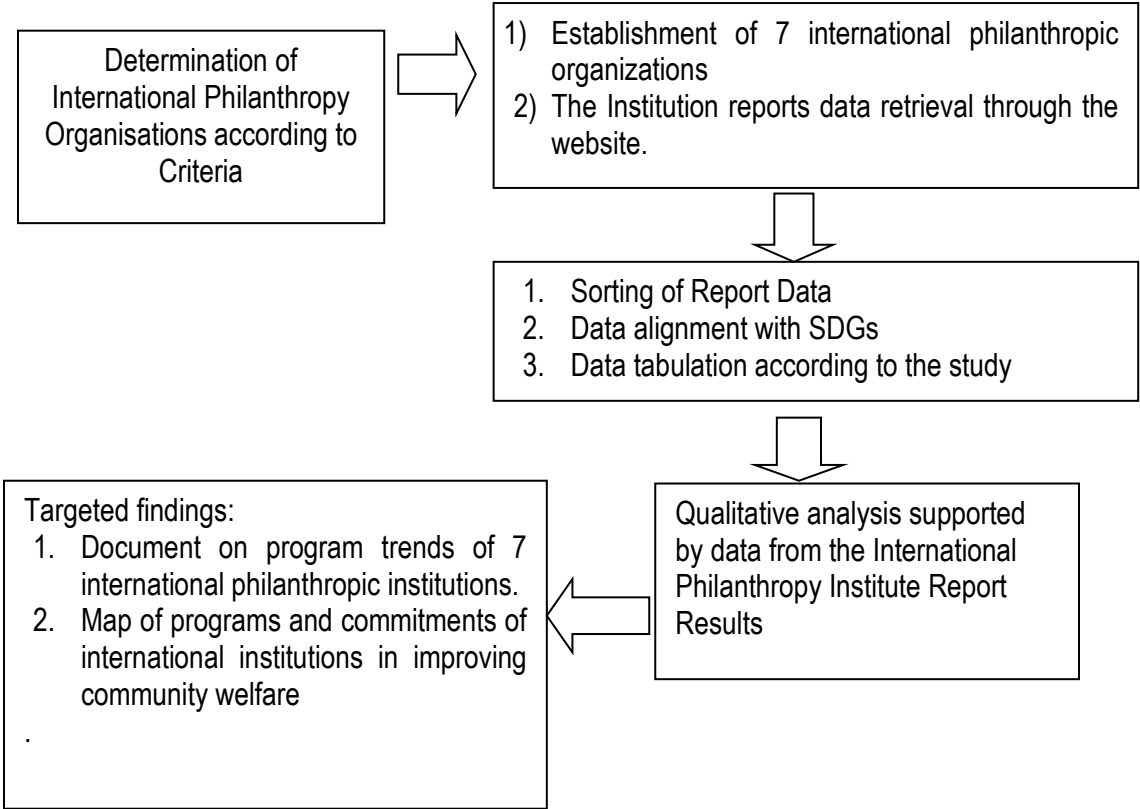
1. Including international philanthropic organizations
2. Has been active in at least 10 countries in the world, especially developing countries.
3. Has been active in Indonesia for at least the last five years.
4. The philanthropic institution's program is related to the SDGs.
5. Involving the Indonesian government and or civil society organizations in Indonesia
6. Categorised as NGO, not IGO and CSR
7. Registered and active status at the Ministry of Foreign Affairs of the Republic of Indonesia
8. Verified legality.

Based on the above criteria, there are seven lists of names of International NGOs that are relevant to the criteria of this research, including (INGO, 2017):

1. Rare Animal Relief Effort (RARE)
2. Stichting SNV Nederlandse Ontwikkelingsorganisatie
3. Raoul Wallenberg Institute (RWI)
4. Conservation International
5. Church World Service (CWS)
6. Catholic Relief Service
7. Caritas Switzerland

These seven NGOs are institutions that are currently active in their cooperation with the Government of Indonesia and involve civil society organizations in Indonesia. Therefore, in this research, it will be presented in the chart below:

Research Flow Chart:



RESEARCH RESULTS

Directorate of Socio-Cultural and International Organisations of Developing Countries, Directorate General of Multilateral Affairs, Ministry of Foreign Affairs (2011), has released a total of 109 registered International Non-Governmental Organisations (INGOs). Some of the 109 INGOs have been operating in Indonesia since the 1970s, with a cooperation agreement. Furthermore, based on checking the latest directory data of the Ministry of Foreign Affairs of the Republic of Indonesia in 2023, there are 7 international philanthropic organizations whose cooperation status is still active and are still committed to improving the welfare of the community.

A list of international non-governmental organisations (INGOs) validated and active by the Ministry of Foreign Affairs of Indonesia until 2023 includes the Rare Animal Relief Effort (RARE), the Stichting SNV Nederlandse Ontwikkelingsorganisatie, the Raoul Wallenberg Institute (RWI), Conservation International, Church World Service (CWS), Catholic Relief Service, and Caritas Switzerland, among others. The seven INGOs activities are integrated with the Indonesian government's programs, which can be presented in the following table:

Table 1: The seven INGOs activities with SDGs Programs

No	INGOs	Establishment	Government Partner	Issues	Area
1	Rare Animal Relief Effort (RARE)	30-06-1983	Ministry of Marine Affairs and Fisheries & Ministry of Environment and Forestry	<p>Global Programs (https://rare.org/): Climate Culture, Fish Forever, Lands For life</p> <p><u>Indonesia:</u> Environment and Biodiversity Conservation</p> <p><u>SDGs:</u> 7: Affordable and Clean Energy 10: Reduced inequality 11: Sustainable cities and communities 12: Responsible consumption and production 13: Climate Action 14: Life Below Water 15: Life on Land</p>	Southeast Sulawesi, North Sulawesi, Maluku, and West Papua
2	Stichting SNV Nederlandse Ontwikkelingsorganisatie	1960	Ministry of Internal Affairs	<p>Global Program (https://www.snv.org/projects): Agri-Food, Energy, Water, Climate Adaptation and Mitigation, Gender Equality, Strong Institution and effective government, Youth, Digitalisation, Impact Driven Finance, System Transformation,</p> <p><u>Indonesia:</u> Integrated and Sustainable Agriculture</p> <p><u>SDGs:</u> 5: Gender Equality 7: Affordable and Clean Energy 10: Reduced inequality 12: Responsible consumption and production</p>	North Sumatera, West Sumatera, South Sumatera, Jambi, Lampung, West Java, NTT, NTB

				13: Climate Action 15: Life on Land	
3	Raoul Wallenberg Institute (RWI)	1984	Ministry of Law and Human Rights	Global Program : https://rwi.lu.se/ : Non-Discrimination & Inclusion, Access to Justice, Human Rights & the Environment, and Business & Human Rights. Indonesia: Capacity building for Human Rights, Gender Equality and Environment institutions, Partner Unicef Indonesia and INFID SDGs: 5: Gender Equality 7: Affordable and Clean Energy 8: Decent Work and Economic Growth 11. Sustainable cities and communities 13: Climate Action 16: Peace, Justice, and Strong Institutions	
4	Conservation International	1987	Ministry of Environment and Forestry	Global Program: https://www.conservation.org/ : Stabilizing Our Climate by Protecting And Restoring Nature, Doubling Ocean Protection, and Expanding Nature-Positive Economies Indonesia: Conservation of endangered species, ecosystems, and biodiversity SDGs: 11. Sustainable cities and communities 13: Climate Action 14: Life Below Water 15: Life on Land	Aceh, North Sumatera, Riau Islands, West Java, Banten, Bali, Papua, and West Papua

5	Church World Service (CWS)	December 1945	Ministry of Social Affairs	<p>Global Program: https://cws.org.nz/ : Fund groups tackling poverty and help people build decent livelihoods in their own communities, Respond to humanitarian emergencies, Increase people’s understanding in Aotearoa New Zealand of the challenges people face around the world, and Campaign against the causes of global poverty and injustice. Indonesia: Social Welfare: 1. West Papua Conflict Response 2. Disaster Relief in West Sumatra 3. Earthquake and Tsunami Response in Indonesia. SDGs: 1: No Poverty 2 : Zero Hunger 10: Reduced inequality 13: Climate Action 16: Peace, Justice, and Strong Institutions 17: Partnerships for the Goals</p>	West Papua, West Sumatera, Yogyakarta, Central Sulawesi
6	Catholic Relief Service	1943	Ministry of Social Affairs	<p>Global Program: https://www.crs.org/: Agriculture, Education, Emergency Response and Recovery, Health, ICT4D, Justice and Peacebuilding, Microfinance, Monitoring Evaluation Accountability, and Learning, Partnership and Capacity Strengthening, and Supply Chain Management. Indonesia:</p>	Aceh, DIY, West Sumatera, West Java, Thousand Islands, North Jakarta, Lombok, Karo Regency-North Sumatera, Belu Regency-East Nusa Tenggara,

				<p>Natural Disaster Relief Tsunami, Volcanic Eruption, and Social Disaster, Agriculture, and Climate change, and Social Welfare.</p> <p>SDGs:</p> <p>1: No Poverty 2 : Zero Hunger 3: Good Health and Well-Being 4: Quality Education 8: Decent Work and Economic Growth 10: Reduced inequality 13: Climate Action 15: Life on Land 16: Peace, Justice, and Strong Institutions 17: Partnerships for the Goals</p>	
7	Caritas Switzerland	1901	Ministry of Social Affairs	<p>Global Program: https://www.caritas.org/where-caritas-work/asia/ : conflicts and disasters, food, development, health & HIV, migration & human trafficking.</p> <p>Indonesia: Post-disaster emergency response assistance, community development and social services, Local community empowerment</p> <p>SDGs:</p> <p>1: No Poverty 2 : Zero Hunger 3: Good Health and Well-Being 5: Gender Equality 8: Decent Work and Economic Growth 10: Reduced inequality 13: Climate Action 15: Life on Land</p>	Sibolga, Medan, Palembang, Padang, Tanjungkarang, Bandung, Purwokerto, Semarang, Surabaya, Ruteng, Maumere, Ende, Larantuka, Kupang, Amboina, Jayapura, Manado, Makassar, Sintang, Palangkaraya, Ketapang, Pontianak, Merauke

				16: Peace, Justice, and Strong Institutions 17: Partnerships for the Goals	
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Source : data processed analysis from research result

Based on the data above, it can be understood that international organisations, focus on four major issues, including :

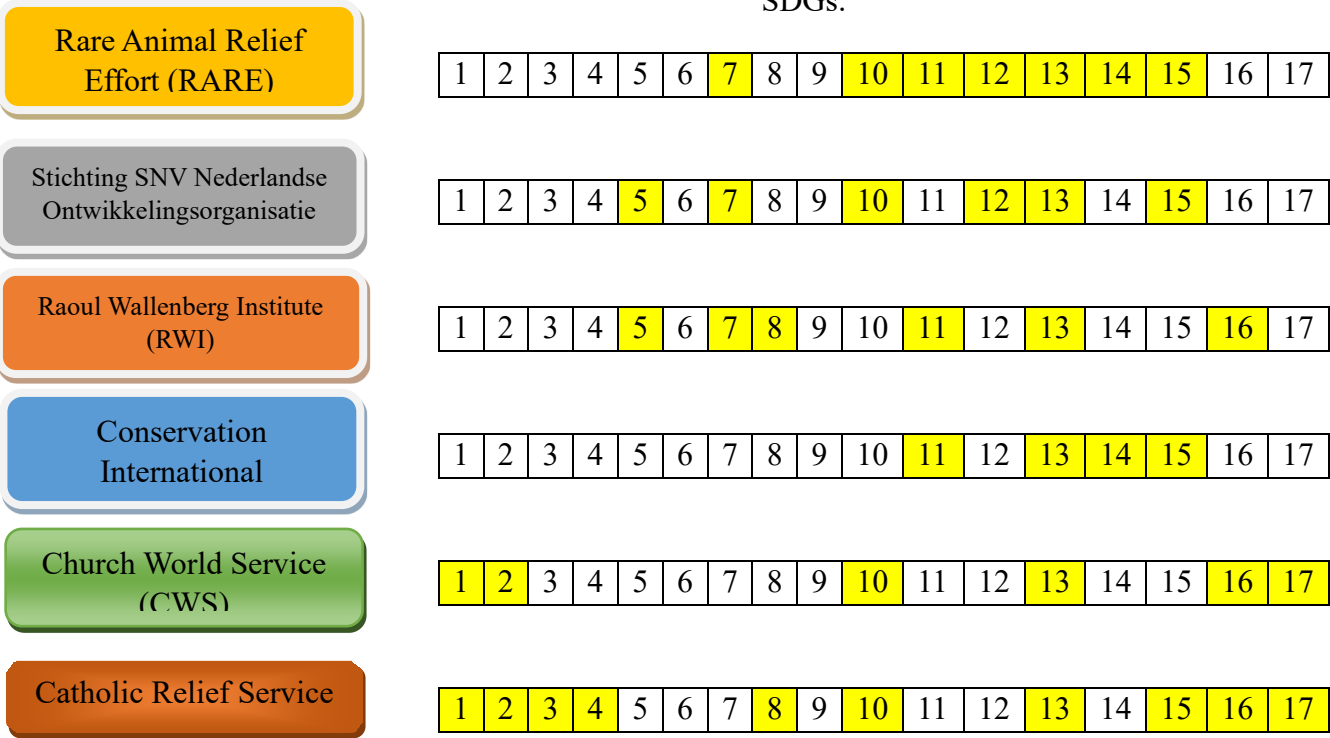
1. Environment and Conservation of Rare Species
2. Agriculture
3. Human Rights
4. Social Welfare (Post-disaster, Community Development, Social Services, and Social Welfare)
5. Furthermore, in the aspect of commitment to the achievement of the Sustainable Development Goals, in accordance with the core of each international philanthropic organization active in Indonesia.

DISCUSSION

All philanthropic institutions have been committed to promoting community welfare and in line with the issues of the SDGs. If we take a closer look at these international philanthropic organizations Rare Animal Relief Effort (RARE), Stichting SNV Nederlandse Ontwikkelingsorganisatie, Raoul Wallenberg Institute (RWI), Conservation International, Church World Service (CWS), Catholic Relief Service, and Caritas Switzerland, has supported the achievement of several goals of the SDGs, some the same and some different. This is because global issues influence the appropriateness of the SDGs targets.

Based on the data collected by the researcher, the commitment to achieving the SDGs of the seven institutions can be mapped in the figure below:

Figure 1 : Commitment to achieving the SDGs of the Seven INGOs



This means that with the data above, the issue of poverty, and hunger remains a commitment of these international philanthropic organizations. Then, goal 7, namely Clean and Affordable Energy, becomes the benchmark of all these institutions. In fact, efforts to reduce inequality, as in SDGs goal 10, are dominated by international philanthropic institutions, especially in the aspect of gender equality. In addition, the handling of climate change seems to be non-negotiable as a commitment of international philanthropic institutions that continue to collaborate with Indonesia. In fact, most international philanthropic institutions cannot let go of their commitment to achieving the 15th SDGs goal of strengthening the quality of terrestrial ecosystems, then realizing the environment and conditions of society with peace, justice, and resilient institutions, as SDGs 16, as well as the integration that SDGs must be realized with partnerships to achieve the goal of a more prosperous global, as expected in SDGs 17.

However, technically the indicators used do not appear to match those used by the Indonesian government. Referring to point 2 above, would have an impact on achieving the national target, such as population, health and nutrition, education, employment, consumption levels and patterns, housing and environment, poverty, and other social (travel, business credit recipients, health care security, security/crime, access to information technology). Moreover, the sustainability challenges of the programmes of the International Philanthropic Institution, carried out by the Government and the local Philanthropic Institute, remain problematic. Not a few of the INGO programmes that have expired their contracts of activity are unable to be carried out by the Government due to the budget and the transformation of knowledge and skills in Human Resources. On the other hand, the transfer of Human Resource or State Civil Apparatus in other fields, also become its own obstacles.

CONCLUSION

Philanthropic Institution's Commitment to Improving Society's Welfare, It's been done by seven philanthropic institutions. However, so the challenge in achieving that commitment has not been seen in detail - specifically consistency with the Empowerment Indicators expected by the Indonesian government. Even the challenge of budgetary staffing and human resources is still a classic obstacle, INGO programmes in Indonesia.

RECOMMENDATION

International philanthropic institutions that have committed to developing aspects of community welfare in Indonesia, need to build a more detailed design in the process of transforming knowledge, skills and budgeting. So that, when the programmes of these international philanthropic institutions have ended, there is an opportunity to maintain and improve the quality of the programmes that have been run previously. Also, local philanthropic institutions need to prepare themselves together with the government in developing programmes, finding alternative resources, and making the community's social capital a

strength to improve the programmes that have been running, by eliminating transactional values, but encouraging collective benefits.

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Website International Non Government Organization:

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<https://rwi.lu.se/>

<https://www.conservation.org/>

<https://cws.org.nz/>

<https://www.crs.org/>

<https://www.caritas.org/where-caritas-work/asia/>

POPULATION GROWTH AND ENVIRONMENTAL QUALITY: AN EMPIRICAL EVIDENCES FROM NIGERIA

Suleman Lawal Gambo^a , Nor Asmat Ismail^b

^aSchool of Social Sciences, Universiti Sains Malaysia, Malaysia

sulemanlawalgambo@gmail.com

^bSchool of Social Sciences, Universiti Sains Malaysia, Malaysia

norasmat@usm.my

Abstract

Hypothetically, the growth of the human population is assumed to augment environmental degradation from carbon dioxide (CO₂) emissions during the increase in daily human activities by consuming non-renewable energy. Therefore, this study aimed to examine the effect of population growth on environmental quality in Nigeria using an autoregressive distributed lag (ARDL) model covering periods from 1970 to 2014. The literature divulges that the link between population growth and surroundings is still arguable. The results indicated that population growth and fossil fuel consumption are some of the determinants of environmental degradation in the long run. However, energy usage was found positive for ecological degradation in the long run. Although, in the short-run analysis, population growth and fossil fuel consumption were significant in determining ecological degradation in Nigeria. The empirical findings of this study suggested that human population growth and energy usage, which are the focal point of this investigation, could determine environmental degradation in both short and long runs analyses. It was recommended that policies and programs aimed at population growth and energy usage should be pursued vigorously by governments of Nigeria to deter the chances of stakeholders engaging their environmental quality. Lastly, the government should try to ensure population growth and ecological prevalence do not exceed the threshold level.

Keywords: ARDL, Population growth, Environmental degradation, Fossil fuel consumption CO₂ emissions

1. Introduction

It seems obvious that the link between speedy population growth and environmental degradation is fundamentally caused by climate changes globally largely from transportation and agricultural activities (Hunter et al. 2015). Population growth, alongside escalating energy consumption, tends to augment emissions of climate-altering greenhouse gases. Speedy population growth deteriorates the force of global changes by damaging resources and other environmental allied risks (Bloom et al. 2003). The population growth is associated with the surroundings both in industrialized and developing nations for several reasons. In developing

nations, the surroundings are harassed by the escalating figure of human beings as well as in industrialized nations (Beato & Chiarello, 2000). Population growth persistently increases accompanied by the demand for more land to provide food and other resources needed to sustain (Thoredore, 2006).

The population continues to rise, resulting in huge environmental damage, such as more vehicles, water scarcity in cities, loss of natural resources, and increased garbage (Hughes, 1997). Human activities are depleting the Earth's natural resources and reducing the capability of life-supporting ecosystems (Speidel et al. 2009). Population growth and environmental deterioration exacerbated by climate change appear simplistic, possibly even more so (Bremner et al. 2010). Population growth is putting an increasing strain on the country's finite and rapidly depleting natural resource base. Even though most people live on subsistence, natural resources are under growing strain (Nagdeve, 2007). Population strain on agricultural land contributes to soil degradation. Nigeria's expanding population and affluence have already resulted in fast increases in energy production and consumption. Although environmental impacts such as groundwater and surface water pollution, air pollution, and global warming are becoming increasingly concerning as consumption levels rise.

Nigeria as a nation has embarked on experiencing an economic change ever since its independence year in 1960, with the emergence of industrial and manufacturing, agricultural, and financial institutions, as well as the tourism sector. These sectors necessitate a well-built dependence on energy consumption for their needs. The increase in the usage of fossil fuels for energy consumption facilitates CO₂ emissions in the country. Thus, besides fossil fuel consumption, human activities such as deforestation and land clearing, bush burning, ranching, and the building of houses are alleged to be escalating greenhouse gases (GHG) continuously in the environment.

Nigeria's environmental quality is a major concern due to deforestation, inadequate waste management, and contamination of the air and water. The country faces challenges in protecting its ecosystems and managing its natural resources, which has a negative impact on biodiversity and public health (Maji et al. 2017; Oyetunji, 2020; and Schneider, 2022). Oil pollution in the Niger Delta region, where oil production and exploration have resulted in substantial environmental degradation, is one of the most serious issues threatening Nigeria's environmental quality. Ineffective laws and enforcement methods have exacerbated the problem, endangering the health of the local population and harming the ecosystem (Nnaemeka, 2020; Ukhurebor et al. 2021).

In most situations, CO₂ emissions are linked to human activity, which is a concerning oversight. On the contrary, when the human population increases, so do anthropogenic activities, resulting in an increase in CO₂ emissions. (Liddle, 2015; Sulaiman & Abdurrahim 2018) found that in the coming decades, Nigeria's population growth and energy consumption will skyrocket, resulting in an increase in CO₂ emissions. Nigeria is Africa's most populous country, with a population that has steadily increased from 45.2 million people in 1960 to 108 million in 1991 to 140 million in 2006 censuses (NPC, 2007) to 213.3 million people in 2021 estimates (World Bank, 2022). The country also has the fastest rising population on the African continent, with an average yearly growth rate of 2.7%. Nigeria is classified as the world's 26th emitter. However, as the country's population grows at such a rapid pace, so does the concern about the resulting environmental deterioration. As a result, the country's environmental quality may suffer, and per capita emissions may rise more as the population grows rapidly. This is likely to accelerate

the cumulative environmental damage dramatically. Therefore, it is anticipated that the country will formulate sustainable ways of addressing environmental degradation.

Global warming is no longer merely an ecological issue; when we consider its impact on economic activity, we see that it has become a development issue. It is a serious threat to the sustainable development goals and the sustainability of many developing countries, including Nigeria. Thus, climate variability is expected to cause a 6% to 30% loss in Nigeria's GDP by 2050, equivalent to US\$100 billion to US\$460 billion if no adjustment efforts are implemented (Department for International Development, 2009). If the current trajectory continues, the nation's GDP might fall by 2% to 11% by 2020.

The importance of this study cannot be emphasized. First and foremost, it should help to inform decision-makers about the variables that contribute to environmental deterioration. Following that, it offers guiding concepts and solutions for addressing environmental challenges while maintaining long-term growth and avoiding a future GDP decline. Similarly, the empirical findings may provide further insight into how enhanced environmental quality responds to its causes across the study period.

The objective of this study was to look at the effects of population growth on environmental quality, besides energy usage and economic growth on environmental quality in Nigeria. Numerous investigations were conducted in Nigeria merely aimed at the effect of energy usage alone on environmental quality. Hence, this is the gap that the research anticipates filling in the literature. According to theories, population growth is hypothetically linked to environmental degradation since an increase in population growth rate means an increase in human activities that facilitate environmental deterioration, but only empirical tests might authenticate this. Consequently, this investigation is obligatory to empirically test the effects of population growth, energy usage, and economic growth on environmental quality in Nigeria by using an autoregressive distributed lag (ARDL) model advanced by Pesaran, Shin, and Smith (2001) for the periods of 1970 to 2014. It also enables the study to capture the real performance of all the variables under study over different periods. The results of the investigation also revealed whether the response of environmental quality to population growth was the same in all the periods.

This paper is structured in parts. The first part contains an introduction, research problems, significance of the study, objective, and paper organization. The second part consists of a review of related literature, which provides some snapshots of similar empirical literature. The third part presents methodology and data. The fourth part presents the results and discussion of the article. Lastly, the fifth discusses conclusions and policy recommendations.

2. Literature Review

Numerous studies have been undertaken in areas relevant to this research. However, the majority of the study focused on the urbanization-energy consumption link, the energy consumption-economic growth nexus, or the energy consumption-CO₂ emissions-economic growth relationship. A study of the literature reveals that few studies have specifically examined the influence of population expansion on environmental quality, particularly in Nigeria. However, there is a large body of literature that has investigated the relationship between energy consumption-CO₂ emissions and economic growth. This literature review will provide an overview of the existing literature on the topic from a broad perspective before narrowing it down to focus on Nigeria. In other words, the literature evaluation will be two-fold. The first

strand of the literature review focuses on a broad overview of linked existing studies. In contrast, the second strand focuses on a review of existing studies on Nigeria.

Malthusian (1798) emphasizes on population growth and food supply, which tend to outperform the productive capabilities of land resources. Boserupian (1965) stated that the environment improves land resources and related issues like climate and soil quality. Ehrlich (1971) discovered that the impact of the human population on the environment is proportional to population size, per capita consumption, and the environmental impact of the technology employed to create the consumed goods.

Since most rural populations rely on deforestation as a source of energy, population growth has an adverse effect on the environment in developing nations Griffiths & Cropper (1994). After looking at environmental problems in Nigeria, Omofonmwan (2008) came to the conclusion that there was a direct correlation between environmental problems such urbanization, deforestation, and CO₂ emissions and population growth. According to Shi (2003), one of the key driving causes behind the global intensification of environmental degradation has continued to be population growth. Therefore, the statement mostly holds true in less developed nations where the effects of fast population increase on environmental deterioration have been more pronounced. Abubakar (2014) studied Abuja's city profile and concluded that the growth of the urban population serves as an expansion ground for environmental degradation in Nigeria. Elias & Omojola (2015) investigate the challenges of climate change in Lagos City, Nigeria. The study found that Lagos is a megacity, with urban population growth leading to resource contamination.

Ahmed et al. (2015) investigated the relationship between population growth and the environment using deforestation as a proxy for the environment. The study used autoregressive distributive lags and the VECM-Granger causality test, and the results confirm that the feature inverted U-shaped affiliation and authenticate the EKC hypotheses. Ohlan (2015) investigated the impact of population density, energy consumption, trade openness, and economic growth on CO₂ emissions in India between 1970 and 2013. Using ARDL methodologies, the study found that population density, economic growth, and energy consumption have a significant positive effect on CO₂ emissions in both the long and short run. However, the population has consistently been proved to be the primary cause of CO₂ emissions in India.

Begum et al. (2015) investigate the dynamic effects of energy consumption and population increase on CO₂ emissions in Malaysia using econometric approaches. The ARDL technique was used in the study from 1970 to 1980, and it was established that further growth in GDP per capita increased CO₂ emissions significantly. Sulaiman & Abdul-Rahim (2018) study the impact of population growth, energy consumption, and economic expansion on CO₂ emissions in Nigeria. The study runs from 1970 to 2010 using a recursive ARDL technique and leverages VECM Granger causality to examine the direction of causality between variables. The findings revealed that nearly all of the descriptive variables, namely economic development, population growth, and energy consumption, continued to have a significant influence on CO₂ emissions.

Xu et al. (2020) investigated the effects of population and agglomeration growth on land use intensity in 297 Chinese cities. The findings show that population and agglomeration growth have varying effects on land use intensity. As the population grows, so does the intensity of land use. It was determined that there is a positive association between the factors. Rahman &

Alam (2021) used the IPAT equation to investigate the relationship between environmental pollution, clean energy, population density, urbanization, per capita GDP, and trade openness in Bangladesh between 1960 and 2015. The study discovered that population density, urbanization, and economic growth are the sources of environmental degradation.

Wang & Wang (2021) examined the nonlinear effects of population aging, industrial structure, and urbanization on carbon emissions in developing countries using a panel threshold regression analysis of 137 countries for the periods 2002–2012. The study concluded that with an increase in the level of population aging, the industrial structure and urbanization will lead to an increase in carbon emissions. Wang & Li (2021) investigate the effects of population aging, life expectancy, population density, unemployment rate, per capita GDP, and urbanization on per capita CO₂ emissions in 154 countries between 1992 and 2016 using the STIRPAT method as well as the study concludes that population density and escalating per capita CO₂ emissions.

Wada et al. (2021) concluded that energy use, real GDP per capita, real exports per capita, real imports per capita, and population growth cause changes in environmental quality both in the short-run and long-run periods in Brazil. Yaduvanshi et al. (2022) examined the population changes and sustainability of energy drive cooling demand on risks in urbanized India between the periods of 1951–and 2019. Thus, it concluded that population exposure was the primary factor governing risk scores of climate change. Therefore, the present research observes some variables concerning population, economic growth, energy, consumption, and environmental quality see, Fernandez-Llamazares et al. (2015); Jackson et al. (2013); Liu et al. (2016); Hamid et al. (2022); Liu et al. (2022); Naseem et al. (2022); Khan et al. (2022); Warsame & Sarkodie (2022); Shokoohi et al. (2022).

Finally, the relevant work in Nigeria on this topic is primarily concerned with energy consumption, economic growth, and CO₂ emissions. However, human activities such as bush burning, ranching, deforestation, and other human activities are thought to contribute to environmental degradation, mostly through CO₂ emissions. These activities are expected to develop more as the population grows. This is because human activity is predicted to increase as the population grows. This study aims to fill this gap by investigating the effect of population growth on environmental quality.

3. Methodology and Data

This study examined Nigerian annual data from 1970 to 2014. The data were gathered from the World Development Indicators (WDI). The dependent variable is CO₂ emissions (in metric tons per capita), while the independent variables are energy consumption, EC energy consumption (kg of oil equivalent per capita), FF fossil fuel per capita, economic growth, Y (real GDP per capita), population growth rate, Po, and TR trade openness (refer to Table 1). Gives a summary of the variable names, sources, measurements, and expected results.

This is an experimental study of the relationship between population expansion and environmental quality. Much research has employed a co-integration method to determine the relationship between study variables such as population growth rates and environmental connections. Prior research has primarily employed deforestation or CO₂ emissions as indices of conservation degradation. Although the current study employs CO₂ as a measure of

conservation excellence and natural resource utilization as a measure of environmental quality. As a result, most hypothesis-based research on CO₂ and urban population growth indicators has been conducted on country groups utilizing panel data approaches. Nonetheless, this study discovered that some developing countries have problems with environmental conservation (Ayobamiji & Kalmaz 2020; Yahaya et al. 2019; Nathaniel et al. 2019; Sulaiman & Abdul-Rahim 2018; Ali et al. 2016; Ahmed et al. 2015; Zaman et al. 2011; and Shaw 1989) in Nigeria, South Africa, Pakistan, Southeast Asia, and LDCs. In this work, we employ the ARDL cointegration approach, recently proposed by Pesaran et al. (2001), to investigate the relationship between population growth and environmental quality in Nigeria from 1970 to 2014.

We picked the ARDL methodology for evaluating cointegration because it has several advantages over other methods. According to Emran et al. (2007) and Menyah & Wolde-Rufael (2010), Monte Carlo has several advantages over traditional methods, including the ability to correct explanatory variable endogeneity, have good properties for small sample estimation, do not require a unit root test due to variable order of integration, and allow for the estimation of both long run and short run models.

Unit root checks are used to first determine the data's stationarity to prevent false reversion. This is commonly written as $1 < 1$. An improved version of the Dickey-Fuller and Philips-Perron unit root check for "trend" and "first difference." The combined stochastic approach is used to obtain the unit root check results, and the combination instruction (I(0) and I(1)) is occupied. An autoregressive distribution lag function is used in the Engle-Granger or augmented Engle-Granger checks to validate the co-integration root obtained via the unit root check procedure. According to recent research, this method is better than the Johansen co-integration approach since it can modify interval lengths, prevent endogeneity, and verify smoothness in tiny trial scopes. The autoregressive distributed lag (ARDL) model is used to examine the relationship between Nigeria's population growth and environmental quality.

$$Y_t = \alpha + \beta_0 X_t + \beta_1 X_{t-1} + \beta_2 X_{t-2} + \dots + \mu_t \quad (1)$$

$$(Y_t - \delta) = \alpha_1 (Y_{t-1} - \delta) + \alpha_2 (Y_{t-2} - \delta) + \alpha_3 (Y_{t-3} - \delta) + \dots + \alpha_n (Y_{t-n} - \delta) + \mu_t \dots \quad (2)$$

Equally, the co-integration and error correction model are symbolized below, separately;

$$\Delta Y_t - \alpha + \Delta X_{t-k} + \Delta X_{2(t-k)} + \Delta X_{3(t-k)} + \Delta X_{n(t-k)} + \dots + \delta_1 X_{t-1} + \delta_2 X_{2(t-1)} + \delta_3 X_{3(t-1)} + \dots + \delta_n X_{n(t-1)} + \mu_t \quad (3)$$

$$\Delta Y_t - \alpha + \Delta X_{t-k} + \Delta X_{2(t-k)} + \Delta X_{3(t-k)} + \Delta X_{n(t-k)} + \dots + X_{t-k} + X_{2(t-k)} + X_{3(t-k)} + \dots + X_{n(t-1)} + \dots + \mathcal{GECT} + \mu_t \quad (4)$$

We begin by defining our model using the conventional production theory model, which is as follows:

$$CO_2 = h(f(Y)) ,$$

where $Y = f(K, L)$ is a production function model (i.e., traditional production function) with K and L defined as capital and labor, respectively, and h is the production function's emission rate.

Thus, we examined variables in a well-designed linear log and functional formula to update our model.

$$\ln CO_{2t} = \beta_0 + \beta_1 \ln PO_t + \beta_2 \ln FF_t + \beta_3 \ln EC_t + \beta_4 \ln TR_t + \beta_5 \ln Y_t + \varepsilon_t \quad (5)$$

In Equation (5), CO₂ represents carbon dioxide emissions (used as an endogenous variable and an indicator of ecological squalor through detail to rest of the illustrative variables), PO represents urban population growth, EC energy consumption, FF fossil fuel, TR trade openness, and Y GDP. For the co-integration test's next phase. As a result, a variety of strategies are used, such as Engle & Granger's (1987) lingering center method, Johansen & Juselius (1990) maximum likelihood method, and Pesaran et al. (2001) ARDL bounds testing. The current study applies ARDL bounds testing methods to avoid the difficulty of endogeneity, as well as to create better results for smaller data sets, and assists in assessing the measurements in the long-run analysis using the following equations:

$$\begin{aligned} \Delta \lambda v CO_{2t} = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta \lambda v CO_{2t-i} + \sum_{i=0}^n \alpha_{2i} \Delta \lambda v PO_{t-i} + \sum_{i=0}^n \alpha_{3i} \Delta \lambda v EC_{t-i} + \sum_{i=0}^n \alpha_{4i} \Delta \lambda v FF_{t-i} + \\ & \sum_{i=0}^n \alpha_{5i} \Delta \lambda v Y_{t-i} + \sum_{i=0}^n \alpha_{6i} \Delta \lambda v TR_{t-i} + \pi_1 \ln CO_{2t-1} + \pi_2 \ln PO_{t-1} + \pi_3 \ln EC_{t-1} + \pi_4 \ln FF_{t-1} \\ & + \pi_5 \ln Y_{t-1} + \pi_6 \ln TR_{t-1} + \varepsilon_t \dots (6) \end{aligned}$$

Equation (6) evaluates the long-term association between study variables using autoregressive distributive lag-bounds testing. This proves the null hypothesis and determines co-integration and long-term affiliation. Thus, the critical values of the F-statistics with lower and upper bound limits, I(0) and I(1), respectively, reject or accept the null hypothesis. Co-integration may throw out the null hypothesis if values exceed the upper bound boundary. This situation does not require integration instruction checks. However, if the F-statistics fall within the upper and lower bound borders, the decision cannot be made without knowing the integration instruction for repressors, requiring a unit root check (see Pesaran & Pesaran, 1997; Pesaran et al. 2001; Narayan, 2004; Narayan, 2005). After checking Schwartz-Bayesian Criteria (SBC) and Akaike's Information Criteria (AIC), the Error Correction Model (ECM) is evaluated in Equation (7) below:

$$\begin{aligned} \Delta \lambda v CO_{2t} = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta \lambda v CO_{2t-i} + \sum_{i=0}^n \alpha_{2i} \Delta \lambda v PO_{t-i} + \sum_{i=1}^n \alpha_{3i} \Delta \lambda v EC_{t-i} + \sum_{i=1}^n \alpha_{4i} \Delta \lambda v FF_{t-i} + \\ & \sum_{i=1}^n \alpha_{5i} \Delta \lambda v TR_{t-i} + \sum_{i=1}^n \alpha_{6i} \Delta \lambda v Y_{t-i} + \varepsilon_t \dots (7) \end{aligned}$$

Granger's causation test was also beneficial in determining the relationship between population growth, energy consumption, GDP, trade openness, and carbon dioxide emissions. Following this inquiry, the model's consistency was assessed utilizing diagnostic checks (normality test, ARCH test, and LM test for serial correlation).

Table 1: Expected signs

Variables	Sources	Measurements	Signs
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Population growth (PO)	WDI	Urban population (% of total population)	Positive
Energy consumption(EC)	WDI	kg of oil equivalent per capita	Positive
Fossil fuel consumption (FF)	WDI	Fossil fuel energy consumption (% of total)	Positive
Gross domestic product (Y)	WDI	GDP per capita growth (annual %)	Positive
Trade (TR)	WDI	Trade (% of GDP)	Positive
CO ₂ emission	WDI	metric tons per capita	Dependent variable

Note. WDI = World Development Indicators of World Bank

4. Results and discussions

In this section, the investigation will present the findings from the evaluation methods described in the preceding section. Mostly, the investigation provides succinct descriptions of the results of stationary tests, such as the Augment Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root checks. In addition, the investigation fails to disclose the results of the Autoregressive Distributed Lags (ARDL) model for the co-integration test, as well as the conclusions of the evaluated models for the ARDL limits test. The investigation concludes with a concise description of the diagnostic checks used to test the consistency and compatibility of the evaluated model. The results of the stationary test for Augment Dickey-Fuller and Phillips-Perron unit root tests are presented in Table 2 below. Both evaluations indicate that some variables are stationary at level, while others become stationary at the first difference level I. (1).

Table 2: Augmented Dickey-Fuller and Phillips-Perron unit root test results.

Level	ADF		PP	
	Intercept	Trend Intercept	with Intercept	Trend Intercept with
CO ₂	- 1.849	-0.099	0.302	-3.261*
PO	-2.873**	-2.171	-4.244***	-0.613
Y	-5.797***	-5.995***	-5.807***	-6.013***
EC	-3.127**	-2.906	-1.354	-2.607
FF	-3.127**	-2.906	-2.568	-2.084
TR	-2.662*	-2.404	-2.519	-2.187
First Difference				
CO ₂	-7.407***	-7.917***	-8.840***	-10.68***
PO	-1.322	-2.673	-1.456	-2.808

Y	-8.802***	-8.737***	-14.162***	-13.834***
EC	-6.381***	-6.341***	-6.785***	-6.828***
FF	-5.261***	-5.476***	-5.261***	-5.472***
TR	-8.939***	-9.189***	-8.894***	-9.319***

Note: ***, **, * indicate significance level at 1%, 5% and 10% respectively. Values in parenthesis are probability values.

Following that, the study provides distribution and summary statistics for population growth and environmental variables, as well as correlation results. The descriptive statistics provide additional information about the variable distributions and descriptive statistics. The correlation results show the patterns of variable association and the functional form of relationships (Gayle, 2000).

The means and standard deviations for the variables used in this study are shown, in Table 3's descriptive statistics. So, a close look at the descriptive statistics shows some important information about the study variables. As the table below shows, the mean is higher than the median, which means that the data is skewed in a good way. In the same way, the skewness values of the variables are always positive and range from 0 to 2. The standard deviation, which shows how far from the mean the variables are, shows that the population growth rate is the most unpredictable of the main independent variables (2.688).

Table 3: Summary of Descriptive Statistics and Correlation Matrix Objective 1

	EC _t	FF _t	PO _t	TR _t	Y _t
Mean	689.629	17.810	11.623	48.275	4.445
Median	691.086	18.985	12.365	48.293	4.887
Std. Dev	55.869	4.476	2.688	16.130	7.994
Min	573.545	5.967	6.499	19.621	-13.128
Max	796.632	22.845	15.369	81.813	33.736
Skewness	-0.305	-1.449	-0.441	0.029	0.957
EC _t	1.000				
FF _t	0.788	1.000			
PO _t	0.943	0.693	1.000		
TR _t	0.448	0.399	0.554	1.000	
Y _t	0.008	-0.250	0.052	-0.006	1.000

Source: Authors computation based on data from World Development Indicators (WDI)

Table 4 shows the results of the autoregressive distributive lags (ARDL) analysis, which is the next step. So, the F-statistics of all highlighted variables (i.e., carbon dioxide emissions (CO₂) total and from transport as a dependent variable and urban population growth as a principal variable), then for robustness checking, CO₂ total and CO₂ from transport as a dependent variable and population annual growth as a principal variable, while all other variables stay the same. So, at the I and I0 percent levels of significance, the calculated F-statistics fall outside of the critical limits. This result shows and confirms that we have four vectors that work together. So, there must be a long-term connection between the variables from 1970 to 2014.

Table 4: ARDL Bounds Test for Co-integration

Co-integration tests Bound testing for co-integration			Diagnostic tests	
Models	F Statistics	Lag	R ²	DW test
$CO_2 = f(PO, EC, FF, TR, Y)$	6.476***	2	0.935	1.957
$COT = f(PO, EC, FF, TR, Y)$	4.194*	2	0.734	1.985
$CO_2 = f(PA, EC, FF, TR, Y)$	7.393***	2	0.929	2.006
$CO_2T = f(PA, EC, FF, TR, Y)$	3.684*	2	0.740	1.993
	Critical value			
Significance level	Lower bounds (0)		Upper bounds (I)	
1% level	4.030		5.598	
5% level	2.922		4.268	
10% level	2.458		3.647	

The critical value according to Narayan (2005) (Case III: Unrestricted intercept and on trend) No trend, K = 5, (***), (**), (*) denotes Significant at 1%, 5% and 10% respectively.

But when the co-integration of the study's variables was over, Table 5 showed the short-run and long-run investigations.

Table 5: Short run and Long run Results

Dependent variable = lnCO ₂				
Variables	Coefficient		Prob	
	Short run	Long run	Short run	Long run
PO	2.733***	2.5801***	0.004	0.000
EC	3.948*	3.727*	0.063	0.063
FF	0.874***	0.825***	0.013	0.004
TR	0.137	0.129	0.404	0.415
Y	-0.003	-0.003	0.663	0.662
R2	0.935			
DW test	1.957			
F-statistics	6.476***			

In a short-run analysis, CO₂ emissions and urban population increase were found to be statistically significant at the 1% level, with a coefficient of 0.417%. This means that as Nigeria's population grows, so do its CO₂ emissions. So, the findings of this study are consistent with Ehrlich's theory, which states that more people living in each area is beneficial to the ecosystem. However, the 0.874 percent coefficient indicates that fossil fuel and CO₂ emissions in Nigeria are positively related at the 1% level of significance. A 1% increase in the use of fossil fuels results in a 0.874% rise in CO₂ emissions. This would be on top of Nigeria's total CO₂ emissions. Soyatas & Sari (2009), Sharma (2011), Hilaire & Fotio (2015), and Shi (2015) reached the same result (2003). As a result, using the same amount of energy has a beneficial effect on CO₂ emissions at a 10% level of significance, with a coefficient of 3.94%. This indicates that using the same amount of energy results in a significant increase in CO₂ in the short run. Even still, growth and commerce did not reveal how much CO₂ Nigeria was emitting. Zhang and Cheng (2009) and Zhang and Lin (2010) further support the research findings (2012). The ECM coefficient is -1.05, which is significant at 1%. This indicates that the long-term rate of change is near 10%. Furthermore, if the coefficient is negative and bigger than one, the results are significant, supporting the autoregressive distributive lags method.

In the long run, however, the study's findings revealed a positive relationship between CO₂ emissions, urban population growth, and the usage of fossil fuels at a 1% significance level. Even though CO₂ has a positive relationship with energy consumption at a 10% significance level, other factors such as growth and trade do not contribute to increased CO₂ emissions in Nigeria. The study's findings are like those of Hilaire and Fotio (2015) and Shi (2003), who discovered that population density impacts our environment. The research also proved that population growth will result in increased CO₂ emissions and that individuals have close connections. Growth in forestry reserves, where people take down trees to provide electricity for a growing population or to make room for more agriculture. Then, in densely populated cities, CO₂ levels rise as more fossil fuels are utilized for transportation or generators as an alternate source of power for dwellings. This is frequent in cities. Nigerian towns suffer from a lack of power. Even though they can trust the results, Ehrlich's theory made it evident that the effect of an increasing population on conversational stress was to increase the number of people. The diagnostic check results reveal that the models do not exhibit serial correlation or heteroscedasticity.

Table 6: Diagnostics Test

	LM Version	F Version
Serial Correlation	CHSQ(1)= 1.059[.802]	CHSQ(1)= .059[.809]
Functional Form	CHSQ(1)= 1.6101[.204]	CHSQ(1)= 1.355 [.252]
Normality	CHSQ(2)= .96726[.617]	Not applicable
Heteroscedasticity	CHSQ(1)= 1.9569[.170]	CHSQ(1)= 1.8569[.173]

To conclude this investigation, the study model was examined for consistency using Brown et al.'s (1975) examination of the cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares of recursive residuals (CUSUMsq) checks. Figures 1 and 2 show the results of the CUSUM and the CUSUMsq. As a result, the two straight lines in the diagrams show critical bounds at the 5% significance level. As a result, the line within the critical bounds lines embodies the results of both the long-run and short-run studies, implying that the ECM coefficient is allowed by autoregressive conditional heteroscedasticity and serial correlation. The model is now stable, and the results can be relied on for course-of-action implementation. Checks are within critical bounds, as shown in both diagrams (symbolized by two straight lines).

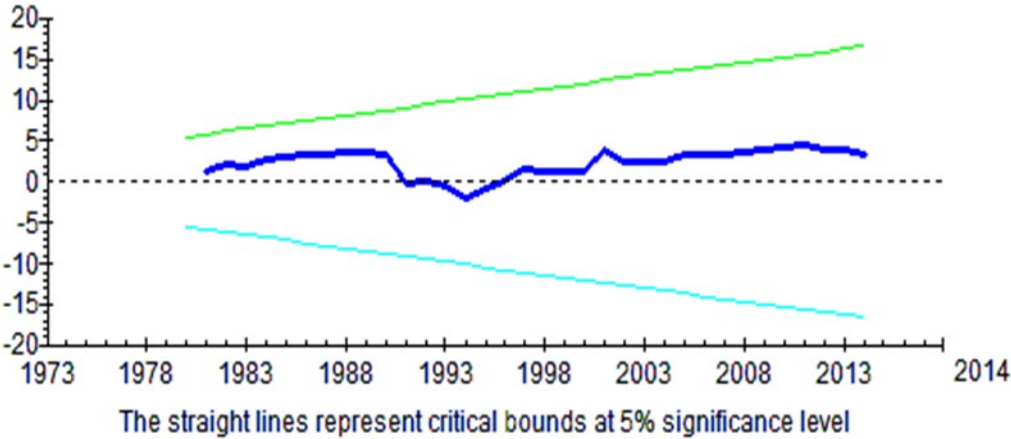


Figure 1: Cumulative Sum of Squares of Recursive Residuals

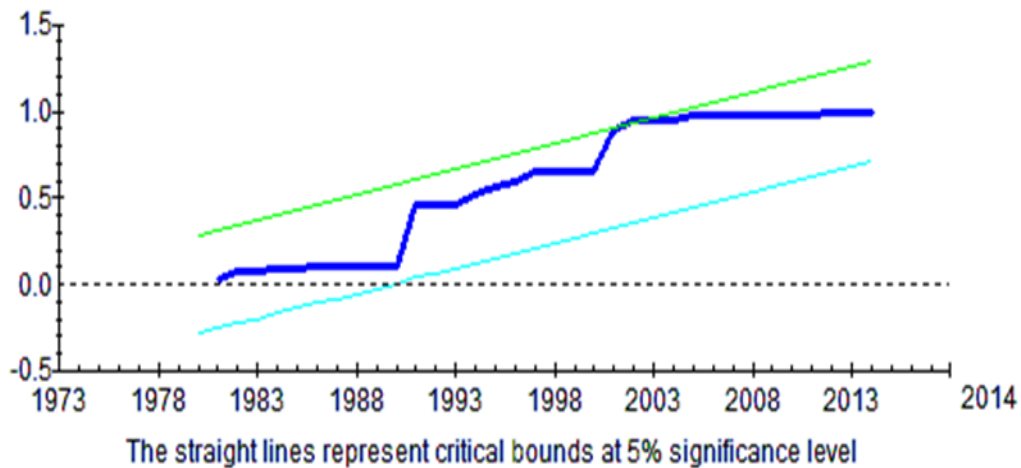


Figure 2: Plot of the cumulative sum of squares recursive residuals (CUSUMsq).

5. Conclusions and policy recommendations

This study explores the relationship between carbon dioxide emissions (CO₂), population growth, and energy consumption by including fossil fuel usage, trade openness, and economic growth as descriptive factors. As a result, we utilized the VECM-Granger causality check to investigate the effects of population growth on environmental quality, as well as the autoregressive distributive lag limits check for cointegration. Thus, the study's findings are consistent with Ehrlich's theory, which holds that population growth promotes ecological excellence. According to studies for both short-run and long-run analysis, a 1% rise in fossil fuel consumption and urban population growth raises carbon dioxide emissions by 2.733 and 0.874% respectively, in the short run and 2.5801 and 0.825%, in the long run. Furthermore, a 10% increase in energy consumption raises CO₂ emissions in the medium and long run by 3.948 and 3.727 percent, respectively. In contrast, trade and growth have little influence on Nigeria's carbon dioxide emissions. Urban population growth and fossil fuel usage had a one-way causal link that resulted in increased carbon dioxide emissions, as well as a two-way causal relationship. Granger's energy use and urban population expansion contributed to increased fossil fuel demand.

This study suggests that while trade openness and economic growth do not contribute to carbon dioxide emissions, energy consumption hurts carbon dioxide levels, and that urban population growth lowers environmental quality in Nigeria. As a result, there is a strong need to revisit national and international policies related to the growth of the urban population, fossil fuel consumption, and energy indicators. The relationship between CO₂ emissions and the use of fossil fuels is particularly problematic because most urban areas use oil and gas as a source of fuel for domestic use, daily transportation, and for generating electricity. Additionally, sufficient plantations with wood cuttings for domestic use are needed. According to Ahmed et al. (2015), energy use and urbanization both increase CO₂ emissions; however, this study also discovered that the increase in urban population and the use of fossil fuels directly affect CO₂ emissions. So, it can be determined that the connection between population growth and the use

of fossil fuels contributes to ecological squalor in a variety of ways. This impression is further supported by the causality check, which suggests that there is a single causal link between the growth of the urban population and the use of fossil fuels and CO₂ emissions. This proves that the consumption of fossil fuels and urban population growth both increase CO₂ emissions in Nigeria. There is a strong relationship between both indicators and their effects on one another due to the bidirectional causality between fossil fuel consumption and urban population growth. Nigeria urgently needs to upgrade its power plants and adopt modern technologies in the industrial and energy consumption sectors. Alternative energy sources and population control will enable maintainable population growth with fewer adverse ecological effects. Due to population growth and energy use, our environment is becoming increasingly polluted due to rising fossil fuel consumption. Our results also confirm the conclusions made by Zaman et al. (2012), who discovered a short-run unidirectional causality between population growth and energy consumption.

The Nigerian government must act according to the development plans for the nation, considering the investigation's observed results. More importantly, a national level of population control and the management of appropriate populations are desperately needed to control current population growth, especially in urban areas. Due to rising fossil fuel consumption, it is necessary to use alternative and renewable energy sources sparingly rather than relying solely on traditional energy sources to meet the needs of the public and industrial sectors for oil and gas. The findings suggest that continued use of conservative energy sources will worsen ecological disorders. Our findings also suggest that the recent urban population growth and traffic congestion may have been due to environmental factors. Additionally, the use of fossil fuels mitigates ecological devastation over the long term, but CO₂ emissions from industrial sectors, particularly the cement and oil and gas industries, must be reduced to implement change management strategies in vulnerable areas and lessen the short-term negative effects. Despite Nigeria's 1988 No. 58 Ecological Protection Act concession and subsequent 1992 Decree No. 59 of the 1992 Ecological Safeguard Amendment, there are still a lot of gaps in the law. Daramola et al. (2010). With the meeting of the meaningful population annual growth rate and environmental protection, which have reduced the possibility of the natural growth rate, a knowledge gap in population control has been created. This study helps to close that gap. Reexamining ecological safeguard laws, considering both human behavior and a management strategy, is crucial.

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The Construction of Flash Flood Risk News by the Newspaper and Government

Yahya Mohammed Y Aljabri^{a,b,*}, Nik Norma Nik Hasan^a

^aSchool of Communication, University Sains Malaysia, Malaysia

Email: yahya.aljabri@usm.my

^bCollege of Arts and Humanities, Jazan University, Saudi Arabia

Abstract

Despite technological advances that have enabled disaster forecasting, floods continue to be a serious risk owing to their frequency, effect, and the degree of damage they bring. Similar is the situation in Saudi Arabia where the most vulnerable cities for flash floods are also the most important ones. This concerning situation has prompted an urgent demand for adoption of enhanced, diversified risk communication that is one of the tactics used in reducing the expected harms of the disaster. It further necessitates an urgent need for better risk communication and greater coordination among media and government officials who deals with risks. Referring to flash flood related risk communication in Saudi Arabia, this research proposed a framework for the examination of flood coverage in Saudi newspapers and investigation of the interaction between the media and government officials for the sake of risk communication and risk reduction. In Saudi Arabia, Saudi civil defence is a government organization responsible to manage disasters related to flash floods. However, its role in risk communication received little attention. To address this, the present research provides a combination of Agenda Setting Theory and Social Amplification of Risk Communication (SARC) to investigate Saudi media's role in flash flood related risk communication. Furthermore, this study concentrated on the media professionals' cooperation with civil defence authorities to communicate the risk, as well as reporting of flash floods in three most popular Saudi newspapers Okaz, Al Jazirah, and Al-Riyadh.

Keywords: Flash floods; Risk communication; Framing theory, Social amplification of risk communication; Saudi Arabia.

1. Introduction

Despite technological advances that have enabled disaster forecasting, floods continue to be a serious risk owing to their frequency, effect, and the degree of damage they bring. In Saudi Arabia the most vulnerable cities for flash floods are also the most important ones. These cities include Jeddah, Riyadh, Mecca, and Medina. This concerning situation has prompted an urgent demand for enhanced, diversified flood risk reduction and communication techniques by stakeholders (Ewart, 2020). Risk communication necessitates the active participation of stakeholders and allows actions to be communicated to others and action plans to be developed. Referring to media mostly research is overlooking the role of newspapers in risk communication. As it is noted that in Saudi Arabia newspapers are considered as the most reliable source of news (Press Reference, 2020), therefore, this situation demands to study the role of Saudi newspapers in communicating the flood related risk.

To halt the destruction made by tide of floods, there is an urgent need for better risk communication and greater coordination among media and government officials who deals with risks (Rehman et al., 2019). When there is a lack of coordination with the media, it can cause delays or discrepancies in the information that reaches the public, potentially affecting their

readiness and response. However, in Saudi Arabia lack of such coordination is observed between media and civil defence authorities (Alrehaili, 2021).

In 2019, 2020, and 2021 flood tragedies took place in Saudi Arabia. Most recently in 2022 flash flood did severe damage in Jazan in Southwest of Saudi Arabia. Many disaster management specialists attributed the intensity of the tragedy on inappropriate risk communication and lack of engagement with government officials (Dano, 2022). Saudi civil defence is a government organization responsible to manage disasters related to flash floods. However, its role in risk communication in Saudi Arabia received little attention. To address this, we suggest employing a combination of agenda setting theory and Social Amplification of Risk Framework (SARF) is suggested to be used to investigate Saudi media's role in flood disaster risk reduction. Hence, this conceptual paper stress on examining on three newspapers which are Okaz, Al Jazirah, and Al-Riyadh that have highest readership in Saudi. There is total ten Arabic newspapers published in Saudi Arabia. Among these newspapers; Okaz with circulation 107,614, Al Jazirah with 93,000 circulation, and Al-Riyadh with 91,000 circulation, ranked at top three (Press Reference, 2020). Furthermore, we also demand focus to concentrate on the media professionals' cooperation with civil defence authorities in risk, as well as reporting of flood.

2. Media and Disaster Management

The media plays an important role in disaster management by informing the public about key information before, during, and after a disaster. It acts as a link between crisis management officials and the general public, offering information on the severity of the disaster, evacuation orders, and other vital information that can keep people safe and informed (Tsai et al., 2019). Newspapers continue to be an important source of information during disasters, in addition to traditional electronic media means like as television and radio, and social media platforms, which allow users to contribute real-time updates and photographs from the affected areas. The trend of internet newspapers has just evolved (Park et al., 2019).

A combination of various media technologies may be used to track the spread of a disaster, identify places in need of aid, communicate important information to the affected population, and link individuals to resources (Ewart, 2020). Park et al. (2019) discovered that traditional news sources, such as television and newspapers, are more trusted than social media sources following a crisis. It plays a significant role before, during, and after a disaster.

In the aftermath of a disaster, the media may shape public opinion of the event and influence how resources are allocated for disaster response and recovery. Certain major disasters in the past have proved the utility of various types of media for disaster management via risk communication tools. In 1906 during San Francisco Earthquake (Odell & Weidenmier, 2004), the 2004 Indian Ocean Tsunami (Sheth et al., 2006), Hurricane Katrina in 2005 (Sommers et al., 2006), hurricanes Laura and Delta slammed the United States' Gulf Coast in a short period of time in 2020 (Beven, 2021) and recently, during the spread of COVID-19 pandemic has had (Liu et al., 2021) news outlets played significant role in assisting and raising awareness of the need for enhanced disaster planning and response (Umar et al., 2021).

3. Flash Floods in Saudi Arabia

Flash floods are a common natural disaster in Saudi Arabia, particularly in the southwestern regions of the country. The country has experienced several flash floods in the recent years due to heavy rainfalls, resulting in loss of human lives and properties (Youssef et al., 2016). Actually, flash floods can occur in a matter of minutes, making them particularly dangerous. They are caused by heavy rainfall, often from thunderstorms, or from the rapid melting of snow and ice. They can also occur as a result of a dam or levee failure. The flash floods in Saudi Arabia often

occur during the winter months, when the country experiences the most rainfall (Youssef et al., 2016).

The risk of flash floods in Saudi Arabia is increased by a number of factors, including urbanization and deforestation (Khan et al., 2022). In 2009, a flash flood in the city of Jeddah resulted in the deaths of over 120 people and caused widespread damage to infrastructure and homes (Youssef et al., 2016). In 2011, flash floods in the city of Jazan resulted in the deaths of over twenty people and caused significant damage to infrastructure and homes. These events brought to light the need for better infrastructure and preparedness measures to deal with flash floods in the city (Dano, 2022). To minimize the impact of flash floods on communities, it is important to engage in effective risk communication. One of the challenges in flash flood risk communication in Saudi Arabia is that many people are not aware of the potential dangers or don't take appropriate precautions. To raise awareness about the risks of flash floods and educate people about the steps they can take to protect themselves and their families (AlQahtany & Abubakar, 2020).

4. Theoretical Support

The purpose of our study aims to emphasize the importance of newspapers in Saudi Arabia in promoting flood disaster prevention. It is founded that agenda setting theory and SARF are the most suitable options to provide theoretical grounds. Agenda Setting Theory is a communication theory that states the media has the potential to influence the relevance and prominence of issues in the public's opinions. This theory, established by McCombs and Shaw (1960) underlines the role of the media in shaping public opinion and the agenda of public discourse. Agenda Setting Theory explains that the media's effect is mostly achieved through the selection and placement of news pieces. Some topics may become more prominent and important in the public's opinion as a result of media attention and recognition (McCombs et al., 2014).

This theory is applicable in risk communication context, where the media and government play important roles in shaping public perceptions and reactions to certain risks and hazards (Sutton et al., 2021). By understanding and applying this theory in risk communication, the agenda-setting power of the media dictates which hazards are given importance and publicity, so altering public knowledge and comprehension of such concerns (Nagler et al., 2020). The media in Saudi Arabia is critical in moulding public opinion and affecting perceptions of flash flood dangers (Uniacke, 2021). The flood coverage may be presented in three stages: pre-disaster focused on risk reduction, mitigation, and preventative actions, during the disaster reporting ongoing events, and post-disaster focusing on reconstruction and rehabilitation (Raikes et al., 2019). This paper suggests concentrating on all three aforementioned stages.

Meanwhile, the SARF is a theoretical model that describes how multiple factors, such as media coverage, social networks, and cultural values, impact people's perceptions of risks (Pidgeon, 2020). The framework was created to explore how individuals react to a wide range of risks, from environmental hazards to public health emergencies. The SARF, proposed by Kasperson et al. (1988) and further developed by and Kasperson et al. (2022) describe that the qualities of the information system and public reaction that comprise social amplification are crucial in defining the type and magnitude of risk (Kasperson et al., 2022).

The information system, according to the SARF (see Figure 1), may enhance the effect of risk occurrences by either amplifying or weakening signals, as well as filtering their size based on risk factors and perceived relevance (Yoo, 2019). These signals are processed by social and individual amplification stations, which include scientists, risk management institutions, news media, activists, social organizations, opinion leaders, personal networks of peers, reference groups, and public agencies (Fellenor et al., 2019). This study is dealing with flash flood as risk

in Saudi Arabia and will consider the civil defence authority and newspapers as risk amplification/ attenuation stations.

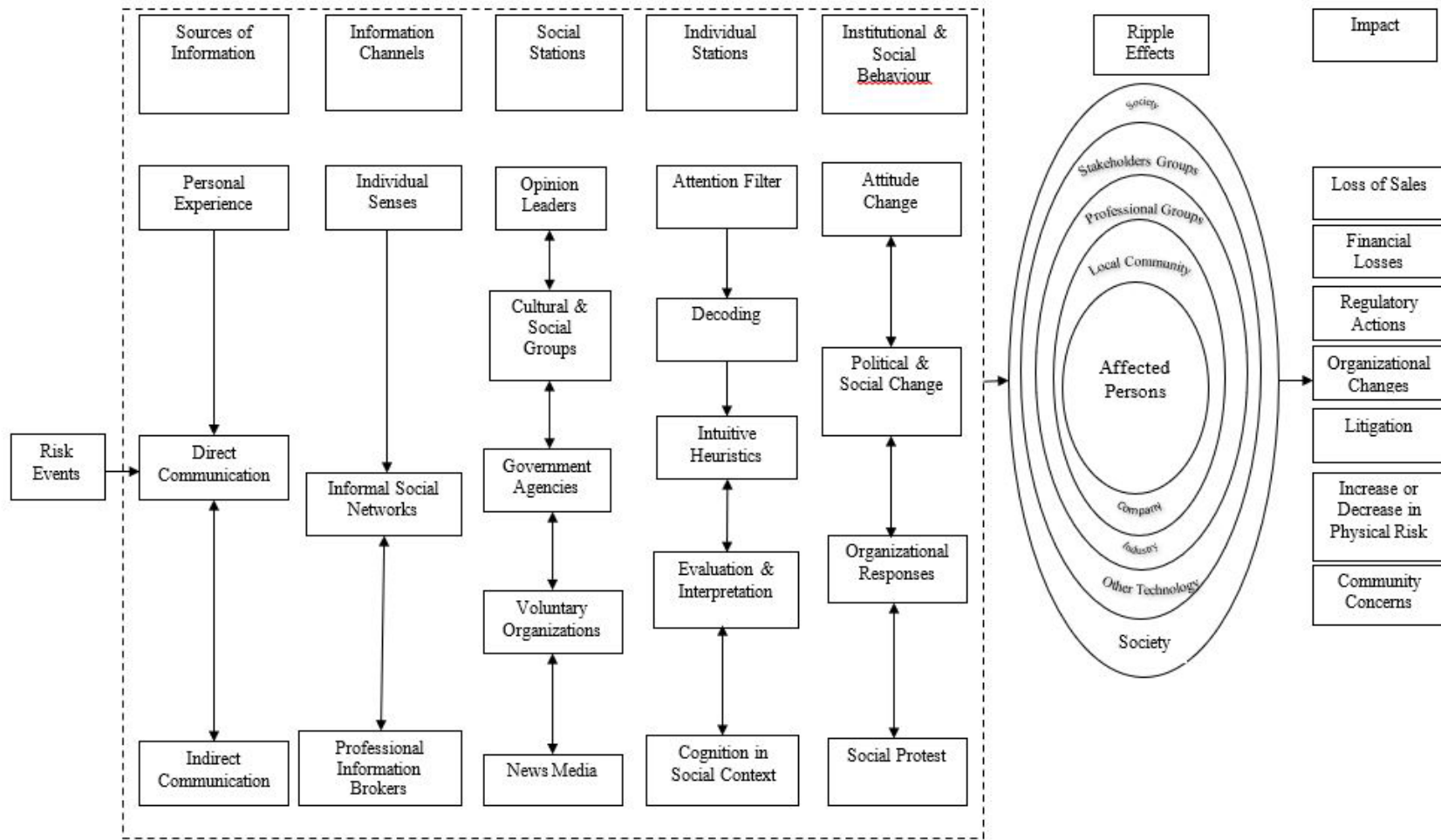


Figure 1. SARF Framework

5. Methods

Purposive sampling is suggested to examine news material, particularly news on flash floods from all newspaper content. The study focus is on daily reports and incidents linked to flash floods in Saudi Arabia, as reported by Okaz, Al Jazirah, and Al-Riyadh between October 1, 2021, to May 31, 2022, and October 1, 2022 to May 31, 2023. Systematic sampling is suggested for the selection of news sample. This research selected to study news stories precisely because they offer up-to-date information about the incident and are extensively distributed in both online and print media. News articles give in-depth coverage of everyday events in a variety of areas (Jenkins & Nielsen, 2020). The reason for choosing this time period is that most recently November, December 2022, and January 2023 flash floods badly hit Saudi Arabia (Kassis, 2023).

6. Conclusion

Through this paper we aim to add in the body of knowledge in media studies, in context of Saudi Arabia, about risk communication. In general, this conceptual paper aims to serve as a guiding source in Saudi Arabia's continuing effort to reduce the danger of flash flood calamity. The researcher brought to light the knowledge and applicability of civil defence officials and media personnel in Saudi Arabia through a critical evaluation of theoretical framework. The theory that will be used, in future research, to support the existing research are media agenda setting theory and SARF. We tried to develop a link between the media and the field of disaster risk reduction. This investigation will also contribute to risk strategies of Saudi civil defence authority that deals in disaster management. Primarily we emphasize on the comprehension and use of media relations to investigate how the media frames the flash flood catastrophe and through the amplification of this catastrophe how media and civil defence authorities can mitigate the disaster.

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ANWAR IBRAHIM AS MALAYSIA'S REFORMIST LEADER: REDEFINING THE NATION'S IDENTITY THROUGH THE REFORM AGENDAS

Shamsul Azri Mohd Radzi^{a*}, Faridah Jaafar^b

^aSchool of Distance Education, Universiti Sains Malaysia, Malaysia
Email: shamsulazri@student.usm.my

^b School of Distance Education, Universiti Sains Malaysia, Malaysia
Email: faridahjaafar@usm.my

Abstract

On 24 November 2022, Anwar Ibrahim became Malaysia's 10th prime minister, ending a 24-year wait for a political figure of his name. The change of government between the end of the 14th general election and the beginning of the 15th general election exemplifies several phenomena and historical events, including the ups and downs of leadership and the political rollercoaster that has characterised Malaysian politics. A leader named Anwar Ibrahim is known for his reform agendas, which he has outlined in several well-known works, including "the Asian Renaissance," "Letters from Prison," and "1998 Declaration". Anwar Ibrahim is a figure who admires the struggle of famous earlier leaders of his time, such as Jamal al-Din al-Afghani, who was known for his struggle for Islamic reform and politics, modernisation and science, and Pan-Islam in Egypt and Iran, and Jose Rizal, who used the peaceful mechanism of writing and speeches to instigate the Philippine Revolution of 1896 against Spanish colonialism. The study will conduct a textual analysis to assess how Anwar Ibrahim's reform agendas will shape the identity of the Malaysian nation under the aegis of plurality and universality.

Keywords: Anwar Ibrahim; Reformist Leader; Reform Agendas.

INTRODUCTION

The starting point for the *Reformasi* movement in Malaysia was the dismissal of Anwar Ibrahim as Deputy Prime Minister of Malaysia and Minister of Finance on 2 September 1998. Inspired by the Indonesian *Reformasi* movement on 21 May 1998 that led to President Suharto's government's overthrow, Anwar Ibrahim pioneered the *Reformasi* movement in Malaysia after his dismissal from the Mahathir Mohamad- led government. The rift in the relationship between Malaysia's two giants stems from the different political approaches they espouse.

As a principled leader, Anwar Ibrahim remains steadfast in his stance against every form of moral, social, economic, and political depravity that has long crept into the country's political practice. Other events related to Anwar Ibrahim's imprisonment, which has been widely described as controversial and politically motivated to tarnish the reputation and character of this crucial Malaysian leader, followed his release on 20 September 1998 and for the second time on 10 February 2015. Despite being imprisoned, Anwar Ibrahim's fighting spirit to continue implementing Malaysia's significant reforms as he aspired to do remained uncrippled.

For two decades, Anwar Ibrahim has faced a variety of tortuous challenges. He has demonstrated various mass movements, ranging from the people's social movement to the political movement, which has exerted significant pressure on the Barisan Nasional-led government. This government has been in power for over 60 years under the leadership of three prominent prime ministerial figures: Mahathir Mohamad, Abdullah Ahmad Badawi, Najib Razak, and their predecessors. It also became a major political influencer for the government after the 14th general election, the "Sheraton Move" phase, and the Covid-19 emergency led by Muhyiddin Yassin and Ismail Sabri Yaakob.

This popular civil movement continues to grow, namely the roots of the 1998 *Reformasi* Movement, with demands in various areas to receive attention and consideration from the national government. Its forerunners include the Malaysian People's Change Organisation ("GERAK"), Social Justice Movement ("ADIL"), Suara Rakyat Malaysia ("SUARAM"), Coalition for Clean and Fair Elections ("BERSIH"), Save Malaysia Stop Lynas ("SMSL"), The "#Undi Rosak" movement, the "MyConsti" movement, the "TangkapMO1" movement, Orang Asli rights activism, labour activism, migrant workers' activism, and student activism, all of which shape the spirit of freedom of expression and participation in Malaysia.

As an iconic national campaigner dubbed the "Father of the Malaysian Reformation" and a pioneer of the idea of a civilised Malaysia, as well as the driving force behind the wave of widespread awakening, this figure outlined seven major agendas in the Permatang Pauh Declaration (made in a fast-growing town in the Central Province of Wellesley, Penang) on 12 September 1998, which will be the focus of discussion in this article. Seven agenda outlined consists of (1) the struggle for the height of human dignity ("*karamah insaniah*"), (2) the struggle for justice in all strata of society, (3) people power as the source of power ("*al-sha'b masdar al-Sultah*"), (4) economic justice and equitable distribution, (5) the elimination of corruption and abuse of power, (6) strengthening the dynamics of cultural identity, and (7) building a civilised nation.

METHODOLOGY

Textual analysis, a quantitative analysis that focuses on the reform agenda underlying this writing and relates the findings to the literature, is the methodology used in this study (Tait & Schriner, 2021). Tischer et al. (2000) noted that researchers have long used text analysis as an empirical method in social research. The methods used include an extensive literature review. The literature review includes sources such as books, journals, and publications discussing Anwar Ibrahim's reform agenda framework. Initially, the main focus is to extract relevant findings from the literature that enable the development and presentation of systematic concepts and understandings. These insights are then critically analysed to explore their implications for the current context. Finally, conclusions are drawn based on a comprehensive analysis of the theories used in the study.

LITERATURE REVIEW

A dramatic event emerged from the *Reformasi* movement that emerged in mid-1997 in response to the economic crisis in Asia. Like in other Southeast Asian regions, many Malaysians see this crisis as a reflection of internal weakness, the failure of the country to promote democracy, justice, and openness, and the country's ability to deal with corruption, nepotism, and cronyism. Mainstream and alternative media extensively discussed the debate regarding necessary reforms.

Funston (2000) noted that Mahathir Mohamad was not particularly affected by the overthrow of Indonesian President Soeharto on 21 May 1998 by the *Reformasi* movement in the early stages, but only when the conflict between him and his deputy Anwar Ibrahim escalated. Herdi et al. (2019) noted that the reforms initiated by Anwar were not effective in fighting Mahathir Mohamad, resulting in his dismissal and imprisonment.

According to Lim (2023), Southeast Asia happened to experience an Asian financial crisis in the late 1990s after the introduction of the Internet in the region, which triggered massive street protests to demand political reforms, especially in Indonesia, Thailand, and Malaysia. In Indonesia, for example, before the fall of the Soeharto regime, rumors about the wealth of the Soeharto family were spread online due to globalization. It quickly became the most popular topic among internet users. In the context of the financial crisis, observers attribute the economic crisis that struck the country to the misconduct of the Soeharto family. The Soeharto family's misconduct during the financial crisis led observers to link the country's economic downturn to their actions. This situation swiftly became the primary topic of discussion among internet users. A united resistance emerged during that time, consisting of students and activists from various backgrounds. Their task was to drive forward the *Reformasi* movement to overthrow the enduring Soeharto regime, which had maintained its grip on power for nearly three decades. This juncture played a crucial role, leaving a profound mark on the pages of Indonesia's history. Similarly, in 1997, a comparable scenario unfolded in the country known as the "Land of White Elephants." Enormous civic actions and mobilizations transpired compelling Prime Minister Chavalit Yongchaiyudh to resign.

In Malaysia, the event of the dismissal of Anwar Ibrahim as Deputy Prime Minister, Minister of Finance, and Deputy President of UMNO in September 1998 due to extraordinary allegations believed to be politically motivated and involving corruption and sexual misconduct (Lim, 2023). This melodramatic event triggered a storm of protest that eventually spread to the streets and prompted the expansion of the public sphere. Notably, online media served as an alternative source of information, signifying the inception of a movement known as the "*Reformasi*." Many supporters and followers were deeply impressed by Anwar Ibrahim, viewing him as a symbol of solidarity and unwavering support. At one point, he earned acclaim as "the emerging Malaysian leadership generation."

According to Kwang Yang (2020), Anwar Ibrahim is the only leader of the new generation in Malaysian politics. His dismissal and arrest in 1998 triggered a wave of spontaneous protests, anger, and distrust of the state government by the people. A generation of young, middle-class, and possibly politically neutral people took to the streets, despite various restrictions imposed by law enforcement agencies. Boo Teik (2003) has noted that since Anwar Ibrahim did not hold a position in the government, he was so quick to adapt his skills as a courageous activist and show himself as an opponent by initiating mass meetings, gatherings in mosques, and lecture programmes that attracted crowds of people who supported his political struggle and aspirations. The culmination of the mass gatherings spreading the message of reform was the march of tens of thousands of supporters through Kuala Lumpur on 20 September 1998, the day before the closing ceremony of the 1998 Commonwealth Games, which was also the moment of his arrest (Boo Teik, 2003). Anwar Ibrahim's aspiration in this reform movement is to demand greater civil liberties, government transparency, and accountability (Lee, 2014).

On 8 September 1998, Anwar Ibrahim launched a statement in his hometown of Cherok To'kun, Penang, known as the 'Permatang Pauh Declaration' (named after his parliamentary constituency), as the initiator of a social and political reform agenda to counter the reaction of

the Mahathir Mohamad cronies the financial crisis that hit the country. This citation of the term "*Reformasi*" comes from echoes of the Indonesian movement against collusion, corruption, and nepotism that overthrew Soeharto's New Order regime, also in 1998. Weiss (2004) has stated that the goal of this reform movement is some form of change in the political priorities, goals, and attitudes of the political elites and the general public.

Achieving such change requires coalition building or mobilisation for collective action in line with citizens' new ideas about what they want from politics and how they want to organise their polity. Weiss (2004) also noted that four things became normative change through the *Reformasi* movement, namely: (1) the curtailment of communal politics, which is a class-based political orientation, (2) the preference for moral rewards rather than economic rewards (such as civil liberties, fair justice, good governance), (3) demands for democratic freedom, and (5) more meaningful public participation in politics through the ballot box and referendum.

The evolution of the reform movement in Malaysia continues to thrive today, with a focus on the interplay of forces that engage civil society and political society through mass actions that harness new political opportunities and promote normative change, policy innovation, and political consensus that creates a new order in the Malaysian political landscape. Zeenath (2018) has noted that the reform movement has played a monumental role in cleansing the country of corruption, injustice, and kleptocracy. The Reform Movement is a popular movement against the curtailment of democracy, widespread corruption, and neglect of human rights and the rule of law (Funston, 2018). Boo Teik (2009) has stated that the reform movement in Malaysia is a form of incremental movement that creates a new political space and discourse by rejecting many old parameters in the country's governance. Reform events also encourage outdated leaders to retire and abandon their positions. Indirectly, they force the next generation of leaders and future political leadership to recover and learn from defeat due to widespread rejection by making necessary adjustments that reflect the people's will.

FINDINGS

In implementing the reform agenda or "*islah*" for Malaysia, Anwar Ibrahim is very clear about his ideological beliefs, and it is not easy to compromise on issues of freedom and justice. He is very optimistic regarding opposing dictators and cruel rulers, extreme provocation, and policies not in the people's interests. Anwar Ibrahim has also often emphasised eliminating all forms of corruption in the branches of the national government and creating a civil society to build the identity of the Malaysian nation. In his interview on the "British Broadcasting Corporation ("BBC") programme "Hardtalk" by Stephen Sackur in 2005, Anwar Ibrahim portrayed himself as the epitome of a fair and clean leader without any radical change in his leadership character when he was a leadership student, when he had significant influence in UMNO and when he led the opposition movement that organised opposition to the ruling party after his dismissal from the government (Elias, 2008).

Anwar Ibrahim's aspirations take shape through distinct phases he traversed. These include his roles in the student movement (Malay Language Association of the University of Malaya, National Association of Islamic Students of Malaysia, and Islamic Student Association of the University of Malaya), the Islamic movement (Malaysian Islamic Youth Movement), his pragmatic political endeavors, and his leadership within the opposition party namely The People's Justice Party. In every step of the programme Anwar Ibrahim has worked on, he has not once sacrificed or ignored the moral and Islamic principles he always upholds. Sheikh Omar (2020) stated that the reform agenda announced by the national leadership should benefit the

most people, be loyal to the country and monitor the members and political parties (whether government or opposition) to advance further the dynamic and progressive identity of the Malaysian nation.

SEVEN REFORM AGENDA WHICH WAS ASPIRED BY ANWAR IBRAHIM

Struggle for the elevation of human dignity ("*karamah insaniyah*")

The elevation of human dignity ("*karamah insaniyah*") is a form of the dignity of an independent human being (Siddiq, 2018), the dignity of heart and character as a basis for shaping society (Nik Abdul Aziz, 2017; Ahmad Fauzi, 2018) and attaining the status of Caliph of God based on love and peace (M. Iqbal, 2013). Furthermore, it forms the bedrock for a nation's achievements, amplifying communal life and allowing individuals to shape their identities and revolutionize the world. This interlinkage is firmly bound to individuals' autonomy and aspiration to contribute to society's betterment in the future, harnessing their innate capabilities (Roth, 2014). The crux of the endeavor that elevates human dignity finds its finest illustration in Prophet Muhammad SAW's "*uswah hasanah*" (exemplary model). This model is rooted in "*Rahmatan lil-'Alamin*", exemplifying the dissemination of role models throughout communities, nations, and civilizations, while extending mercy and grace to the global sphere.

According to M. Kamal (2021) In the context of nation-building, this level of human dignity be raised by the leaders of the country to plan peaceful and harmonious cooperation with non-Muslims as neighbours, social partners, and citizens, despite the existence of religious or ethnic differences, adherence to values - the value of tolerance, respect for the rights of non-Muslims concerning the belief and practise of their respective religions, acceptance of diversity between religions and between cultures, all by the humanistic principles of Islam ("*insaniyyatu'l-Islam*"), the compassion of Islam ("*rahmaniyyatu'l-Islam*") and the best example ("*uswah hasanah*"). The concept of "*karamah insaniyah*" emerges from verse 70 of Surah Al-Isra and the proclamation of human rights in the Great Sermon of Prophet Muhammad SAW during *Hujjatul Wida* over 1,400 years ago. This concept derives from divine decrees revealed through revelation, in contrast to the Western philosophy of human rights, which rests on a foundation of social contract (Zulkifli, 2017).

Fighting for justice for all

According to Siddiq (2018), justice cannot be restricted or become the exclusive property of certain groups and should not include elements of discrimination in maintaining justice. The goal of fighting for and upholding justice aligns with the highest goal of Islamic law in verse 25: Surah Al-Hadid, which requires that people do justice. Justice has a broad and deep meaning in Islam, encompassing society's political, economic, social, and cultural spheres. According to Ahmad Mustaniruddin, Hery Afriyadi & Jamilah (2020), justice is a form of necessity that is an essential social and vital element. In QS Al-Nisa' [4]: 58, there is a statement about the duty of community leaders to be fair to people and everyone without ruffling feathers, including between Muslims and non-Muslims, between friends and enemies.

The container in which Anwar Ibrahim has struggled from the beginning takes a simple approach in pluralistic Malaysian society: it does not accept any form of Chinese chauvinist or Malay extremist positions that are at odds with Malaysian political practises (Shaharuddin, 2017). Implementing national policies must uphold the principle of justice for all people. In his

writing, Anwar (1997) cites Imam Muhammad Abu Zahrah's book, "*Usul al-fiqh*," by a Shariah scholar from Al-Azhar University, on the enforcement of justice in Islam with various aspects of life, fairness in the field of law, justice and fair testimony, fair in negotiating with other parties and the importance of promoting equality for all people without distinction between the rich and the poor. Mohamad Sabu (2021) asserted that justice's pursuit encompasses various groups such as women, orphans, the oppressed, minorities, animals, and all living beings on earth. This inclusive approach reflects a complete way of life necessitating the condemnation of bad deeds as abhorrent and evil, along with promoting and honoring good actions.

Justice is also a principle that is key to lasting peace and an ultimate goal underlying society in maintaining public order. The sense of justice is a quality of man that urges him to do what is right by being guided and led by his common sense. Al-Farabi has stated that justice is the highest value that man must cultivate and is an essential foundation for maintaining the political structure (Majid, 1994). Majid (1994) stated that justice encompasses security, honor, glory, and shared elements without denying or restricting rights, thereby preventing injustice. It is evident that justice significantly influences human society, especially in diverse countries. Enforcing justice involves combating corruption, treachery, and abuse of power, which hinder the progress of the Malaysian nation.

The sovereignty of the people's power as the source of power

The sovereignty of the people's power as the source of power is in line with the principle of "*al-sha'b masdar al-Sultah*," which is a form of affirmation of the people's power to elevate leaders and government through a fair and clean democratic system (Siddiq, 2018). Iqbal (2019) quoted Buya Syafii Maarif a distinguished Indonesian philosopher and religious figure. Buya Syafii Maarif discussed the concept of popular sovereignty, which is considered an embodiment of a robust democracy.

Nurturing democracy is essential for effectively empowering the populace and ensuring its robust health. Addressing obstacles to democracy's functioning, such as fraud, deception, and manipulation by individuals who leverage monetary influence and power to compromise public integrity, demands the implementation of suitable countermeasures. Zakiyuddin (2015) explained that the sovereignty of the people is closely linked to leadership ("*ra'iyah*") and requires accountability and trust. Community members, reflecting popular sovereignty, can enter into political contracts to appoint leaders, and the elected leader must fulfil his or her duty to serve the people's interests.

In the context of popular sovereignty, the leaders elected by the people through the implementation of the democratic system are those who have the wisdom to receive and heed the aspirations of the people through the implementation of consultation and negotiation ("*shura*") as an instrument in the struggle for the interests of the people. Ultimately, the leader is held accountable for the trust placed in him, and the people, as the source of power, have the right to ask the leader through appropriate channels about the implementation of his responsibilities. Citing the message of Mohammad Hatta, the hero of Indonesia's Declaration of Independence, he expressed the concept of popular sovereignty as the determination of the destiny of a leader whom the people designated to be the supreme authority in all matters of politics, economics, and the shaping of people's lives (Mohamad Raimi, 2017). The people also decide the good or bad of something crucial to an independent nation and the progress of a country.

In the Malaysian context, achieving the people's sovereignty through democracy requires individuals to acknowledge their role. This recognition involves cultivating a consciousness that transforms into a culture, ultimately becoming the way of life for citizens as they actively engage within the realm of the country's democracy. The principles and values of democracy, rooted in the culture of the people, will prevent any form of abuse, fraud, and deceit and put a stop to the tyranny of the rulers.

The struggle for economic justice

As a developing country, Malaysia faces various economic development challenges, including unemployment, poverty, and unequal income distribution. The tenacity with which Anwar Ibrahim fights for economic justice is nothing new to this country's reform-minded personality. He has been campaigning for the plight of farmers in Baling, Kedah, who were oppressed and not treated adequately by the government as far back as 1974 (Ahmad Baha, 2009).

At the heart of Anwar Ibrahim's dedicated efforts lies the pursuit of economic justice. He has been actively involved in this cause, starting with his altruistic community service at Malay College Kuala Kangsar. He has organized "awareness campaigns" and demonstrations in Baling throughout his journey. Anwar Ibrahim assumed leadership roles in significant organizations, including the Malaysian Islamic Youth Movement ("ABIM") and Their Organisation ("YAA"). He also held a leadership position within the United Malays National Organisation ("UMNO") during the 1980s and served as Finance Minister. A significant milestone was the presentation of the 1998 State Budget, a significant inclusion in the 2013 People's Manifesto by Pakatan Rakyat. He emphasised the principles of Islamic economics in terms of "*maslahah*" and "*hisbah*" (Allers, 2013).

Siddiq (2018) asserts that the quest for economic justice revolves around fostering inclusive growth while ensuring equal distribution. Economic justice can effectively narrow the divide between the impoverished, the affluent, and the extremely wealthy. By diminishing this economic disparity, the community can experience heightened social well-being. Economic justice also has to do with economic growth, which goes hand in hand with distributive justice and humanistic economics, which aims to bring humanity prosperity. The dominance of the capitalist economic system has oppressed and suppressed the weak ("*du'afa*") to protect the interests of the rich. In this regard, humanistically based economic justice is necessary to fight against the power, greed, and encroachment of the capitalists who do not know the meaning of contentment.

According to Ihwan et al. (2019), economic justice is a populist concept in politics, but it is an essential tool for the economic development of a country. The Quran also references economic justice as a regulatory measure to mitigate societal wealth inequality. Ihwan (2019) states that economic justice is crucial in building the common good. Income inequality and control of economic assets by a handful of groups often create problems that can trigger conflicts within a country. Therefore, it is necessary to maintain justice that can guarantee freedom, equality, and respect for human rights.

Combating corruption and abuse of power among the ruling elite

Corruption and abuse of power are the massification of people's economic hardship (Denny, 2011) and a distortion that destroys the order of social life (Muhammad Hanifuddin, 2018), which is increasingly common, especially among the ruling elite (Siddiq, 2018). It is a disease

of democracy and modernity, as described by Samuel P. Huntington in Fajlurrahman (2016). Maszlee (2019) has explained that the tendency to cause destruction and corruption is a form of human nature due to the instinct of desire.

According to Muhammad Hatta (2019), corruption is a crime that affects the destiny of many people because the damaged state finances should be able to be used to improve the welfare of the people. In this case, corruption is a systemic, endemic, and systemic crime that damages the country's finances and violates social and economic rights. The society is so large that its actions require extraordinarily comprehensive provisions through many regulations, institutions, and commissions that need to be formed by the government to deal with it. Anwar Ibrahim is very committed to his fight against power abuse and corruption. To address corruption as the primary adversary, he took measures to revise the Anti-Corruption Act of 1997 upon assuming the role of Prime Minister within Mahathir Mohamad's administration. These amendments ensure the prosecution of corrupt individuals even after they have left office (Elias, 2008).

Anwar (1989) emphasized that corruption must be eradicated without tolerance, having transformed into a malignancy within the administrative framework. The political elite acquiring power signifies responsibility and trust rather than a personal prize or possession. Educating individuals to become active and aware citizens who recognize the actions of those in authority is vital. They should not be passive or naive towards the manipulations of influential figures, which can involve money and influence, negatively impacting the people's economy. People require education to become influential citizens who remain vigilant to the behaviors of those in power, avoiding passivity and naivety towards the manipulations of those in authority.: (Siddiq, 2018). In this case, it is the duty of people as caliphs of Allah the Exalted to improve themselves and become reformers whose duty is to bring goodness into the worldly life of a society for its benefit in this world and the hereafter (Maszlee, 2019).

Strengthening a dynamic cultural identity

Cultural identity is an identity that describes a criterion or characteristic that results from a person being a member of a particular ethnicity or group observed through his or her learning activities about religion, tradition, innate nature, and descent from a culture (cited from Chirs Barker in Abdul Rasyid, 2021). It triggers the clash of civilisations, indirectly making it a factor of order (Bakir & Cucu, 2020).

In a multicultural society, a diversity of nations bring their own cultural identity by raising awareness of their respective identities. Awareness of this diverse cultural identity should be responded to appropriately because, if not handled well, it will lead to a spirit of ethnocentrism, chauvinism, regionalism, and religious fanaticism (Aksin Wijaya, 2018).

Desiring an entitlement to culture involves seeking to comprehend cultural distinctions. This desire further translates that cultural identity within universalism and human rights instruments. The Quran explicitly outlines in Islamic law that humanity originated from the union of men and women, forming various peoples and tribes for mutual understanding (Baderin, 2003). According to Siddiq (2018), cultural identity is one distinctive feature that distinguishes one nation from another, which is dynamically ready to adapt to changing times. In this context, cultural identity is a form of availability, loyalty, and openness in a society that adapts to cultural diversity with wisdom, integrity, and resilience to face the test of time.

Building a civilised nation

A civilised nation is full of humanity and always ready to help, not one that takes advantage of others and does not know how to remember kindness (Abd. Kadir, 2022). According to Mohd Rosdi (2004), a civilised nation in the context of Malaysia is one that is an independent country. The success that is a sign of a civilised nation is its ability to manage social and national life in an orderly, well-ordered, and organised manner (Firdaus, 2004). Ibn Khaldun, a famous sociological thinker and historian of human civilisation mentioned a civilised nation in his writing "*Mukadimah*" as a nation whose ancient way of life is normative and which transitions to a perfect life in state institutions (Hassan, 2016).

According to Muhammad Junaidi (2016), this civilised nation performs its legal functions freely and with dignity. Free and with dignity means law enforcement that aims at justice for all. Desiring an entitlement to culture involves seeking to comprehend cultural distinctions. This desire further translates that cultural identity within universalism and human rights instruments. The Quran explicitly outlines in Islamic law that humanity originated from the union of men and women, forming various peoples and tribes for mutual understanding (Baderin, 2003).

With the educated strength of character, a civilised and age-old nation can adapt to a world without borders, become a global player in competing on the open world stage, emerge as a peace power, and build a universal human brotherhood based on the principles of pure values, justice, and truth. Mahathir (2011) emphasizes that a civilized and advanced nation must respect the necessary boundaries to facilitate the crossing of diverse community life. This approach leads to greater peace, comfort, and rapid development. Therefore, supporting the reforms brought by Anwar Ibrahim in the context of building a civilised nation is a process of social fertilisation planned by considering social, economic, and environmental factors in the mix of racial diversity in Malaysia.

CONCLUSION

This article is about the life of Anwar Ibrahim and his reform plans. After 24 years of waiting for a political figure of his caliber, he has secured the presidency. He is committed to justice, economic equality, eliminating corruption, and strengthening cultural identity in a diverse society. Anwar Ibrahim's reform agenda emphasises human dignity ("*karamah insaniyah*"), universal justice, the authority of the people, economic fairness, fighting corruption, strengthening cultural identity, and promoting a cultured nation. His dismissal from the government and inspiration from the Indonesian reform movement catalyzed his pursuit of reform. His unwavering commitment against moral, social, and political decay remains unwavering.

The article highlights challenges such as the 1998 reform movement, influencing after the 14th general election, and coping with the Sheraton Move and the emergency COVID-19. Anwar Ibrahim's influence extends to the GERAK, ADIL, and BERSIH civic movements. His vision for Malaysia includes justice, accountability, and inclusivity. He envisions a Malaysia where human dignity, justice, and a corruption-free society thrive. Economic justice, cultural diversity, and a cultured nation are his priorities. Anwar Ibrahim shaped Malaysia's identity into a nation committed to justice, accountability, and the well-being of its citizens. He leaves a legacy of advocating for a society characterised by justice and the dignity of citizens based on impartiality, transparency, and unity.

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Research on the path and mechanism of intellectual exchange between China and Malaysia under the background of “The Belt and Road Initiative”

ZhangWei, Benny Teh Cheng Guan
Universiti Sains Malaysia, Malaysia

Correspondence: Benny Teh Cheng Guan (email: ben@usm.my)

Abstract

The Belt and Road Initiative not only focuses on economic development, strategic mutual trust and economic and trade cooperation, but also regards people-to-people exchanges as an important area of cooperation for countries along the routes. In the people-to-people exchanges between China and Malaysia, intellectual exchange is the focus of studying and evaluating the development trend and sustainability of the the Belt and Road construction, promoting the people-to-people exchanges between China and relevant countries and regions, and promoting the construction of a community with a shared future for mankind. By sorting out the fields and achievements of intellectual exchange between China and Malaysia after the implementation of “The Belt and Road Initiative”, taking the process of the political, economic and cultural development of the two countries as the main basis, this paper focuses on the identity and structural norms of China and Malaysia to explain, and summarizes the path and mechanism of the intellectual exchange between China and Malaysia under the background of “the Belt and Road Initiative”. It grasps the characteristics, opportunities and challenges of intellectual exchanges between China and Malaysia in the current historical stage. Based on the research on the mechanism and path of intellectual exchange between China and Malaysia, this paper puts forward suggestions on optimizing the mechanism and path of intellectual exchange, further promoting the status of people-to-people exchange between China and Malaysia in the Belt and Road Initiative, and guiding the future development of bilateral relations and cooperation.

Keywords: The Belt and Road, China and Malaysia, Intellectual exchange, People-to-people exchanges, Think tank.

1. The intellectual exchanges and cooperation between China and Malaysia are the realistic needs of the development of China and Malaysia

During his visit to Kazakhstan and Indonesia in the autumn of 2013, Chinese President Xi Jinping put forward the initiative of jointly building the Silk Road Economic Belt and the 21st Century Maritime Silk Road, namely the Belt and Road. After China proposed the Belt and Road Initiative, Malaysia was one of the first countries to welcome it. Under the Belt and Road Initiative, China and Malaysia have used regional cooperation platforms to carry out bilateral and multilateral cooperation and built a community of shared interests, shared future and shared responsibilities featuring political mutual trust, economic integration and cultural inclusiveness. At present, China is making great efforts to open up to the outside world and attaches great importance to developing a deep-seated and multi-faceted diplomatic pattern, and Malaysia is

also committed to realizing its own development goals. In the exchanges and cooperation between China and Malaysia, intellectual exchange is the focus of studying and determining the development trend and sustainability of the "Belt and Road" construction, promoting people-to-people exchanges between China and relevant countries and regions, resolving the risks and challenges in the "Belt and Road" construction, and promoting the construction of a community with a shared future for mankind.

President Xi Jinping pointed out that strengthening the research on the "Belt and Road" construction plan and path, we must put intelligence in the front position and strengthen the support of think tanks. We must do a good job of planning and docking, coordination and mechanism design of the "Belt and Road" policy, so that they can play the role of bridges and bonds on the spread of ideas, policy interpretation, and public opinion. Both China and Malaysia are developing countries with rich natural and human resources and great market development potential. While the global competitiveness of the two countries is increasing, they are in urgent need of high-tech and high-tech talents to drive national economic development. Especially at present, countries all over the world are faced with complex contradictory relations and economic situations. As a new model of international cooperation, the "Belt and Road" construction will surely export a large number of governance schemes through intellectual exchange, which will greatly promote the cooperation and development of countries including China and Malaysia.

2. The path and mechanism of intellectual exchange between China and Malaysia in the context of the Belt and Road Initiative

2.1 The definition and related research

Through combing the relevant literature, it is found that there is no recognized and clear concept of intellectual exchange. In most scholars' research, intellectual exchange is mainly applied to human resource exchange and talent flow. Some scholars put the concepts of talent and intelligence together without distinction, and their research on intellectual exchange focuses on the flow of talent (Fan Xiaofeng, 1995), and they discuss the flow of talent and intelligence under the market model and operating mechanism (Guo Quansheng, 1987). Some scholars regard intellectual exchange as a special form of talent exchange (Chi Linfeng, & Liu Jirong, 2002), and it is a creative play under the tension between manpower supply and demand (Guo Yuanfa, & Yu Futang, 1987). More scholars put intellectual exchange under the definition of internationalization, and made a more in-depth discussion on the research object and connotation of intellectual exchange. Saxenian A (2005) believed that talent flow is a complex and multi-directional process, and talent flow is a more effective mechanism for knowledge and technology transfer. We should pay more attention to the complexity of talent flow and the importance of knowledge flow in intellectual exchange.

Although individual Malaysian scholars still have doubts about the Belt and Road Initiative (Ngeow Chow-Bing, 2016), this does not prevent it from being a pragmatic option to promote economic connectivity (Farish Noor, 2015). Wang Ling (2020) mentioned that the "Belt and Road" Initiative, which mainly includes investment, trade and educational exchanges and cooperation, is a catalyst for win-win development for all countries along the route. We can train high-quality talents through the two paths of human capital and talent flow, provide intellectual support for countries along the "Belt and Road", and further strengthen cultural exchanges and mutual recommendation between countries. From the perspective of the function of inter-state intellectual exchange, some scholars believed that think tanks can play the function of aggregating decision-making intellectual resources, connecting the Bridges inside and outside the system, and connecting with other social groups (Zhang David, & Yuan Lixing,

2018). Think tank exchanges and cooperation as well as knowledge sharing and the exchange of ideas can also provide opportunities for development between countries. Nachiappan K, Mendizabal E, & Datta A (2010) also believes that the development of think tanks has an enhanced role in Malaysia's national economic and social development.

However, through literature review, it is found that there are few articles that integrate human resource flow and think tank exchange as a whole. The research on the mechanism of intellectual exchange is more focused on one aspect. They do not integrate intellectual resources as an important part of national development competitiveness, and lack systematic discussion. Therefore, this paper gives it a definition. Intellectual exchange refers to the flow and interaction of human resources and intellectual knowledge. Its main purpose is to provide intellectual support and environment for the development of interactive subjects through the transfer and exchange of talents and knowledge, stimulate the economic development, scientific and technological innovation and institutional reform of the subjects, further strengthen the cultural identity in the region, and promote people-to-people exchanges. The main body of intellectual exchange is generally the state actor, and the objects participating in intellectual exchange are the government, non-governmental organizations, think tanks, technical personnel, etc. The research content of this paper includes the development of intellectual exchange platform, the exchange of technical personnel, and the interaction and exchange of think tanks.

2.2 The path and mechanism of intellectual exchange between China and Malaysia

2.2.1 The mechanism and platform of intellectual exchange between China and Malaysia

2023 marks the tenth year of the Belt and Road Initiative. Over the past decade, China has signed more than 200 cooperation documents on the Belt and Road cooperation with 151 countries and 32 international organizations (International Business Daily, 2023). The wide-ranging and multi-level cooperation and exchanges carried out at conferences and platforms such as the ASEAN Expo and the Belt and Road Forum for International Cooperation have formed a platform and institutional basis for intellectual exchanges between China and Malaysia in the context of the Belt and Road Initiative.

In recent years, various forums and academic seminars organized by enterprises, think tanks, universities and other organizations in China and Malaysia, "Malaysia-China Belt and Road" Economic Cooperation Forum ", "China-Malaysia Belt and Road" : The International Academic Seminar on the Maritime Silk Road, and the "Belt and Road" China-Malaysia Business Dialogue "have also provided convenient platforms for intellectual exchanges between China and Malaysia and achieved good exchange results. In addition, China and Malaysia also rely on key projects to attract a large number of enterprises, think tanks and talents for intellectual exchange and cooperation. As a new model of international production capacity cooperation, the "two countries and two Parks" has released innovative advantages in knowledge transfer, human resources development and application, and production capacity complementarity.

2.2.2 People-to-people and cultural exchanges between China and Malaysia

People-to-people exchanges and public diplomacy between the two countries are very active, and the exchanges between personnel are very frequent. In 2019, the number of bilateral visits between China and Malaysia reached 3,795,800, including 2,412,300 visits by Chinese citizens and 1,383,500 visits by Malaysians to China. China has been Malaysia's largest source of tourists outside ASEAN countries for seven consecutive years. In 2023, Malaysia received 1.47 million Chinese tourists. As of April 2024, there are 247 flights in the round-trip Malaysia, with a total of nearly 4.9 million seats (China-Malaysia Qin Zhou Industrial Park Management Committee, 2024). China is one of Malaysia's largest tourist source market. It also provides

convenient conditions and good backgrounds for the exchange of intellectual talent resources in China and Malaysia.

Intelligence exchanges in the field of education are both the main aspects of intellectual exchanges, but also provide talent reserves for intellectual exchanges. There were 6,645 Malaysian students studying in China in 2014 (Ministry of Education of the People's Republic of China, 2015). Five years later, by the beginning of 2019, that number had grown to nearly 9,500 (Ministry of Education of the People's Republic of China, 2019). And it continues to grow by double digits. At the same time, Malaysia is also expanding its enrollment of international students, and the number of Chinese students is rising. The number of Chinese students in Malaysia was 12,002 in 2018 (Kementerian Pendidikan Malaysia, 2018) and 13,450 in 2019 (Statista Research Department, 2023), ranking second among countries with the number of foreign students. More than 20,000 Chinese students have enrolled in Malaysia in 2021, topping the national rankings (BH Online, 2021). Xiamen University Malaysia is a model for China and Malaysia's intellectual exchanges and cooperation. The school construction was officially started in October 2014. Since March 2017, the Chinese ambassador has presented scholarships to outstanding Chinese students and Malaysian students. In the future, the school will strongly promote the intellectual exchanges between the two countries and transport more high-quality international talents for the implementation of the "Belt and Road" cooperation initiative.

In addition, China and Malaysia have also performed well in intellectual exchanges and cooperation in science and technology, medicine, culture and other fields. However, with the impact of the novel coronavirus epidemic, personnel exchanges and economic activities between China and Malaysia have stalled, which has had a certain impact on the intellectual exchange of the "Belt and Road", and the exchange activities are mostly carried out online. In the face of the serious situation, China and Malaysia have strengthened medical and health exchanges. Malaysia has raised funds and medical protective supplies for China's fight against the epidemic, and China has sent a medical team to ease the strain of the epidemic in Malaysia. The two countries are working together with ASEAN countries to build a "healthy Silk Road" and a "community of human health".

As the impact of the epidemic has diminished and the regional and global economy has recovered, China and Malaysia have resumed personnel exchanges, and Chinese officials and other organizations and groups have also carried out a series of exchanges and visits to Malaysia (Chen Yize, 2023; Su Man, 2023) to further deepen the intellectual exchanges between the two countries. Since 2023, intellectual exchanges have become more frequent. In April 2023, CSCECPE SDN. BHD. and China State construction Engineering (M) Sdn Bhd. signed a strategic cooperation agreement with Tunku Abdul Rahman University. The company will build a "school-enterprise cooperation base" at Tunku Abdul Rahman University, and the university will establish a "talent internship employment base" in the company. In August 2023, the Shenzhai Confucius Institute of Xi'an University of Electronic Science and Technology in Malaysia was established in Ipoh City. This is the first Confucius Institute in northern Malaysia. It provides a platform for China-Malaysia cooperation in education and scientific and technological innovation. In September 2023, the sixth Seminar on the Twin Parks Cooperation between China and Malaysia was held at Tunku Abdul Rahman University. There were nearly 200 guests participating in the seminar, covering academic, investment, technology and other fields. In October 2023, the fifth China-Asean Audiovisual Week was held in Putrajaya, the administrative center of Malaysia. The event focused on audio-visual communication forum, translation exhibition and broadcast activities, and youth anchor creation camp. The meeting also set up a "China-Asean young anchor talent pool". Since its inception in 2019, the "China-Asean Audiovisual Week" has been successfully held for four consecutive sessions, carried out a total of 20 series of activities, promoted more than 6,000 hours of programs to be broadcast on mainstream audiovisual platforms in China and ASEAN countries, released three industry

think tank reports, and facilitated 30 signed cooperation projects. The event showcases the interactivity and openness of China, Malaysia and ASEAN countries in the exchange and cooperation of radio, television and media intelligence. In March 2024, the "Chinese + Vocational Skills" training course of China-Malaysia Railway Modern Craftsman College was held in Liuzhou, Guangxi. The school has set up a professional training platform for Malaysian teachers and students, and also adopts the form of learning with the help of Chinese and Malaysian students to carry out practical training teaching and cultural exchange activities. From December 1, 2023, China and Malaysia will implement visa-free entry measures for each other's tourists. It will bring great convenience to intellectual exchange.

2.2.3 Exchanges between Malaysian and Chinese think tanks

Think tank exchange is one of the main forms of intellectual exchange. According to the "2020 Global Go To Think Tank Index Report" prepared by the "Think Tanks and Civil Societies Program" (TTCSP) of the University of Pennsylvania, there are 11,175 think tanks in the world by 2020, of which the United States ranks first in the world with 2,203 and China ranks second with 1,413. The number of think tanks in Malaysia is 27. In the comprehensive list of the world's top think tanks, nine Chinese think tanks were included in the world's top 150 think tanks list. They are the China Institutes of Contemporary International Relations (CICIR), Chinese Academy of Social Sciences (CASS), Development Research Center of the State Council (DRC), etc. Malaysia has two think tanks in the top 150, they are the Asian Strategy and Leadership Institute (ASLI) and the Institute of Strategic and International Studies (ISIS) (James G. McGann, 2020).

In 2015, China established the Belt and Road Think Tank Cooperation Alliance. In 2017, the Malaysian Institute of Strategic Analysis and Policy Research (INSAP) joined the alliance. Malaysian think tanks are playing a more important role in intellectual exchanges under the Belt and Road Initiative (Economic and Commercial Office of the Embassy of the People's Republic of China in Malaysia, 2017). In addition, Chinese and Malaysian think tanks organized a series of forums and conferences. In 2019, the "Forum on China-Malaysia Economic Development Cooperation 2019" (Wang Zhongqiang, 2019) and the "Belt and Road China-Malaysia Forum on People-to-People Exchange & Economic Cooperation" were held in Beijing and Kuala Lumpur respectively. In 2021, the China-Malaysia Think Tank Cooperation Dialogue on the Belt and Road Initiative was jointly held by China Reform Forum, China-ASEAN Research Institute of Guangxi University, and the Malaysian Centre For New Inclusive Asia (China-ASEAN Research Institute of Guangxi University, 2021). The two countries have continuously strengthened intellectual exchanges, promoted in-depth cooperation in the fields of economy, trade and people-to-people exchanges, and shared the fruits of the development of the "Belt and Road".

China and Malaysia have also tried different ways to carry out think tank exchanges. In October 2023, a 15-member "China Education and Culture Mission" composed of China Friendship Association in Sarawak, Malaysia and the Sarawak Kuching Chinese High School Alumni Association visited Tsinghua University, Huaqiao University, Shandong University, Jiangsu University and other universities. They have face-to-face exchanges with educational experts and scholars to discuss educational cooperation and cultural exchanges. In November 2023, the seminar "Building a China-Malaysia Community of Common Destiny: Opportunities, Future and Challenges" hosted by the Institute of China Studies at the University of Malaya was held in Kuala Lumpur. A number of renowned scholars from China and Malaysia attended the forum and issued proposals on promoting the building of a China-Malaysia community of shared future and strengthening high-quality cooperation under the Belt and Road Initiative. In April 2024, United Chinese School Committees' Association of Malaysia signed a cooperation

agreement with seven Chinese Macau universities, and the two sides will cooperate in the fields of the Malaysian student promotion, teacher training and student communication.

3. Suggestions to enhance intellectual exchanges between China and Malaysia

At present, the Belt and Road Initiative and related cooperation are enjoying vigorous development. Leaders of China and Malaysia have reached important consensus on jointly building a China-Malaysia community of shared future. The intellectual exchange between China and Malaysia has been continuously strengthened, but there are still some problems in the mechanism and development of intellectual exchange, which still cannot meet the cooperation and construction needs of China and Malaysia in the "Belt and Road" initiative. First, the conditions for intellectual exchange are not perfect, the cooperation mechanism is loose, and the degree of openness is still not high. The two countries need to establish a more professional and higher-level mechanism to lead the intellectual exchange between the two countries. Second, intellectual exchange pays more attention to one-way flow. We have not yet grasped the complexity and multi-directivity of intellectual exchange. New models of talent exchange need to be developed. Third, some modes of talent training and knowledge flow cannot be connected with the actual situation and cannot match the real needs well. Fourth, the exchanges between China and Malaysia should have a more global vision, especially to promote China's western regions and Malaysia's eastern regions. In addition, the two countries should strengthen their interaction with other countries.

3.1 Improving the mechanism and platform effect

In recent years, China and Malaysia have carried out multi-level and multi-level exchanges and cooperation, and the platform and mechanism have been established relatively well. However, in terms of the operation of the platform and mechanism, the existing intellectual exchange platform needs to be planned and integrated more systematically, and various paths need to be further coordinated and cooperated. In the future, the two countries can establish a high-level and high-level platform for intellectual exchanges, form a high-level people-to-people exchange mechanism between China and Malaysia, and create a multi-level, multi-path and multi-field intellectual exchange pattern. Secondly, it is also necessary to pay attention to the intellectual exchange of talents, make use of various cooperation projects between China and Malaysia, and use the project as a carrier to cultivate the benign interaction and efficient integration of "project + talent". Improve the intellectual training and exchange mechanism of international talents, establish a reasonable talent evaluation system, promote regional talent qualification recognition standards, and remove obstacles to the exchange of intellectual talents. The government departments and enterprises of the two countries should also play their coordination and service functions, and adopt various forms of exchange such as job recruitment and technology transfer contract to create conditions to guide and encourage outstanding talents in various industries to participate in the construction of the Belt and Road. It is necessary to give full play to the leading and supporting role of talent and intellectual exchange in innovation and development and leapfrog improvement.

3.2 Strengthening the two-way interaction of intellectual exchanges between China and Malaysia

The exchange of intelligence and knowledge should be a two-way interaction. China and Malaysia should focus on the two-way flow of intellectual exchange. In terms of personnel and intellectual exchanges, the two countries should not only focus on attracting talents, but also send think tanks, technical personnel and students to participate in intellectual exchanges in the form of training, cooperation and conferences, so as to absorb and learn from the development achievements and experience of the two sides. It is worth noting that the basis of intellectual exchanges is cultural identity, and one of the goals and results is to promote cultural exchanges between countries and people-to-people exchanges. Despite the mostly positive assessment of the Belt and Road in Malaysia, there are still some scholars who are conservative about the cooperation between the two countries from the perspective of geopolitics or realism. China and Malaysia should continue to strengthen the cultural attributes of intellectual exchanges, pay more attention to the value of consensus at the cultural level, and strengthen cultural interaction and exchanges.

3.3 Vigorously promoting in-depth cooperation between government, industry, universities and research institutes

At present, China is committed to promoting the Belt and Road construction and work docking through innovation of industry-university-research cooperation mechanisms. China and Malaysia should strengthen cooperation between enterprises, universities and scientific research institutions of the two countries, promote the popularization of technology and the transformation of scientific research results, and promote the upgrading of relevant industries. It is important to improve the country's resource integration and strategic adjustment of economic structure through intellectual exchange. Of course, it is also necessary to fully stimulate the initiative and enthusiasm of enterprises, guide enterprises to introduce advanced international talents and new models of intelligence, and improve the operation level of enterprises in intellectual exchange and knowledge interaction. The participation of enterprise capital and high-tech can create exchange platforms and projects for enterprises and talents, promote the development of intellectual exchange and the introduction and return of intellectual achievements, and finally form a virtuous interaction and cycle of intellectual exchange.

3.4 Promoting regional development through intellectual exchanges

The Belt and Road Initiative has become a competitive and influential international public good and cooperation platform on a global scale. As a member of the RCEP, which is the largest free trade area in the world and one of the participating countries of the Belt and Road, Malaysia can learn from the experience of economic and social development through cooperation with China in various fields. China has also carried out a series of explorations in platform construction, mechanism research and resource development. The two sides can break down relevant barriers through exchanges and cooperation, optimize the dynamic mechanism, and fully realize "mutual benefit and win-win". The experience of intellectual exchange between China and Malaysia has also updated the concept of cooperation and development between countries. The two countries need to expand the mechanism and platform effect, with China and Malaysia as the center, build more intellectual exchange platforms with ASEAN countries, promote regional intellectual exchange and cooperation, and further make positive contributions to providing global implementation of sustainable development governance solutions.

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CORAK PENERIMAAN IBU BAPA APABILA ANAK DIDIAGNOS SEBAGAI ORANG KURANG UPAYA

Nurmasliyana Binti Abdul Rahman¹
nurmasliyanaa97@gmail.com

Syazwani Drani¹
syazwanid@usm.my

¹ Bahagian Kerja Sosial Pusat Pengajian Sains Kemasyarakatan, Universiti Sains Malaysia
11800, Pulau Pinang, Malaysia

Abstrak

Penerimaan ibu bapa terhadap ketidakupayaan anak secara amnya melibatkan elemen kognitif (psikologi) yang membentuk pemikiran skeptisisme, rasa bersalah, penolakan, rasa malu dan ketidakberdayaan. Penerimaan ibu bapa berkait rapat dengan daya tindak yang digunakan untuk beradaptasi terhadap perubahan dalam mengurangkan tekanan yang dihadapi. Kajian ini melibatkan seramai 11 orang responden yang terdiri daripada ibu bapa yang mempunyai anak kurang upaya dalam lingkungan umur 0 hingga 10 tahun (*purposive sampling*). Kesemua responden telah melalui kaedah temu bual mendalam (*phenomenological*) dan separa struktur secara atas talian (*online*). Hasil kajian menunjukkan majoriti ibu bapa mengetahui ketidakupayaan anak setelah melahirkan. Mereka berhadapan dengan fasa kesedihan dan kemurungan apabila anak yang dilahirkan didiagnos sebagai kurang upaya. Kajian ini juga mencadangkan pelan intervensi kepada ibu bapa bagi membantu mengurangkan tekanan yang dihadapi. Ia bertujuan bagi meningkatkan perkembangan anak dengan menekankan kepada memperkasa kebolehpupayaan ibu bapa ke arah pembentukan daya tindak yang asertif melalui program yang berteraskan pemindahan pengetahuan (*transfer knowledge*) dan sokongan sosio-emosi.

Abstract

Parents' acceptance of their child's disability, in general, involves cognitive (psychological) elements that shape thoughts of skepticism, guilt, rejection, shame, and powerlessness. Parental acceptance is closely related to the coping strategies used to adapt to changes and reduce the stress they face. This study involved a total of 11 respondents, consisting of parents who have children with disabilities aged between 0 and 10 years (*purposive sampling*). All respondents underwent in-depth phenomenological interviews and semi-structured online interviews. The study findings indicate that the majority of parents become aware of their child's disability after birth. They go through phases of sadness and depression when their child is diagnosed with disabilities. This study also suggests an intervention plan for parents to help reduce the stress they face. Its goal is to enhance the child's development by empowering parents and emphasizing the empowerment of parents towards the formation of assertive coping mechanisms through knowledge transfer-based programs and socio-emotional support.

PENGENALAN

Menurut Mantan Senator Datuk Ras Adiba Radzi, sehingga April 2021 sebanyak 204,000 orang kanak-kanak OKU telah direkod mengalami pelbagai ketidakupayaan (BERNAMA, 2023). *Global Burden of Disease* (GBD) menyatakan bahawa sebanyak 291.2 juta atau 11.2 peratus daripada 2.6 bilion kanak-kanak berumur di bawah 18 tahun di seluruh dunia mempunyai sekurang-kurangnya satu ketidakupayaan (Olusanya et al., 2020). *World Health Organization* (WHO) menganggarkan satu daripada 160 atau 62.5 peratus daripada 10,000 kanak-kanak di seluruh dunia didiagnos dengan ketidakupayaan (WHO, 2018). Amerika Syarikat mencatatkan peningkatan sebanyak 119.4 peratus jumlah kanak-kanak yang didiagnos dengan kurang upaya iaitu satu daripada 150 (66.7 peratus setiap 10,000) kanak-kanak pada awal 2000-an kepada satu daripada 68 kanak-kanak pada 2016 (CDC, 2018). Jadual 1 di bawah menunjukkan jumlah pendaftaran OKU di Malaysia sehingga 31 Disember 2022 mengikut kategori OKU dan kumpulan umur.

Jadual 1: Jumlah Pendaftaran OKU hingga 31 Disember 2022

Peringkat Umur	Kurang dari 6 tahun	6-12 tahun	13-18
Kategori OKU			
• Penglihatan	212	1,360	2,126
• Pendengaran	510	2,030	2,513
• Pertuturan	16	460	613
• Fizikal	1,434	6,044	6,717
• Pembelajaran	6,611	56,014	55,275
• Mental	2	9	70
• Pelbagai	955	4,858	4,236
Jumlah	9,740	70,775	71,550

Sumber: Jabatan Kebajikan Masyarakat Malaysia (2023)

Feizi et al. (2014) menyatakan bahawa memiliki anak yang mengalami masalah ketidakupayaan, sama ada dari segi perkembangan, psikologi atau fizikal memberi impak negatif terhadap kesihatan mental dan emosi ibu bapa. Majoriti ibu bapa kanak-kanak kurang upaya mengalami perasaan bersalah, kesedihan yang mendalam dan cenderung untuk merasa terasing (isolasi) (Gupta & Kaur, 2010). Memetik kenyataan Pengerusi Profesor Pembangunan Kerjaya Universiti Help, Profesor Datin Dr Quek Ai Hwa menyatakan bahawa ibu bapa masih berada dalam fasa penafian untuk menerima keadaan anak yang kurang upaya (BERNAMA, 2019). Ketidakupayaan ibu bapa bertindak balas terhadap kejutan dan kesedihan yang dialami menyebabkan mereka berhadapan dengan fasa penolakan (*denial*) yang berpanjangan. Menurut Pisula dan Kossakowska (2010) ibu bapa anak kurang upaya dilaporkan mengalami tekanan emosi disebabkan oleh kesedihan menerima khabar duka (breaking news) dan ketidakupayaan menerima kecacatan anak. Menurut Profesor Datin Dr Quek Ai Hwa penolakan yang dialami oleh ibu bapa berkait rapat dengan perasaan malu, tidak suka dengan terma orang kelainan upaya (OKU) dan pandangan masyarakat terhadap kecacatan anak (BERNAMA, 2019).

KAJIAN LITERATUR

Memahami Tekanan Keluarga

Menurut Randall dan Bodenmann (2012) tekanan keluarga didefinisikan sebagai suatu bentuk tekanan yang melibatkan satu atau lebih ahli keluarga pada masa tertentu. Tekanan yang dihadapi oleh sebuah sistem keluarga memberi kesan terhadap hubungan emosi antara ahli

keluarga. Pernyataan berikut turut disokong oleh Pritzlaff (2001) yang menyatakan bahawa setiap ahli keluarga merupakan sebuah sistem yang saling mempengaruhi. Perubahan dalam hubungan individu atau kumpulan akan menyebabkan perubahan di seluruh sistem keluarga (Pritzlaff, 2001). Tekanan keluarga berbeza bergantung pada sifat keadaan, sumber daya psikologi dan dinamik keluarga. Woodman dan Hauser (2013) menyatakan bahawa tekanan keluarga merupakan keadaan yang timbul dari ketidakseimbangan dalam fungsi keluarga. Berdasarkan penyelidikan yang dijalankan oleh Trute et al. (2007) ibu bapa anak-anak OKU mengalami tekanan emosi yang tinggi berisiko berhadapan masalah kesihatan mental. Tekanan emosi wujud apabila seseorang menghadapi situasi yang mendesak dan terkejut (Arianda et al., 2018). Woodman dan Hauser (2013) menyatakan bahawa ibu bapa cenderung untuk berhadapan dengan kesan psikologi negatif apabila pertama kali mendapat makluman berkaitan kecacatan anak. Tambah Woodman dan Hauser (2013) kesan psikologi negatif merangkumi harga diri yang rendah, tekanan dan kemurungan yang tinggi dalam keluarga, terutamanya jika dibandingkan dengan keluarga kanak-kanak yang tidak cacat (Lopes, et al., 2008). Dalam tinjauan literatur Wang et al. (2011) hasil kajian menunjukkan bahawa ibu bapa khususnya menghadapi lebih banyak cabaran dari segi emosi apabila berhadapan dengan anak yang kurang upaya. Kesan emosi ini turut mempengaruhi interaksi ibu bapa dengan sub sistem keluarga yang lain kerana ibu bapa banyak menghabiskan masa menguruskan anak-anak istimewa. Menurut Glidden dalam Bawalsah (2016), kekurangan sokongan khidmat profesional, stigma negatif, dan ketakutan mengenai masa depan anak berupaya meningkatkan lagi tekanan pada ibu bapa.

Reaksi Ibu Bapa Terhadap Ketidakupayaan Anak

Menurut Kandel dan Merrick (2003) setiap ibu bapa cenderung untuk berhadapan dengan tekanan emosi apabila pertama kali mendapat tahu mengenai ketidakupayaan anak dan tekanan bagi setiap individu adalah berbeza (Kinanthi, 2019). Menurut Zembat dan Yildiz (2010) tekanan atau stres yang dialami oleh ibu bapa berkait rapat dengan gangguan psikologi yang menyebabkan kegelisahan atau perasaan tertekan. Reaksi marah, kecewa, rasa malu dan sedih adalah reaksi pertama dan paling ketara yang sering dihadapi oleh ibu bapa dan keluarga keluarga apabila mereka mengetahui bahawa bayi mereka mengalami kecacatan. Beberapa kajian telah menunjukkan bahawa kekecewaan yang dialami ibu bapa berkait rapat dengan tekanan psikologi, perasaan kehilangan yang mendalam dan penurunan harga diri disebabkan oleh kelahiran anak yang tidak memenuhi harapan atau ekspektasi yang diharapkan (Kandel & Merrick, 2003).

Menurut Al-Farsi et al (2016) kemurungan atau tekanan emosi yang tinggi dianggap sebagai gangguan psikologi yang umum dan sering dihadapi oleh kebanyakan ibu bapa yang mempunyai anak kurang upaya. Soponaru dan Lorga (2015) menyatakan bahawa kekecewaan atau kesedihan ibu bapa yang mempunyai anak kurang upaya dapat dihuraikan berdasarkan lima peringkat kesedihan yang dikemukakan oleh Kubler-Ross iaitu penafian (*denial*), kemarahan (*anger*), tawar-menawar (*bargaining*), kemurungan (*depression*) dan penerimaan (*acceptance*). Feizi et al. (2014) menyatakan bahawa setiap ibu bapa membentuk tindak balas yang berbeza terhadap krisis. Kehadiran anak yang tidak memenuhi ekspektasi atau jangkaan memberikan tamparan kepada harga diri ibu bapa, menimbulkan kekecewaan, dan melihat anak sebagai halangan sosial yang juga akan menimbulkan perasaan malu. Proses pembentukan daya tindak tidak melibatkan usaha yang pasif tetapi melibatkan usaha kognitif dan tingkah laku yang proaktif dalam menguruskan tekanan luaran dan dalaman serta membantu meningkatkan kesejahteraan diri dan perkembangan anak (Bonab, Motamedi & Zare, 2017).

Strategi Daya Tindak

Memiliki anak yang mengalami kecacatan merupakan suatu perkara di luar jangkaan ibu bapa dan kejadian ini secara amnya meningkatkan kerentanan ibu bapa terhadap stres. Menurut Hasting dan Johnson (2001) tekanan dan stres yang dialami oleh ibu bapa berkait rapat dengan ketidakupayaan mereka menerima keadaan anak (*denial phase*) dan bertindak balas terhadap konflik yang dialami. Taanila et al. (2001) mentakrifkan *coping strategy* sebagai suatu proses aktif yang melibatkan elemen kognitif dan tingkah laku untuk memahami dan menguruskan tekanan yang dihadapi. Keupayaan ibu bapa menginterpretasi maklumat (*meaning making*) dan membentuk rancangan yang positif membantu mengurangkan tekanan emosi yang dihadapi. Pembentukan strategi daya tindak berkesan melibatkan strategi dalaman, luaran, penyesuaian, pelarasan dan paliatif. Strategi dalaman melibatkan aspek penilaian kognitif yang pasif (*emotion focused*) dengan bertindak mengelak daripada konflik atau penolakan (*denial*) terhadap keadaan anak. Manakala tindak balas aktif atau *problem focused* merupakan tindak balas yang memerlukan ibu bapa mentafsir konflik dalam bentuk rangsangan positif (Borah & Gogoi, 2021). Seterusnya, strategi luaran pula melibatkan pengaruh persekitaran yang bertindak memberi sokongan kepada ibu bapa sama ada dari segi sosial atau rohani (Borah & Gogoi). Bonab et al. (2017) menyatakan bahawa strategi daya tindak aktif atau adaptif merupakan daya tindak yang menfokuskan kepada mengatasi punca tekanan, manakala strategi pasif atau paliatif menfokuskan kepada mengurangkan kesedaran seseorang terhadap tekanan dan penolakan terhadap ketidakupayaan yang dihadapi.

Kubler-Ross Model

Berdasarkan kenyataan Portal *Special Learning* (2019), kekecewaan yang dialami oleh ibu bapa berikutan kelahiran anak OKU memberikan impak negatif kepada ibu bapa sehingga menyebabkan ibu bapa berhadapan dengan fasa penolakan (*denial*). Penyelidikan ini telah menggunakan pendekatan Kubler-Ross Model bagi memahami emosi dan fasa penerimaan ibu bapa terhadap anak OKU. Berdasarkan Kubler-Ross Model, ibu bapa yang memiliki anak-anak OKU akan melalui lima fasa kesedihan iaitu penolakan (*denial*), kemarahan (*anger*), tawar-menawar (*bargaining*), kemurungan (*depression*), dan penerimaan (*acceptance*). Menurut Holland (2018), model kesedihan Kubler-Ross bersifat tidak linear di mana setiap individu melalui tahap yang berbeza dan tidak mengikut tahap yang ditetapkan. Setiap individu melalui sekurang-kurangnya dua tahap kesedihan dalam kehidupan sebelum mencapai peringkat penerimaan (Gregory, 2021).

METODOLOGI

Penyelidikan ini menggunakan kaedah kualitatif melibatkan seramai 11 orang peserta kajian yang dipilih menggunakan kaedah persampelan bertujuan (*purposive sampling*) berdasarkan kriteria yang ditetapkan iaitu ibu bapa yang mempunyai anak kurang upaya dalam lingkungan usia kosong hingga 10 tahun. Townsend (2013) menyatakan bahawa komponen utama bagi saiz sampel kajian kualitatif adalah data yang mendalam (*depth data*) bukannya frekuensi dan kajian yang menggunakan temu bual berstruktur atau mendalam memerlukan saiz sampel minimum lima peserta kajian. Pemilihan bilangan sampel adalah untuk mencapai ketepuan data yang dikumpul. Selain itu, penetapan lingkungan umur anak kurang upaya dilakukan kerana ketidakupayaan atau kecacatan anak dikesan berdasarkan tumbesaran dan perkembangan mereka diawal usia kosong hingga enam tahun (CDC, 2020). Dalam kajian ini juga pengkaji menggunakan pendekatan *phenomenological research study* dalam temu bual separa berstruktur dan *in-depth interview* bagi membolehkan responden menghuraikan pengalaman mereka secara terperinci dan memberi ruang untuk meneroka aspek-aspek yang relevan dengan kajian. Kaedah penyelidikan fenomenologi merupakan pendekatan yang digunakan untuk

memahami fenomena sosial dan psikologi dari perspektif seseorang selain memahami pengalaman yang dilalui oleh mereka (Groenewald, 2004).

Dalam kajian ni pengkaji menetapkan prosedur temu bual sebelum temu bual dijalankan. Kajian ini dijalankan secara atas talian atau melalui panggilan telefon berikutan Perintah Kawalan Pergerakan (PKP) telah dilaksanakan di seluruh Malaysia. Penyertaan peserta kajian adalah secara sukarela dan pengkaji telah mendapatkan persetujuan peserta kajian untuk menjalankan temu bual dan merekodkan sesi menggunakan alat perakam. Pengkaji merekodkan semula perbualan dalam bentuk transkrip verbatim menggunakan perisian NVivo12. Perisian NVivo12 digunakan bagi menganalisis data berasaskan tema dan kod kajian bagi membantu pengkaji menyusun data dengan teratur serta menjawab persoalan-persoalan kajian.

DAPATAN KAJIAN

Demografi

Dalam kajian ini temu bual mendalam (*in-depth interview*) telah dijalankan dengan melibatkan seramai 11 responden yang terdiri daripada pelbagai latar belakang seperti kelas sosial, taraf ekonomi dan sebagainya. Seramai 11 orang responden telah ditemubual dengan melibatkan golongan ibu bapa yang mempunyai anak kurang upaya yang berumur bawah 10 tahun. Jadual 2 di bawah menunjukkan rumusan maklumat demografi responden yang terlibat.

Jadual 2

<i>Rumusan Maklumat Demografi Responden</i>	
Jantina	
Lelaki	R7
Perempuan	R1, R2, R3, R4, R5, R6, R8, R9, R10, R11
Umur	
25 - 35 tahun	R3, R4, R7, R8, R10, R11
36 - 45 tahun	R1, R5, R6,
Bangsa	
Melayu	R1, R2, R3, R4, R5, R6, R7 R8, R9, R10
Lain-lain	R11
Taraf Perkahwinan	
Berkahwin	R1, R2, R3, R4, R5, R6, R7 R8, R9, R10
Ibu / Bapa Tunggal	R11
Tahap Pendidikan	
Sekolah Menengah	R2, R10, R11
Diploma	R4, R7
Universiti	R1, R3, R5, R6, R8, R9
Jenis Pekerjaan	
Akauntan	R1
Pegawai Bank	R3
Pegawai Penguatkuasa	R5
Pegawai Sains	R6

Penghantar Makanan	R4
Penolong Pegawai / Pengurus	R2, R7, R9
Perancang Perkahwinan	R11
Suri Rumah	R8, R10
Jumlah Pendapatan (RM)	
1,000 – 2,000	R4, R11
2,001 – 3,000	R5, R7, R10
3,001 – 4,000	R1
4,001 keatas	R2, R3, R6, R8, R9
Bilangan Anak OKU	
1 orang	R2, R3, R4, R5, R6, R7, R8, R9, R10, R11
2 keatas	R1
Jenis Ketidakupayaan	
Fizikal	R1, R9
Pembelajaran	
Autisme	R1, R4, R5, R7, R10, R11
Down Sindrom	R2, R8
Pendengaran	R6
Pelbagai	R3

Jadual 2: Rumusan Maklumat Demografi Responden

Corak Penerimaan Ibu Bapa Terhadap Ketidakupayaan Anak

Corak penerimaan ibu bapa terhadap ketidakupayaan anak dilihat berdasarkan tindak balas ibu bapa apabila mengetahui mengenai ketidakupayaan anak. Berdasarkan temu bual dan pemerhatian yang dijalankan, pengkaji mendapati enam daripada 11 ibu bapa berhadapan kesukaran untuk menerima keadaan anak di peringkat awal. Hal ini disebabkan oleh pengaruh perasaan sedih, terkejut dan kecewa apabila berhadapan dengan berita yang mengejutkan dan menyedihkan mengenai anak yang dilahirkan dengan ketidakupayaan. Setiap ibu bapa menunjukkan corak penerimaan dan tindak balas yang berbeza terhadap ketidakupayaan anak. Berikut adalah hasil temu bual dengan responden:

“...Waktu dapat tahu tu, rasa tak percaya pun ada, lepas tu rasa sedih kecewa semua ada...”

Peserta kajian 1

“...tipu la kalau kata tak sedih kan...kita sedih tak sangka...sebab kalau ikutan keturunan dua-dua pihak takda yang masalah pendengaran...”

Peserta kajian 6

Dapatan kajian ini memberikan gambaran yang jelas tentang pelbagai reaksi emosi yang dialami oleh ibu bapa apabila mengetahui mengenai ketidakupayaan anak mereka. Perasaan sedih adalah reaksi yang umum kerana penerimaan khabar duka yang tidak dijangka memberikan kesan emosi yang mendalam kepada ibu bapa dan sistem keluarga. Kajian ini juga menunjukkan bahawa terdapat lima orang ibu bapa mengalami kemurungan dan mengambil masa hampir setahun untuk menerima kenyataan mengenai ketidakupayaan anak. Namun, kajian ini juga mendapati bahawa ibu bapa cenderung untuk sikap redha dan beranggapan bahawa masih

terdapat kanak-kanak yang mempunyai ketidakupayaan yang lebih serius (*severe*) daripada anak mereka. Berikut merupakan petikan temu bual bersama responden kajian:

“...saya rasa sangat sedih masa mula dapat tau pasal keadaan anak..saya ambil masa dekat lima tahun jugak la untuk betul-betul terima dia...saya dok fikir macam mana boleh dapat anak down sindrom sebab masa mengandung memang doktor tak kata apa-apa pn.. kiranya sekarang ni saya memang dah boleh terima dia la...”

Peserta kajian 2

“...Waktu dapat tahu tu, rasa macam dunia gelap gelita sebab tak expect benda ni...saya pernah terfikir nak pergi luar negara untuk tenangkan fikiran...masa mula-mula memang saya susah nak terima dia... dalam tempoh setahun lebih juga saya ambil untuk learn about syndrome down dan terima anak...”

Peserta kajian 8

Strategi Daya Tindak Ibu Bapa Apabila Anak Didiagnos sebagai Orang Kurang Upaya

Kajian ini turut merungkai strategi daya tindak yang digunakan oleh ibu bapa dalam menghadapi ketidakupayaan anak mereka dengan pendekatan yang lebih positif. Strategi daya tindak ini terhasil daripada tindak balas responden terhadap faktor-faktor rohani semula jadi (*nature*) dan pengaruh persekitaran (*nurture*). Berdasarkan temu bual yang dilakukan, pengkaji telah mengenal pasti beberapa strategi daya tindak yang digunakan oleh ibu bapa untuk menerima ketidakupayaan anak iaitu aspek kerohanian, sosial dan kesabaran atau positif.

Hasil temu bual mendapati kebanyakan ibu bapa menghadapi kesedihan atau kekecewaan dengan mengaplikasikan aspek kerohanian. Ibu bapa berpendapat bahawa mereka cenderung untuk mencari kekuatan dan kesejahteraan dengan mendekati diri kepada unsur keagamaan atau *spiritual* dengan menurunkan ekspektasi dan kembali kepada pencipta Tuhan bagi mencari makna (*meaning making*) di sebalik ketidakupayaan anak. Berikut merupakan perincian temu bual berkaitan tema kerohanian:

“...Husband saya kata apa...kita minta dekat Tuhan, Dia tau macam mana, apa benda yang kita perlu... saya takdak la rasa sedih sangat...sedih tu sedih jugak la...”

Peserta kajian 1

“...susah la nak cakap...saya banyak dekatkan diri dengan Allah laa...saya banyak doa minta petunjuk mana jalan yang terbaik untuk dia...”

Peserta kajian 5

Sokongan sosial memainkan peranan penting dalam membantu mereka menerima dan menghadapi ketidakupayaan anak. Sokongan daripada ahli keluarga, rakan sebaya, atau kumpulan sokongan membantu meningkatkan kesejahteraan hidup ibu bapa dan perkembangan anak OKU. Namun terdapat dua orang responden menghadapi kesukaran dan penolakan daripada ahli keluarga apabila anak didiagnos dengan ketidakupayaan. Selain itu, terdapat beberapa ibu bapa menghadapi keadaan ini dengan kesabaran dan bertindak secara proaktif bagi mengurangkan kesedihan dan tekanan yang dihadapi. Mereka melihat ketidakupayaan anak sebagai peluang untuk berkembang dengan lebih baik serta memahami keperluan dan sokongan yang terbaik bagi anak mereka. Berikut adalah hasil temu bual dengan responden:

“...dari segi sokongan family kedua-dua belah pihak sangat memberi sokongan kepada kami...depa pun cari punca dan cara macam mana nak tolong anak kami...”

Peserta kajian 3

“...penerimaan ahli keluarga ni lebih baik dari kita...depa lagi boleh terima dari kita...tak tau la, macam mak saya sendiri....mak ayah saya kata ni semua benda kecil sahaja kalau nak dibandingkan dengan orang lain...”

Peserta kajian 6

Strategi-strategi ini menunjukkan bahawa setiap ibu bapa cenderung menggunakan pendekatan yang lebih positif dan berbeza untuk menghadapi ketidakupayaan anak. Penerimaan ketidakupayaan anak adalah proses yang rumit dan setiap individu membina daya tahan keluarga yang berbeza dalam menghadapi kekecewaan dan tekanan.

PERBINCANGAN

Berdasarkan dapatan kajian, seramai 11 orang peserta kajian telah ditemu bual yang melibatkan jantina seramai 10 orang perempuan dan seorang lelaki yang terdiri dari lingkungan umur 25 tahun hingga 45 tahun. Hasil kajian juga menunjukkan bahawa majoriti peserta kajian berbangsa melayu dan berkahwin. Manakala seorang peserta kajian merupakan seorang ibu tunggal dan berbangsa India (mualaf). Seterusnya, kesemua peserta kajian mempunyai tahap pendidikan yang berbeza Sekolah Menengah, Diploma dan Univerisiti. Berdasarkan dapatan kajian, peserta kajian yang mempunyai anak OKU kategori autisme menunjukkan jumlah tertinggi iaitu enam orang, kategori fizikal dan down sindrom mempunyai seramai dua orang manakala kategori pendengaran dan pelbagai masing-masing mempunyai seorang peserta kajian.

Menurut Kinanthi (2019) ibu bapa anak kurang upaya (OKU) cenderung untuk mengalami tekanan emosi berbanding ibu bapa yang tidak mempunyai anak kurang upaya. Tekanan emosi yang dialami merangkumi perasaan tidak berdaya, tekanan, murung, putus asa, rasa bersalah dan rasa malu memiliki anak OKU (Ebrahimi et.al, 2018). Kinanthi (2019) menyatakan bahawa emosi negatif muncul apabila ibu bapa mengalami penolakan dan ketakutan terhadap masa depan anak serta persekitaran sosialnya. Bertepatan dengan kajian lepas hasil kajian menunjukkan bahawa ibu bapa berhadapan fasa kesepian, kesedihan, kemurungan dan tekanan yang tinggi setelah mendapat khabar mengenai ketidakupayaan anak.

Hasil kajian ini di lihat selari dengan dapatan kajian terdahulu yang menyatakan bahawa ibu cenderung dipengaruhi oleh unsur emosi (*emotion focused*) dalam bertindak balas terhadap situasi yang menekan dan sering mengalami gejala kemurungan, pengasingan sosial, tekanan emosi, psikologi dan kesihatan berbanding bapa (Dervishaliaj, 2013). Menurut Isa et al. (2016) memiliki anak kurang upaya mengakibatkan beban emosi dan sosial kepada ibu bapa di mana mereka cenderung mengalami perasaan negatif seperti tekanan, kegelisahan dan kemurungan. Moawad (2012) turut menyatakan bahawa tindak balas yang melibatkan emosi yang digunakan oleh ibu menyebabkan mereka berasa rendah diri, rasa bersalah, sedih dan menafikan ketidakupayaan yang dialami oleh anak.

Elemen sedih antara reaksi utama yang ditunjukkan oleh ibu bapa apabila anak didiagnos sebagai kurang upaya. Feizi et al. (2014) menyatakan bahawa ketidakupayaan yang dihadapi oleh anak sama ada dari segi fizikal atau perkembangan memberikan kesan yang mendalam

terhadap kesehatan mental serta menyebabkan tekanan emosi yang tinggi terhadap ibu bapa. Tekanan emosi yang dialami menyebabkan ibu bapa berasa kurang berkeyakinan, kemurungan dan cenderung untuk menyendiri atau mengasingkan diri (Gupta & Kaur, 2010). Responden turut menyatakan bahawa mereka mengalami tekanan emosi yang tinggi apabila berhadapan dengan ketidakupayaan anak. Tekanan emosi yang tidak terkawal menyebabkan mereka mengalami kemurungan dan memerlukan suatu tempoh masa yang panjang untuk mengawal emosi dan beradaptasi terhadap tekanan dan keadaan semasa dalam keluarga. Berdasarkan penyelidikan yang dijalankan oleh Wahab dan Ramli (2022) didapati sebanyak 36.6 peratus daripada 79.5 peratus ibu bapa yang mempunyai anak kurang upaya mengalami tekanan psikologi yang teruk apabila mengetahui mengenai ketidakupayaan anak. Menurut Hofmann, Barlow dan Durand (2018) ibu bapa yang mengalami tekanan emosi yang melampau dan berpanjangan daripada tempoh kesedihan cenderung untuk menghadapi masalah *Persistent Complex Bereavement Disorder* (PCBD). Berdasarkan *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. (DSM-5), ibu bapa yang mengalami PCBD mula bertindak balas dengan membentuk tingkah laku pasif dan berpemikiran negatif serta mula mengehadkan interaksi sosial bagi mencari makna di setiap perkara yang berlaku (Woodman & Hauser, 2013).

Kander dan Merrick (2007) menyatakan bahawa setiap keluarga mempunyai kapasiti yang berbeza untuk menghadapi dan mengadaptasi kepada krisis atau perubahan dalam sistem kekeluargaan. Forman dan Herbert (2009) menyatakan bahawa penerimaan seseorang terhadap sesuatu krisis yang kompleks dilihat berdasarkan keupayaan seseorang menerima perubahan atau keadaan yang menekan dengan rela atau dengan persetujuan serta tidak menghukum. Penerimaan dari sudut psikologi dikaitkan dengan tindak balas positif yang melibatkan unsur perasaan dan pemikiran seseorang untuk mengekalkan kesejahteraan perhubungan dengan persekitaran tanpa mempengaruhi tingkah lakunya (Forman & Herbert, 2009; Butler & Ciarrochi, 2007). Pada tahap ini, ibu bapa cenderung untuk mengenalpasti sumber dalaman dan luaran untuk meningkatkan pengetahuan mereka serta memperkasakan kapasiti anak pada tahap maksimum (Kandel & Merrick, 2007).

Menurut Pandya (2017) ibu bapa mempunyai strategi daya tindak yang berbeza untuk mengatasi tekanan dan berita duka yang diterima. Sesetengah ibu bapa mendapatkan kekuatan dengan memanfaatkan sistem sosial atau mencari sokongan daripada aspek keagamaan atau kerohanian (Goldberg et al., 2014). Pernyataan berikut disokong oleh Hicdurmaz dan Oz (2013) ibu bapa cenderung untuk meletakkan nilai dan kepercayaan kepada unsur kerohanian dengan melibatkan hubungan antara sesuatu yang lebih besar dan melibatkan pencarian makna disebalik kejadian atau permasalahan yang dihadapi bagi menghasilkan emosi positif, kedamaian dan penerimaan. Kerohanian merangkumi nilai moral yang digunakan oleh ibu bapa untuk memahami dan menerima ketidakupayaan anak (Dogan, 2016). Ebimgbo, Agwu dan Okoye (2017) menyatakan bahawa ibu bapa yang menghubungkan aspek kerohanian dalam bertindak balas terhadap krisis berupaya membentuk moral kesejahteraan dan penerimaan terhadap ketidakupayaan anak dengan mempercayai bahawa krisis yang dihadapi adalah “kehendak Allah” dan mereka sedang diuji untuk mencapai ketenangan dan ketaatan (Sa’ari & Rahman, 2017). Pemikiran dan daya tindak ini mempengaruhi penerimaan positif ibu bapa terhadap keadaan anak dan meningkatkan komitmen mereka terhadap perkembangan yang perlu dipenuhi oleh anak.

Berdasarkan teori ekologi, Urie Bronfenbrenner menekankan kepada hubungan saling ketergantungan antara individu dan persekitaran sosialnya (ahli keluarga) di mana setiap orang saling mempengaruhi antara satu sama lain. Persekitaran sosial atau sokongan sosial yang baik berfungsi sebagai penyeimbang tekanan emosi yang dihadapi oleh ibu bapa serta membantu

ibu bapa menerima kecacatan yang dialami oleh anak (Laufer, 2017). Konsep persekitaran sosial ini dapat dianalisis melalui dua model, iaitu model kesan utama (*main effect model*) yang menekankan kepada pentingnya mengintegrasikan individu dalam rangkaian sosial yang besar untuk meningkatkan kesejahteraan mereka, dan model penimbunan (*buffering model*) yang menekankan kepada bentuk sokongan yang melindungi individu dari kesan buruk tekanan atau stress. Konsep ini dapat dilihat dengan lebih jelas melalui teori strategi daya tindak proaktif (*proactive coping*).

Proactive coping adalah pendekatan daya tindak yang menekankan kepada mencapai matlamat yang ditetapkan dengan menggunakan sumber sedia ada (Ersen & Bilgiç, 2018). Ibu bapa yang memiliki daya tindak proaktif yang tinggi cenderung memiliki kapasiti untuk mencipta peluang untuk perkembangan dan kesejahteraan diri mereka dan anak. Berdasarkan teori ini, Mayer dan Sohl (2009) menyatakan bahawa penggunaan strategi daya tindak proaktif ini membantu ibu bapa berhadapan krisis yang kompleks melalui lima peringkat matlamat pembangunan diri iaitu; (1) pengumpulan sumber; (2) pengiktirafan potensi tekanan; (3) penilaian awal; (4) usaha mengatasi tekanan; dan (5) maklum balas mengenai usaha awal.

KESIMPULAN

Kajian yang dijalankan telah menemukan penemuan yang penting dan berguna mengenai penerimaan dan strategi daya tindak ibu bapa terhadap ketidakupayaan anak. Penemuan dalam kajian ini dapat membantu meningkatkan pengetahuan dan kesedaran ibu bapa mengenai corak atau pola tindak balas yang perlu dilakukan dalam berhadapan ketidakupayaan anak. Peningkatan pengetahuan ini penting kerana ia membolehkan ibu bapa membuat keputusan yang lebih berinformasi dan memberikan sokongan yang lebih baik kepada anak-anak mereka. Pengenalpastian intervensi yang berkesan juga merupakan kaedah penting dan berupaya membantu ibu bapa mengambil langkah-langkah yang sesuai untuk membantu meningkatkan perkembangan anak dan meningkatkan kesejahteraan hidup keluarga secara keseluruhan. Cadangan intervensi yang diberikan juga bersifat menyeluruh dengan melibatkan tiga tahap sistem iaitu tahap mikro, meso dan makro. Tahap sistem digunakan bagi mengenal pasti sumber dalaman dan luaran yang berhubungan dengan individu dalam memberikan sokongan dan bantuan yang diperlukan untuk mengurangkan tekanan yang dihadapi oleh ibu bapa melalui konsep pemindahan ilmu (*transfer knowledge*).

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LAMPIRAN

PANDUAN GERAK KERJA TEMU BUAL SEPARA BERSTRUKTUR

A. Permulaan

- i. Penyelidik memperkenalkan diri dan menerangkan tentang penyelidikan yang akan dijalankan seperti di dalam surat persetujuan kajian kepada responden.
- ii. Penyelidik menjelaskan kepada responden berkaitan isu kerahsiaan dan perlindungan sepanjang kajian ini dijalankan.
- iii. Penyelidik menjelaskan kepada responden bahawa penyertaan responden dalam kajian penyelidikan ini adalah secara sukarela dan responden boleh menarik diri pada bila-bila masa sepanjang penyelidikan dijalankan.
- iv. Penyelidik memaklumkan mengenai penggunaan pita perakam suara sebagai salah satu instrumen yang digunakan dalam kajian.
- v. Penyelidik mendapatkan persetujuan responden dengan menandatangani borang persetujuan menyertai penyelidikan.
- vi. Penyelidik membentuk hubungan rapport dan kepercayaan responden untuk mendedahkan maklumat dan pendapat.

Penyelidik: “Assalamualaikum tuan/puan, saya Nurmasliyana binti Abdul Rahman merupakan pelajar Sarjana Kerja Sosial di Universiti Sains Malaysia (perkenalkan diri). Untuk makluman pihak tuan/puan, saya sedang menjalankan suatu kajian yang bertajuk Pengetahuan, Penerimaan dan Strategi Daya Tindak Ibu Bapa Apabila Anak Didiagnos Sebagai Kurang Upaya. Tujuan Kajian ini dijalankan untuk memahami tahap penerimaan ibu bapa terhadap anak-anak kurang upaya serta mendalami tahap pengetahuan ibu bapa berkaitan keperluan anak-anak yang perlu dipenuhi.” (maklumat mengenai kajian)

Penyelidik: “Sekiranya pihak tuan/puan tidak keberatan, saya ingin menjadikan tuan/puan sebagai responden saya sepanjang penyelidikan dijalankan. Untuk makluman pihak tuan/puan juga, segala maklumat dan informasi hasil temu bual yang dijalankan adalah rahsia dan hanya untuk kegunaan penyelidikan sahaja (isu kerahsiaan). Penyertaan pihak tuan/puan adalah secara sukarela dan pihak tuan/puan bebas untuk menarik diri daripada menjadi responden penyelidikan ini sekiranya tuan/puan berasa tidak selesa, atau terganggu semasa penyelidikan ini dijalankan. (penyertaan secara sukarela).”

Penyelidik: “Sekiranya pihak tuan/puan bersetuju untuk mengambil bahagian dalam kajian ini, saya ingin mendapatkan persetujuan tuan/puan dengan menandatangani boring persetujuan ini... (Menandatangani boring persetujuan)”. Selain itu, saya juga ingin mendapatkan kebenaran daripada pihak tuan/puan untuk menggunakan pita perakam suara bagi merakam perbualan kita sepanjang proses temu bual dijalankan. Pita perakam suara merupakan antara salah satu instrumen kajian yang digunakan bagi memastikan maklumat penting dapat direkodkan.” (Instrument kajian)

B. Mengumpul Data

- i. Responden memperkenalkan diri.
- ii. Penyelidik mendapatkan maklumat demografi responden.

- iii. Penyelidik mendapatkan maklumat dan pandangan responden berkaitan persoalan kajian yang dijalankan.

C. Penamatan

- i. Penyelidik membuat rumusan berkaitan maklumat yang diperolehi semasa proses temu bual bagi memastikan maklumat yang diterima adalah tepat.
- ii. Penyelidik akan menamatkan sesi temu bual apabila maklumat yang diterima tepu.
- iii. Penghargaan kepada responden.

An exploration of the role of social workers in Community Elderly Education in China: A perspective of grassroots bureaucrats

Dai Jinglin^a

^a School of Marxism, Lanzhou Jiaotong University, China

Email: daijinglin@student.usm.my

Abstract

Community Elderly Education (CEE) is an effective strategy for seniors to eliminate loneliness and enhance happiness and the statecraft facing the aging society. Current research states that social workers, as the frontline implementers, determine the final effectiveness of CEE. Following Lipsky's perspective of grassroots bureaucrats, the article aims to capture the contingency and complexity of the implementation process. Shedding light on this new perspective on the situations of classrooms and workplaces, this paper attempts to explain what happened at the grassroots. It raises two questions: (i) what roles do social workers play in the execution of CEE? Moreover, (ii) how do these roles of social workers influence policy implementation? Following analysis of interview data and related materials with 15 members who participated in the CEE, this article finds, firstly, that the CEE program reshapes social workers as text collectors, which causes them to have little time to focus on other work. Secondly, in the classroom, social workers need to become translators to alleviate the obvious inconsistency between expert knowledge and the experience of the elderly. Thirdly, social workers sometimes must give up their professional roles to achieve the administrative pressures from the Neighborhood Committee (NC). This paper concludes that social workers face multiple pressures from the CEE and the workplace, inclining to be the roles of data collectors and administrators. To achieving the purpose of CEE, policymakers and the government should give social workers more flexible independent space, ensuring they autonomously arrange working procedures and pedagogy.

Keywords: Social workers; community elderly education; policy implementation

1. Introduction

Since the first University of Third Age (U3A) was established at Université de Toulouse, the elderly education movement quickly became global, including thousands of locally developed and diverse U3A project-related learning programs. China mobilized the elderly education movement, mixing it with health, social services, and leisure fields at the end of the 20th century. After 2000, China entered the ageing society, so mobilizing older adults as much as possible to participate in elderly education projects became crucial in the ageing career. It needs to construct a governance space to get the various human and non-human actors, infrastructure, and resources in different contexts all interacting and interrelating optimally (Usher & Edwards, 2007). Community Elderly Education (CEE) is similar to the statecraft of localized elderly care, with the physical space of later life as the primary condition for setting up service institutions, and both of them mean that the governance vision is shifting from specialized institutions to focus on families and individuals' daily lives. The community,

therefore, becomes the best place to mobilize the elderly education, where seniors could participate in elderly education activities nearby.

In practice, the community strategy did not achieve rapid results. The participation ratio, as one of the crucial indicators in national policies, indicates the unsuccessful effectiveness of elderly education (Cui & Chang, 2021). The 12th Five Year Ageing Plan (2011) set the participation rate at 5%, but the result was just 3.5%, and the 13th Five Year Ageing Plan (2017) requires it to reach 20%, which is still a difficult achievable number. Researchers state that CEE as a form of political mobilization, faces the lack of a financial budget, unstable funding sources, shortage of teachers, and disinterested older adults (Bao, 2014; J. Wang & Xu, 2017; Yuan & Xu, 2016). All these result in deviation in policy implementation. Thus, this paper attempts to probe into the classrooms and workplaces of CEE, explaining what happened at the grassroots level. It raises two questions: (i) what roles do social workers play in the execution of CEE? Moreover, (ii) how do these roles of social workers influence policy implementation?

2. Literature review

2.1 Implementation studies of elderly education

The starting points of this study are the research on policy implementation of CEE and the literature on social workers. Since Pressman and Wildevsky (1973) proposed that implementation is far more complex than imagined, implementation studies have received widespread attention. There are at least three main perspectives from which to examine the policy implementation. The first is the top-down model with Weberianism, focusing on national-level policymakers and policy goals. Based on this, researchers could summarize the reasons for failure by tracking the implementation actions of lower-level actors (Birkland, 2016). Secondly, the bottom-up perspective proposed by Lipsky (2010), focuses on street-level bureaucracy rather than national policymakers. It highlights that grassroots executors such as teachers, doctors, and police can "create" a new policy, thus grassroots executors transferring from the research objects to the center (Elmore & McLaughlin, 1988). Thirdly, some scholars attempt to integrate the first two perspectives and comprehensively consider various variables in policy implementation. For example, the communication model proposed by Goggin et al. (1990) reveals the implementation process by analyzing communication between federal, state, and local levels of government. They design independent, intermediate, and dependent variables and 17 hypotheses and provide detailed descriptions. The ambiguity-conflict model developed by Matland (1995) provides four implementation plans based on policy similarity and conflict levels to pursue a more comprehensive and coherent model than before. However, researchers find that the theoretical framework must carry so many causal relationships that they leak at the joints to include all apparent elements. It leads to significant difficulties in operating concepts and conducting comprehensive testing (Smith & Larimer, 2009).

In the past two decades, scholars such as Ball, Honig, and Popkewitz have attempted to introduce the theories of Bourdieu, Foucault, Bernstein, and others into education policy implementation research to explain the complex relationships between different actors in learning activities (Ball, 1994; Honig, 2006; Popkewitz, 2011). Post-structuralism places implementation study in a more complex and detailed capillary picture, where policy implementation is neither a transportation track from higher government officials to grassroots executors, nor a new text produced by street-level bureaucracy. It affects individual practice from all aspects of social life more subtly and positively. As Zhou (2012) said, the

implementation process of a national policy is influenced by both the bureaucratic system of the government and the social system.

In the analysis of CEE, firstly, the top-down model is mainstream, finding that, at the national level, there needs to be more systematic and supporting policies (Yu, 2020). For example, after promulgating the *Development Plan of Elderly Education* (2016-2020) (the Plan of Elderly Education), supporting policies regarding the arrangement of departments or finance do not appear. More related elderly education policies are also scattered in community education and elderly care documents, with short length and few indicators.

Secondly, some studies focus on the role of middle-level government. As the inter-governmental network, local governments play the bridging role between national and grassroots levels. However, local governments adopt a wait-and-see attitude, using colloquial expressions such as "they won't act unless the superior pushes, one step forward when pushed by the superior, and then a few steps rest ". Even taking action, local governments selectively execute, focusing on quantifiable digital indicators and project content with sample potential (Yu, 2020). Local governments' lack the execution motivation results in a hollow structure in the elderly education movement.

Finally, grassroots staff are producers translating policies into specific products and providing software and hardware facilities such as venues, equipment, course resources, and funding. The performance of grassroots bureaucrats determines the quality of elderly education. Under the hollow situation, grassroots implementers have had to apply elderly education activities to other projects, such as lifelong education and elderly services, barely coping with political assessments (Jiang & Xia, 2022). Moreover, since the elderly education project has always been on the edge of education and the field of ageing, lacking specialized funds, it is impossible to recruit full-time personnel to engage in elderly education activities, and existing social workers can only be assigned multiple positions to organize elderly education activities (Yang, 2020).

Notably, even in the grassroots research of CEE, the analysis criteria still revolve around national policy objectives in a Weberian atmosphere. This pattern presupposes that daily education activities should be consistent with the national macro policies and lead to unified results in any research that is "implementation deviation", which is a universal explanation for the inconsistency between national, local, and grassroots levels. However, research seldom regards the contingency and complexity of the implementation process of the elderly education policy as standard. As a result, it is difficult to capture the moment when citizens meet the country or what Foucault (2018) calls the moment of connection. Currently, we need to ask further how grassroots implementers, such as social workers, teachers, and managers, have "responded" to the issue of elderly education projects in the face of three shortages: people, finance, and facilities.

2.2 Multi-roles of social workers

In the research on social workers, the consensus is that they face dual pressures, including administrative demands from the government and living demands from residents (Sun, 2017; L. Wang, 2013). Moreover, these two types of pressures are not consistent and sometimes even contradictory, leading social workers to often turn into "sandwiched cookies" and feel frustrated at both ends. This reason comes from the field where social workers locate (Community) Neighborhood Committee (NC), an autonomous, non-government organization in China. However, the community is one of the forms of government technology. The state-permeating

society gained “guidance, support, and assistance” and finance and salary from governments. In turn, the main task of the community workers is to assist the government in providing social services and management work to citizens. (Organic Law of the Urban Residents Committee of the People’s Republic of China (2018 Amendment), 2018). Problematically, the severe phenomenon of household separation in urban areas has increased the difficulty of integration due to the increase in the floating population, resulting in weak cohesion in urban communities. Residents, especially the young floating population, lack recognition of NC, which makes it difficult for social workers to mobilize residents by national requirements.

Moreover, social workers' role positioning is unrealistic idealism since research finds that they are expected to become versatile roles, including administrative workers, resource linkers, communicators between government and residents, project executors, advocates of political propaganda, and so on (C. Wang, 2022). Regarding the community elderly education projects, Zhu (2017) further summarizes six idealized roles, including "instructional designer", "activity organizer", "learning facilitator", "instructional artist", "student caregiver", and "learning researcher".

Problematically, the expert discourse of social workers is almost impossible to achieve in practice, requiring social workers to simultaneously perform the above tasks, especially in the context where the low wages, low social status, and cumbersome work to social workers (Shi, 2019).

In short, existing research, on the one hand, has shown the structural dilemma of social workers, on the other hand, setting the idealized role set to them. Based on it, experts provide strategies such as increasing wages, expanding career development prospects, and increasing social recognition. While these suggestions are undoubtedly inspiring, they stay in a vacuum since they overlook social workers' agency in the practical field. Social workers are not passive recipients, and they would choose some roles and abandon others simultaneously when dealing with tedious and high-pressure work, which deserves further research.

3 Methodology

To examine the grassroots implementation of CCE, this study opted for a qualitative research design. We chose the Protection Project (pseudonym), the national program of CEE, as a case study, which was endorsed by the government and initiated by the public foundation institution. Protection Project (PP) provides offline courses in the national communities and aims to teach ICT knowledge and cultivate awareness of anti-fraud for seniors from half of 2022 to 2023. It is a typical program of CEE relying on national policy, the plan for solving the difficulties of the elderly in using information and communications technology. Its purposes include:

- (1) No less than 80% of older adults can understand safe internet use and basic knowledge of anti-fraud and prevention.
- (2) No less than 70% of older adults can master distinguishing prevention network risk and anti-fraud and cultivating anti-fraud capabilities.
- (3) No less than 80% of middle-aged and elderly can learn to use a technology mini program to protect their internet security.

From October 2022 to May 2023, we visited four communities in which social workers implemented the elderly education of PP. The four communities located in L City, Gansu

province, northwest China, where the ratio of the ageing population is slightly lower than the national level, compared with 2010, the proportion of the population aged 60 and above has increased by 4.59% in 2021, indicating an increasing trend in population ageing (CNBS, 2021). In 2022, this province's annual GDP ranking was at the bottom 20% of the national level, a distinct region of the "getting old before getting rich " (CBS, 2023).

We interviewed social workers, elderly learners, and administrators (of communities, NC, and the PP), a total of 15 persons. As shown in Table 1, for privacy, the names of participants and institutions were used literary pseudonyms). Additionally, to comprehensively understand the process of PP, we collected other materials, such as handbooks of the protection program, meeting minutes, training manuals, and related news.

Table 1 Basic Information of Interviewees

N o.	Participants	Gender	Age	Type of participants	Work unit/ Community	Income*
1	Zhang Chen	F	35	Social workers	Baiyin Community	652
2	Wang Xinmei	F	70	Learners	Zhongyu Community	145
3	Peng Qi	F	30	Administrators and social workers	Baiyin Community	986
4	Lin Jiali	F	35	Teachers and social workers	New Youth Community	652
5	Gao Xiaoying	F	55	Learners	Zhongyu Community	797
6	He Jie	F	24	Administrators	Development Foundation	870
7	Liu Zhiwu	M	32	Social workers	Zhongyu Community	551
...						

Note. Income* refers to the monthly salary or retirement pension (USD).

4. Finding

4.1 Collecting and digitizing materials

During the PP, collecting materials and digitizing them is the primary work. According to the implementation manual, social workers must collect, manage, analyze, interpret, and maintain data streams. Before formal classes, social workers need to collect the essential information (age, gender, ID number) of the elderly participating in the course and the characteristics of the elderly in the community (how old, how alone, retired cadres, soldiers, or others). After the course is completed, it is necessary to calculate the degree of achievement and satisfaction of learning goals for the elderly through the distribution of online questionnaires. Before finishing the project, social workers need to organize and summarize all of the data information, including photos, videos, attendance forms, and feedback forms, and publish online copywriting to report on the basic process of the activity. In short, everything must be digitized and recorded.

Liu Zhiwu, with a bachelor's degree in social work, has been working in the community for almost three years and is now an organizer, mainly organizing various government projects in the community. Before class, he walked back and forth in the classroom, searching for and determining suitable camera and photo positions. At the same time, as one of the few males in the community, he was responsible for hanging the class banner prominently in the classroom for the convenience of taking a group photo. He held a printed project manual in his hand and marked the specific requirements of the assessment indicators with a colored pen.

At least 20 photos and one minute of short video material should be taken, ensuring a certain quality. The most troublesome thing is that the questionnaire needs to be filled out on the mobile phone. Most elderly people don't know how to operate, so it takes a lot of time for us to help them input information one-on-one.

Liu Zhiwu

He stated that social work required little professional knowledge. He learned in university since his daily work was to collect and organize data and report it to the internet system. "Computer professionals were more adept at social work," he joked. For why so much data was needed to collect, He Jie, the Protection Program manager, answered, "We also had KPI; we needed to assess these materials and hand it over to cooperating institutions and government departments".

In addition, the community managers also expect social workers to produce high-quality photos and write excellent copywriting by sharing excellent promotional materials from other service centers. PP and community institutions provide online training courses for social workers to learn photography and video editing skills. In this way, like the elderly, social workers are also reshaped into a type of learner who is required to continuously apply the latest software technology and innovate educational content. Peng Qi a manager in the community, said:

Many people were unfamiliar with social workers (and our services), so we needed to work well and let more people know we work. In short, social workers needed to master various skills, and we would also organize regular training to improve their abilities in this area. This circle was so large that we had to showcase our work to let the government recognize us, and thus we could have cooperated.

Peng Qi

A set of pixels becomes the discourse of an elderly education classroom, and the perspective, expression, interaction with others, and venue layout of the characters constitute the "truth" of an elderly education course. In this way, like the elderly, social workers are also reshaped into a type of learner who is required to continuously apply the latest software technology and innovate educational content, thus quickly producing digital information.

4.2 Experts' knowledge and elderly experience

PP invites an expert group from a well-known University to write teaching materials, including courseware and Lecture Notes. In the materials, the elderly are the group without enough cognitive abilities, especially to identify scammers through deception. In the implementation handbook of PP, the elderly are described as those who lack the knowledge to address problems. The reason given by experts is that most older adults only attend primary school, and most do not use current information technology. Therefore, the potential assumption of PP is that elderly

people lack valuable knowledge and are more likely to be deceived, so they need to learn and accept to make up for this "deficiency".

Silver-haired people (elderly people) lack the ability and knowledge to address (ICT) problems. On the one hand, the overall education level of the elderly population is relatively low...On the other hand, as a particular group, the elderly have mostly skipped the PC era and directly entered the mobile internet era, with insufficient awareness of new internet technologies and generally weak network risk prevention capabilities. In addition, many older adults only live with their spouses or alone, without children living with them for a long time, and lack people who can seek timely help when encountering problems. Therefore, in the face of endless and innovative digital scams, the silver-haired population lacks the ability and knowledge to solve problems.

Implementation Handbook of Protection Program

Experts have prepared detailed course teaching plans, exquisite PPTs, and short videos. For some meaningful content, they have highlighted it in yellow, requiring social workers to recite it in class without any words falling. Experts did not enter the classroom but created a seemingly reasonable teaching scenario. Social workers play crafted warm-up videos and PPTs, naturally and smoothly explaining knowledge points. Elderly learners follow the guidance of social workers to open their phones and enter software programs to practice classroom knowledge. In expert discourse, seniors are always weak compared to adults. They thus must make up for their "shortcomings" through learning knowledge. Common sense is not produced by PP firstly, which has already existed in society's inherent stereotype. A young social worker understands guarding projects as follows: "They do not know much, so we must protect their safety. They are easily deceived, and our role is to 'protect' them" (Interview material: Yu Hui, manager and social worker).

However, the practice is vastly different from the expert discourse. The elderly do not see themselves as those who lack knowledge. Aunt Wu shared with classmates her experience of how she used her wisdom to recover the part of money she was deceived into. She ended it with "the salt I had eaten more than the meals that swindlers had done", which is a Chinese proverb, meaning she has more experience than young. Aunt Wu's narrative presents another scene of herself fighting against fraudsters through life wisdom, which she summarized as a slight twist in her rich life experience. In her discourse, even if she has been deceived, she is not a vulnerable group that needs to be protected by the younger social worker. Aunt Wu's words caused other elderly classmates to agree.

The unexpected conflict between experts and seniors results in social workers making significant deletions or modifications in teaching. They deleted or modified the PPT partly and omitted the lecture notes written by experts. Some even turn traditional classrooms into tea parties to provide fruits and hot tea for the elderly. They also convey some knowledge concepts provided by experts at an appropriate time. Dai Qian used to work as a counselor at a university in another city but resigned in 2021 and returned to her hometown, L City, to work as a social worker. She often organized learning activities in university and thus has her ideas for teaching.

If you follow the PPT, especially the handbook, they (the elderly) would not understand or want to listen. You need to change your seat to consider the elderly to understand what they

are most concerned about, such as pensions, grandchildren, and shopping mall promotions, instead of the lofty terms from experts.

Dai Qian

Another unexpected situation for experts is that the reason many seniors why participate in elderly education activities is not for their learning needs. For example, Aunt Li viewed attending classes as supporting social workers in completing their work and receiving feedback on their daily services. This is a form of personal relationship (Renqing), a reciprocal activity, not a learning activity. Even some elderly people were not clear about what course this was, and the reason for attending was "there were many people here, it's very lively" (interview materials: Wu Qiaofeng).

She (a social worker) is very enthusiastic and provides me with good service. She will take photos and pour water for us if we come to the classroom. We are willing to support her work. For example, the fraud prevention course (Protection Movement) needs people to participate. I call sisters to listen to her course.

Aunt Li

In short, experts who claim to serve the elderly, are, in fact, not responsible for the teaching, which creates a vacuum space between theoretical and practical elderly education. Two coexisting knowledge states are present in front of social workers, one centered around experts during the design stage, and the other centered around the experiences of the elderly in the classroom. Social workers become the lubricant between experts and the elderly to achieve the work.

4.3 Administrative workers or professionals

Considering the political situation, collaboration with The NC managers is the only strategy for social workers to achieve the protection program. In elderly education courses, teaching venues and equipment are essential components. For example, the desirable places of PP at least have projectors, screens, or televisions to play course PPTs. At the same time, it is also necessary to consider the learning characteristics of the elderly and equip them with large electronic screens and audio devices to facilitate their watching and playing visible popular science videos. The floor where the classroom is located should be a manageable height or equipped with an elevator to facilitate the entry of older adults into the classroom. Finally, NC manages plenty of institutions such as drinking water facilities and toilets that elderly education activities need.

In practice, the cooperation between social workers and The NC is a convention. For example, social workers participate in community activities organized by NC as community members to support their daily work. Yu Hui, a social worker, has been working at Zhongyu Community for three years, and she and her colleagues are mainly responsible for the Civil Affairs Bureau. At the institutional level, the NC must cooperate with their work and provide the necessary facilities. However, they must establish good relationships with the NC because "the words of the Civil Affairs Bureau are not effective in the community". She said that the NC could provide helpful assistance in practical work.

The secretary (the manager from NC) let us enter the resident group on WeChat and send the elderly education course information. She recommended some active residents to us. Our workplace is on the top floor, without an elevator, and the steep stairs make it difficult for the elderly to climb. The secretary helps us connect here (a teaching venue that meets the requirements).

Yu Hui

However, this collaborative relationship can quickly become a "subordinate" relationship. Although the task indicators that The NC and social workstation need to complete come from different departments' regulations, the former is the street office, and the latter is the civil affairs bureau, there are some overlaps and similarities between the two. In addition, when faced with many administrative functions and various unexpected tasks, the NC cleverly transfers some of the content to social workers, who become the "right-hand man" of NC, and their professionalism is overshadowed by administrative work.

Social workers are also aware of this dilemma and are trying to regain their independence. Some social workstations are in workplaces with high-quality teaching equipment and spacious classrooms. During the implementation process, they consciously utilize this and reach voluntary service agreements with community elderly activity groups such as elderly dance troupes and choirs. Members of elderly groups respond to the call of social workers to participate in various activities in exchange for using the working space of the social workstation.

Some communities where social workstations are located have good social resources, such as contacting faculty and university students, inviting them to participate in social services, conducting case studies, and organizing teaching activities with social workers.

Furthermore, social workers can gain the trust of the elderly. In addition, social trade unions actively contact some private enterprises that need to participate in social services and have relatively large funds. Properly utilizing such social resources gives social workers the confidence to rely on something other than the community. The relationship between social workstations and community NC is not fixed and unchanging. As social workers strive for better teaching places, establish trust with community residents, or collaborate with other institutions, their relationship with NC will shift from "dependence" to "autonomy" and become dependent objects. "We do not rely on the community. Conversely, they rely more on (us), and they need our help to organize activities" (Interview material: Lin Jiali).

5. Discussion

Implementing CEE is not easy, especially when social workers, as the crucial grassroots bureaucrats, are facing multiple pressures. The internal pressure comes from the education project itself which adopts a quantitative assessment method to require the results and thus sets up cumbersome assessment procedures. These tasks immerse social workers in the administrative work of data collection and processing and reshape them into a type of machine rather than a caring role. The CEE program reshapes social workers as text collectors, which causes them to have little time to focus on other work. Moreover, expert discourse is seriously disconnected from reality, which results in an apparent inconsistency between national policy

and community practice. To achieve CEE's requirements, social workers need to become translators to alleviate the obvious inconsistency.

External pressure comes from the workplace, where the government has seemingly delegated power to social workers, but the critical nodes that determine the effectiveness of CEE are still in NC's hands. Social workers need to adopt more proactive strategies to cultivate the relationship with NC. In the process, there exists an unequal relationship between social workers and administrators of NC. Therefore, social workers sometimes must give up their professional roles to achieve the administrative tasks of NC. In short, social workers face multiple pressures from the CEE and the workplace, and they are inclined to complete data statistics and administrative work rather than to be the role of caring for seniors.

6. Conclusion

The implementation process of CEE not only reflects the concerns of the state to an ageing society but also the statecraft on social work and community governance. Although existing research emphasizes increasing funding to elderly education programs and improving the wages of social workers, in practice, the relatively flexible execution space for social workers is urgent and necessary. Decentralizing elderly education programs could reduce the unnecessary administrative burden of social workers. If social workers cannot gain enough trust and independent working space in administrative procedures, they can only be forced to become cold data collection machines, ignoring the real needs of the elderly and even questioning their social work mission. Therefore, policymakers and the government should give social workers more flexible independent space, ensuring they autonomously arrange working procedures and pedagogy.

7. Acknowledgement

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Growing Share of Digital Payments in Asian Economy: Evidence from Banking and Customer Perspective

Mozna Syed^{a,*}, Zubir Azhar^b

^aSchool of Management, Universiti Sains Malaysia, Penang, Malaysia

Email: mozna.syed@student.usm.my

^bSchool of Management, Universiti Sains Malaysia, Penang, Malaysia

Abstract

The COVID-19 pandemic era and predisposition towards the 2030 sustainability agenda have intensely raised the need for paperless transactions. This study explores how the transactional landscape evolved over time towards digital payments and its effects on consumer demand and economic and environmental sustainability. The study analyzes the growth of digital payment methods in Asia from 2018 to 2022. Based on IMD World Digital Competitiveness Ranking (2018), countries including Malaysia, Pakistan, India, China, and Tajikistan, among others were chosen using a stratified sampling technique. From each country, a manual analysis of annual reports of a conventional and an Islamic bank was conducted for: the number of credit cards issued, new mobile app subscribers, percentage use of different digital payment platforms and financial inclusion. To understand the impact of digital payments on customers, from each stratum, collectively a random sample of 1000 have been gathered through structured questionnaires. The data were analyzed using the SPSS analytics tool. The empirical results indicated a constant rise in digital payment methods and a positive promotional effect on consumer demand. From an economic and environmental perspective, the study indicates a strong positive role towards achieving sustainability. The rising trend of digitalized payment methods requires businesses to adapt to the e-commerce environment to stay relevant and competitive. Financial intermediaries should focus on introducing innovative payment methods that are convenient, cost-effective, and safe for the environment. The study further paves the way for future researchers to explore the reason for the relatively low popularity of digital payment methods in the Islamic, compared to the conventional banking system, as indicated by this study.

Keywords: Digital Payments, Economic Sustainability, Consumer Demand, Banking, E-commerce

1. Introduction

The advent of technology and the transition towards the COVID-19 post-pandemic era has brought noticeable changes in the developed economies and is now swiftly sweeping its way into emerging markets. The customers of financial services are now highly sophisticated and well-equipped to embrace the technological changes, such as digital and mobile banking, that is shaping the regional landscape of the banking industry.

Aggressive penetration of mobile technology and development in wireless telecommunication infrastructure in emerging economies has significantly fueled e-commerce, mainly mobile devices as a means of transaction or completely relying on mobile commerce. The shift towards wireless communication has evolved the transactional landscape from completely paper-based transactions to the majority use of electronic gadgets and other forms of wireless communication for purchasing goods and services, known as digital payments. This includes electronic means of payment, digital money or electronic money. The preference is not only based on the speed of technological intervention, but the security, and ease of use are the other contributing features.

As a compliance initiative towards Green Banking guidelines, banks in Asian economy are now stressing more on digital transactions. To achieve 2030 Agenda of SDGs¹, countries are now aggressively stepping towards digital financial inclusions and inspiring people to acquire digital means of payments through introduction of better banking Apps, ease of online payments, low charges on sending and receiving remittance lifting people out of poverty (SDG 1), safer, reliable and faster digital transfer of wages by businesses, empowering women to control their own finances (SDG 5), offering stations for metering, billing and collecting utility charges, payment through digital wallets and cashbacks, pay-as-you-go solar energy panels, micro-mortgages, managing risk and making investments (SDG 2), electronic toll payments, ease of accessing working capital and creation of new jobs (SDG 8 & 9) and promoting banks to charge for paper-based services such as bank statement, receipt generation and cheque books (Tay et al., 2022). The use of digital payments in distribution of COVID-19 reliefs by 58 countries in post pandemic era is a remarkable achievement. (Gentilini et al., 2020).

Mobile money in developing economies grew by 12.7% in 2020. 13 million users were reported to make their first online transaction, by VISA, the global credit card company. While a money mobile service, Orange, reported a surge in worldwide merchant payments, PayPal, an online payment platform, experienced a tremendous growth in digital payments, specially pertaining to rising popularity of remote working and more take-ups of online jobs due to COVID-19 movement restriction (Bazarbash et al., 2020).

However, rural residents, uneducated population, women, poor and elderly still remain a major challenge, pulling down the pace of financial inclusion in developing economies. In addition, people with visionary or cognitive impairments are special cases that require further innovative methods for enabling technology adaptation. Low-income users are less likely to use digital payment methods due to lack of capacity to afford internet connection or smart phone (Anggraeni et al., 2021). In some cases where women were not digitally literate, had no smart phone ownership, or were uneducated, were less likely to use digital payment methods as compared to men. In Turkey, use of digital payments is 14% higher in men as compared to their counterparts, while in Mexico the ratio is almost twice. Lack of internet availability, electricity and enough point-of-sale terminals also lead to cash as a preferred mode of payment in developing economies like India (Adhikari & Agashe, 2020).

¹ SDGs: The SDGs, or Sustainable Development Goals, are a set of 17 goals established by the United Nations in 2015 to address global challenges such as poverty, inequality, climate change, and environmental degradation.

While, such problems are common in developing economies, as per Global Findex Survey conducted in 2020, when respondents were asked for their preferred way of payment, cash or digital, there was a clear split, given the required infrastructure for digital payments is present and it complies to Technology Acceptance Model (TAM).

Thus, this study mainly focuses on three aspects of digital banking: the rising need of digitalized payment methods in emerging economies, its immense positive impact on consumer demand and profitability for businesses, and its constructive role in helping countries with developing economy in achievement of 2030 SDGs Agenda.

2. Literature Review

Rapidly evolving customer expectations has played a tremendous role in aggressive expansion of digitalized financing. Globally, since 2010, more than 200 new digital banks have mushroomed, with a growth rate of 190% since 2015. This creates a strong urge for innovative eco-friendly products, lower cost, increased speed and improved quality of digitalized payment services by businesses and financial intermediaries. Digital payments are now the integral core of millennial markets working on digitalized business models such as Amazon, E-Bay, Facebook or Netflix, among others (Jungkiu Choi et al., 2020). Mobile payments and Fintech are taking the commerce industry in Asian economies by storm (Milian et al., 2019).

The Technology Acceptance Model (TAM) proposed by Davis in 1986, identified that an individual's intention to use technology is dependent on perceived ease of use (cognitive effort required to operate that technology) and perceived usefulness (utility generated) of that technology. Further building upon his model, many researchers proposed how these two factors can in turn affect the user attitude, towards digital products (digitalized payment methods) which can be defined as user's rating of that technology in terms of usage (Ajzen, 2002). Customers have been found willing to pay more while using digital payment method when compared to cash-based transactions as they find these methods easier (Runnemark et al., 2015). Introduction of payment function by debit card, has significantly reduced cash-based transactions and cash holding among consumer (David et al., 2016). (Wijayanti & Riza, 2017) stated in their research, that perceived ease of use positively affects perceived usefulness, and both factors affect user attitude. Attitude serves as a primary determinant of consumer demand (Katzner, 1989). (Zhou, 2022) in his latest study conducted in China stated that digital payment has a positively significant impact on consumer demand. Hence, the hypothesis for this study:

H1: Digitalized Payment positively affects user attitude.

H2: Positive user attitude promotes consumer demand in emerging economies.

Economic and sustainable growth can be achieved when individuals and businesses can efficiently avail, long term, high quality affordable financial services (UNCDF, 2015). Banks heavily rely on IT and financial technologies to gather, process, and distribute data, along with utilizing economic and statistical models to assess information. Digital innovation and spillover have surfaced, empowering banks to attain greater and more sustainable technological advancements and fully leverage their financial capabilities (Berger, 2003). (Buckley et al., 2019) contend that financial technology (fintech) serves as the primary catalyst for financial inclusion, which, in turn, forms the foundation for sustainable and equitable

development, as outlined in the UN-SDGs.

H3: Digitalized Payment methods increases financial inclusion.

H4: Financial Inclusion promotes SDG compliance in emerging economies.

Developing economies mostly run on trading of perishable goods, which is at risk of credit default and capital opportunity costs, while running on cash-based system (Wang et al., 2018). Facilitation of digital payments platform is essential for furthering emerging economies towards sustainable development due to their scalable nature, and high development and low marginal costs.

In case of Islamic digital banking, the users of shariah digital services are relatively difficult, and their adoption to digitalized Islamic banking is also dependent on most importantly customer religiosity (Amin et al., 2013; Johar & Suhartanto, 2019).

3. Conceptual Framework

Digitalized payment is the independent variable, affecting consumer demand through user attitude as the mediating variable, and SDG compliance through financial inclusion as mediating variable.

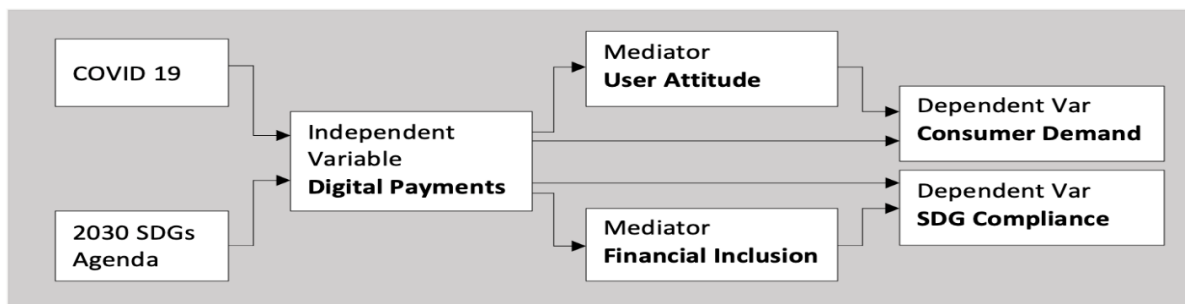


Figure 1 Conceptual Framework

4. Methodology

The sample was selected based on IMD World Digital Competitiveness Ranking (IMD-WDCR) 2018 (IMD, 2018). The overall ranking of 63 countries is calculated based on three factors: knowledge, future readiness and technology, further divided on 9 sub-factors and segregated into peer rankings based on population size and geographical region. Selective countries from Asian group has been considered for this study.

Table 1 List of Asian Countries Selected in Sample (IMD, 2018)

	Strata		Strata
Israel	Western Asia	China Mainland	Eastern Asia
Jordan		Korean Rep.	
Turkey		Hong Kong SAR	
Qatar		Taiwan	
UAE		Japan	
Saudi Arabia			
Kazakhstan		Central Asia	India

Russia		Malaysia	
Mongolia		*Pakistan	
*Tajikistan			

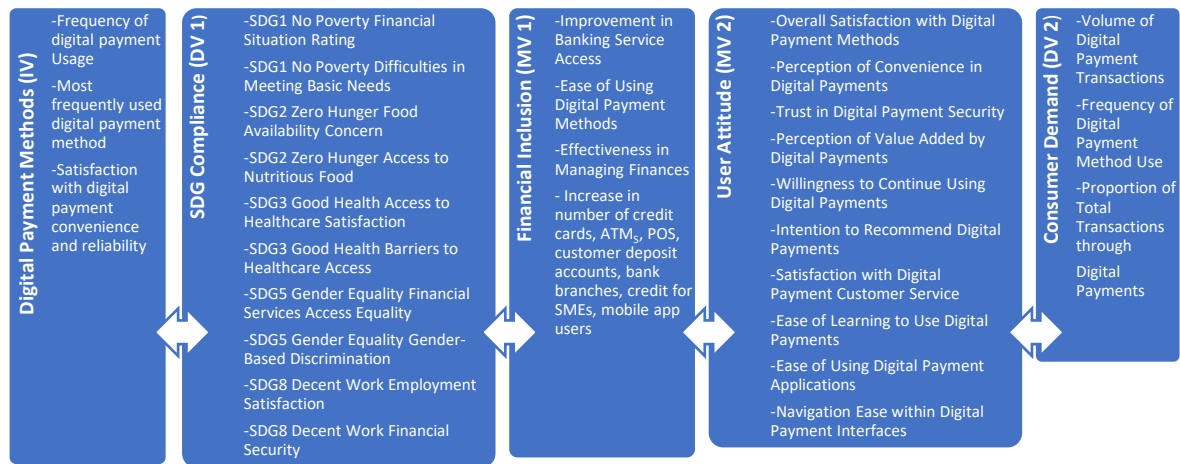


Figure 2 Variables of the study

4.1 Scope of the Study

Asian countries listed in the IMD-WDCR 2018 are included. Pakistan and Tajikistan, though not included in IMD ranking, are incorporated due to ease of data collection and accessibility.

4.2 Sample Size

The sample has been shortlisted using stratified sampling technique, where 4 strata based on geographical regions were defined. From each stratum, 3 countries were selected based on cluster sampling and further using random sampling technique, data from 1100 respondents was collected, setting response rate at 90%, using structured online questionnaire for a sample size of 1000. To fully understand the rate of growth for digital payments in Asian economy, from each cluster, manual analysis of financial reports of a conventional and an Islamic bank was also conducted for: the number of credit cards issued, new mobile app subscribers, and percentage use of different digital payment platforms. Financial inclusion has also been assessed from the bank's annual reports, to understand banking perspective on achievement of SDGs through number of bank branches, ATMs², POS³, credit for SMEs⁴ and number of customer deposit accounts (F. A. Khatib et al., 2022) over a data period of 5 years.

5. Result and Discussion

The respondents of this study consist male/female from Asian countries; full/part-time employed, student, unemployed, age ranging from 18 to 60 years old, with educational level from below high school to professional degree and using banking system for at least more than 6 months (Islamic, conventional or both).

² ATM: Automated Teller Machines

³ POS: Point-of-Sale

⁴ SMEs: Small Medium Enterprises(s)

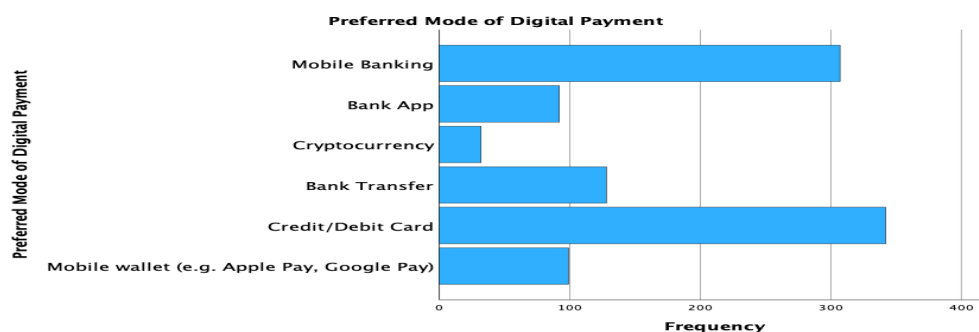


Figure 3 Preferred Mode of Digital Payment Customer Perspective (2018-2022)

The descriptive analysis further indicates a strong consumer liking towards digitalized payment methods than cash-based transactions in majority of their purchase transactions.

Table 2 Percentage of total purchases made through digital transactions

How much %age of your Total Purchases is Digital?	No. of respondents	Percentage
0%	130	13.0%
1 to 25%	176	17.6%
26 to 50%	192	19.2%
51 to 75%	245	24.5%
76 to 100%	257	25.7%
Sum	1000	100%

Financial inclusion as part of SDG compliance through digitalization of financial landscape is evident. 50.8% of the respondents declared increased level of trust on financial institutions, while 47.8% agreed that they now feel themselves being more financially included. 56.0% respondents believed that their carbon footprint has decreased due to use of digitalized financial products and 16.6% stressed on importance of digital financial products that promote environmental protection. Upon analysis of annual reports for last 5 years, conventional banking experienced a tremendous average growth of more than 15% in financial transactions through digital channels, with a simultaneous average increase of 12% in number of ATMs, 10.7% increase in POS and average 5% increase in number of customer deposits. Though low paced, Islamic banks also experienced a surge of digitalized payment platforms.

The reliability of the data and its validity was tested using Cronbach's alpha values for consumer demand (0.897) and growth of digitalized payment methods (at 0.921). Both tested variables have values greater than 0.7, indicating a reliable and valid model (Straub, 1989). Pearson coefficient of >0.7 indicates a statistically significant relationship between variables. H2 is validated with value of r between consumer demand and digital payments of 0.91. Digitalization of payment methods positively improves consumer attitude, hence promoting consumer demand.

Table 3 Correlation: Mediating and Dependent Variables

SDG_	Financial_	Digital_	Consumer_
Compliance	Inclusion	Growth	Demand

SDG_1 Compliance				
Financial Inclusion	.96**	1		
Digital_ Growth	0.76**	0.81**	1	
Consumer_ Demand			0.91**	1

**Correlation is significant at the 0.01 level (2-tailed)

Using ordinary least squares path analysis, mediation analysis results support acceptance of **H1** and **H2**; user attitude significantly mediates the relationship between digital growth and consumer demand. Table 5 shows a positive association of digital payments with user attitude and of user attitude with consumer demand. Based on 5,000 bootstrap resamples, bootstrap confidence for indirect effect was entirely above zero (0.3841 to 0.8189), suggesting a strong mediating role of user attitude.

Table 4 Hypothesis Testing H1 and H2, using Ordinary Least Square Analysis

	Mediator (User Attitude)				Dependent Variable (Consumer Demand)			
		B	SE	p		B	SE	p
Independent Variable Digital Payments	<i>a</i>	0.6567	0.0793	0.0000	<i>b</i>	0.6573	0.1136	0.0000
Mediator (User Attitude)		-	-	-	<i>c</i>	0.8802	0.1569	0.0000
		R ² =0.5644, F=68.66, p<0.001				R ² =0.6181, F=42.07, p<0.001		

Table 5 Hypothesis Testing H3 and H4, using Ordinary Least Square Analysis

	Mediator (Financial Inclusion)				Dependent Variable (SDG Compliance)			
		B	SE	p		B	SE	p
Independent Variable Digital Payments	<i>a</i>	0.3654	0.0793	0.0000	<i>b</i>	0.1659	0.0641	0.0034
Mediator (User Attitude)		-	-	-	<i>c</i>	0.3186	0.1245	0.0000
		R ² =0.36544, F=28.60, p<0.001				R ² =0.1797, F=24.69, p<0.001		

H3 and **H4** are also accepted, based on results concluded in Table 6, with 0.3654 coefficient between digital payment and financial inclusion as mediator. The bootstrap confidence is fairly above zero (0.281 to 0.881), indicating 0.267 variance in independent variable.

6. Conclusion

The study finds that digital payment methods are playing a significant role in stimulating consumer demand and promoting sustainable economic development from bank and customer perspective. The paper also highlights the rapid rising share of digital payments in Asian economies; relatively slower in Islamic banking viz their counterpart. Asian countries should promote the development of digital payments to boost consumption and sustainable economic growth, but also improve relevant laws and regulations, establish credit investigation systems, standardize digital payment transactions, and accelerate financial technology innovation to ensure financial security and economic sustainability.

Fintech development in many Asian economies, encounters a series of formidable challenges. Geographic factors and government framework play a major role. Observed in the study, more common challenges in fintech development were cited in central and southern Asian countries because of poor ICT infrastructure monopolized by state-owned telecom providers creating uncertain business environments, small markets with low maturity, and limited access to fair finance. This is a major cause of lower financial inclusion rate in these countries compared to their counterpart: European economies and western and eastern Asia. These hurdles can be overcome with better infrastructure, supportive regulations, market growth, increased financial access, and promoting women financial inclusion.

The study's findings can be used as a reference for future researchers to conduct an in-depth analysis of the cause for relatively slower growth of digitalized banking in Islamic banks viz their counterpart in countries of the study and understand the intensity and possible impact of customer religiosity on digitalization of Islamic banking products and services.

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Insurgency and the Challenges of Food Crop Production in Nigeria: Analysis of Borno State Scenario

Alabi Yinusa¹, Razlini Mohd Ramli Ph.D^{2*}, Mohamad Zaini Abu Bakar Ph. D³

¹School of Social Sciences, Political Science Section, Universiti of Sains Malaysia.

^{2*}School of Social Sciences, Political Science Section, Universiti of Sains Malaysia,

³School of Social Sciences, Political Science Section, Universiti of Sains Malaysia,

¹yinusaalabi@student.usm.my

^{2*}razlini@usm.my

³Zainiab17@yahoo.com

Abstract

Since the return of democratic government in 1999, Nigeria has been subjected to a slew of insurgency attacks. The most powerful of these is the Boko Haram insurgency, which began in 2002 and accelerated in 2009, culminating in the assassination of their pioneer leader, Ustaz Mohammed Yusuf. The rebellious sect's violent actions have severely degraded food crop production in Borno State northeast Nigeria, prompting researchers to study the exact state of the marvel. The situation has put Borno State and the country's food crop production in jeopardy. This paper analyses the current state of Boko Haram insurgency challenges on food crop production in Borno State Nigeria. The relative deprivation theory is used as a theoretical guide in this study to explain the current state of Boko Haram violence in Borno State in the country's northeast region. The study concludes, using secondary data and analysis, that government insincerity is the root cause of insurgency activity in the country. As a result, the study advises the government to be sincere in policy implementation and governance, which will go a long way toward improving people's well-being and preventing them from feeling deprived, which can lead to frustration and violence against the government.

Keywords: Insurgency, Challenges, Food Crop Production, Borno State, Nigeria

Introduction

The insurgency has also contributed significantly to the curse of food crop production in Nigeria in the last decade. States such as Benue, the country's food basket, have been severely impacted by the activities of the rebellion who disguise themselves as herdsmen and attack and mutilate farmers daily due to an age-old dispute over land and grazing routes (Journal & Sciences, 2020). Similarly, in Borno State, Boko Haram insurgents have separated farmers from their farmlands and murdered many people in the state. This has resulted in food scarcity and high prices for the limited options available in the market.

Many reasons contributed to the formation and evolution of Boko Haram; comprehending the overall context of the area is critical to understanding the drive itself. Poor governance and a limited state presence are the primary causes of Boko Haram's emergence

and growth. Other variables include unemployment and underdevelopment, environmental and desertification pressures alleviated by the Lake Chad Basin's retreating waters, and the long history of Islamic liberalism (Hussain & Muhammad, 2021). Boko Haram was founded in 1995 by Abubakar Lawan as the Ahlusunnah wal jama'a hijra or Shabab set (Muslim Youth Society) in Maiduguri, Borno state, as a nonviolent movement until 2002, when Muhammad Yusuf assumed leadership of the group (DeVito, Jr., 2017). This group has gone by numerous names throughout the years, including Muhajirun, Hijra, Ahlulsunnah wal Jama'a, Yusufiyya, and Nigeria Taliban (Hussain & Muhammad, 2021). Since its inception in 2002, the set has consistently expanded its reach while also resulting in increasingly catastrophic spells.

Boko Haram is a group of Islamist extremist youngsters that gathered at the Alhaji Muhammadu Ndimi Mosque in Borno state's Maiduguri some time ago. In 2002, a group of young people (later known as Boko Haram) declared Borno state to be both intolerably corrupt and irredeemable. This group claimed to be embarking on hijra (the sideways removal of the Prophet Muhammad's drawing from Mecca to Medina) (Smith & Walker, 2002). The group departed Maiduguri, the capital of Borno, for Kanama, a hamlet in Yobe state on Nigeria's border with the Niger Republic, to build a nationalist community based on hard-line Islamic ideology (Thurston, 2016). Its front-runner, Mohammed Ali, embraced an anti-state worldview and called on other Muslims to join the movement for a return to living under "true" Islamic law, to create a spotless civilization free of the immoral system. After a communal disagreement over fishing rights at a local fishpond in December 2003, this group clashed with the Nigeria Police. The set members overcame the squad of police officers and took their arms. The conflict resulted in a military siege of the mosque, which lasted until the next year. The blockage ended in a gunfight that killed the set's seventy supporters, commanded by Mohammed Ali (Thurston, 2016). Since its first attack on Bauchi jail in northern Nigeria in September 2010, this group has carried out over 500 spells that have killed over 3,500 people. After a year, in July 2009, the Nigerian Police executed the terrorist group's founder, Mohammed Yusuf, and hundreds of his followers near the group's major stronghold in Borno, Maiduguri (Thurston, 2016). After a year, Mohammed Yusuf's former deputy emerged to become the terrorist group's commander, Abubakar Shekau (Afzal, 2020).

Borno state is renowned as the "home of peace," even though the previous eleven years have been marked by conflict. The state has twenty-seven local administrations and borders the Niger Republic to the north, Cameroon to the east, and Chad to the northeast. Borno is one of the North-Eastern states most affected by the Boko Haram insurgency. Boko Haram militants have carried out several insurgencies and acts of violence throughout the state. Borno state is experiencing a conflict-related humanitarian disaster, with civilians suffering as a result. Between 2011 and 2021, the state was by far the most hit by Boko Haram's violent attacks in Nigeria (Ikemefuna, 2022). The violence has displaced people across the state and into neighboring countries, and the populace continues to rely on humanitarian aid to survive.

Since the inception of the Islamic rebel group known as Boko Haram (BH) in 2002, their actions have been universally and vehemently denounced in Nigeria and by the international community for the indiscriminate and brutal attacks on innocent citizens that have resulted in numerous deaths, injuries, and property destruction (Zenn & Pieri, 2018). As reported by the Leadership Newspaper (February 26th, 2014), about 300 individuals, including innocent kids, were killed in February 2014. The bloodhounds of Boko Haram, who are now attacking soft targets in remote villages, are adopting and killing farmers, thereby interfering in the activity of food crop production that guarantees food security. In the recent decade, Boko Haram's rebellious activities have dispersed farmers from their farmlands and as well killed many in Borno state. This has led to food insecurity and high prices for the limited ones

available in the market in Borno State. Reports have it that, on December 2, 2020, seventy-six farmers were killed in a brutal massacre carried out by Boko Haram insurgents in Borno State the northeast region. Reports also indicated that the insurgents claimed responsibility for carrying out the attack in retaliation for their member who was arrested by the farmers and handed over to the Nigerian army (Report, 2021). In line with the foregoing, this study seeks to analyse the challenges of insurgence on food Crop Production in Borno State Nigeria, with the following plan; Introduction, Literature Review, Theoretical Framework, Methodology, Insurgency, and the Challenges of food Crop Production in Borno State Northeast Nigeria, Insurgency in Borno State, The Ways Forward and Conclusion.

Literature Review

Concept of Insurgency

As observed by Thomas et al. (2021) insurgency, he refers to it as a "war among a non-ruling group and the governing powers in which the non-ruling faction deliberately uses political resources and violence to destabilize the ruling authorities." According to Publication (2018) insurgency is a "war among a non-ruling group as well as the governing powers in which the non-ruling faction deliberately uses political resources and violence to destabilize the ruling authorities." NATO (2020) opines that insurgents have the nihilist goal of ensuring the government cannot function and it is easier to achieve the insurgent goal than governing, as it is easier and more directed to use military power than to apply political, economic, and social techniques. This implies that while insurgents might use violence to delegitimize a government, they cannot regain that authority with force alone (EPIC, 2021). Insurgency is defined as a planned use of force or threat of ferocity to achieve specific religious, ideological, or political goals through intimidation, force, or instilling fear. As the concept is broad, social, economic, and religious change may be its primary goals, as its actions are directed not only toward people but also toward belongings (Policy & To, 2020). "An insurgency is a political-military campaign by non-state actors that aim to topple a government or separate from a nation via the employment of conventional and occasionally unconventional military methods or tactics," according to the Central Intelligence Agency (Through et al., 2021). From a position of relative weakness, an insurgency is a basic struggle for power and control.

According to Khalid (2020) insurgency is a conflict between governing and non-ruling factions to retain or undermine the legitimacy of the authority by using political resources (propaganda and protests) and violence. The author goes on to talk about anarchist, egalitarian, and conservative insurgencies, as well as apocalyptic-utopian, reformist, and preservationist insurgencies. The author also points out those insurgent organizations' aims and techniques for achieving them may alter over time. For an effective insurgency to take place, the techniques and goals must complement one another. The rebels' methods will vary based on the instruments they utilize and the aims they want to achieve. The protracted popular war strategy, a military tactic, is one of the four tactics discussed. Scholars of International Relations have used terms like insurgency, guerrilla warfare, revolutionary, and jihadists carelessly. The charismatic attractiveness of the leader, the Esoteric and exoteric appeals (both are employed), and the terror and effect of external exploitation (the latter refers to the exploitation of the masses' concerns) are all strategies for gaining public support. When public manipulation and mass mobilization fail, terrorism is utilized to accomplish the intended goal of generating fear. As a result of the people's submission, the government's response is directed against rebel organizations that dispute the government's legitimacy and authority. The government's approach borders on violence, and because it is not soon forgotten by the people, it breeds

hostility among certain members of the affected community, who see the burning as collateral damage, against the governments in power (Muzaffar, 2021; Khalid, 2020).

"The purpose of insurgency is to confront and overthrow an existing government for control of power, resources, or power sharing," according to a statement on the USDOD notion of insurgency. The above descriptions and statements make it evident that an insurgency is an attack intended to destabilize a governing authority, with the only intention of generating difficulties for the administration of the area and wreaking devastation on innocent people (Peek, 2021).

Insurgency is defined as full-scale premeditated aggression by any concerned group or individuals, mostly non-state actor(s), in the form of a terroristic act, characterized by the intent to cause fear and precipitate violent acts to cause death, as well as unimaginable inflictions against the opposing party, which is usually the constituted authority, the State, non-state actor(s), or civilians, to dominate or be in virtual control of the affairs in dispute (Balogun et al., 2020).

According to Lammers (2017) insurgency in general is distinct as a situation in which (a) a group of actors (b) employs violence to (c) challenge the established regime's sovereignty, (d) with the goal of political change. The concept of contested sovereignty is first discussed in this section. Second, divide insurgency into sub- and super-insurgencies. based on these criteria, supersets of linked phrases for conflict.

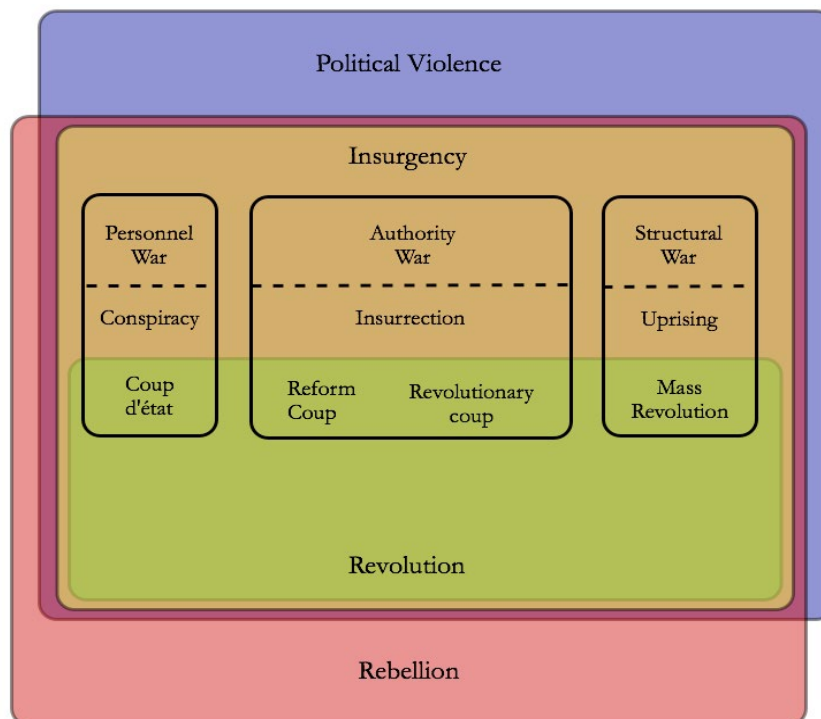


Figure 1: Source (Lammers, 2017).

Insurgency is a superset of both insurgency and political violence, as well as insurgency. Personnel Authority and Operational War are two insurgency types that differ in terms of the degree of public contribution. When contestations of sovereignty continue, and when these contestations have resulted in a change to the established system, each of these three categories has its title (Lammers, 2017).

According to the scientific concepts provided above, an insurgency is a planned violent action carried out by people or groups of persons to achieve their goals. It is a worldwide problem that is tough to manage. Nigeria is involved in the Boko Haram insurgency in Borno State's northeast area, which has been on-going for almost a decade. The government has made numerous efforts to counter it, yet it is still pervasive. One of the effects of the on-going conflict in Borno State is the danger to food crop production. Borno State has long been a tranquil region, proudly known as Nigeria's food basket. However, sustained Boko Haram activity has altered the situation, pushing many farmers to evacuate their fields to safer areas. However, in this study, insurgency refers to the heinous activities of Boko Haram members, who are responsible for the deaths of many farmers and forcing others to flee to safety areas, and Nigeria refers to the heinous acts of terrorists that have harmed food crop production in Borno State, resulting in food insecurity in the region and Nigeria as a whole.

A challenge is described as a circumstance in which a person is faced with something that requires significant mental or physical effort to complete successfully, thereby putting a person's ability to the test (Charuplakal & Kumaramkandath, 2021). Çalıkoğlu (2019) discovered that lack of predictability activates reward-related brain regions, such as midbrain dopaminergic neurons, that are denser than the participants' certain preference for reward. Their research explains why the lack of certainty or predictability allows people to stay on task. As a result, in a challenging context, the optimal level of success expectation lies between the extremes of certain success and certain failure. However, in this study, the term challenges will be used to refer to problems confronting farmers because of Boko Haram activities in Borno state in Nigeria's northeast, which is impeding food crop production.

A subset of agriculture concerned with growing crops for food and fibre is food crop production (Mohapatra, 2020). Rice, wheat, Maize, sorghum, groundnuts, yam, potatoes, millet, cowpea, and soybean are the most important food crops grown in Borno State's northern region of Nigeria.

Theoretical Framework

Several theories can be applied to the problem of insurgency. However, this paper is based on the relative deprivation theory. Garry Runciman (1934-2020) and Ted Gurr (1936-2017) advocate the relative deprivation theory (Smith & Pettigrew, 2015). This may be due to a lack of funds or time to support certain lifestyles, activities, and amenities to which an individual or group has become accustomed. As a result, social exclusion is common, having a strong influence on behavior and attitudes, which are widely mentioned as reasons for the rise of social movements such as insurgency, riots, civil wars, and other manifestations of social deviation, which can lead to politics in extreme cases (Bledsoe, 2018).

The theory shows how one person's relative scenario concerning another person's situation or position leads to inferential dissatisfaction. This could be due to a scarcity of funds or time to support certain lifestyles, activities, and amenities to which a person or group has become accustomed. As a result, social exclusion is widespread, and it has a significant impact on behavior and attitudes, which are frequently cited as reasons for Insurgency, riots, civil wars, and other manifestations of social variation, which in extreme cases lead to politics (Bledsoe, 2018).

The theory of relative deprivation can also be used to investigate the behavioral consequences of perceived or real deprivation sensations. The actions of a deprived and aggrieved individual or group are a manifestation of the behavioral effects of seeking their rights to achieve social fulfilment. According to Smith et al. (2012) social contentment is the

opposite of relative deprivation. As a result of the extrajudicial assassination of their commander, who was in police custody, the Boko Haram terror group felt betrayed and offended and resorted to violence. Boko Haram chose to wage an insurgency against Nigeria, in my opinion, because they have lost all hope of restoring societal contentment. This idea is consistent with UNDP's (2010) claim that marginalized individuals or groups will use any means available to them, including violence, to improve their situation and circumstances. In some cases, peaceful protests across the country for infrastructure development, self-determination, basic health and education services, and social justice have gone unanswered; security forces have met these basic demands with barbaric violence. The circumstances described above provided moral necessity and justifying, as well as an enabling environment for violent conflict. As a result, the Boko Haram insurgency was unsurprising; the conflict had only been brewing for a while.

The diagram below (figure 2.1) illustrates the theoretical framework used to explain why this study adopted the relative deprivation theory.

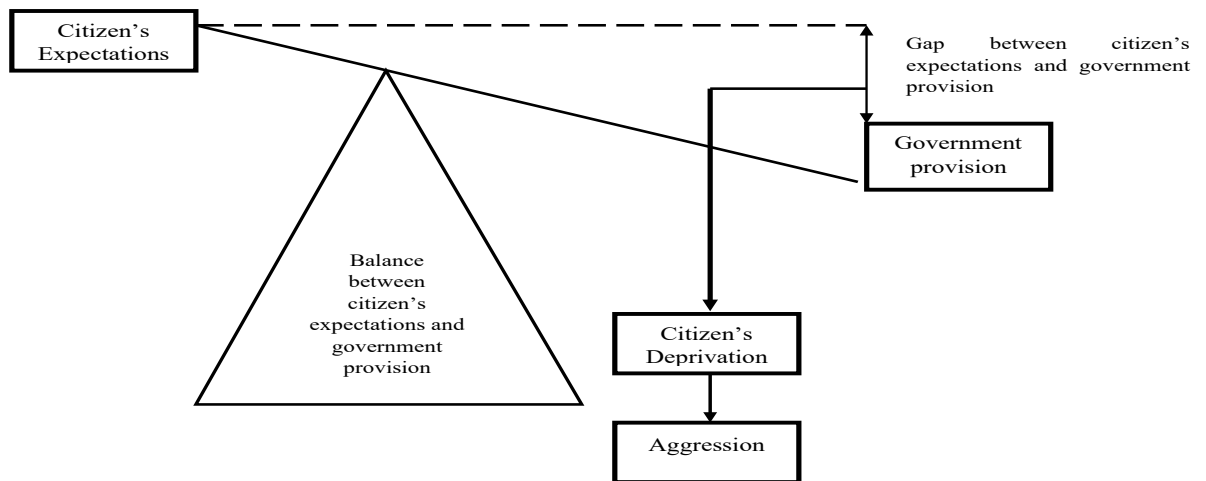


Figure 2: Theoretical Framework of Relative Deprivation Theory (By the Author)

When this theory of relative deprivation is adapted to insurgency and the challenges it is easy to conclude that the production of food crops in Borno State, north-eastern Nigeria, Boko Haram insurgency began because of the government's level of political deprivation. The sect was not violent at first, according to reports, until the government of Borno State clamped down on them, resulting in the murder of their leader, Mohammed Yusuf, in 2009. (On et al., 2014; Sule et al., 2019; Ekpa et al., 2020; IEP, 2017). As a result, the group has terrorized the country, particularly the north-eastern region of Borno state, killing over 30,000 farmers destroying farmlands, and producing value in the billions of dollars.

Furthermore, relative deprivation theory was used in this study because its construct shows that a society's systemic failure or structural flaw is strongly linked to frustration and aggression, which leads to criminality and violence. The high rate of unemployment among graduates and non-graduates in modern Nigeria reflects systemic failure. In the Niger Delta, youth militancy is linked to unemployment (Agri & Eeji, 2019). The insurgency by Boko Haram in the Northeast (Monisola Oluwaleye, 2021). The southeast has a high rate of kidnapping and political assassination (Embu & Igomu, 2016), among other issues.

Methodology

This study employed the qualitative research approach to gather, analyse, and interpret non-numerical field data. Qualitative research is the study of the nature of phenomena and is particularly effective for addressing questions about why something is (not) seen, analysing complicated multi-component treatments, and focusing on the enhancement of interventions (Busetto et al., 2020). The central feature of qualitative research is that it investigates how people make sense of their concrete, real-life experiences in their minds and words, and then analyses these understandings in the context of behavioural sciences such as psychology, sociology, politics, education, health education, and business management, among others (Rahman, 2016). Furthermore, qualitative research is based on data collected by the researcher through first-hand observation, interviews, questionnaires, focus groups, participant observations, recordings produced in natural settings, documents, case studies, and artefacts. The data is primarily non-numerical.

Insurgency and Challenges of Food Production in Borno State North-East Nigeria

Previously, Borno State in Nigeria's northeast region was a peaceful state where agricultural activities and food crop production could be carried out without fear of insurgency. However, in the last decade, the state has become a haven for insurgents, with frequent bombings and killings, posing significant challenges to agricultural activities.

The people of Borno State in northeast Nigeria are primarily farmers, with farming serving as their primary source of subsistence and contributing to the region's and the country's economies. However, Boko Haram's recent insurgency activities since 2009 have resulted in the deaths of many farmers and forced some of them to flee to neighbouring states and other countries that surround them (Felbab-brown, 2018). As a result of the insecurity, food production and consumption in Borno state have suffered significant setbacks, particularly among farming communities whose livelihood is dependent on food crop production (European Parliament, 2021). The insecurity situation has had a significant impact on agricultural households whose primary source of income is farming (FAOUN, 2021).

Hundreds of farmers have been murdered or forced to abandon their farms for safety. Access to land and livelihoods has grown progressively difficult for the majority of those impacted by the crisis (OCHA, 2021). As a result, the country is now facing a food crisis. Thus, even the United Nations is concerned that Nigeria may be unable to send food to other Sahel nations afflicted by terrorism since its northern area, which is the core of food production, has been the most severely damaged by terrorist activities (At, 2021).

Food products including pepper, tomatoes, and beans, which are typically grown in the country's northern portion, are in limited supply. More concerning is the fact that these products, which are part of an ordinary household's daily diet, are no longer available in abundance due to insurgency (Babagana et al., 2018). Despite favourable agro ecological conditions, the country is no longer capable of producing enough food to sustain its population (Pawlak & Kołodziejczak, 2020; Nwozor, Olanrewaju, et al., 2019). The situation has deteriorated to the point that rural communities are experiencing acute hunger as farmers are unable to access their farmlands for agricultural activity (Part, 2021).

Mohammed Namadi (Chairman of the Borno State Framers Association) anticipated this in 2014, stating:

"As farmers, we have suffered greatly over the past three years." Several farmers, both old and young, have been forced to abandon their farms. Many people have been murdered or forced to abandon their rice as well as other crops that were ready for harvest or planting. The Borno Farmers, who now live in abject poverty, insecurity, and isolation, may face extensive chronic hunger if immediate relief is not provided" (Eme et al., 2014b).

Seven years later, the situation remains unchanged, and in addition to insurgent operations, the military onslaught against the rebels in the form of continual bombings and cordoning off of targeted regions has had an impact on agricultural activity as well. As a result, villages have been separated from their farmlands by armed barricades, and rebels are expanding their activities in the countryside, forcing farmers to evacuate their farms in search of safety. According to Eme et al., (2014a) this trend has resulted in wild rice on 10,000 hectares (24,700 acres) during the harvest season, jeopardizing private firms' large-scale investments in cultivation and milling. Many businesses have partially closed as they await the restoration of peace and order in the region. Furthermore, some farmers, food dealers, and transporters are terrified or fleeing to prevent injuries, resulting in food store closures and lost commodities (Abdul'Aziz, 2012 cited by (Ogunniyi et al., 2021).

This low productivity yield is expected because terrorism has caused a 'farmers drain,' in which several youths from rural areas who used to work in agriculture have fled to Maiduguri to join the jihad, while others have fled to neighbouring countries or nations for safety (Aliyu Mampawa, 2012a University of Maiduguri lecturer cited by (Abdul'Aziz, 2012 cited by (Ogunniyi et al., 2021).

Crop yield has been severely harmed by the fighting, particularly in Borno State's hardest-hit areas. Farmers' families have been unable to pursue their traditional livelihoods due to casualties and population displacements, which have disrupted daily farming activities. Food supply constraints and limited access to farms and markets in Borno have resulted in localized food crises and significant food shortages. The challenges of the conflict are unequal. Physical destruction and displaced person movements have wreaked havoc on Borno State, undermining farming as a source of income (Robert Avis, 2020).

Violent conflict reduces agricultural productivity and output by affecting and limiting labour supply, restricting access to land, and lessening several social and economic support networks (Ikemefuna, 2022). Food crop production in Nigeria is an important sector of the country's economy, with most rural farmers producing enough food to supply and export. The agricultural sector in Nigeria makes up mostly 40% of the nation's Gross Domestic Product. However, violent group attacks have decimated agricultural productivity in the region (Ikemefuna, 2022). Food availability and household/individual food consumption are being strained because of the effects of conflict-related attacks. Reduced agricultural production has resulted in decreased food availability and a food shortage in markets and families (Ikemefuna, 2022). Because of the effects of violent conflict, agricultural production has been disrupted and people have been displaced, leaving fertile lands abandoned and uncultivated. Borno state, once the centre of trade activities, has now become the centre of the Boko Haram Crisis, with farmlands turned into battlegrounds, forcing farmers to flee to camps where they must rely on aid to survive (UN, 2018).

Farmers' output has decreased dramatically because of the Boko Haram insurgency, evidenced shown, on average Farmers' annual output before the insurgency was 57.97 bags, but it dropped dramatically to 21.47 bags after the insurgency. This translates to a 45.94% decrease in income for farmers in the affected Borno state (Madu, 2019). In essence, this has rendered most farmers vulnerable and unable to provide adequate food for their households. According to FAO (2017) the insecurity situation has had a significant impact on households whose primary source of income is farming. Households that engage in crop production usually do so at the risk of their lives, and they are frequently unable to visit farms far away from home due to insurgents.

The insurgency's instability has resulted in a precise and significant increase in prices for key crops produced in insurgency control areas, as well as exports to other regions of the country, Chad, Niger, and Cameroon. This price increase is primarily due to a decrease in agricultural output, a lack of labour, a scarcity of farm input, market uncertainty, and an increase in transportation costs. Cowpea, maize, millet, rice, and sorghum production has dropped by 40% in areas affected by the insurgency, affecting the overall food supply to other parts of the country (Ojo et al., 2018). This decrease in crop output is due to a decrease in labour availability because of the threat of attacks on farmers on their way to farmland. Farmers and farm labourers are both concerned about farm attacks or bombs planted on farm roads. Due to a labour shortage, weeding and harvesting have been delayed and improperly timed. This insurgency has forced many farmers to relocate to safer areas to save their lives, causing them to abandon their farmlands. Some of the crops they grew were also perishable and spoiled, resulting in waste (Ojo et al., 2018).

The agricultural sector has become a target for the militants who require food supplies. Borno State which once prided itself as a major food crops production hub for self-consumption and surplus to boost the country's economy has been having challenges continuing with farming activities due to the Boko Haram insurgency violence actions (Central Bank of Nigeria, 2022). In Borno State, the insurgency is viewed as a harmful phenomenon that contradicts the country's principles and standards. (Institute for Economics & Peace, 2017). The use of force and violence against individuals, as well as the destruction of property, particularly agricultural land that provides food, with the intent of coercing or terrorizing society, is a flagrant violation of criminal laws and deteriorates moral standards (Human Rights Council, 2020).

Insurgency in Northeast Nigeria's Borno State: The Way Forward

The insurgency has undoubtedly hampered food crop production in Borno state, northeast Nigeria. Despite their magnitude, the challenges are not insurmountable. As a result, the following suggestions are made in these articles to assist the country in addressing the consequences:

Nigeria's security forces should be effective by letting their men search for the rebellion group to avoid extrajudicial killings and other forms of human rights violations rights abuse against group members and other blameless citizens of the country. People accused of belonging to the Boko Haram terrorist organization should be prosecuted, and if found guilty, they should be sentenced to death. The federal gov't should modernize the intelligence-gathering apparatus. Capital must be spent on sophisticated weapons and technical equipment apparatus that can be used to suggest the group's position, and detect, and degrade the effective bomb. Conflict resolution that is context-specific and multi-layered is required, as are local broad-based management and prevention initiatives involving all regional and global decision-makers.

Nigeria's government should continue to work with international partners like the United States of America., the United Kingdom, China, and others for information and intelligence sharing due to technological and security advancements in fighting terrorists. To boost morale and enable them to defeat the Boko Haram terrorist group, additional personnel should be brought into Nigeria's security agencies, particularly the military. Then, the government should put personnel welfare, and descendants of war heroes should be provided with scholarships and remuneration. To boost their morale in their fight against the insurgents.

Nigeria must also implement an educational policy in the Northeast region that allows poor children, particularly those in Northern Nigeria's Almajiri system, to obtain Western education by establishing schools or academic institutions.

The Nigerian government should prosecute those accused of assisting the Boko Haram group to cut the group's source of funding for urbane arms for their violent actions. However, the national government should encourage a national conference that will bring people from different ethnic groups together as well as serve as a stage for inter-religious discourse to achieve harmonious living between the compilations.

The government of Nigeria should address the country's unemployment issue, both in the north and throughout the country. It could be accomplished by instituting socioeconomic programs to employ the unemployed Nigerian youths who are being used as a tool by Boko Haram to carry out their violent actions.

There is no smoke without fire or the conflicts of life. Several factors contribute to the insurgency in Nigeria. Insurgency in society is the result of vices spreading everywhere, such as corruption in both open and closed sectors, bribery of the highest order, weak and bad government, injustice, nepotism, condemnation of innocent citizens, racism, political crimes, and so on. In a country rich in natural resources that can benefit its economy. Sincerity in policy implementation and governance will go a long way toward improving citizen well-being and preventing citizens from feeling deprived, which will lead to frustration and violence against the government.

The set will remain in the country's northeast region of Borno state to further destabilize, and its violent activities will spread to other parts of Nigeria. As a result, the government should address the issue of poverty inequality, and corruption as soon as possible and inspire investment in the Northeast region to promote transparency and public discourse, paving the way for a sustainable response to the ferocity as well as an insurgency against the country, bringing lasting peace and fostering food crop production in Borno state and the country.

Conclusion

The Boko Haram insurgency has had serious consequences on Borno state in northeast Nigeria produces food crops as well as Nigeria in general. This organization has carried out several violent attacks. The issues that have raised the aggression of the Boko Haram group, a challenge to contemporary food crop production, will not yield fruitful results until the government effectively attacks the true remedial activities. The group will remain in the north-eastern region of Borno state to destabilize, and its violent actions will spread to other parts of the country. As a result, The government should address poverty and corruption while also encouraging investment in Borno state and the north-eastern region in general. This will pave the way for a long-term response to the ferocity as well as an insurgency against the country, bringing about lasting peace and promoting regional food production as well as the country.

Conclusions of Boko Haram's violent actions on food crop production and the socioeconomic framework of Nigeria's Borno state's northeast region require extra funding for a visual investigation not only of the Insurgent set but also of other battle tendencies in Nigeria, such as wars among Fulani herders and farmers in the Middle Belt region. As a result of the insurgency disaster, an insurgency faction may continue to seek a different plan and approach to spreading and realizing her ideal; position crushed militaries to simultaneously ravage communities and groups (recall that one of the primary reasons for leadership schism is the very violent concepts, strategies as well as spells on even parallel Muslims by Shekau, the Boko Haram leader). Furthermore, the guerrillas' sect has proven to be a thorn in the flesh of the country's army, with access to lethal weapons. As a result, to understand the source of the censored insurgent group, the military, and academics must undo the foundations of small and light arms proliferation.

Limitations of the Study

This study, like every other study, experienced several limitations. However, the researchers believe that these restrictions were insufficient to have a substantial impact on the findings.

First, the study was qualitative, with interviews serving as the sole data source. The researcher was not well-versed enough to engage in fluent discourse with the individuals. This constraint, which would normally have had a significant influence on the outcome of this study, was addressed with the assistance of a research assistant who was proficient in both Hausa and English.

Another possible constraint was the danger of being attacked when meeting with the participants since it was difficult to determine who was and wasn't a member of the Boko Haram terrorism sect in Borno State, Northeast Nigeria. Despite this anxiety, the researcher was able to collect enough data for this study.

As a result, the researcher's attempt to visit the Borno State Ministry of Agricultural Services to obtain essential information from the Director of Agricultural Services was unable to be completed in a single visit. It appears that it took a long time and several phone calls before we were able to get his attention and communicate. Aside from that, it took a long time to persuade him to discuss problems related to Boko Haram terrorism with us since disclosing such information was regarded as sensitive and harmful. However, after it was realized that it was for academic purposes, relevant information was eventually obtained from the Director of Agricultural Services, Borno State, Northeast Nigeria.

Implications of Research

Unlike typical research outcomes, the findings of this study have three implications. This study's policy implications range from theoretical to practical to empirical. This research will examine them in turn to consider these implications as they pertain to the investigation.

Theoretical Implication

During this investigation, it was discovered that the operations of Boko Haram terrorists in Borno State, Northeast Nigeria, were deviant and intended to ruin people by maiming, murdering, kidnapping, and displacing them from their heritage. The aggressiveness of their attacks was consistent with relative deprivation theory.

The theoretical implication of relative deprivation, as justified in this study, explains the problem of terrorism and its implications for food security in Borno State, Northeast Nigeria, and suggests that the Boko Haram terrorist group began its radical response of bombing and killing Nigerians, including farmers, as a result of the government's level of political deprivation.

Similarly, the sect's operations in terrorizing the citizens of Borno State in northeast Nigeria have prevented them from partaking in agricultural practices while also restricting them from their usual social, political, and religious freedoms, fearing that they will be assaulted at any time.

The implications of this hypothesis have demonstrated that the state has been pushed into a catastrophic food security problem, and only time will tell whether the Boko Haram danger will be eradicated.

Practical Implication

The study's findings have practical implications, such as the amount of poverty experienced by citizens of Borno State in northeast Nigeria. People are now living as refugees, owing to the dislocation caused by the insurgency of Boko Haram terrorists.

Their travel and farming operations have been severely restricted. People are now living in dread, and all actions are being unfairly governed with little or no freedom. As a result of the actions of Boko Haram terrorists in Borno State, Northeast Nigeria, the true agricultural practice that was once considered a regular profession of the people can no longer be recognized in that fashion, with the effect on food security.

Empirical Implication

Empirically, the findings of this study contribute to the current literature. It has broadened the scope and range of prior work in this area by focusing on the whole Borno State rather than a specific portion of the state. By its discovery, it has opened up new avenues for other researchers to consult while conducting research in this field. This study is particularly unique in that it is entirely qualitative, setting it apart from past research.

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Challenges of Contributory Pension Scheme in Nigeria

Ahmed Usman Egye ^{a*}, Razlini Mohammad Ramli ^b

^a School of Social Sciences, Universiti Sains Malaysia
Ahmed22@student.usm.my

^b School of Social Sciences, Universiti Sains Malaysia
Razlini@usm.my

Abstract

The aim of this study is to analyse the challenges bedeviling the implementation of the contributory pension scheme in Nigeria with a view to making recommendations as to how to address the challenges. Nigeria implemented the Contributory Pension Scheme (CPS) in 2004 with the aim of providing sustainable pension benefits to public and private sector workers. The CPS is a defined contribution scheme where both the employer and employee make contributions to the pension fund. Pension Fund Administrators (PFAs) then manage the contributions by investing the money in a variety of securities, including stocks, bonds, and real estate. We reviewed and studied the challenges in the process of implementing the contributory pension scheme in Nigeria. Secondary data were sourced from the National Pension Commission (Pencom), journals, and textbooks. The study found that the scheme's irregular and delayed retirement benefit payments, corruption, low private sector coverage, and low public awareness have all hindered its implementation in the Nigerian public service after more than seventeen years of operation. The paper concluded that the values of the new pension scheme, if properly implemented, have the capacity to improve the living conditions of retirees. The paper recommends, among other things, that the National Pension Commission use its regulatory powers to enforce compliance with the pension laws by employers, fight corruption in the system, and intensify public awareness of the need for the general public to embrace the new pension scheme.

Keywords: pension, contributory pension scheme, retirement benefits, challenges

Introduction

In recent decades, there has been a significant implementation of reforms known as "pension privatisation," which involves the substitution of existing public pay-as-you-go (PAYG) systems with funded defined contribution (FDC) schemes, or what is known in other parlance as a contributory pension scheme (CPS). This reform has gained widespread adoption. According to Holzmann et al. (2008), cited in Wang et al. (2016), the implementation of mandatory FDC schemes is typically located within the second pillar of the World Bank's multi-pillar pension framework. Nevertheless, there has been a noticeable decline in the traction of "pension privatisation" in recent years, resulting in its reduction or complete elimination in several countries where it was previously enacted or put into practice (Wang et al., 2016).

Ayegba et al. (2013) argued that while the precise origin of Nigeria's pension system remains contested, its origin can be traced back to the prolonged conflicts between employees and

employers, which eventually led to the establishment of gratuities and pensions. The first pension law in Nigeria was the 1951 Pension Ordinance. Later in 1961, the National Provident Fund (NPF) was created to address pension issues in the private sector. In 1979, the Armed Forces Pension Act No. 103 and the Pension Act No. 102 were introduced. The Police and Other Government Agencies Pension Scheme was subsequently established in 1987, following the Pension Act No. 75 of 1987. Similarly, the Local Government Staff Pension Board was founded in 1987 to handle pension issues involving local government employees (Ijeoma & Nwifo, 2015). The National Social Insurance Trust Fund (NSITF) was established in 1993 to address pension and retirement concerns in the private sector as a result of the flaws and limitations of the previous plan. Over the years, budgetary allocations have typically funded Nigerian pension plans. They are non-contributory and underfunded, leading to bottlenecks and many post-retirement deaths due to late or non-existent payments. These difficulties ultimately led to the implementation of the Contributory Pension Scheme in 2004.

The birth of the contributory pension plan in Nigeria in 2004 as a crucial part of social security reforms had the potential to assure pensioners' financial security and stability. It signifies a change from the conventional pay-as-you-go pension system to a more individualised and sustainable strategy. The Act introducing the scheme reorganises and combines the two aspects of pensions and retirement plans that were in operation. It also comes with the potential for a sweeping reform that would change pension management in the nation. The contributory pension plan covers employees in both the public and private sectors (Marcellus & Osadebe, 2014). The scheme requires employers to contribute 10 percent while employees contribute 8 percent to their' retirement savings accounts. The primary objective of the pension reform is to ensure timely disbursement of retirement benefits to individuals employed in the federal government's public service, the federal capital territory, and the private sector.

However, numerous issues have arisen during the past 15 years that have prevented Nigeria from fully realising the noble objectives of the contributory pension plan and reaping its intended benefits. According to Agboola and Adeyemo (2017), the implementation of the retirement policy has not helped in alleviating the suffering of retirees as a result of delay in payment of retirement benefits, low payment adequacy as compared to the defined benefit scheme, fraud, and discrimination in benefits among ministries, departments, and between males and females. The challenge points to funding due to the unbearable hardship on retirees, especially government employees, whose pension entitlements are delayed or not paid at all before they die (Okoh, 2022). The delayed or nonpayment of pensions is attributed to resource constraints, inadequate and irregular release of funds even when budgetary provisions are made, political instability, inadequate delivery structure for payment, and lack of database of pensioners, which have portrayed the government as uncaring and insensitive to workers' plight (Pencom, 2014). Therefore, it is imperative to explore the administrative and implementation strategies currently used for the scheme as well as the challenges bedevilling its smooth operation. This will help in identifying the bottlenecks and recommending innovative strategies for implementation. Although previous studies have analysed the scheme (Amoo, 2008; Kpessa, 2011; Odia & Okoye, 2012; Adebayo & Dada, 2012), they failed to explore the implementation process of the scheme and thus, could not identify the actual challenges and provide better solutions.

Theoretical Perspective

New Public Management Theory

The theory that is best suited for this study is the new public management theory. The choice of the theory is based on the fact that it clearly explains the rationale behind the adoption of a contributory pension scheme as a way of injecting efficiency and effectiveness into the system by opening up the pension industry to private sector influence. The 1980s and 1990s saw the emergence of the "New Public Management" (NPM) ideology and approach to public administration. The new public management vehemently supports a fundamental shift in the government's function in society and the economy. NPM proponents suggested opening up the public sector to more private sector influence in order to restructure the state along more economical and efficient lines (Hood, 1991, cited in Andrews & Van de Walle, 2013). It comprises intentional adjustments made to public sector organisations' structures and procedures with the goal of making them (in a limited sense) run better (Pollitt & Bouckaert, 2004, cited in Ikeanyibe, 2015). The theory is concerned largely with how to provide public goods resourcefully and rightfully (Shah, 2006, cited in Akinola, 2020). It places a strong emphasis on the crucial function of the "market" as opposed to the "state" as the main regulator of society and the economy.

Concept of Pension and Contributory Pension Scheme

The concept of a pension has often been a subject of debate. It can be seen as an act of transferring resources from one working life to another post-retirement when income dries up (Modigliani & Muralidhar, 2004). Hinrichs (2021) sees pension as the financial aid given to an employee who is no longer in service due to old age, retirement, disablement, or the compensation given to dependent children or widows of the employee by the employer, the funds to which both the employee and the employer have contributed over time. Adewumi (2020) stated that a pension is a benefit or stipend set aside for an employee in compensation for the service rendered to an organisation, which gives an employee the assurance of life after retirement. A pension scheme is a policy of social security designed to cater for the welfare of employees after meritorious years of active service. It is also designed to cater for the welfare of dependents in the event of death (Nwanna & Ogbonna, 2019).

A contribution pension scheme, on the other hand, is based on an agreement between the worker and the organisation he works for to contribute a certain amount of money to the worker's retirement account. The advantage is that the totality of the contributions and the interest generated are paid to the retiree (Assets Resources Management, 2004). The contributory arrangement in Chile, where Nigeria copied it, is managed by specialised companies, which are called pension fund administrators. In Nigeria, workers are expected to deposit a minimum of 10% of their wages into their retirement accounts managed by specialised companies of their choice. The worker's contributions are put into various securities, like equities and fixed-income instruments, among others. The contributions and the profits are tax-deductible (Vergara, 1997). According to Curtin (2009), employers have continued to move forward with less reliance on defined benefit plans and more on defined contribution plans.

Objectives of the Contributory Pension Scheme

According to Bar (2002), cited in Jafar et al. (2019), there are two main objectives that affect the creation of a pension system: the individual's objective and the government's policy objective. From an individual's standpoint, a pension system is formulated with the intention of facilitating smooth consumption during the retirement phase while also serving as a safeguard against the potential risks associated with longevity and inflation. According to the policy objective, the main goal of implementing a pension system is to serve as a means of income distribution and to effectively mitigate poverty rates among the elderly population. The objectives of the new pension scheme in Nigeria, according to Fapounda (2013), are: to make sure that every individual who has worked receives his retirement benefits when due, whether in the public or private sectors; to help curb individuals' extravagant spending by ensuring that they save for their future and make provisions for their livelihood, especially at old age; to ensure that rules and regulations for management and the disbursement of retirement benefits in both the public and private sectors are uniformly established; and also to stalk the growth of outstanding pension liabilities. Assets and pension funds are kept by Pension Fund Custodians (PFCs), while the CPS is contributory, completely financed, and based on individual Retirement Savings Accounts (RSAs) that are confidentially managed by Pension Fund Administrators (PFAs).

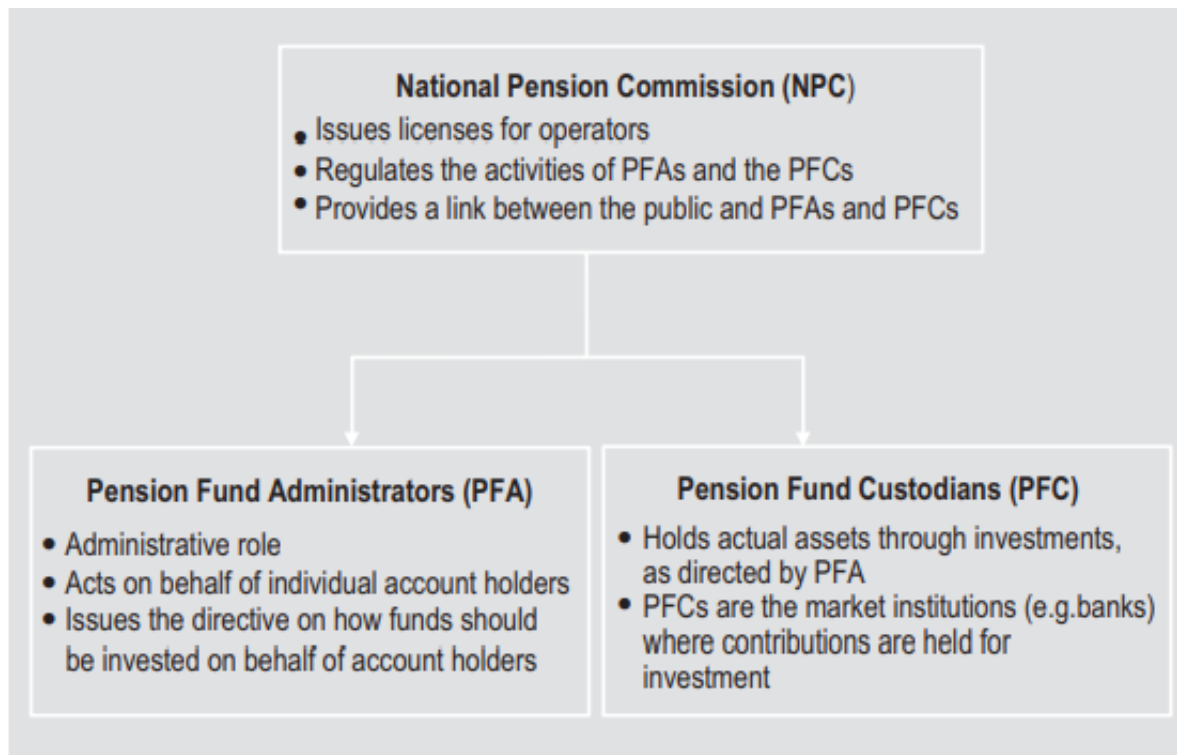


Figure 1: Structure of Pension System Governance in Nigeria

Benefits of the Contributory Pension Scheme in Nigeria

The significance of a pension system is progressively crucial in guaranteeing that prospective retirees and elderly individuals possess adequate financial resources to maintain their desired quality of life upon the conclusion of their professional careers (Jafar et al., 2019). Many countries the world over are now well aware of the benefits that contributory pension schemes can bring to improve the welfare of pensioners and the productivity of public servants. Considering the lofty objectives of the scheme, retirees should stand a chance of gaining so much from it (Okoh, 2022). The contributory pension plan in Nigeria has a number of advantages for employees, organisations, and the economy as a whole. Odo et al. (2019) opined that the newly introduced contributory pension scheme was borne out of the determination to introduce to the Nigerian people a completely different pension market that, apart from procuring retirement benefits for employees in both the public and private sectors, will guarantee a structure that provides constant pension income for retirees. The new pension scheme also enables employees to save a specific amount of money from their monthly salary to ensure their welfare at retirement.

Furthermore, the new pension scheme is expected to increase employees' productivity, labour retention, and commitment to duty and reduce the attitude of corruption in the public service. This is due to the fact that lack of assurance of collecting gratuity and pension after active service was the major factor that accounted for the brain drain in the civil and public service in Nigeria.

In addition, the contributory pension scheme is anticipated to have multiplier effects on workers' attitudes towards retirement as their welfare is improved, which would, on the other hand, promote their commitment to duty as well as reduce the spate of corrupt practices, especially in the public service.

Njuguna (2010) highlighted additional benefits, which include the promotion of national economic growth and development, the mobilisation of savings for investment in crucial sectors, the improvement of the Gross Domestic Product (GDP), the prompt payment of retirement benefits, and the reduction of poverty during retirement, among others.

Challenges and Issues in the Implementation of the Contributory Pension Scheme in Nigeria

Pension schemes across the globe are faced with a lot of problems, of which Nigeria is not an exception (Kida & Sambo, 2018). Despite Nigeria's reform of the pension industry, the country still faces so many challenges in the pension system. The key challenges are as follows:

Delay in Payment of Benefits to Pensioners

Lack of timely release of funds by employers to their retired employees is a thing of great concern (Etuk, 2022). The objective of the contributory pension scheme is to ameliorate the suffering associated with the payment of pension benefits, but the present arrangement appears to have compounded the problem. Most Ministries, Departments, and Agencies (MDAs) are not ready to comply with the pension law, which enjoined employers to remit contributions to RSA immediately after payment of salaries. This hinders the smooth operation of the CPS. Evidence from the quarterly reports of 2016, 2017, and 2018 of the National Pension Commission

(PENCOM) revealed cases of uncredited pension contributions, delays in the payment of retirement benefits, and outstanding commitments by public organizations. The abrupt delay in payment of retirement benefits to pensioners brings about low self-worth, hopelessness, and the feeling of not being good enough to oneself and their family, resulting in unexplained cases of death among retired workers (Ugwoke & Ogoegbunam, 2013).

Additionally, the biggest challenge of non-payment or delay in the payments of pensions has left many retired Nigerian workers in poverty, subjecting them to a miserable and frustrated life (Ogunbameru, 2011, cited in Jiboku et al., 2021). Some of these retired workers have tolerated abuse and an unfavourable work environment while in service and now have to wait for months to collect their worthless lump sum payment of 50% of their savings (Etuk, 2022). According to Jiboku et al. (2021), while some pensioners have to wait years to receive their benefits and allowances, others who are less fortunate pass away before their families can claim their entitlements. The law stipulates that a worker who retires before reaching the age of 50 can request a withdrawal of a 25% lump sum to his credit in the RSA, but the withdrawal can only be made six months after retirement, and such a person should not have secured another appointment elsewhere. (Anyim et al., 2014). The pension commission, which has the mandate to sanction erring organisations, has not lived up to its responsibilities. (Assets Resource Management, 2004).

Low level of compliance and coverage in the private sector

A major characteristic used to judge any pension scheme is the percentage of people who benefit from it (Bolle, 2000). According to Dostal (2010), cited in Ubhenin (2012), as of 2010, the contributory pension plan covered around four million Nigerians in a country with a workforce of about fifty million. Fapohunda (2013) revealed that there are serious impediments to successful implementation of the new scheme in the informal sector as a result of the absence of a clear structure and the clumsy composition of the informal sector. Including the informal sector in the new pension plan is pretty problematic. There is a need to integrate the informal sector into the contributory pension scheme in order to make it all-encompassing. The consequence of this is that the scheme has become highly unreliable, depending solely on workers in the public sector and those living in cities while abandoning those in private organisations and villages.

Lack of adequate supervision and control

The regulatory body (Pencom) exhibited a lack of capacity to supervise and control pension offices and pension fund administrators. The slackness of the enforcement instrument has made many employers debit and not transfer the funds to the Retirement Saving Accounts of workers (Etuk, 2022). The pension offices and PFAs do not obey the Commission's supervisory and control powers, which is a violation of sections 30 to 38 of the 2004 pension law, despite the fact that the Commission and the offices had jointly worked out a supervisory blueprint on the activities of the offices. In advanced economies, all intermediaries, such as banks, insurance companies, and pension funds, are well regulated (Fapohunda, 2013). There is an adage that says, "He who lives in a glass house does not throw stones." PENCOM has no reason whatsoever not to perform its functions of supervising and controlling pension offices due to the fact that it has all the statutory requirements for its role. In this country, almost all public office holders are corrupt; therefore, they lack the moral courage to institute sanctions against others.

Low level of monthly pension

Pensioners perceived the introduction of the CPS as an effort to address the problem of inadequate pensions. However, the situation turns out to be the reverse of what they expected. The expectation was that there would be an increase in the monthly pay of pensioners with the introduction of the CPS compared to their terminal salaries. Beedie (2015) posited that, as is the case with most pension reforms, the focus of the reform of Nigeria's pension industry has been more on the sustainability of pensions than on the adequacy of pension income. In comparing the old and the new pension schemes, Olasehinde and Olaniyi (2019) asserted that the benefit in the old pension scheme is significantly better than what is obtained in the new scheme in terms of the amount of the pension benefit paid to the retiree. According to Fapohunda (2013), the newly introduced pension scheme lacks generosity compared to the defined benefit scheme, and therefore, it allows limited redistribution of wealth between age and income groups.

Limited awareness

One among the major challenges of implementing the CPS in Nigeria is the limited awareness among the populace, particularly those in the informal sector. Many people do not understand the concept of pension and how the scheme works, which has led to low participation rates. A scheme as big as a pension should develop a mechanism for proper education and orientation of stakeholders. This is unhealthy as such programmes seem to be missing in the scheme.

Lack of adequate investment

An additional key challenge facing the Nigerian contributory pension scheme is the absence of investment outlets for the accrued pension funds (Jongur, 2018). For example, only eleven classes of investment are available for the investment of pension assets, which is estimated at N2, 029.77 billion (PENCOM, 2010, cited in Jongur, 2018). The fear is that the limited investment outlets may not be enough to integrate the accumulated pool of pension fund assets. Therefore, a pool of pension funds may be chasing quite a few quality investments (Ameh et al., 2017). Sound investment and effective administration of pension fund assets have a huge impact on the economy (Adejoh, 2013). After nine years of the introduction of the contributory pension scheme in Nigeria, there is still doubt as to the capability of the scheme to address the problem of the scarcity of long-term funds for long-term investment (Nwanne, 2015).

Corruption

Nigeria is ranked the topmost corrupt country in the world (Transparency International, 2008) and among the sixteen failed states in the world, and it is placed on high alert (Fund for Peace, 2013). Corruption is one cankerworm that has characterised the civil service in Nigeria. Public officials embezzle public funds with impunity without minding the consequences. The problem with Nigeria is that corruption has eaten deep into our lives. According to Akpanika (2019), corruption is a social problem in Nigeria that has technically and negatively affected the social, economic, political, educational, judicial, and religious life of Nigerian society. It is a cankerworm that has eaten deep into the fabric of our national institutions. It is quite disturbing that the beautiful objectives of the newly introduced pension scheme have been undermined as looting of pension

money by corrupt government officials has continued unabated (Anyim et al., 2014). Due to widespread looting and fraud committed by civil servants against their former coworkers who had retired from service, international financial institutions recently projected the nation as having a very negative reputation. Ubhehin (2012) opined that Nigeria's inability to meet the obligation of paying retirement benefits has been traced to decades of corruption, misappropriation, fraud, and outright theft by some top public servants managing pension funds. Esebonu (2012), cited in Ubhehin (2012), opined that pension thieves have stolen pension money to the tune of N5 trillion naira. He further asserts that since the commencement of the contributory pension scheme in 2004, the pension fund cartel has stolen from the federal government the sum of N181 billion between two and three years. There is an allegation of embezzlement of pension funds by the former Head of Service, Mr. Steve Oronsaye and Abdulasheed Maina, the Chairman of the Task Force Committee on Pension Matters. The devastating effect of this ugly scenario is that starved and deprived pensioners are compelled to turn out for verification and biometric exercises at intervals across the country just to create confusion and prepare grounds for outright fraud in pension fund management.

Ambiguity in the definition of retirement age

Retirement age in the public service varies between 55 and 60 years, but the Pension Act is silent on this matter; rather, it states that no retiree shall be allowed to withdraw any amount from the Retirement Savings Account (RSA) before attaining the age of 50 (Adewumi, 2020). According to Anyim et al. (2014), the "Act stipulates that a holder of RSA upon retirement or attaining the age of 50 years shall utilise the balance standing to the credit in his RSA for a programmed monthly or quarterly withdrawal on the basis of expected life span." This particular provision of the Act is in conflict with the civil service rules.

Abolition of gratuity rights

Under the defined benefit pension scheme, retirees enjoy a lump sum payment and pension payment, normally on a monthly basis, for the remaining part of the pensioner's life. According to Afolayan (2017), the 2014 Pension Act had ended the right of the retirees under this scheme to receive gratuity, denying the employees the chance of being paid the usual lump gratuity by the employer to their employee after leaving the service. Similarly, Anyim et al. (2014) clearly submitted that the present contributory plan abolished the right to gratuity, thus refusing workers the chance of a lump sum payment to take care of their basic needs.

The monolithic nature of the scheme.

One of the shortcomings of the CPS in Nigeria is that it is monolithic and approved for all organisations in the country, both public and private, which is in contrast to what is obtainable in more industrialised countries such as the OECD countries. For instance, there are at least three different types of pension schemes available in the United Kingdom or Britain from which an organisation or individual could choose (Imhanlahimi & Idolor, 2013). With a monolithic pension scheme, pensioners in Nigeria, for example, may not be able to take adequate care of their families in spite of the advantages CPS could offer and also cater for their dependents. This is a sequel to the fact that the pension scheme may produce only marginal returns on investment in slow and

poorly controlled economies in many African countries, particularly Nigeria (Imhanlahimi & Idolor, 2013).

Complexity of the contributory pension scheme.

Another challenge bedevilling the implementation of the CPS is the fact that the scheme appears more complex to manage because its management involves computations of retirees' benefits on a monthly basis throughout the life of employment. There are now higher administrative costs. Generally, it costs more to administer the contributory pension scheme than the old system. Also, there is no cash flow advantage to the employer because contributions cannot be deferred by him. The scheme is less flexible for employers who do not control the funds contributed and cannot use them to their advantage whenever there is a need to do so (Fapohunda, 2013).

Conclusion and Recommendations

The objective of this study was to analyse the challenges inhibiting the implementation of the contributory pension scheme in Nigeria and its attendant consequences for the welfare of retirees. With the challenges outlined and examined above, it is obvious that the contributory pension scheme's implementation in Nigeria has not helped in addressing the plight of pensioners. Despite the fact that it is fully funded, based on individual accounts, and managed by private pension fund administrators, the contributory pension scheme has been plagued by delays and irregularities in the payment of retirement benefits, corruption, limited awareness of the potential benefits of the scheme, poor investment of accumulated pension funds, and low payment adequacy, among others. This has resulted in worker unhappiness and a fear that the policy will be unsustainable in the long run.

While the contributory pension system has the potential to give long-term pension benefits to both public and private sector workers, urgent action is required to resolve the obstacles to its implementation in Nigeria. To do this, employers' compliance with pension rules should be strictly enforced, corruption in the system should be combated, and public awareness of the necessity for the general population to embrace the new pension plan should be increased. It is also critical to guarantee that the appropriate infrastructure and pensioner database are in place to support the scheme's efficient administration. Finally, there is a need for relentless political will to guarantee that the contributory pension scheme is maintained and improved in order to benefit retirees and contribute to the country's economic progress.

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Overcoming Challenges of Shrinking Cities in Developing Countries: An Empirical Study from Northwest China.

Nur Ajrun Khalid^{a,*}, Gao Zhen^b

^{a,b}School of Social Sciences, Universiti Sains Malaysia, Penang-Malaysia

Email:^{a,*} nurajrun@usm.my

Abstract

Shrinking cities is a prevalent phenomenon caused by the migration of populations from small and medium-sized cities to larger urban centers in the process of social development. Rapid population decline in a city leads to systemic problems, including labor force shortages, reduced fiscal revenue and social consumption, and an inability to compete in urban areas. This trend is not limited to developed countries but has also emerged in numerous developing nations, drawing attention from academic circles. In western China, some cities have attempted to mitigate the situation, albeit with limited success. This article aims to examine the overall shrinkage of cities in northwest China and the administrative coping strategies employed to serve community residents better. The paper employs a systematic review technique that involves a comprehensive, objective and reproducible approach to gathering and evaluating evidence, utilizing discrete variable analysis to evaluate the degree of policy influence. The review indicates that while a series of government actions did not have a significant impact on urban shrinkage, they did have an important effect on urban public supply. These findings offer insights for the sustainable development of small cities and transitioning from developing to developed countries.

Keywords: Shrinking city, Urban competition, Developing countries, Administrative coping strategies, Sustainable development

1. Introduction

Shrinking city generally refers to metropolitan areas that experience significant population decline in a short period of time. The phenomenon of "urban shrinkage" is global. German scholars (Oswalt P & Rieniets T, 2006) noticed that with the adjustment of the global economic structure in recent years and the unprecedented population changes in developed countries (decreased population and structural aging), the phenomenon of shrinking cities is expanding rapidly around the world, especially in developed countries. When a city shrinks, it may affect its overall economic and social development. Although developed countries have carried out extensive and in-depth research on this phenomenon, developing countries have developed this phenomenon later and its causes are different from those of developed countries. Especially in the northwestern part of China, a large number of cities have a significant difference in the level of urban development compared with the cities in the central and eastern regions, and at the same time, there is a relatively obvious phenomenon of urban shrinkage.

In Northwest China, there are 52 cities covering 5 provinces, with a total of 3,080,008 square

kilometers, accounting for 32% of the total land area. According to the data from 2020, due to historical reasons such as the relatively harsh natural environment and industrial layout, there are only more than 100 million people. Living here accounts for only about 7% of the total population of the country. In 2019, the "Key Tasks of New Urbanization Construction in 2019" issued by the National Development and Reform Commission first raised the issue of shrinking cities. To increase the amount, revitalize the stock, and guide the population and public resources to concentrate in the urban area. This is also the first time that China has faced up to the problem of urban shrinkage at the government level.

The urban shrinkage caused by population outflow has led to residents' loss of confidence in urban development and has also led to a series of social problems. These social issues are affecting the residents and communities who still live in the city. The reduction of tax revenue, the decline of economic vitality, and the degradation of municipal services will all reduce the sustainable development of the community. Therefore, the purpose of this study is to investigate whether the policies formulated and implemented by the government have a significant impact on the economic development of shrinking cities in Northwest China. Whether community residents in shrinking cities can obtain the same rights and benefits as other growing cities. In fact, in the face of the plight of shrinking cities, local governments must show more incredible determination and ability to deal with the real problems of residents, including income, municipal service needs, and personal development, in the face of the new normal.

2. Literature review

Various types of cities have different causes of shrinkage, it can be roughly divided into three types. In Germany, the situation is driven by falling birth rates and the effects of German reunification. In the US, shrinkage is basically related to long-term industrial transformation (Wiechmann & Pallagst, 2012). In Japan, which is located in the same geographical location in East Asia, the aging of the population has mainly led to the "shrinkage" of the population in small and medium-sized cities (Döringer & Uchiyama, 2020). Chinese experience shows that while some cities act as growth engines in emerging economies, others may shrink, and this process may happen before the completion of a rural–urban transition (Yang & Dunford, 2018).

In Oswalt's view, shrinkage does not mean decline but moderate adjustment. This means that "urban shrinkage" is not an unconventional phenomenon in the process of urbanization, but a new trend formed in the process of transition from industrialization to informatization. Globalization of the economy, global financial flows and the internationalization of production processes are powerful underlying causes of shrinkage in numerous industrial cities that have been unable to find a niche in the current competitive international economic environment (Martinez & Cunningham, 2012). Theoretically, the distinctiveness of China's political transformation over the last 40 years, the character of its state and the continental size of its rapidly developing spatial economy have posed a major challenge to the existing Western (-centric) conceptualisations of urban growth and decline (Li & Mykhnenko, 2018). Moreover, some scholars proposed questions related to the role of the spatial mismatch concept and

particularly interrogate social structural dependencies and urban sprawl as examples (Reckien & Martinez, 2011).

People in high-income countries tend to move in one direction, either from one city to another for some reason or through a counter-urbanization process in which cities move into rural areas. Denying the vital role of public sector city planning (Pallagst, 2009) and ignoring the fact of shrinkage. Although they began to study the current situation of urban shrinkage at the end of the twentieth century, many scholars are optimistic that urban shrinkage can be dealt with or even completely restored through administrative means and external investment. However, as research progresses, more scholars tend to view this phenomenon neutrally and objectively (Audirac, 2018), and respond to urban shrinkage with proactive adaptation and adjustment rather than confrontational means.

It should be noted that although a large number of scholars have explained the causes and manifestations of urban shrinkage from the macro-economic structure and micro-specific cases, these studies mainly focus on high-income countries rather than upper-middle-income countries like China, which also poses new challenges to the methodological determination of this study. Since the research objects and cities in the above-mentioned countries are at different development stages and income levels, there is potential theoretical incompatibility. Therefore, according to the review and summary of the literature, there are still three problems to be solved, which will also be the focus of this paper. One is whether a shrinking urban population in middle-income countries will lead to a recession in the same way as in high-income countries. Second, what are the similarities and differences between urban shrinkage in northwest China and the highly urbanized countries represented by the United States and Germany. The third is whether upper middle-income countries or regions have effective responses to problems such as urban shrinkage.

3. Methodology

Different disciplines have different definitions of urban areas, we can find that urban shrinkage in the traditional sense refers to the outflow of population within the city. Chinese is different from the definition of a city in high-income countries, in which cities tend to be within an actual administrative area, including not only the narrow sense of urban construction area, but also the towns and villages within this administrative area. The data selected in this study are urban statistics in a broad sense, that is, the data of the entire administrative region, which is more conducive to explaining the causes and effects behind the changes of urban population and economic data of different economic structure types.

China carried out the sixth national census and the seventh national census in 2010 and 2020 respectively, and carried out detailed statistics on the registered population and non-registered permanent population in the province-city-county three-level administrative region, which has a strong authority and accuracy. By consulting the census bulletin and the statistical yearbooks

of each city, the population indicators and statistics of 52 cities in 5 provincial-level administrative regions of Shaanxi Province, Gansu Province, Qinghai Province, Ningxia Hui Autonomous Region, and Xinjiang Uygur Autonomous Region in Northwest China in 2010 and 2020 were analyzed. Statistics and calculations of economic indicators are carried out to obtain raw data.

Based on the data samples from 2010 to 2020, we use the population change ratio of these cities in the past 10 years as the abscissa, and the economic change ratio as the ordinate to carry out data analysis and graph generation. The national population growth rate in the past 10 years is 5.42%. The population growth rate in the past 10 years is higher than this value, which is the expanding city with population inflow, and the rest are shrinking cities with stagnant population growth or mechanical reduction.

Further findings can be found through research that from 2010 to 2020, there are 266 shrinking cities in China, an increase of 86 (12%) compared with 2000–2010. This indicates that the situation of shrinking cities in China has become more critical (Meng X & Long Y, 2022).

4. Data Analysis

The results of the linear regression model are as follows:

The model equation is: $\text{GDP per Capita Growth Rate (\%)} = 162.9540 - 1.9791 * \text{Population Growth Rate (\%)}$.

In the equation, the Intercept is 162.9540 and the Coefficient is -1.9791.

The Intercept represents the predicted value of GDP per Capita Growth Rate when the Population Growth Rate is 0. In this model, the Intercept of 162.9540 means that even when the Population Growth Rate is 0, the predicted GDP per Capita Growth Rate would be 162.9540. The Coefficient represents the impact of Population Growth Rate on GDP per Capita Growth Rate. In this model, the Coefficient of -1.9791 indicates that for every 1 percentage point increase in Population Growth Rate, the predicted GDP per Capita Growth Rate would decrease by 1.9791 percentage points.

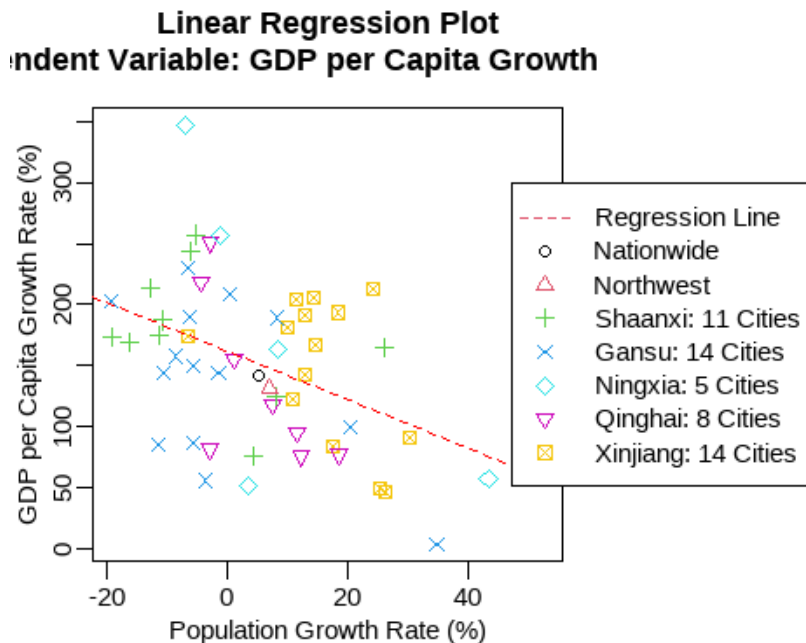
The asterisks within parentheses denote the levels of statistical significance. In this model, both the Intercept and the Coefficient are considered statistically significant, indicating that they have a significant effect on the prediction of GDP per Capita Growth Rate.

The goodness of fit of the model can be measured by the Multiple R-squared, which represents the proportion of the variation in the dependent variable that can be explained by the model. In this model, the Multiple R-squared is 0.2095, indicating that 20.95% of the variation in GDP per Capita Growth Rate can be explained by the Population Growth Rate.

The Adjusted R-squared takes into account the number of independent variables and the sample size, providing a more accurate assessment of the model's fit. In this model, the Adjusted R-

squared is 0.1937.

The F-statistic is used to test the overall significance of the model. In this model, the F-statistic is 13.25 with degrees of freedom of 1 and 50, and a p-value of 0.0006456, indicating that the model as a whole is statistically significant, and the prediction of GDP per Capita Growth Rate based on the Population Growth Rate is statistically significant.



In this t-test result, we mainly focus on three values: t-value, degrees of freedom (df), and p-value.

First is the t-value, which is 2.6169. This number indicates the statistical significance of the mean difference between the two groups (Low Population Growth Rate Group and High Population Growth Rate Group in terms of “GDP per Capita Growth Rate (%)”). A larger t-value indicates that the difference between the two groups might be more significant.

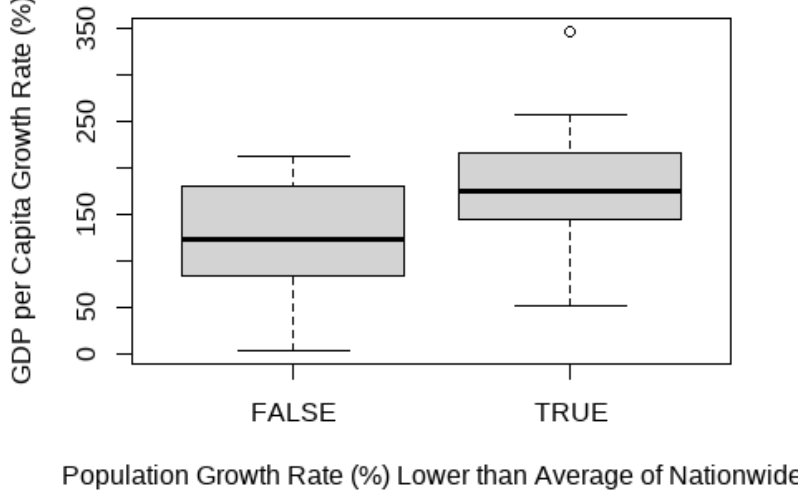
Second is the degree of freedom (df), which is 49.482. Degrees of freedom is a measure of the number of samples used to calculate the t-value, which can help us determine which distribution our test statistic should refer to.

Finally is the p-value, which is 0.01174. The p-value represents the probability of getting this t-value (or a more extreme t-value) when the null hypothesis (there is no difference in the means of the two groups) is true. Generally, if the p-value is less than 0.05, we reject the null hypothesis and believe that there is a significant difference in the means of the two groups. Here, the p-value is 0.01174, less than 0.05, so we can conclude that there is a significant difference in the means of the two groups.

For this specific case, on average, the GDP per capita growth rate (173.7863) of the low population growth rate group is significantly higher than that of the high population growth rate group (126.9070).

The true difference in means between the two groups lies between 10.88855 and 82.87017 at the 95% confidence level.

Plot of Higher and Lower Population Growth Rate (%)
Dependent Variable: GDP per Capita Growth Rate (%)



Multivariate regression analysis found that both population (city size) and the severity of shrinkage (magnitude of population loss) had no effect on economic prosperity (Hartt,2019). The proportion of poor people in the northwestern and southeastern regions of the Hu Huanyong line was 16.4% and 83.6%, respectively, indicating the uneven distribution of the rural poor (Liu et al., 2017).

5. Findings

After analyzing the data, it is found that the population in Northwest China is still growing positively, but the growth rate is lower than the national average. Among them, more than 26 cities have experienced obvious population outflow and become shrinking cities, accounting for half of the total number of cities. For example, some cities such as Wuwei City have seen the largest decline in the past 10 years, even higher than 15%, and the phenomenon of population outflow is very obvious. According to the city's national policy positioning and administrative level, the provincial capital cities and the central cities in the Northwest region are experiencing rapid population growth. When the population birth rate is similar to other cities, the main source of population growth is the siphon of surrounding cities. With a high level of modernization, preferential policies, and agglomeration of development factors, when citizens want to obtain more employment opportunities and better medical and educational conditions, they often choose to move to central cities, such as Xi'an, which is a national central city. The annual population growth rate is as high as 52.97%. This is also an important reason why population explosions often occur in the capitals of developing countries with large populations and cause social problems. The medium-sized cities that are closer to these central cities will be subject to the siphon effect without exception. In 2014, China released restrictions on the migration of agricultural and non-agricultural household registrations and opened up the conditions for the settlement of general cities. The urban-rural dual structure Loosening occurs,

and the migration of residents has never been easier. For example, the population of the six cities surrounding Xi'an, which has the highest population growth rate mentioned above, all outflowed, with the maximum outflow reaching 1 million. According to the classification of leading industries, cities with a higher proportion of total agricultural output value to regional GDP or a higher proportion of the population working in agricultural production are more prone to contraction. This is mainly due to the low value-added factor of agriculture, farmers choose to engage in urban jobs enriched by the secondary industry or the tertiary industry in order to increase their income level.

Most notably, although half of the cities experienced population outflow, unlike the population outflow found by previous scholars in shrinking cities in developed countries, which often leads to urban economic recession, the overall results of the data analysis show that within the research time frame, this The higher the positive population growth rate of the 52 cities, the lower the per capita GDP growth rate instead, and the overall per capita GDP growth rate of shrinking cities is higher than that of expanding cities. There are mainly several factors.

First, with the rapid advancement of new urbanization between 2010 and 2020, the infrastructure construction of cities in Northwest China has been improved as never before. Especially for cities with relatively lagging urban construction, this round of infrastructure construction is a crucial process to make up for shortcomings. Because China implements the secondary distribution system of the fiscal and taxation system, some cities can get the same financial allocation as other cities with a similar population size even though the tax revenue is maintained at a low level due to the industrial structure, which is not only improves the living environment of the citizens, as a means of investment, it stimulates economic growth, and shrinking cities form a latecomer advantage. The Silk Road Economic Belt and the 21st-century Maritime Silk Road investment plan, which was officially implemented in 2013, has further strengthened the economic stimulus for cities in the Northwest region that are on this economic belt.

Second, the shrinking cities in the data analysis are mainly concentrated in concentrated and contiguous particular difficult areas such as Liupan Mountain and Qinba Mountain where the poverty index is relatively high. It is one of the leading positions in the country's thirteenth five-year plan and fourteenth five-year plan to eliminate poverty, improve people's livelihood, and gradually realize common prosperity. In the process of poverty alleviation, on the one hand, investing funds and preferential policies to develop local income-increasing industries according to local conditions have stimulated rapid economic growth. On the other hand, for the young and middle-aged labor force, enhancing their employability through skill training and helping them find employment in the Midwest or central cities in the region has also become a means of poverty eradication. We can regard this kind of population outflow as a kind of government-oriented labor employment guidance. Under the effect of these two methods, the regional GDP of some shrinking cities has increased significantly. The highest point in the analysis diagram, Guyuan City, achieved rapid economic growth against the background of population outflow, mainly relying on this.

Third, in the data analysis, it was found that five shrinking cities in Northwest China, including Baiyin City and Shizuishan City, not only had population outflows, but the growth of regional GDP was also lower than the average level, which did not conform to the overall distribution law of the data. Through the analysis of the industrial structure of these five cities, it is found that these cities are defined as resource-exhausted cities. After the mining of non-renewable energy such as coal and oil, a large number of industrial workers will transfer to work in areas more suitable for mining, resulting in The loss of industrial workers and supporting industrial service personnel. Naturally, more economic funds are required for economic transformation, and more time and wisdom are needed. Although the above-mentioned cities will still grow economically during the process, the initial pattern of other cities needs to be faster.

6. Recommendations

With reference to the findings of this study, the purpose of this study is to investigate the governance experience of shrinking cities in Northwest China. The quantitative method is used to analyze the impact of population outflow on urban economic conditions. Prior to the analysis, the conceptual framework formed is based on a literature review, which is a foundational theory as well as previous research. The causes and manifestations of urban shrinkage in developed countries are very mature. However, the problem of shrinking cities in developing countries yet to be extensively studied. The above analysis can provide some reference experience to developing countries that are facing urban shrinkage or have the potential to cope with urban shrinkage. There are three main aspects.

In the era of global division of labor and cooperation, the phenomenon of shrinking cities has come earlier than in the past. In the past, the phenomenon that only occurred when the industrial layout of developed countries was formed had already appeared in developing countries. When the world economy faces an overall decline, it will become more common regardless of whether the region is developed or not. China's experience in urbanization construction shows that for small and medium-sized cities with relatively backward infrastructure, it is still necessary to give preferential treatment in the secondary distribution of fiscal funds to invest in local infrastructure construction. This is not only to boost the local urban economy and curb urban shrinkage, but also to provide local residents with convenient services and a suitable living environment comparable to those in central cities, which is in line with the principle of social equity.

When a developing (middle-income) country dominated by a small-scale peasant economy or energy extraction transforms into a developed (upper-middle-income) country dominated by manufacturing or service industries, the population will unsurprisingly move to central cities under the dual effects of industrial agglomeration and income increase. This is not urban shrinkage in the traditional sense, but simply a decrease in population in the area. It is necessary to follow this trend and strengthen the unit output capacity through policy guidance, in fact, it can better bring income to local residents and expand the advantage of late development. Form

a reasonable allocation of human resources and natural resources.

For resource-exhausted cities, the phenomenon of population outflow is irreversible, and the urban economy will inevitably have a negative impact. Limited fiscal funds often fail to bring about economic recovery. Some scholars believed that to avoid this kind of contraction, government intervention must be used to promote the transformation of urban economic structure. A successful economic transformation can be achieved when a resource-based city either finds an innovative way to sustain its economic growth or to adapt proactively to the shrinkage (He & Lee, 2017). The market is the key factor that determines the economy because a lack of social capital or an insufficient number of local entrepreneurs is not only misleading but may also be counterproductive (Polèse & Shearmur, 2006). Blind investment may also cause new troubles for local governments that already have tight fiscal revenues. The local government should take the initiative to adapt to this process and improve the public supply and basic security of local residents.

7. Conclusions

Through the study of the phenomenon of urban shrinkage in northwest China, it can be found that when the phenomenon of urban shrinkage occurs in developing countries, it is caused by the same reasons as industrial globalization and the depletion of resource-based cities, as well as the transformation of agricultural population into non-agricultural population and the siphoning off of small cities by large cities. Unique factors such as urban population. The distinctive features are its early appearance, a wide range of phenomena and many superimposed influencing factors. However, unlike relevant research on developed countries, urban shrinkage in developing countries like China is policy-guided and rational in population allocation. Contrary to traditional impressions, urban shrinkage in this way generally has a positive impact on the economy. In short, urban shrinkage, as a spontaneous adjustment, is not a fatal blow to the economic development of a region, and even through such organic adjustment and policy guidance, a more resilient and healthy urban economy will be achieved.

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The Health Belief Model (HBM) Hypothesis for Explaining Compliance with Health Protocols in COVID-19 Cases: A Systematic Review

¹Inadia Aristyavani*, ²Nik Norma Nik Hasan

^{1,2}School of Communication, Universiti Sains Malaysia
iaristyavani@student.usm.my; nikhnorma@usm.my

Abstract

This study is a systematic review of the Health Belief Model (HBM) theory in the case of COVID-19. The purpose of this study is to find out whether the hypothesis in the HBM theory is proven in explaining a person's protective actions to avoid the COVID-19 virus (wearing a mask, not gathering with many people, keeping a distance, vaccines, and so on). According to HBM theory, a person's motivation to take protective action is influenced by 6 variables: perceived severity, level of vulnerability, perceived benefits, perceived barriers (barriers), self-efficacy and cues to act. Researcher compiled studies from a scientific database, namely PubMed; Google Scholars; Web of Science, and Scopus. The method used is Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The results showed that during 2020-2022, there were 107 studies on COVID-19 that used the HBM theory. Of the 6 variables used in the HBM theory, there are 3 variables that are best at explaining protective behavior. First, the variable severity (vulnerability). Out of 107 COVID-19 case studies, 68 studies (68%) gave results, this hypothesis was proven. Second, the variable perception of benefits. Of the 107 studies, 79 studies (73.8%) showed the results of the hypothesis were proven. Third, the perception variable regarding barriers (barriers). Of the 107 studies on COVID-19 that used the HBM theory, 69 studies (64.5%) showed the hypothesis was proven.

Keywords: Health Belief Model, COVID-19, Systematic Review, Protection Motivation, PRISMA

INTRODUCTION

Corona Virus (COVID-19), is one of the most dangerous diseases in human history. This virus was first discovered in Wuhan, China in December 2019. Three years since the virus first appeared (December 2022), there have been a total of more than 600 million active cases. According to data from WHO (2023), the number of victims who died worldwide reached 6.6 million people. The impact of COVID-19 is not only on global health issues, but also has a very broad impact on economic, social, cultural and even political issues.

Currently the COVID-19 pandemic has been successfully controlled. However, this case provides many valuable lessons in managing health risks. It must be admitted, initially the world

has not succeeded in taking good action in handling the COVID-19 case, which is marked by the number of deaths of more than 6.6 million people (WHO, 2023). The case of the spread of COVID-19 can be an important lesson about how to face health risks. One of the important lessons from the spread of COVID-19 is that public awareness is still relatively low about risks. In many countries, the spread of the COVID-19 virus can be limited through citizen awareness, such as wearing a mask when leaving the house, avoiding crowds, maintaining distance, always washing hands, and so on. This awareness in many countries is still relatively low, which causes the spread of the COVID-19 virus to be relatively high. There are still many residents who do not follow health protocols such as being reluctant to wear masks, and many who still attend events that bring in large numbers of people.

Why is public awareness to follow health protocols low? Risk relates to protective actions or motivations to avoid risks. In order for people to avoid risks, people must take preventive actions in order to avoid risks. What is meant by protective measures are efforts made so that the risk does not affect a person. In the context of the case of transmission of the COVID-19 virus, these protective measures include wearing a mask, not gathering with many people, maintaining distance, and getting the vaccine. The problem is that not everyone is willing to take protective measures. Why do people have different motivations for taking protective action? In the health communication literature, one of the most widely used theories is the Health Belief Model (HBM).

The Health Belief Model (hereinafter abbreviated as HBM) was introduced by Rosenstock (1966) and later further developed by Becker and his colleagues in 1970s and 1980s (Becker & Rosenstock, 1984). This theory was initially applied for health risks (such as to explain a person's behavior in carrying out preventive actions related to the cancer, lung diseases, HIV/AIDS, and many more). Later, this theory is also applied to explain risk communication in general, which is not only related to health (see Berry, 2004).

This theory is adopted to explain factors encouraging someone to take preventive measures so s/he may evade a risk. This HBM theory was initially used for many risks related to the health. For instance, it explained various health behaviors, such as stop smoking, diet, exercise, breast self-examination, and use of condoms (see Sheeran & Abraham, 1996). Some studies proved the applicability of the model. For example, several studies showed that eating healthy, motivation to get vaccines, safe sexual behavior, and routine exercise are affected by individuals' belief that dangers of a health risk are severe and perception that they are susceptible to such disease, and perception that the benefits they got are bigger than the costs to spent if they do not adopt such behaviors (see, among others, Becker & Rosenstock, 1984; Rutter & Quine, 2002). This theory is later also adopted to explain behaviors related to other risks than health risks, e.g. behavior to obey traffic regulations, natural disaster risks, risks of exposure to chemical, and many more.

This study is a systematic literature review to test whether the HBM theory can be used to explain the factors that influence individuals to take protective measures to avoid the spread of

the COVID-19 virus. Testing this theory is done by seeing whether the hypothesis in this theory is proven in the COVID-19 case.

METHOD

This study used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method (Moher, et.al, 2009). The process is as follows. First, using the keywords "Covid OR Corona AND HBM OR Health Belief Model". These keywords are used in the scientific journal database, namely PubMed; Google Scholars; Web of Science; and Scopus. Second, carry out the selection process. From the journal material obtained by the researcher then checks the relevance. The researcher also checked the same article. This process resulted in a total of 107 studies on COVID-19 that used the HBM theory. The 107 studies then identified each hypothesis, whether it was proven or not.

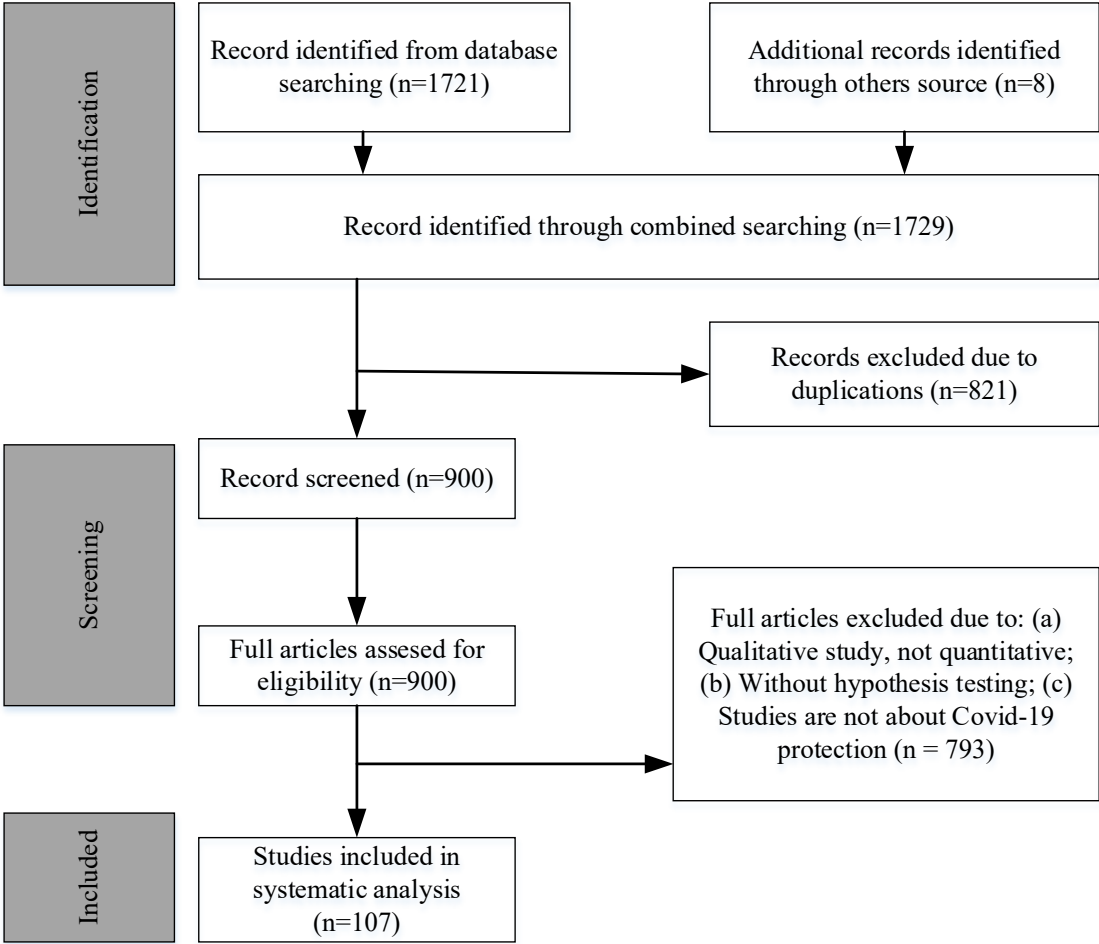


Figure 1: Process with PRISMA

RESEARCH RESULT

Health Belief Model (HBM)

Risk relates to protective actions or motivations to avoid risks. In order for people to avoid risks,

people must take preventive actions in order to avoid risks. What is meant by protective measures are efforts made so that risks do not affect a person (Berry, 2004; Glanz et al., 2008). In the context of the case of transmission of the COVID-19 virus, these protective measures include wearing a mask, not gathering with many people, maintaining distance, and getting the vaccine. The problem is that not everyone is willing to take protective measures. Why do people have different motivations for taking protective action? In the health communication literature, one of the most widely used theories is the Health Belief Model (HBM).

According to the HBM theory, a person's motivation to take protective action is influenced by 6 variables (see Figure 2) (Berry, 2004; Glanz et al., 2008). First, the perception of severity. The extent to which a person perceives the magnitude of the risk of language (eg can cause death). The more people perceive that a risk is dangerous, the more people tend to take protective action to avoid this danger. Second, the level of vulnerability (severity). How do individuals perceive how easy it is for someone to be affected by a risk? The higher the perception of vulnerability, the higher the possibility for people to take protective action. Third, the perception of benefits (benefits). If someone considers that certain protective measures (e.g. using masks, practicing social distancing) can reduce or eliminate the risk of a disease, then people tend to take these protective measures.

Fourth, the perception of obstacles (barriers). The extent to which people perceive the obstacles or difficulties they face when carrying out protective measures. If someone perceives that protective action is easy to do, it is predicted that they will tend to take protective action, and vice versa. Fifth, self-efficacy. This variable is related to a person's belief that he is capable of facing a risk. The higher a person's belief in his own abilities, the more likely he is to take protective action. Sixth, cues to action. This variable relates to conspicuous cues, such as the number of friends and family members who have taken protective measures. The more people become aware of these conspicuous cues, the higher the motivation to take protective action.

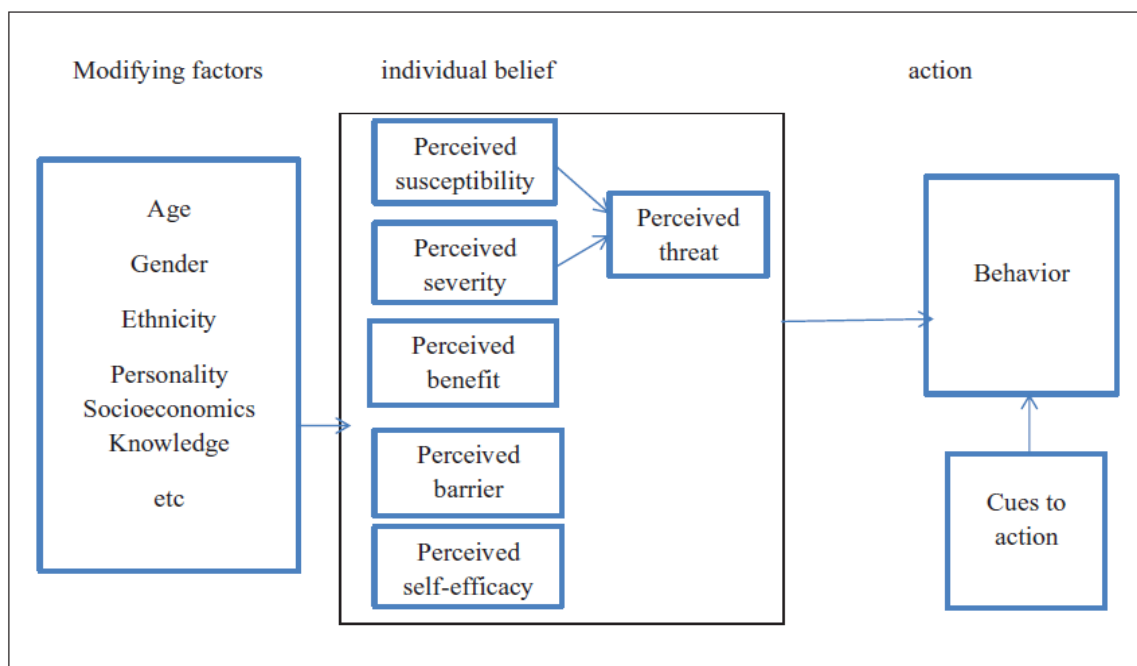


Figure 2: HBM Theory Model

Source: Zewdie (et.al, 2022: 2)

Health Belief Model (HBM) and the Covid Pandemic

The HBM theory is widely used in the case of COVID-19. This theory, for example, is used to explain a person's motivation to follow health protocols to avoid transmitting the virus (for example, using a mask, keeping a distance, avoiding crowds, a healthy lifestyle, and so on). This theory is also widely used to explain a person's desire (intention) to take a vaccine to avoid COVID-19.

From 2020-2022, there are at least 107 studies on COVID-19 that use the HBM theory. Research topics that use HBM theory vary, from communication, nursing, medicine to travel. This theory is used in many countries, ranging from developed countries (United States, Europe) to developing countries (Iran, Afghanistan, Ethiopia, Iraq, and so on). The widespread use of this theory in many countries proves that the HBM theory has been accepted by the scientific community as a theory that can explain individual actions related to health risks. Theory is used to explain the factors that influence a person's desire to take protective action to avoid COVID-19. The results of research are widely used to design strategies for handling risks due to the spread of COVID-19.

Figure 3 shows the distribution of publications and research on COVID-19 from 2020 to 2022. From the unit figure it can be seen that the most publications and research were in 2021. Research on COVID-19 experienced a downward trend in 2022. Possibly due to the COVID-19 pandemic which is more controllable.

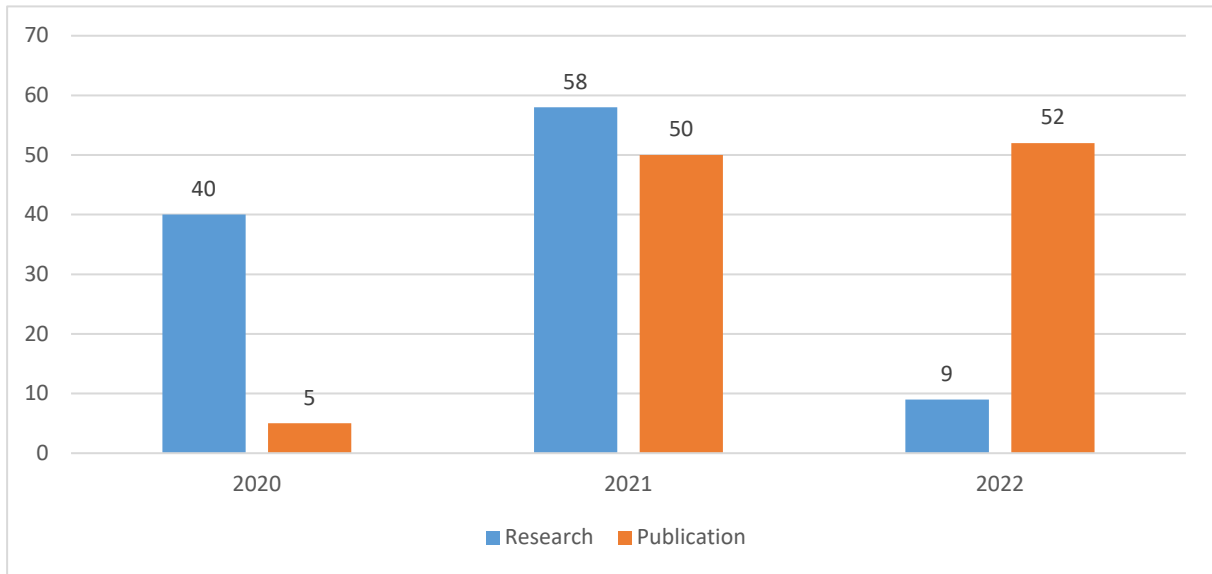


Figure 3: Research and Publications Using HBM Theory (2020-2022)

Table 1 presents the distribution of research on COVID-19 using the HBM theory. From this table it can be seen that research using theory is spread in many countries in the world. This proves that the HBM theory has been accepted by many scientists around the world. The acceptance of the HBM theory shows that many experts believe that the HBM theory can be used to explain individual behavior in taking protective measures during a pandemic. HBM theory is not only used in developed countries (such as the United States, Britain, Italy, Germany) but also in developing countries (such as Ethiopia, Sudan, Iran, Iraq and Pakistan).

Table 1. Distribution of Research Using HBM Theory by Country

Country	Number of Research		Country	Number of Research	
	Frequency	%		Frequency	%
South Africa	1	0.93%	Iran	9	8.41%
USA	1	0.93%	Israel	3	2.80%
USA	12	11.21%	Italy	1	0.93%
USA, Mexico, Hongkong, Taiwan	1	0.93%	German	1	0.93%
Saudi Arabia	6	5.61%	Canada	1	0.93%
Bangladesh	5	4.67%	South Korea	4	3.74%
Bolivia	1	0.93%	Lebanon	1	0.93%
China	23	21.50%	Malawi	1	0.93%
China, Hongkong, Taiwan	1	0.93%	Malaysia	1	0.93%
Ethiopia	7	6.54%	Morocco	1	0.93%
Hongkong	4	3.74%	Egypt	2	1.87%
Hongkong, Singapore, Australia	1	0.93%	Norway	1	0.93%
India	1	0.93%	Pakistan	2	1.87%
Indonesia	1	0.93%	Romania, Italy	1	0.93%

Country	Number of Research		Country	Number of Research	
	Frequency	%		Frequency	%
England	1	0.93%	Spain	2	1.87%
Iraq	1	0.93%	Sri Lanka	1	0.93%
Vietnam	2	1.87%	Sudan	1	0.93%
Jordan	1	0.93%	Switzerland	1	0.93%
Greek	1	0.93%	Taiwan	1	0.93%
Thailand	1	0.93%	Total	107	100.00%

To what extent are the hypotheses in the HBM theory proven in the COVID-19 case? Table 2 as below describes the results of hypothesis testing from 107 studies from 2020-2022. About half of the studies succeeded in proving the HBM hypothesis. Of the 6 variables used in the HBM theory, there are 3 variables that are the best at explaining the behavior of protective measures. First, the variable severity (susceptibility). Out of 107 studies on COVID-19 cases, 68 studies (68%) gave results, this hypothesis was proven. There is an influence between the level of severity and the motivation for protective action. Second, the perception variable regarding benefits. Of the 107 studies, 79 studies (73.8%) showed the results of the hypothesis were proven. Individuals who believe that protective actions benefit themselves tend to take protective actions. Third, the perception variable regarding barriers (barriers). Of the 107 studies on COVID-19 that used the HBM theory, 69 studies (64.5%) demonstrated a proven hypothesis.

While there are 3 variables in the HBM theory that are not good enough in explaining protective measures to avoid COVID-19. First, the level of vulnerability (severity). Only 48.6% of studies (out of 107 studies) found this hypothesis to be true. Second, cues to action. A total of 47.7% of research found this hypothesis proven. Third, self-efficacy. Of the 107 studies, 43% demonstrated a proven hypothesis.

Table 2. Hypotheses in HBM Theory

Research Result	Hypothesis 1: Susceptibility		Hypothesis 2: Severity		Hypothesis 3: Benefit		Hypothesis 4: Barriers		Hypothesis 5: Cues to Action		Hypothesis 6: Self-Efficacy	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes, significant	68	64.0%	52	48.6%	79	73.8%	69	64.5%	51	47.7%	46	43.0%
No, significant	33	31.0%	39	36.4%	14	13.1%	18	16.8%	12	11.2%	4	3.7%
Not researched	2	2.0%	6	5.6%	11	10.3%	17	15.9%	41	38.3%	54	50.5%
Unclear	3	3.0%	3	2.8%	3	2.8%	3	2.8%	3	2.8%	3	2.8%
Variation, depending on demographic profile	1	1.0%	1	0.9%		0.0%		0.0%		0.0%		0.0%
Combined with other variables		0.0%	6	5.6%		0.0%		0.0%		0.0%		0.0%
Total	107	100%	107	100%	107	100%	107	100%	107	100%	107	100%

DISCUSSION

The results of a systematic review using PRISMA show that the HBM theory can still be used to explain the behavior of protective measures to avoid risks (in this case COVID-19). However, there are still unsatisfactory variables, where less than half of the studies show the hypothesis is proven. The three variables are perceptions of severity, cues to action and self-efficacy.

One of the factors that causes the HBM theory to be unsatisfactory in explaining protective measures is social demographic variables. A number of socio-demographics that are often used in HBM theory are age, gender, education, income, occupation, marital status, ethnicity and region (village or city). Future studies on HBM theory need to examine other socio-demographic variables, such as culture and religiosity. Studies on risk protection theory do not give enough place to the importance of cultural and religious aspects (religiosity) (see for example this critique in Mocanu, 2019).

Several studies show that culture (collectivism versus individualism) is influential in encouraging a person's protective actions to avoid a risk (disease). A study conducted by Orji and Mandryk (2014) shows that there are significant differences between respondents from collective and individualist cultures in viewing risk. Respondents from collectivistic cultures showed lower perceptions of vulnerability, severity, inhibition, and self-efficacy. How can culture influence the perception of risk and motivation to take protective action? Imutari and Orji (2021) see culture as a social pressure that influences individual actions. In a society with a collectivism cultural background, there are group influences and pressures. Studies conducted by Makino, Tsuboi, and Dennerstein (2004), Airhihenbuwa (2010), Orji and Mandryk (2014) and Davis (2009) show that collectivism culture influences views on the risk of obesity. In many collectivist cultures, eating is an important element of social gatherings and it is considered rude to refuse food especially if it is served by the host. This view that eating large amounts of food sees is not considered an unhealthy behavior. This collectivism culture reduces a person's motivation to avoid a risk

Besides culture, another important factor is religiosity. This variable relates to the extent to which a person believes in religion and carries out religious activities. The importance of this variable religiosity cannot be separated from the position of religion, where religion is not only seen as a ritual, but also as an important part in understanding life events, making decisions, and maintaining emotional balance (Kirn, 1991). Individuals often use religion as a means of understanding events and solving health problems. A number of studies have shown that three types of individuals are associated with religiosity and health (see Kirn, 1991).

CONCLUSION

The results of a systematic review using PRISMA show that the HBM theory can still be used to explain the behavior of protective measures to avoid risks (in this case COVID-19 as health

emergency) that influenced by 6 variables. There are 3 variables that best proven at explaining the behavior of protective measures: benefits, susceptibility and barriers. However, there are still unsatisfactory variables, where less than half of the studies show the hypothesis is proven. The three variables are: severity, cues to action and self-efficacy.

Future studies on the HBM theory need to examine other socio demographic variables, such as Culture, Religiosity and Trust in government. Studies on risk protection theory did not give enough place to the importance of cultural and religious aspects (religiosity). Trust in the government is important to explain the extent to which citizens comply with public policies. This study is a study during a pandemic, the challenge of future studies is to test this theory in an endemic context.

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Does Mobile Phone Dependence Affect the Academic Achievement among Students with Different Types of Personality Traits?

Xing Xiaochuan, Shuhaida Md Noor*

School of Communication - Universiti Sains Malaysia, China
Email: xingxiaochuan@student.usm.my;shuhaida@usm.my
School of Communication - Universiti Sains Malaysia, Malaysia

Abstract

This study examines the moderating effect of mobile phone dependence on the relationship between Big Five personality traits and academic achievement among undergraduate students. Although the relationship between personality traits and academic achievement has been extensively studied, the current rise of mobile phone usage among students begs an examination of the effects of mobile phone dependence on that relationship. A total of 640 undergraduate students from a university in Sichuan, China completed an online. Participants completed the ten-item Big Five personality measurement, their mobile phone dependence, and academic achievement. The findings suggest that personality traits of openness to experience, conscientiousness, and extraversion are positively related to academic achievement, while neuroticism and agreeableness are not significantly related. Additionally, mobile phone dependence is found to have moderating effects on the relationship between conscientiousness, extraversion and agreeableness and academic achievements. The the positive effects of these three personality traits were weaker for individuals with high mobile phone dependence. These findings suggest that personality traits and mobile phone dependence should be considered when examining factors related to academic achievement.

Keywords: Mobile Phone Dependence, Academic Achievement, Big-Five Personality.

1. Introduction

The proliferation of smartphones has transformed them into indispensable tools, facilitating a myriad of functions beyond communication—ranging from information retrieval to entertainment. This integration into daily life, while beneficial, has spawned a phenomenon of mobile phone dependence, where users exhibit excessive and compulsive usage patterns (Sapacz et al., 2016; Yen et al., 2009). This dependence is not a mere overuse but a behavioral pattern marked by an overwhelming urge to engage with the device, often at the expense of other activities (Choliz, 2012; Liu & Vachova, 2022). The implications of this dependence are far-reaching, affecting not just personal well-being but also academic contexts. Research has consistently shown a negative correlation between mobile phone dependence and academic performance, where the intrusive nature of mobile phone usage disrupts learning processes, leading to diminished academic outcomes (Çağan et al., 2014; Chen et al., 2014; Li et al., 2015; Seo et al., 2016; Wang et al., 2014).

Academic achievement reflects a student's ability to meet academic standards and perform well in academic tasks (Steinmayr et al., 2014). Concurrently, the domain of personality psychology provides insights into academic achievement through the lens of the Big Five personality traits. These traits—openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism—have been linked to various educational outcomes. Notably, conscientiousness

emerges as a consistent positive predictor of academic success, underscoring the role of traits like organization and diligence in educational attainment (Komarraju et al., 2011; Mammadov, 2022; Verbree et al., 2023).

Despite the wealth of research on the individual impacts of mobile phone dependence and personality traits on academic achievement, there is a notable gap in understanding how these factors interact. Specifically, the moderating role of mobile phone dependence on the relationship between personality traits and academic achievement remains underexplored. While we understand the isolated effects of these variables, the dynamic interplay between an individual's personality and their mobile phone usage patterns offers a rich avenue for investigation. Understanding this interaction can provide deeper insights into personalized educational strategies and interventions to mitigate the potential detrimental effects of mobile phone dependence on students with varying personality profiles. This gap signifies a crucial area for further research, aiming to unravel the complex interdependencies shaping academic success in the digital age.

The purpose of this study is to examine the relationship between the Big Five personality traits and academic achievement, and to investigate the moderating effect of mobile phone dependence on this relationship. The study is guided by the following research questions:

- a. What is the relationship between Big Five personality traits and academic achievement among undergraduate students?
- b. How does mobile phone dependence moderate the relationship between Big Five personality traits and academic achievement?

Based on the literature review, the following hypotheses are developed for this study:

- H1: There is a significant positive relationship between Openness and academic achievement.
H2: There is a significant positive relationship between Conscientiousness and academic achievement.
H3: There is a significant positive relationship between Extraversion and academic achievement.
H4: There is a significant positive relationship between Agreeableness and academic achievement.
H5: There is a significant negative relationship between Neuroticism and academic achievement.
H6: Mobile phone dependence moderates the relationship between openness and academic achievement.
H7: Mobile phone dependence moderates the relationship between conscientiousness and academic achievement.
H8: Mobile phone dependence moderates the relationship between extraversion and academic achievement.
H9: Mobile phone dependence moderates the relationship between agreeableness and academic achievement.
H10: Mobile phone dependence moderates the relationship between neuroticism and academic achievement.

2.Method

2.1 Participants

The participants in this study were 640 undergraduate students from a university in Sichuan, China. The sample consisted of 221 (34.5%) males and 419 (65.5%) females, with an age range

of 17 to 26 years ($M = 20.88$, $SD = 1.98$). Participants were informed about the purpose of the study and provided their informed consent prior to participation. Among them, 155 freshmen (24.2%, 56 males, 99 females), 165 sophomores (25.8%, 58 males, 107 females), 180 juniors (28.1%, 52 males, 128 females), 140 senior students (21.9%, 55 males, 85 females).

2.2 Measures

2.2.1 Mobile phone dependence

The Short Version of the Smartphone Addiction Scale (SAS-SV) was used (Kwon et al., 2013). The scale consists of 10 items rated on a six-point scale (1=totally disagree, 6=totally agree). Example items include "I feel anxious when I am unable to use my smartphone" and "I use my smartphone to escape from problems or to relieve negative feelings." The total score ranges from 10 to 60, with higher scores indicating greater mobile phone dependence. The SAS-SV has been found to have good reliability and validity in previous studies (Lin et al., 2014). In this study, the Cronbach's alpha coefficient for the SAS-SV was .78.

2.2.2 Academic achievement

The Academic Achievement Questionnaire (AAQ) (cite the source) is a 9-item questionnaire designed to measure academic achievement (Křeménková & Novotný, 2020). The questionnaire includes three subscales: study achievement, coping with study requirements and social adaptation. The items are rated on a 6-point Likert scale. The first subscale is calculated as a weighted mean of The European Credit Transfer and Accumulation System (ECTS) grades. The remaining subscales are calculated as mean response values (Křeménková & Novotný, 2020). The reliability of the questionnaire subscales equals $\alpha = .798$, $.804$, and $.645$.

2.2.3 Big-five personality

The ten-item personality measure (TIPI) was used to measure Big Five personality traits (Romero et al., 2012). The TIPI is a brief self-report questionnaire that assesses five personality dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Participants rated each item on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Example items include "I see myself as someone who is original, comes up with new ideas" (openness to experience) and "I see myself as someone who does a thorough job" (conscientiousness). The total score ranges from 1 to 7 for each dimension, with higher scores indicating greater endorsement of that trait. The TIPI has been found to have good reliability and validity in previous studies (Gosling et al., 2003). The reliability of the questionnaire subscales achieves an acceptable value of $\alpha = 0.76$, 0.78 , 0.72 , 0.70 and 0.73 .

3. Procedure

All participants were recruited through social media. The researchers sent the QR code and link to the questionnaire to the students. They could scan the QR code or click on the link to go to a website called "Questionnaire Star" to fill it out. All participants were rewarded with an online shopping voucher worth two yuan after participating. The study was approved by the research ethics committee of the first author's institution. Participants provided informed consent and participated voluntarily with assurance of confidentiality and anonymity. The data collectors are well-trained researchers to ensure standardization of the data collection process. The survey was conducted from March 1 to 8, 2022.

4.Result

4.1 Preliminary Statistics

In order to avoid common method bias, corresponding controls were carried out in terms of procedures, such as using anonymous answers and reverse representation of some items; in order to further improve the rigor of the research. In this study, the Harman single factor method was used to test the common method deviation, the common factor was set to 1, and Amos was used to conduct the confirmatory factor analysis. The fitting index of the results is as follows: $\chi^2/df = 15.32$, RMSEA = 0.12, CFI = 0.27, NFI = 0.29, GFI = 0.45, TLI = 0.38, indicating that there is no serious common method bias in the data of this study. The results of descriptive statistics and correlation analysis are shown in Table 1.

Table 1. Descriptive statistics and correlations between variables

Variables	M	SD	1	2	3	4	5	6	7	8
1.Mobile dependence	30.39	10.12								
2.Academic achievement	4.14	0.65	-.136**							
3.Extroversion	4.07	0.89	.148**	.114**						
4.Openness	4.04	0.95	.113**	.149**	.374**					
5.Agreeableness	3.77	1.05	0.061	0.068	.198**	.380**				
6.Neuroticism	3.83	0.94	0.028	0.039	.379**	.443**	.244**			
7.Conscientiousness	3.78	0.95	0.019	.125**	0.015	0.062	0.016	0.018		
8.Gender	0.65	0.48	0.005	-0.048	0.02	0.061	0.018	0.041	-0.049	
9.Age	20.86	1.96	-.155**	-0.054	-.152**	-.109**	-0.071	-0.022	-0.002	-0.013

According to the results of correlation analysis, in terms of academic achievement, openness ($r=0.149^{**}$), conscientiousness($r=0.125^{**}$), and extraversion($r=0.114^{**}$) were positively related to academic achievement, while neuroticism($r=-0.039$) and agreeableness($r=0.068$) were not significantly related.

4.2 Test of the hypotheses

Model 1 from the SPSS macro-PROCESS was used to test for the relationships between personality traits and academic achievement and for the moderating effects of mobile phone dependence. This approach is a robust method for analyzing moderation effects and is widely used in psychological research (Hayes, 2018). After controlling for gender and age, openness was positively associated with academic achievement in the absence of the moderator ($\beta = 0.230$, $p < 0.001$), extraversion was positively associated with academic achievement in the absence of the moderator ($\beta = 0.301$, $p < 0.001$) conscientiousness was positively associated with academic achievement in the absence of the moderator ($\beta = 0.495$, $p < 0.001$). Therefore, H1, H2 and H3 were supported and H4 and H5 were rejected.

As presented in Table 2, when mobile phone dependence(MPD) was included, the interaction between openness and MPD was negatively associated with academic achievement ($\beta = -0.038$,

$p < 0.01$), the interaction between extraversion and MPD was negatively associated with academic achievement ($\beta = -0.064$, $p < 0.01$), the interaction between conscientiousness and MPD was positively associated with academic achievement ($\beta = 0.037$, $p < 0.01$). These findings indicated that mobile phone dependence moderated the association between openness, extraversion, conscientiousness and academic achievement.

Table 2 The moderation model of mobile phone dependence between openness, extraversion, conscientiousness and academic achievement

Predictors	Model fix index						
	β	SE	t	95%CI	R ²	ΔR^2	F
Constant	4.024	0.477	8.422***	[3.086,4.962]	0.557	0.026	17.770***
Gender	-0.783	0.053	-1.475	[-0.182,0.025]			
Age	-0.019	0.013	-1.521	[-0.045, -0.005]			
Openness	0.230	0.092	2.496***	[0.049,0.411]			
MPD	0.039	0.011	0.348	[-0.018, 0.025]			
Op x MPD	-0.038	0.002	-2.331**	[0.00,0.181]			
Constant	3.706	0.500	7.411***	[2.724,4.688]	0.505	0.074	14.462*
Gender	-0.071	0.053	-1.345	[-0.175,0.329]			
Age	-0.018	0.013	-1.391	[-0.044,0.007]			
Extraversion	0.301	0.096	3.112***	[0.111,0.490]			
MPD	0.145	0.016	-2.513**	[0.008, 0.037]			
Ex x MPD	-0.064	0.029	-2.228**	[-0.012,-0.008]			
Constant	2.407	0.244	9.863***	[1.928,2.886]	0.836	0.024	14.935**
Gender	-0.003	0.029	-0.009	[-0.058,0.056]			
Age	0.006	0.007	0.846	[-0.008,0.020]			
Conscientiousness	0.495	0.049	9.925***	[0.397,0.593]			
MPD	-0.020	0.005	-3.467***	[-0.31, -0.008]			
Co x MPD	0.037	0.016	2.221**	[0.004,0.069]			

PS: 1 Note. $N = 640$. Bootstrap sample size = 5000. CI = confidence interval. β = standardized coefficient. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Male = 0, female = 1. All continuous variables are centered, the same below.

To further figure out the essence of the interaction effect, analysis of simple slope was conducted. Fig. 1, Fig. 2 and Fig. 3 show the association between openness, extraversion, conscientiousness and academic achievement at three levels of mobile phone dependence (low level, 1 SD below the mean; high level, 1 SD above the mean). As can be seen from Fig. 1, for individuals with low mobile phone dependence (1 SD below the mean), Openness had a strong effect on academic achievement (simple slope = 0.45, $p < 0.001$). For individuals with high mobile phone dependence (1 SD above the mean), the association was still significant but weaker (simple slope = 0.36, $p < 0.001$).

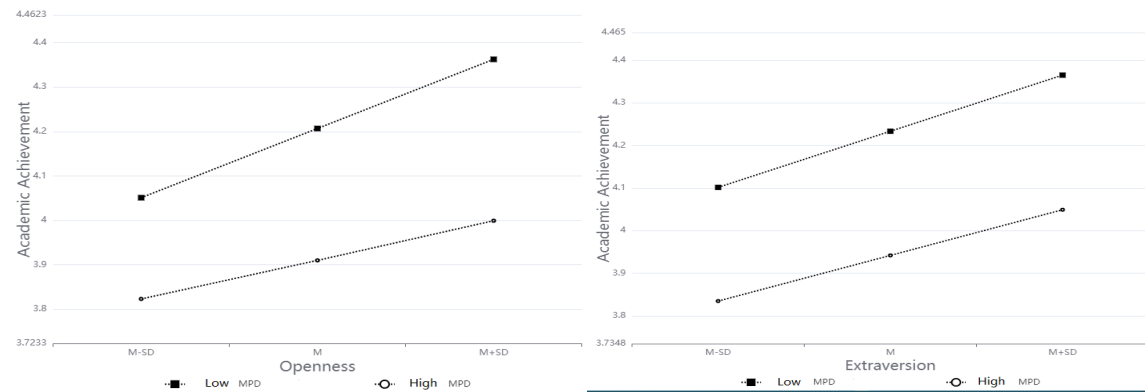


Fig. 1 The relationship between openness and academic achievement
 Fig. 1 The relationship between extraversion and academic achievement

As illustrated in Fig. 2, among individuals with low mobile phone dependence (1 SD below the mean), the effect of Extraversion on academic achievement was strong (simple slope = 0.43, $p < 0.001$), while this effect (simple slope = 0.39, $p < 0.01$) was significant but weaker for individuals with high mobile phone dependence (1 SD above the mean).

Fig. 3 revealed that for individuals with low mobile phone dependence (1 SD below the mean), Conscientiousness had a lower effect on academic achievement compared to Openness and Extraversion (simple slope = 0.38, $p < 0.001$). For individuals with high mobile phone dependence (1 SD above the mean), the association was still significant but weaker (simple slope = 0.27, $p < 0.01$).

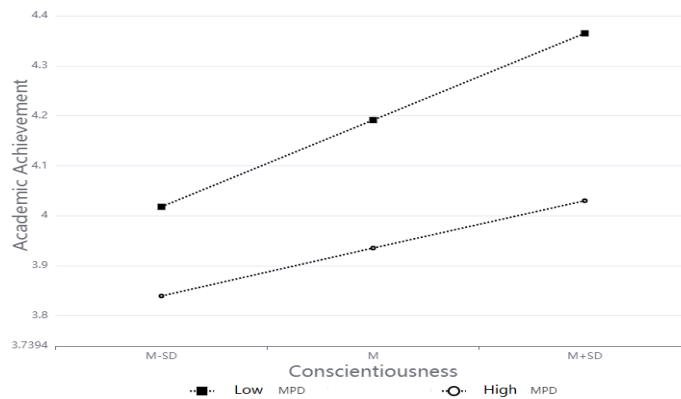


Fig.2 The relationship between conscientiousness and academic achievement

5. Discussion

The present study investigated the relationship between Big Five personality traits, mobile phone dependence, and academic achievement among undergraduate students in Sichuan, China. The results showed that openness to experience, conscientiousness, and extraversion were positively related to academic achievement, while neuroticism and agreeableness were not significantly related.

The findings that Openness to experience, Conscientiousness, and Extraversion were positively related to academic achievement are consistent with previous research (Nofhle & Robins, 2007; Poropat, 2009). Openness to experience may facilitate academic achievement by promoting curiosity, creativity, learning strategy, a desire for knowledge and exploration (Chamorro-Premuzic & Furnham, 2003; Marcela, 2015).

Conscientiousness may facilitate academic achievement by promoting goal-directed behavior, self-discipline, and perseverance (Duckworth & Seligman, 2005; MacCann & Roberts, 2010). Extraversion may facilitate academic achievement by promoting social engagement, assertiveness, and enthusiasm (Kuncel et al., 2004).

The finding that neuroticism and agreeableness were not significantly related to academic achievement is somewhat unexpected, as some previous studies have found significant negative relationships between these traits and academic achievement (Chamorro-Premuzic & Furnham, 2003; Poropat, 2009). However, the present study's finding is consistent with other studies that have found no significant relationships between these traits and academic achievement (Nofle & Robins, 2007). It is possible that cultural differences may play a role in these discrepancies, as previous research has shown that the relationships between personality traits and academic achievement may vary across cultures (Kornilova et al., 2015).

The present study used Hayes' PROCESS macro analysis to examine the moderating role of mobile phone dependence in the relationship between personality traits and academic achievement. The findings of the present study highlight the importance of considering the role of mobile phone dependence in understanding the relationships between personality traits and academic achievement. The present study found that mobile phone dependence moderated the relationship between the personality traits Openness, Extraversion and Conscientiousness. Specifically, individuals with high mobile phone dependence showed weaker positive relationships between these personality traits and academic achievement. This finding is consistent with previous research that has found that mobile phone dependence may have negative effects on academic achievement (Baert et al., 2020; Lepp et al., 2014; Samaha & Hawi, 2016). One possible explanation for this finding is that individuals with high mobile phone dependence may have difficulty focusing on academic tasks and may be more prone to distractions and interruptions, which may undermine their ability to time management, self-discipline, and social engagement, and it also lead to academic procrastination (Chen et al., 2021; Guo & Huang, 2020).

The present study has significant implications for theory and practice. It expands the existing literature on the relationship between personality traits and academic achievement by examining the moderating role of mobile phone dependence. The study found that mobile phone dependence weakens the positive relationship between openness to experience, conscientiousness, and extraversion, and academic achievement, shedding light on the complex interplay between these factors. In terms of practical implications, the study emphasizes the detrimental impact of mobile phone dependence on academic achievement, especially for students with Openness, Extraversion and Conscientiousness personality traits. Educators and policymakers should consider interventions to reduce mobile phone dependence, such as promoting self-regulated learning, time management training, and creating distraction-free environments. Additionally, the study contributes to the literature on mobile phone dependence by highlighting its negative association with academic achievement, aligning with previous research. The findings suggest that addressing mobile phone dependence among students is crucial for enhancing academic outcomes. Furthermore, the study's context in China offers valuable cross-cultural insights into the relationship between personality traits, mobile phone dependence, and academic achievement. Future research should aim to replicate these findings across different cultural contexts and populations to ensure their generalizability.

The present study has some limitations that should be considered. First, the study used a cross-sectional design, which precludes causal inference. Future studies using longitudinal designs

may be able to provide more conclusive evidence of the relationships between personality traits, mobile phone dependence, and academic achievement. Second, the study was conducted in a specific cultural context, and the findings may not generalize to other cultures or populations. Future studies should aim to replicate these findings in other cultural contexts and populations. Finally, the study relied on self-reported measures, which may be subject to response bias and social desirability bias. Future studies could use more objective measures, such as academic records or performance tasks, to validate the self-reported measures.

6. Conclusion

In conclusion, the present study adds to the growing body of research on the relationship between personality traits, mobile phone dependence, and academic achievement. The findings suggest that openness to experience, conscientiousness, and extraversion may be important predictors of academic achievement, and that mobile phone dependence may have negative effects on academic achievement, particularly for individuals with high levels of these personality traits. These findings have practical implications for educators and policymakers, who may wish to consider ways to promote positive personality traits and reduce mobile phone dependence among students to improve academic outcomes.

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Types of Traditional Chinese Medicine Body Constitution in Ovarian Cancer Patients: A Review

Sue Pei Hui^a, Ng Foong Leng^{b*}, Foo Chai Nien^c, Tham Jen Sern^{ef},

Zhu Xiaoshu^g, and Lim Yang Mooi^d

^{abcd}Centre for Cancer Research, M. Kandiah Faculty of Medicine and Health Sciences, Universiti Tunku Abdul Rahman, Malaysia.

^bDepartment of Chinese Medicine, M. Kandiah Faculty of Medicine and Health Sciences, Universiti Tunku Abdul Rahman, Malaysia

^cDepartment of Population Medicine, M. Kandiah Faculty of Medicine and Health Sciences, Universiti Tunku Abdul Rahman, Malaysia

^dDepartment of Pre-clinical Sciences, M. Kandiah Faculty of Medicine and Health Sciences Universiti Tunku Abdul Rahman, Malaysia

^eDepartment of Communication, ^fUPM-UNICEF C4D Programme, Faculty of Modern Languages and Communication, Universiti Putra Malaysia, Malaysia.

^gChinese Medicine Centre (International Collaboration between Western Sydney University and Beijing University of Chinese Medicine), University of Western Sydney, Sydney, Australia.

Email:ngfl@utar.edu.my

Abstract

Ovarian cancer is a gynecological malignancy that is often detected at an advanced stage. The quality of life of ovarian cancer patients deteriorates especially after cancer treatments as they experience various side effects, poor mental health, low functionality in their daily lives, and financial difficulties in the maintenance of cancer treatment. Recent studies have determined the potential role of Traditional Chinese Medicine body constitutions in predicting disease susceptibility and improving prognosis, quality of life, and survival in cancer patients. However, limited findings were reported on the distribution of Traditional Chinese Medicine body constitutions of ovarian cancer, especially after cancer treatment. This review aims to report the Traditional Chinese Medicine body constitution in ovarian cancer patients after accepting cancer treatment. The literature on Traditional Chinese Medicine body constitutions and ovarian cancer was searched from CNKI, SinoMed, Wanfang, ScienceDirect, and PubMed databases from January 2017 to July 2022. Cross-sectional, case-control, and cohort studies were included in this review. Out of thirty studies, four studies were included in this review. Qi Deficiency Constitution (22.8%) was found to be the highest prevalence of Traditional Chinese Medicine body constitution of ovarian cancer patients after cancer treatment. Confirmation of Traditional Chinese Medicine body constitution in ovarian cancer patients is important to reduce symptom burden and boost recovery

from treatment. Thus, the identification of the Traditional Chinese Medicine body constitutions can raise health literacy and potentially prolong the survival rates in ovarian cancer patients.

Keywords: Prevalence; Traditional Chinese Medicine; Body Constitution; Ovarian Cancer.

1. Introduction

The incidence and mortality rate of ovarian cancer is expected to increase to 55.2% and 36.7% respectively by the year 2050 globally (Ferlay et al., 2024). However, there is a lack of reliable methods to detect the early stages of ovarian cancer (D'Augè et al., 2023). Ovarian cancer patients usually undergo surgery and chemotherapy and experience a low quality of life (Akhter et al., 2020). These cancer patients suffer various side effects, such as poor mental health, low functionality in their daily lives, and financial difficulties (Akhter et al., 2020). According to a report by World Health Organization (WHO) in 2019, 88% of member states recognised the importance of traditional and complementary medicine in disease prevention and health management (World Health Organization, 2019). From 2010 to 2019, the application of traditional and complementary medicine in healthcare varied from 24% to 82.4%, across different countries (Lee et al., 2022). This application has been widely utilised as an alternative treatment or health regimen in supporting the journey of cancer patients (Asiimwe et al., 2021; Bonucci et al., 2022; Buiret et al., 2022; Chin et al., 2020; Filbet et al., 2020; Hamed Abdalla et al., 2020; Reszka et al., 2021; Syed Mohammad Salleh et al., 2021).

The Traditional Chinese Medicine body constitution (TCMBC), is an approach to identify the health status of a person into balanced or biased constitutions stemming from the Traditional Chinese Medicine constitutional theory. Balanced TCMBC represents an optimal state of health, while biased constitutions were subdivided into eight types based on the deficiency and imbalance of *Qi*, *Yin*, *Yang*, blood, and essence in the body (Wang et al., 2006). TCMBC is currently applied to predict disease susceptibility and the modulation of biased TCMBC can strengthen the body and reduce the risk of developing diseases (Wang et al., 2006). Thus far, the application of TCMBC in ovarian cancer has been only implemented across China to determine its association with the risk factors, biomarkers, and treatment side effects (Shen & Han, 2020; Xu et al., 2022; Zhang et al., 2017). Therefore, this review aims to report the types of Traditional Chinese Medicine body constitution in ovarian cancer patients after accepting treatment.

2. Methodology

2.1 Literature Screening and Data Extraction

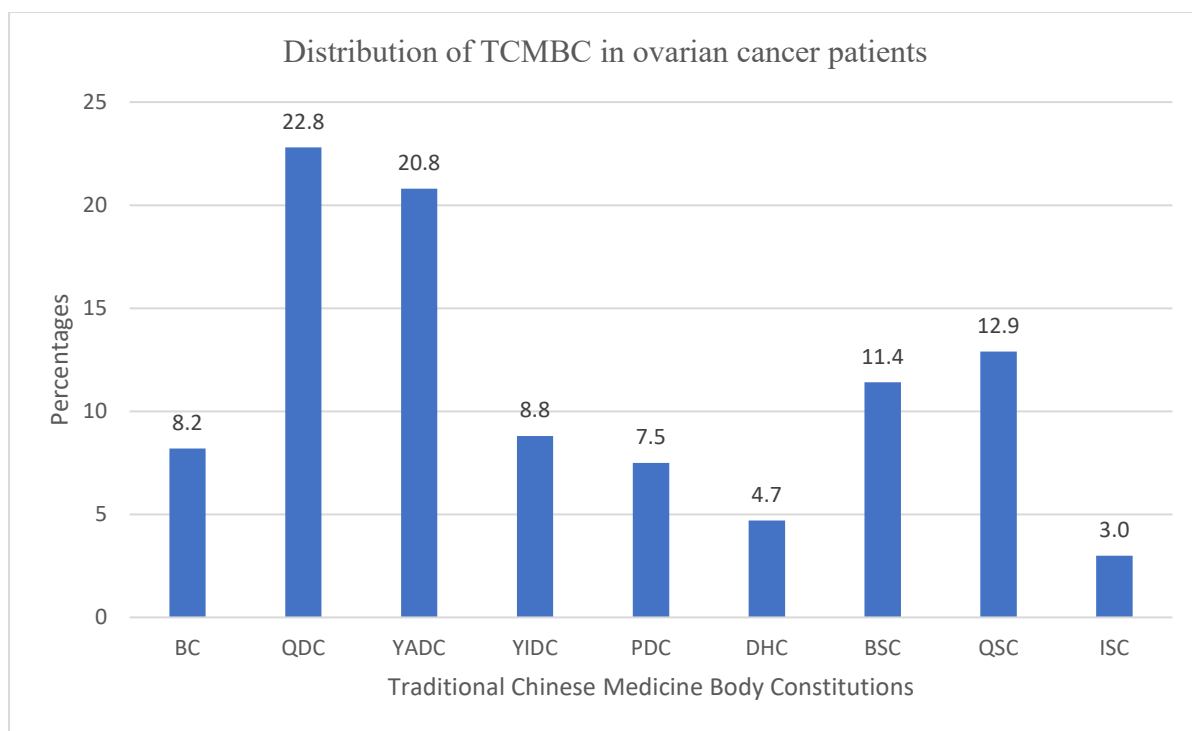
Literature regarding Traditional Chinese Medicine body constitution and ovarian cancer were screened from five databases including China National Knowledge Infrastructure, SinoMed, Wanfang, ScienceDirect, and PubMed from January 2017 to July 2022. "TCM constitution" OR "body constitution" AND "cancer" were searched in the title or abstract, or keywords in 5 databases. The eligible criteria include cross-sectional, case-control, or cohort study in Chinese or English language; ovarian cancer; all subjects required diagnosis by the respective physician in the hospital with validated instruments for the measurement of TCMBC. Incomplete data, studies using the same subject sample, and other study designs were excluded from the review. The data extracted were author, location, sample size, age range, measurement, and distribution of TCMBC. The

prevalence of different types of TCMBC in ovarian cancer patients after treatment is shown in Figure 1.

3. Results

3260 articles were found in five databases. Thirty articles were selected after removing duplicates and irrelevant articles. Four studies were included in this review. The predominant TCM body constitution of ovarian cancer was the Qi deficiency constitution (QDC) (22.8%), followed by the Yang deficiency constitution (YADC) (20.8%), Qi stagnation constitution (QSC) (12.9%), and Blood stasis constitution (BSC) (11.4%). Other TCMBCs with a lower rate of prevalence (<10%) included Yin deficiency constitution (YIDC), Balanced constitution (BC), Phlegm dampness constitution (PDC), Damp heat constitution (DHC), and Inherited special constitution (ISC).

Figure 1: Distribution of TCMBC in ovarian cancer patients.



Note: BC: Balanced constitution; QDC: Qi deficiency constitution; YADC: Yang deficiency constitution; YIDC: Yin deficiency constitution; PDC: Phlegm dampness constitution; DHC: Damp heat constitution; BSC: Blood stasis constitution; QSC: Qi stagnation constitution; ISC: Inherited special constitution.

4. Discussion

4.1 Characteristics of study

Four studies met the inclusion criteria and were included in this review. These studies are cross-sectional studies with sample sizes ranging from 34 to 1083 subjects. The ages of the subjects ranged from 14 to 84 years old, with most patients aged 40 and above. All studies were conducted in hospitals located in Qingdao, Heilongjiang, and Guangzhou, China. The study in Qingdao consisted of two age groups where ovarian cancer patients < 45 years old showed QSC, while elderly aged > 60 years old showed BC (Zhang et al., 2017). All four studies applied the same TCM body constitution questionnaire to identify the types of body constitutions (Wang et al., 2006). These studies reported that BC, QDC, and YADC are the types of TCMBC identified in ovarian cancer patients.

4.2 Prevalence of the types of TCMBC in ovarian cancer after treatment.

Based on the results, QDC is the prevalent type of TCMBC in ovarian cancer patients after receiving conventional treatments (Lin et al., 2020; Shen & Han, 2020; Xu et al., 2022; Zhang et al., 2017). Xu et al. (2022) examined the type of TCMBC in ovarian cancer patients throughout the treatment period and showed that the type of TCMBC was transformed from YADC to QDC. The transformation of TCMBC was due to the toxic effect induced by the conventional treatments (Xu et al., 2022). QDC indicates patients' low immunity; Ma et al. (2018) mentioned QDC had weakened basal metabolism and intestinal flora compared to BC and resulted in a higher risk of gastrointestinal disorder, as well as susceptibility to chemotherapy side effects such as leukopenia, myelosuppression, and cancer-related fatigue (Meng & Sun, 2020; Xu et al., 2022; Yeh et al., 2019). Ovarian cancer patients experience poorer quality of life and require longer recovery from role functioning and physical functioning scales, as well as long-term cognitive impairment which is due to the toxic effects of chemotherapy (Zandbergen et al., 2019). Transformation of TCMBC is applicable to improve the functional domains and symptoms scale in quality of life, which will further improve the survival rate of cancer patients. (Li et al., n.d.) suggested transformation of TCMBC in cancer patients before treatment could decrease the possibility of developing adverse effects and the risk of recurrence and metastasis. TCMBC identification and modulation could help the body cope with the side effects caused by the conventional treatment and reduce the percentage of transforming the body constitution to QDC. Thus, this could improve the quality of life of ovarian cancer patients.

Zhu et al. (2017) found out that QDC is correlated to heart diseases, and YIDC is correlated to diabetes mellitus. Heart diseases and diabetes are the factors that could facilitate the environment for cancer progression, in which ovarian cancer patients could face reduced survival and higher possibilities of recurrence after treatment (Slavchev et al., 2021; Tetsche et al., 2008). The modulation of biased TCMBC in ovarian cancer patients could maintain comorbidity at once while enhancing post-treatment recovery.

4.3 Limitations

The prevalence of the type of TCMBC in ovarian cancer has not been investigated in any other countries. This review significantly highlights the types of TCMBC among ovarian cancer patients after treatment in Qingdao, Heilongjiang, and Guangzhou, China.

5. Conclusion

Qi Deficiency constitution is the prevalent Traditional Chinese Medicine body constitution in ovarian cancer patients after treatment. Modulation of the biased constitution in ovarian cancer patients helps to enhance recovery from cancer treatment, live a better quality of life and prolong the survival rate of ovarian cancer patients. The identification of the Traditional Chinese Medicine body constitution may promote health literacy among ovarian cancer patients specifically and to society at large.

6. Acknowledgment

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The Source of Anti-Drug Social Workers' Job Stress and Countermeasures: A Systematic Literature Review

Wang Jian Ping^a, Paramjit Singh Jamir Singh^b *

^a School of Social Sciences, Universiti Sains Malaysia, Penang, Malaysia

^b School of Social Sciences, Universiti Sains Malaysia, Penang, Malaysia

* Correspondence: paramjit@usm.my

Abstract

The turnover rate of anti-drug social workers has continued to rise in recent years. Through literature search on databases such as China National Knowledge Infrastructure, China Social Work Official Website, and electronic libraries, a total of 46 articles were effectively retrieved. Understand the job stress of anti-drug social workers at three levels: organization, service object and personal. On the organizational aspect, have the workload is too heavy, insufficient funding, poor development of internal environment; On the service object aspect, drug rehabilitation personnel have the habit of lying, difficult to repair the relationship between drug rehabilitation personnel and their families, the crisis of relapse and mental symptoms appearing; on personal aspect, low awareness and sense of identity, insufficient diathesis and ability. From this, support actions are discussed from four aspects: anti-drug social workers, government, organizational and society, explore strategies for anti-drug social workers to cope with job stress: enhance professional identity, enhancing professional capacity, break the mindset and maintain professional boundaries.

Keywords: Anti-drug social workers, Job stress, Social support, Coping strategies

1. Background

Job stress, when moderate, can become benign stress that awakens the sympathetic nerves of anti-drug social workers and enhances their behavior, morale, judgment, and resistance. However, when job stress is excessive or chronic, it can become undesirable stress and have a negative impact on the physical and mental health of anti-drug social workers.

1.1 Drug users increased quickly

By the end of 2021, there're 1.486 million drug users and 121000 newly discovered drug users in China, people who take new psychoactive substances are often found, the proportion of drug abuse such as marijuana, cocaine and ketamine has increased, and the types of drug abuse have become more diverse, drug packaging forms are constantly changing, such as "poisonous milk tea" and "poisonous stamps", which are very deceptive and confusing. The drug situation is becoming more and more severe and complex, which brings greater challenge to the job of anti-drug social workers (CHS Zhao Ke, 2022; Publishing House. Li Qiong, 2018). The importance of anti-drug work requires anti-drug social workers to invest more emotion and energy in their work and take on greater responsibility, which leads them to face an excessive workload (CHS Zhao Ke, 2022; Guangdong Federation of Social Workers, 2018).

1.2 Risks exist at job

The incidents of anti-drug social workers suffering violence from their clients often appear in the news reports. The anti-drug social worker's service target is a group of community drug rehabilitation personnel who have been discriminated against by the broad social group. These personnel have problems with food, clothing, housing and transportation, and the key problem is that most of them suffer from infectious diseases and administrative punishment, and even have criminal background (Chen Fengfei, 2020; Yang Xinshuo & Cao Di, 2022). The more tense the family relationship, the greater the relapse probability of the drug rehabilitation personnel (Li Mengyang, 2017; Wei Zhihao, 2021). After relapse, they're more prone to hallucinations and behaviors that endanger human beings and society (Guo Zhongwei, 2016; Xue Tao & Yu Lihuan, 2019). Research has found that in 2016, social workers in Hong Kong, China, were injured by the drug rehabilitation personnel while providing services.

1.3 Job consumes too much energy

The job stress of anti-drug social workers has always been a topic of social concern and felt personally by anti-drug social workers. The state insists on socialized help and education for drug rehabilitation personnel in the community, with the aim of reducing the relapse rate. However, with urban demolition, urban construction and development, the phenomenon of household separation is prominent, resulting in severe monitoring and management of drug rehabilitation personnel (He Lan, 2017; Xu Huihong, 2009). It's also difficult for anti-drug social workers to grasp the whereabouts of drug rehabilitation personnel. Anti-drug social job is increasingly becoming an important part of the anti-drug effort and is a powerful complement in the anti-drug field. As the main body of action, anti-drug social worker's professional practice ability directly affects service quality and stress level (Chen Xiaodong & Wang Li, 2021). It's found that the limited reserve of professional knowledge, lack of systematic training, confusion of job responsibilities and low sense of service efficiency of anti-drug social workers have virtually increased their job stress (Chen Xiaodong & Wang Li, 2021; Tian Hongji & Tian Baochuan, 2006). Therefore, it's important to pay attention to the job stress of anti-drug social workers and to understand the sources of their job stress.

This review focuses the job stress of anti-drug social workers, emphasizing the sources of their job stress and the coping strategies. The findings are helpful to anti-drug social workers reduce job stress and develop better.

2. Methods

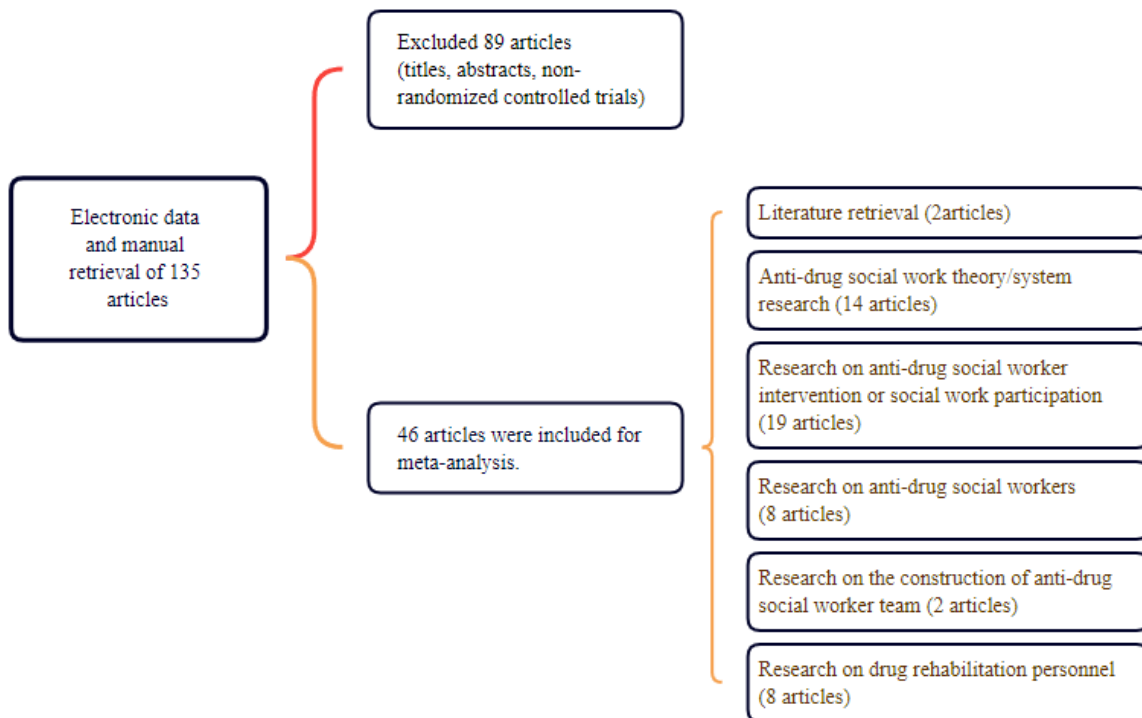
This meta-analysis will strictly follow the analysis process of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) (Moher D & Liberati A, 2009). It uses electronic database platforms such as China National Knowledge Infrastructure, Wanfang

Database, Du xiu Knowledge Database, Electronic Library and China Social Work Official Website, search for literature published between 2011 and 2022, manually search for references in published reviews to avoid missing relevant literature. The search term is “Anti-drug social worker” “Anti-drug social work system” “Anti-drug social work theory” “Duties of anti-drug social workers” “Responsibilities of anti-drug social workers” “Construction of anti-drug social workers team” “Social workers intervene in drug rehabilitation services” “Drug rehabilitation personnel” “Ex-drug rehabilitation personnel” “Work pressure of anti-drug social workers” “Stress of anti-drug social workers” “Strategies for coping with work pressure” “Tactics for coping with work pressure”. The scope of retrieval research is in China.

The inclusion criteria of the literature were: ①English literature; ②Chinese literature; ③ Intervention of anti-drug social workers; ④Social workers participate in community drug rehabilitation; ⑤Job stress of anti-drug social workers; ⑥Construction of anti-drug social worker team; ⑦Drug rehabilitation personnel. Exclusion criteria were: ①Theoretical elaboration of community detoxification model; ②The purpose of the study is to build a community anti-drug prevention and control system; ③Non-randomized control experiment; ④Compulsory isolation detoxification.

The overall search yielded 135 articles, including books, master's theses, consulting reports, and journal articles. The details of these articles have been imported into Endnote Version 20 reference management software and remove duplicate articles. a total of 89 articles were deleted, 46 articles were summarized, and data were extracted for literature research. Among them, there're 2 articles on literature retrieval, 14 articles on anti-drug social work theory/system research, 19 articles on anti-drug social worker intervention or social work participation, 8 articles on anti-drug social workers, 2 articles on the construction of anti-drug social worker team, and 8 articles on drug rehabilitation personnel. The literature search revealed that the sources of job stress among anti-drug social workers were focused on organizational aspect, service object aspect, and personal aspect. Support action and coping strategies of anti-drug social workers are also discussed.

Figure 1.1 A flow chart incorporating Meta-analysis



3. Results

Sources of job stress of anti-drug social workers The job contents of anti-drug social workers include: visit drug rehabilitation personnel, complete information entry and file management; assist the government and police in managing drug rehabilitation personnel; provide various information such as employment and medical treatment for drug rehabilitation personnel; carry out anti-drug propaganda activities in local schools and communities, improve residents' awareness of drug prevention, and complete various tasks assigned by superior leaders (Liu Jinglin, 2021). Anti-drug social workers' job stress mainly come from organizational aspect, service object aspect, and personal aspect. It's necessary to pay attention to the issue of job stress of anti-drug social workers from the government support, organizational support, social support, and personal coping.

3.1. Organizational aspect

The workload is too heavy The government's purchase of anti-drug social work service is aimed at maintaining social stability. However, the excessive administrative, compulsory, stiff and solidified requirements lead to the phenomenon of “emphasizing stability over humanization” and “emphasizing quantity over quality” in the service process (nh Deng Simin, 2018; nh Zhang Yuan, 2015). Anti-drug social workers have to write a lot of documents, such as recording every time they go out and recording everyone's situation. The workload is very heavy and takes up a lot of working time. Although anti-drug social workers are on duty and work in Office of the Narcotics Control Commission, in addition, they not only have to complete the contract target tasks of social work agencies, but also cooperate with Subdistrict

Office to complete the work tasks, bearing the stress from many units (CHS Zhao Ke, 2022; Publishing House. Li Qiong, 2018). Anti-drug social workers who couldn't withstand the stress chose to resign one after another. Faced with the rapid expansion of drug addicts, the existing anti-drug social workers are overwhelmed.

Insufficient funding Anti-drug funds come from government funding and lack of social capital injection, resulting in the government's habit of using traditional administrative orders to carry out work, which makes anti-drug social workers in social work agencies lose more autonomy, without expectations and motivation (Wang Qing & Zhang Nan, 2021; He Xue-song & Li Liu, 2021). Because of the high turnover rate of anti-drug social workers, the low government funding and the low efficiency of public goods allocation, social work agencies are often in a situation of lack of manpower, material and financial resources, which indirectly results in the unsmooth link of anti-drug social workers' resources, consumes much time and energy, and has little effect (Zhao Ke, 2022; Wang Yu, 2018). For example, in Yunnan Province, China, anti-drug social work develop difficult. Those engaged in anti-drug social work are actually local laid-off workers, average monthly salary per person of RMB 3,000 to RMB 4,000, can only maintain food and clothing (CHS Wang Shuwen, 2022). The reason is that the local government has limited financial resources and can't offer attractive salary treatment and can't attract high-quality anti-drug social workers.

Poor development of internal environment The government, anti-drug committees, communities, sub-district offices and other responsible subjects are "independent", which isn't conducive to the work, but also causes waste of human and material resources (Wang Qing & Zhang Nan, 2021; He Xue-song & Li Liu, 2021). There's also a waste of recruitment in anti-drug social work agencies. Most social work agencies' recruitment of anti-drug social workers is subjective and arbitrary. It pays more attention to the applicants' academic qualifications and ignores their deep-seated motivation to choose to become social workers, which isn't conducive to recruiting excellent talents to promote the long-term development of the social work agencies (Li Xiaofeng, 2014).

Research has found that agencies have incorrect perceptions regarding the training of anti-drug social workers: training is useless and time-consuming; incomplete training plan; improper selection of training content and so on. As a result, anti-drug social workers passively adapt to training, waste working time, increase dissatisfaction with the environment, and it's difficult to develop potential lasting competence (Qin Haibo, 2023). In the organizational environment, the occupational requirements and institutional design originating from the organization form an atmosphere of competition and cooperation, so that different personalities, mutual cherishment, and exclusion are all staged in the organization (CHS Hu Mingjun, 2021; Publishing House. Li Qiong, 2018). Anti-drug social workers with distinct personalities will form group differences

due to misunderstandings and conflicts of interest. Group differences aggravate the stress and burden of anti-drug social workers (Wang Qing & Zhang Nan, 2021; He Xue-song & Li Liu, 2021).

3.2. Service object aspect Drug rehabilitation personnel refer to drug users who have been released from compulsory detoxification by drug rehabilitation centers or tried by courts to accept community detoxification (CHS Hu Mingjun, 2021). They go to the community to report and receive drug rehabilitation services provided by the community, covering physical, psychological, employment skills, cultural education and other rehabilitation contents, to solve family conflicts and employment problems, so as to have the ability to survive independently in society.

Drug rehabilitation personnel have the habit of lying Some drug rehabilitation personnel have long been accustomed to a free and unrestrained lifestyle, and like to test the extent to which social workers can help them solve employment problems on the grounds that they need social workers to help them find jobs (Chen Fengfei, 2020). Some drug rehabilitation personnel always suspected that anti-drug social workers didn't really want to help them (Publishing House. Li Qiong, 2018). This distrust increased the job stress on anti-drug social workers.

Difficult to repair the relationship between drug rehabilitation personnel and their families The drug rehabilitation personnel are labeled as "drug users" by the society because of drug abuse. In society, they're discriminated against, looked down upon by others, distrusted by their families, and become more and more sensitive and inferiority complex (Liang Juanjuan, 2021; Publishing House. Li Qiong, 2018; Zhou Weijie, 2017). Therefore, this label not only brings them employment difficulties, but also affects their mental health. Whether they feel inferior or excluded by the social environment, they all think they have lost their self-esteem and self-confidence (Yang Zhuqing, 2018). Anti-drug social workers provide psychological counseling to drug rehabilitation personnel, and help them repair their family relationships (CHS Zhao Ke, 2022; Chen Fengfei, 2020). Double emotional rehabilitation means that anti-drug social workers should bear double the mental stress and job burden.

The local government has issued an anti-drug work instruction: all drug rehabilitation personnel to the household registration of the street Office of the Anti-Drug Commission to report and register. Some drug rehabilitation individuals are unwilling to register with the anti-drug office, instead choosing to hide their identities and leave their hometowns (Publishing House. Li Qiong, 2018). When anti-drug social workers and the police used various means to find out their whereabouts and remind them to go back to the anti-drug office of their registered residence to handle the registration procedures, they greeted the police with a smile, but they vented their emotions to the anti-drug social workers, insulting them (CHS Zhao Ke, 2022; nh Deng Simin,

2018). In this case, anti-drug social workers lack the right to speak and can't be refuted (Deng Simin, 2018). Although anti-drug social workers understand that drug rehabilitation personnel want to live a peaceful life and don't want anyone to visit their homes to avoid neighborhood rumors and harm to their families. However, drug rehabilitation personnel don't respect anti-drug social workers and have a bad attitude towards them, which makes anti-drug social workers suffer psychologically.

There are also some family members who don't understand and don't support anti-drug social workers, on the contrary they take the initiative to partiality drug rehabilitation personnel. They said frankly that drug abuse by drug rehabilitation personnel isn't a human problem, but a social problem (CHS Hu Mingjun, 2021). Every time these family members are encountered, the anti-drug social worker's home visit will be refused. Faced with the situation of family members partializing drug rehabilitation personnel, anti-drug social workers were frustrated, questioned their original intention of choosing job, and began to shake their belief in being anti-drug social workers ideologically.

The crisis of relapse and mental symptoms appearing

In the early stage of returning to society, drug rehabilitation personnel can't really reintegrate into society because of drug addiction and broken social relations, and there's always a sense of incompatibility. Spiritual loneliness makes them prone to the idea of drug abuse (Liang Yiting, 2017; Zhou Weijie, 2017). After repeated relapse, drug rehabilitation personnel will have some pathological mental symptoms, such as jealousy, victimization, suicide, tracking and other hallucinations, which will lead to uncontrolled behavior, disease transmission, violent crime and so on (Chen Yufeng, 2023). Different drug rehabilitation needs have also been added, covering psychological rehabilitation, AIDS counselling, social welfare, employment guidance, basic medical care and residential accommodation (Wu Meilin, 2022; Chen Yufeng, 2023). Therefore, the crisis of drug rehabilitation personnel often makes anti-drug social workers feel helpless and powerless.

Moreover, in the face of the relapse problem of drug rehabilitation personnel, anti-drug social worker as a public power, has the obligation to report (Publishing House. Li Qiong, 2018). However, as a social worker, he has the obligation to keep confidential, and the stress generated in the process of choice and implementation will increase the workload of anti-drug social workers.

3.3. Personal aspect

Low awareness and sense of identity Domestic anti-drug social work is a new concept, which isn't really understood by the government, residents and even anti-drug social workers

themselves. Anti-drug social workers themselves lack a clear positioning and image (CHS Zhao Ke, 2022; nh Zhang Yuan, 2015). Most of the time, anti-drug social workers work together with full-time staff in the Subdistrict Office or in the anti-drug office, and the social work agencies can't keep close contact with anti-drug social workers. As a result, the emotional destination of anti-drug social workers to their social work agencies has become relatively weak. There're also anti-drug social workers who think that they don't belong to the Subdistrict Office, and that their social work agencies are difficult to manage themselves, both of which lack emotional destination.

Some anti-drug social workers carry out anti-drug work in the Subdistrict Office, and when they learn that the Subdistrict Office recruit contract workers, they apply to become full-time Subdistrict Office workers. Faced with the situation of repeated relapse of drug rehabilitation personnel, some anti-drug social workers eventually choose to compromise with reality, only wanting to work and live comfortably, without the willingness to improve themselves. Moreover, anti-drug social workers are in a low-wage situation for a long time, have a weak sense of professional identity and lack of thinking about job and service (Lin Wenyi & Zhou Wen-chao, 2019). The study found that the anti-drug social worker is RMB 9,3000 per year, which includes salary, social security and accumulation fund, activity funds, personal training costs. The working expenses per capita are RMB 2,400, and if used, 20% of the management fee needs to be deducted. Therefore, social workers receive low wages, even lower than sanitation workers (nh Deng Simin, 2018). Ultimately, the probability of anti-drug social workers choosing to leave their jobs is very high.

Some studies believe that China's organizational environment is special. Under the constraints of insufficient social resources, dual management and legal environment, anti-drug social workers as "professionals" only stays at the institutional level (CHS Hu Mingjun, 2021; nh Zhang Yuan, 2015). Anti-drug social workers are actually facing negative professional evaluations such as low salary, inadequate professional competence, low social identity and marginalization of social status. Therefore, anti-drug social workers laugh at themselves for having no sense of belonging, pride, no professional lif, and not being accepted, recognized and respected by society.

Insufficient diathesis and ability Due to the particularity of drug rehabilitation personnel, anti-drug social workers need to reserve enough knowledge base, such as the integration of professional knowledge of social work and anti-drug knowledge. Through research, it's found that the anti-drug social workers weren't active enough and their knowledge wasn't firm enough. They only carried out the urine test of the drug rehabilitation personnel and cooperated with the anti-drug propaganda. Give maximum consideration to the comfort of

each department, and often ignore the needs and feelings of the service objects (CHS Zhao Ke, 2022; Li Meiheng, 2022).

Some studies have found that the average age of anti-drug social workers is 26 years old, and the overall team is relatively young and lacks work experience. Therefore, the lack of professional competence has become an important constraint on the quality of their services (Li Xiaofeng, 2014; Zhang Yuan, 2015). The professional background of the anti-drug social worker, in addition to the social work major, has majors in administration, financial management, English, accounting, business administration, law, psychology, animation design, computer programming (Chen Fengfei, 2020; Publishing House. Li Qiong, 2018). Explains that most anti-drug social workers aren't social work profession. Research shows that the lack of theoretical foundation and practical experience in social work results in limited support and assistance provided by anti-drug social workers, slow and weak service effectiveness, and inability to highlight professionalism.

4. Discussion

Support for anti-drug social workers In the work, anti-drug social workers should actively seek formal social support from the government, organizations, communities, and others to promote resource integration (CHS Zhao Ke, 2022). At the same time, it's necessary to strengthen informal support with family, friends, society to prevent the occurrence of excessive stress leading to emotional breakdown, physical and mental unhealth phenomenon.

Government support The government should fully recognize and promote the active and orderly development of anti-drug social work, clarify the boundaries of government functions, strengthen financial support and service supervision, but shouldn't overly intervene and interfere in the work of anti-drug social workers (Lin Wenyi & Zhou Wen-chao, 2019; Liao Wenwen, 2020). Necessary salary and occupational security are the premise of doing a good job, and also the basis of accelerating the professionalization and professional development of anti-drug social work (CHS Hu Mingjun, 2021; CHS Wang Shuwen, 2022). So it's necessary to improve the salary and strengthen the occupational security of anti-drug social workers.

The government shall verify the salaries and benefits of anti-drug social workers according to the local economic development of the current year, and ensure that they aren't lower than the local average working standard of the current year and increase year by year in accordance with the provisions. When necessary, relevant charity organizations can be relied upon to gather funds from various channels to invest in anti-drug social work services and support the training of anti-drug social workers (CHS Hu Mingjun, 2021). The government should vigorously cultivate and support anti-drug social work service agencies, smooth the channels

for promotion and development, strengthen the professional security of anti-drug social workers, enhance their sense of professional honor and pride, and solve their worries. The government can provide policy support for the job of anti-drug social workers. Such as posting anti-drug propaganda slogans in the community, broadcasting propaganda videos of anti-drug education and anti-drug social work services, rationally regulating the responsibilities and tasks among anti-drug social workers, and ensuring the standardization of anti-drug work (Publishing House. Li Qiong, 2018), and weakening the label of drug rehabilitation personnel (CHS Hu Mingjun, 2021; Publishing House. Li Qiong, 2018). The government's support for the job of anti-drug social workers will drive the community residents to attach importance to the anti-drug work, encourage the community residents to actively monitor and feedback the results of anti-drug, stimulate everyone's sense of responsibility for the anti-drug work, truly realize the national anti-drug atmosphere, and reduce the job burden of anti-drug social workers to a certain extent.

Organizational support Improve the induction training mechanism and speed up anti-drug social workers to understand the current situation and prospects of the whole industry (Teng Mian, 2018). Relying on colleges and universities, anti-drug education base, and anti-drug social worker talent training base, the anti-drug social work service agencies formulates the service standards and job responsibilities of anti-drug social workers according to the professional requirements of anti-drug social work service, and carries out training including theoretical lectures, on-site teaching and guidance, collective discussion, scenario simulation, and occupational risk awareness, to gradually improve the overall quality and service quality of anti-drug social workers.

Agencies should provide timely humanistic care to anti-drug social workers, establish a colleague support network, create an inclusive working environment, and inspire anti-drug social workers' enthusiasm and motivation for their job (Shao Renwei, 2020). Encourage outstanding colleagues to assume supervision responsibilities, provide them with learning opportunities, regularly communication and share outstanding typical supervision cases, and enhance the professional competence of internal anti-drug social workers. Agencies regularly carries out group building communication activities, creates a united and friendly organizational culture atmosphere, constantly develops and improves the agencies management model and incentive and promotion mechanism, and provides external support for anti-drug social workers (Li Yan, 2022).

Agencies actively seek a variety of sources of funding, in addition to government funds, there are corporate sponsorship, donations, reasonable fees and other ways (Teng Mian, 2018). Pay attention to the performance management of anti-drug services, improve the service performance evaluation system, strengthen organizational management, promote

organizational construction, establish service brands, enhance social influence, improve social recognition, and reduce the ideological burden of anti-drug social workers (Liao Wenwen, 2020).

Social support The public has a low acceptance and recognition of the anti-drug social workers, and has insufficient acceptance of the drug rehabilitation personnel. They despise and are unwilling to help the drug rehabilitation personnel, affecting the service delivery of the anti-drug social workers (Publishing House. Li Qiong, 2018). Therefore, it's necessary to enhance social support and acceptance.

Propaganda education is an important duty of anti-drug social workers, and the support of community residents can inspire anti-drug social workers (Wang Qing & Zhang Nan, 2021; He Xue-song & Li Liu, 2021). Anti-drug social workers carry out anti-drug propaganda activities in the community, promoting awareness of the dangers of drugs and knowledge of anti-drug. This's beneficial for community residents to improve their awareness of resisting drugs, as well as to mobilize their enthusiasm to participate in the construction of an anti-drug-free community. And popularize the professional role of anti-drug social workers at the social level, widely publicize the advanced deeds of anti-drug social organizations and anti-drug social workers, establish a good professional image, create a trustworthy social atmosphere and development environment, and improve the social recognition of anti-drug social workers.

Vigorously develop charitable agencies, social work organizations, volunteer associations, to make a series of arrangements for the return of drug rehabilitation personnel, and let willing, capable and qualified drug rehabilitation personnel engage in some anti-drug publicity and volunteer services, reflecting a certain degree of humanistic care, and reducing the stress of anti-drug social workers (Li Rong, 2018; Jiang Wen, 2021). Vigorously develop the anti-drug volunteer team and improve the quantity and quality of the team (Wu Chenwei, 2019). It can establish relations with universities, enterprises and organizations, add anti-drug volunteer service hours to social practice activities and performance appraisal, and expand the degree of social participation in anti-drug (Yin Jianchun, 2017; Zhang Xian-cheng, 2017).

Coping Strategies of Anti-drug Social Workers The sources of anti-drug social workers' job stress, can be understood in three ways: the organization, drug rehabilitation personnel and family, and the individual. Government support, organizational support, and community support are critical to the motivational of anti-drug social workers. In addition, it's necessary for anti-drug social workers to enhance their professional identity, strengthen their professional competence, break out of their mindset, and maintain their professional boundaries.

Enhance professional identity Social work is a profession, profession and career. The anti-drug social worker should recognize the importance of the profession from the perspective of life course and career, clearly and firmly establish his personal career ideal, and contribute professional strength to social harmony and stability. Clarifying the role of anti-drug social workers, recognizing the ethical values and institutional values of social work, and maintaining “interest in people” are the prerequisites for carrying out anti-drug social work (Chen Xiaodong & Wang Li, 2021; Wu Chenwei, 2019). In addition, anti-drug social workers show compromise and balance to the organizational environment, actively adapt to the organizational rules on the basis of recognizing setbacks, and carry out services on the basis of respect and gratitude. Anti-drug social workers separate work from life, use positive belief system to deal with negative emotions, actively take preventive measures, deal with common crises and risks in service, and avoid greater difficulties and stress.

Anti-drug social workers need to constantly influence the leaders of Party and government organs and relevant functional departments to join the anti-drug work (Lai Yuzhen, 2019). For example, make a case function list, refine the functions and resources that each case member needs to help, and submit the list to the leader, who will coordinate the resources.

Continuously advocate for leaders to hold briefings on anti-drug social work services, leverage the organizing role of leaders, and enable more relevant departments to understand the nature and job content of anti-drug social work. The anti-drug social worker assistance system should include community drug rehabilitation personnel system, social resource system and government administration system. It's necessary to establish a collaborative service system between the anti-drug social worker and the police, community doctors, psychological consultants, community grid members and other social forces (Ming Pingxiao, 2020).

Enhancing professional capacity Anti-drug social workers should actively learn anti-drug knowledge and social work practical knowledge, and forge the improvement of social work theoretical knowledge and life ability (Li Meiheng, 2022; Li Xinglin, 2020; Publishing House. Li Qiong, 2018; nh Deng Simin, 2018). Faced with the relapse of drug rehabilitation personnel, and the conflict between the concept of social work, traditional moral concepts and bureaucratic systems, the anti-drug social workers are under stress. Anti-drug social workers need to make a choice: “In a balanced relationship, sometimes we need to make some compromises, and some problems need to adhere to principles and know the consequences.” That's to say, anti-drug social workers accept the existing social situation and use their personality ability to adapt actively (Publishing House. Li Qiong, 2018).

Anti-drug social workers need to understand the interpersonal relationship patterns within the organization. They not only need to establish a good professional relationship with drug

rehabilitation personnel, but also need to establish a cooperative and understanding working relationship with colleagues (Shao Renwei, 2020). Positive thinking and ability are important factors for anti-drug social workers to obtain reconstructive resilience when facing job stress (Publishing House. Li Qiong, 2018). Therefore, anti-drug social workers need to cultivate optimistic and confident personality, learn rational cognition, positive attribution, have reasonable expectations, maintain empathy and tolerance, and enhance the ability to cope with setbacks (CHS Zhao Ke, 2022; Wu Chenwei, 2019).

The anti-drug social workers actively improve their comprehensive abilities, such as problem-solving ability, thinking and analysis ability and reflection ability, can judge the risk factors and protection factors in the service system, and develop perfect coping strategies based on goals and problems, and flexibly solve problems. Anti-drug social workers keep learning and reflecting when they encounter service difficulties and job stress, achieve service goals by integrating resources, gradually adapt to institutional constraints, and ease stress on the basis of advocacy and practice to form a dynamic balance, thereby enhancing psychological endurance and psychological quality.

Break the mindset and maintain professional boundaries When listening to the narration of drug rehabilitation personnel, anti-drug social workers will be affected by the negative description of the other party because of their sympathy for their experience, and there will be over-protective behavior because of their over-sympathy for the other party's experience. The rhythm of the anti-drug social workers' service is affected by the emotions of the drug rehabilitation personnel, indulging in their demands, and forgetting the professional boundaries. Therefore, the rules set by anti-drug social workers to maintain social stability are to help the drug rehabilitation personnel adapt to the rules. Anti-drug social workers should help drug rehabilitation personnel to re-recognize themselves correctly, change their psychological state of inferiority through psychological counseling, and make them realize that they are a normal social person who needs to take medicine on time every day (Guo Xueyan, 2018; Liu Haoxiang, 2016; Xia Xinping & Xiao Guozheng, 2020).

Strengthen cooperation with family members of drug rehabilitation personnel (Yin Jianchun, 2017; Zhang Xian-cheng, 2017). On the one hand, it's necessary to popularize anti-drug knowledge for family members, so that the other party understands why drug rehabilitation personnel will become addicted to drugs, and what the harm of drug using to them is. On the other hand, the psychological stress test of family members should be popularized (Guo Xueyan, 2018; Wang Xuejiao, 2022). This can help family members understand and care for drug rehabilitation personnel, and re-accept drug rehabilitation personnel, help them build confidence in drug rehabilitation, repair family relations and maintain the stability of family relations.

5. Conclusions

Paying attention to the job stress of anti-drug social workers and creating a good atmosphere of humanistic care will help to enhance the awareness of anti-drug social workers and increase their strength, and make more contributions to social anti-drug. Adhering to the concept of helping people to help themselves and the principle of equal acceptance, anti-drug social workers formulate reasonable service plans for the special characteristics of drug rehabilitation personnel, conduct urine tests for drug rehabilitation personnel on time, play a supervisory role, reduce the relapse rate, and help the other party to get rid of drugs as soon as possible. The intervention of anti-drug social workers helps to mobilize the strength of families to help drug rehabilitation personnel detoxify as soon as possible, to help them repair family relations, to solve employment and children's education, and to support the elderly. It's worth emphasizing that anti-drug social workers pay attention to the communication and communicate with the drug rehabilitation personnel and establish a good professional relationship. Even if it will be despised by some drug rehabilitation personnel, the full respect and empathy of anti-drug social workers will help drug rehabilitation personnel to adapt and return to society as soon as possible.

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A Review of Research on the Connotation and Model of Family Resilience

Liu Xiao^{a,b,*}, Paramjit Singh Jamir Singh^a, Feng Yue^c

^aDepartment of Social Work, School of Social Sciences,
Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia

Email: liu_xiao@student.usm.my

^bDongfang College, Shandong University of Finance and Economics,
271000 Taian, Shandong, China

^cDepartment of Sociology and Social Work, College of Political Science and Law,
Capital Normal University, 100089 Haidian, Beijing, China

Abstract

Purpose: To explore the generation mode and path of adolescent resilience, a large number of research results on family resilience need to be specifically examined. By summarizing seven main research models, such as ABC-X model; Wesley Burr's research model; double ABC-X model; family adjustment and adaptive response (FAAR) model; T-Double ABC-X; the resiliency model of family stress, adjustment, and adaptation; family resilience process model, to reflect on the connotation and background of the family resilience theory research turn and comment on the internal logic and changing trend of this turn.

Methodology: The article retrieves the main literature in the field of family resilience research in the past 30 years and extracts its key research points from the connotation analysis of family resilience.

Findings: This paper focuses on combing the relevant literature research results of family resilience, and conducts a special combing and systematic reflection on its connotation definition, research mode, development trend, and other aspects.

Originality: Among the many studies on resilience, the family is often regarded as a background factor or a risk and protection mechanism that promotes the generation of individual resilience. However, relevant research in the past three decades has shown that individual resilience largely reflects the whole family's ability to cope with adversity. The direct cause most closely related to the generation of individual resilience comes from the direct or indirect influence provided by the family. The family is far beyond its background meaning itself and is another independent functional entity for the generation of resilience. In addition to the existing individual-level research, research on resilience needs to be studied at multiple levels such as family and community. These levels indicate different expression connotations, implementation methods, and strategic models of resilience.

Keywords: family resilience; resilience; connotation; model

1. Introduction

In much of the resilience research literature, the family is often seen as a contextual factor or risk and protection mechanism that facilitates the development of individual resilience (Jenkins & Smith, 1990; Rutter, 1979). However, research over the past three decades has shown that resilience in adolescents largely reflects the family's ability to cope with adversity. The closest direct cause of individual resilience is the direct or indirect influence provided by the family, which goes far beyond its contextual meaning and is a separate functional entity for resilience generation. In addition to the individual level, it is necessary to study resilience at multiple levels, such as family and community.

This paper focus on the definition of family resilience, research models, and development trends. The research results of family resilience are specifically review and systematically reflect on the definition of its connotation, research models, and development trends.

2. Method

Literature containing the keyword "family resilience" was searched in various databases, such as EBSCOhost, JSTOR, PubMed, Scopus, SAGE Online, Science Direct, Taylor & Francis Online, and Wiley Online Library. In order to fully understand the development and current situation of family resilience theory research, the literature on family resilience in the past 30 years and earlier representative literature on family strengths, developmental psychopathology and family stress were systematically reviewed. In a word, a total of 58 articles including books, dissertations, and published papers were selected by the literature search work. These papers were input into Mendeley reference manager software. After removing some articles with repetitive content and low relevance, the remaining 30 essays were extracted to support this systematic review.

3. What is Family Resilience?

The emergence and development of family resilience as an independent field of study is relatively recent. The focus and systematic study of family resilience is largely due to the early scholarly inquiry into family stress theory and family systems theory, which focuses on how families can quickly make adaptive strategies to help family members turn around and get out of difficult situations when faced with crises.

What exactly is family resilience? There is a wide range of interpretations of this concept and different approaches to defining it based on different perspectives of family resilience research, but the following are three representative generalizations.

3.1 As a form of Adaptation

Hawley and Dehaan (1996) described family resilience as the process of adaptation and transformation of family members in the face of stress. They actively face the crisis in their unique way, integrating various risk and protective factors, reaching a consensus vision among themselves, and generating developmental paths.

3.2 As a Protective Factor

In a multi-year study based on the family resilience model, McCubbin and colleagues (1996) identified family resilience as a positive pattern of behavior and coping strategies exhibited by individuals and family members in the face of stress and adversity to help the family. As a functional entity, recover from the crisis as quickly as possible and ensure the well-being of family members.

3.3 As a Relational Construct

In Walsh's (2006) view, the family as an independent functional unit often has to adapt through different ways of coping in the face of major adversities or destructive existential challenges, so family resilience refers to the family's ability to bounce back resourcefully and flexibly in the face of various adverse circumstances, and the positive crisis tolerance, challenge capacity, and self-righting. Family resilience is not only about stress management or enduring adversity but also about the transformation and enhancement of potential at the individual and social relationship levels (Walsh, 2013).

It can be seen that the above definitions outline the constructive meaning of family resilience as an independent functional entity unit through different expressions and perspectives, respectively, whether as a way of adaptation to cope with crisis, the process of family self-construction and repair, or the reconstruction of social relationships within and outside the family, reflecting the content and ways of family resilience from different perspectives. The contents and ways of expressing family resilience, as well as the internal and external crisis or stressors and the family's ability and strengths in coping with crisis have been emphasized by scholars.

To summarize the above definitions, perhaps the following generalization is more helpful in the current systematic reflection on family resilience. Family resilience refers to the process of repair, adaptation, and rebuilding of the family as a functional entity, in response to internal and external crises and stressors, to help the family to develop sustainably and healthily.

4. Major Research Models of Family Resilience

Since the development of family resilience as an independent research field, there have been cumulative or unique research models and paths in its connotation, significance, and a large number of family therapy clinical works. Since the 1920s and 1930s, scholars working on family stress have focused on how families faced the crises brought about by the Great Depression and the two world wars and on the unique qualities of families who successfully escaped from crises. For example, Komarovsky's (1940) study of unemployed men and their families proved that family identity qualities are crucial to help family members cope with crises and escape from difficulties; Burgess (1947) classified family crises into three categories: changes in living conditions, conflicting perceptions of family members, and loss or departure of family members; Angell (1936) proposed two concepts of family integration and family resilience; Koos (1973) studied the respective problems of low-income families in New York and middle-class families in Rochester and described the roller coaster process of family crisis, including crisis, deconstruction, recovery, and reorganization while developing an assessment scale for adaptation and integration. These research foundations based on crisis and stress have undoubtedly played a positive role in paving the way for scholars to make cumulative contributions to family resilience research models.

4.1 ABC-X Model

Since the 1940s, substantial progress has been made in the study of family resilience through Hill's "ABC-X model" (also known as the family crisis model) (Hill, 1958a), which consists of four elements: "A" (the event /stressor) refers to a stressor event, which is an event that can potentially cause a change in the individual or family system or disrupt the original family status quo, whether it is internal or external, normal or abnormal; "B" (the family's resources for meeting the crisis) refers to the resources or strengths for coping with family crises, including individual family members' resources (e.g., understanding, knowledge and skills, personality traits, physical and emotional health, self-esteem, and sense of control over life), family system resources (e.g., family communication, family organization, family cohesion, leadership), family system resources (e.g., family communication, family structure, family cohesion, leadership patterns), and social resources (e.g., family communication, family structure, family cohesion, leadership patterns); "C" (the family's definition of the event) refers to the family's perception or definition of the stressful event, which is the key to determining the severity of the family's stress.; "X" (the crisis) represents the level of stress or crisis that causes stress. Any sudden change that upsets the family's original equilibrium will cause stress to the family, and the meaning that the family assigns to the stressful event is the key to determining the severity of the family's stressful experience.

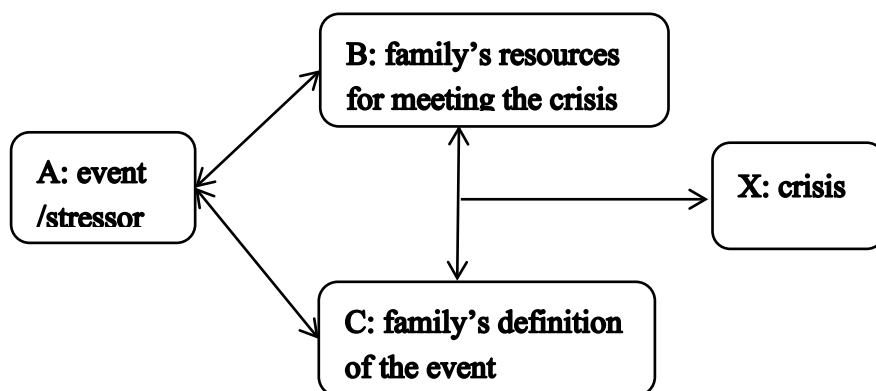


Figure 1: ABC-X Model

In Hill's (1949) view, when the balance of a family ecosystem is threatened or disrupted, it puts a strain on family members, and to maintain the balance of the system and to effectively reduce or eliminate the level of crisis in the system, families respond to the strain and crisis by reorganizing their structures, roles, interactions, and relationships with each other with their original individual perceptions and social resources. Hill's (1958b) study fundamentally breaks with the perception that stress leads to crisis and introduces several moderating mechanisms as variables, further distinguishing two types of variables that are critical to the generation of family resilience (including the family's perception of the current situation and the family's available resources), thus laying the groundwork for several subsequent models of family resilience research.

4.2 Wesley Burr's research model

Based on the existing ABC-X model and other related research, Cornwell and Burr (1975) have specifically conducted a detailed analysis of various family vulnerability factors (vulnerability) and the newly generated coping ability (regenerativity) from them. Vulnerability refers to the internal and external factors that may trigger a family crisis, such as family members' perception of the severity of the problem and family resilience; regenerativity includes negotiation, marital adjustment, etc. These two sets of variables directly determine whether the family has sufficient ability to recover in the face of a risky crisis.

4.3 Double ABC-X Model

Since the 1970s, McCubbin and his colleagues (1983) have published a series of articles proposing a revised version of the ABC-X research model, also known as the Double ABC-X research model, and the family stress research perspective has undergone a process of change from a static structural description to a dynamic time-series perspective.

The double ABC-X model adds four variables to the existing model: "aA", which refers to cumulative stress, when the family faces more than one stressful event, the current stressful event also has the potential to make the previously unresolved stressful event more intense, resulting in an imbalance in the family. "bB", which refers to new resources resulting from changing stressors. "cC", which refers to the family's definition or re-conceptualization of cumulative crises, stressful events, and existing and newly developed resources, where the family's chances of escaping from distress increase if the stress is perceived as a growth rather than a distress; conversely, it increases the family's cumulative distress. "xX", positive or negative adaptation or dynamic equilibrium of the family as a result of the previous multiple factors (McCubbin & Patterson, 1983). The emphasis here is on balancing the needs of the family as a whole with those of its members.

The double ABC-X model focuses on families' coping strategies and processes in the face of crisis by adding new variables, incorporating the cumulative effects of stress and resource regeneration into the analytical framework, and focusing more on the compounding effects of stress accumulation rather than simply confronting the crisis itself (McCubbin & Patterson, 1983). As Van Breda (2001) suggests, the change from crisis state to adaptive adjustment essentially reflects a gradual shift from the study of family stress to the study of family resilience.

4.4 Family Adjustment and Adaptive Response (FAAR) Model

The Family Adjustment and Adaptive Response (FAAR) model was revised to focus more on describing how families find a dynamic balance between needs and resources (McCubbin & McCubbin, 1989a). Through a detailed outline of the seven components of consolidation, adaptation, adjustment, resistance, reconfiguration, and balance. McCubbin and colleagues (1993) found in a large number of follow-up studies that each family undergoes three general stages of adaptation: resistance, reconfiguration, and association when faced with various types of crises. When a crisis event occurs, many families show rejection, which leads to a family crisis and signals the need for adjustment and change, thus pushing family members to reconstruct new family patterns. Sometimes some family members are not willing to accept such a change, and afraid that this need will be difficult to be properly addressed, leading to the deconstruction of the family and, of course, the beginning of the construction of a new pattern of family relationships. Adjustment is not the same as adaptation, which is the short-term response of the family to a crisis, while adaptation includes both reconstructive and consolidative adaptations (1996b).

4.5 T-Double ABC-X

The differences in family types will directly impact family life cycle operations such as family communication, adaptability, and problem-solving methods. McCubbin et al. (1989) proposed

a typological model of family adaptation and adjustment based on the FAAR, focusing on the T factor and the V factor to expand the path of family adjustment and adaptation. Concerned with the importance of the family life cycle in understanding family vulnerability and resilience, emphasizing the importance of shared values and belief systems of family members for the healthy functioning of the family, and using the family structure as a complementary dimension of stress assessment (definition or perception of adversity).

4.6 The Resiliency Model of Family Stress, Adjustment, and Adaptation

McCubbin et al. (1993) have formally incorporated a resilience research perspective into the modeling of household ecosystems. Following the four main domains in which family systems function (including interpersonal relationships, development, self-improvement and spirituality, social relationships and attributes, and structure and function), McCubbin and colleagues (McCubbin & McCubbin, 1993b) provide five dimensions of family perception and evaluation, in descending order, Schema (CCCCC), Coherence (CCCC), Paradigms (CCC), Situational Appraisal (CC), and Stress Appraisal (C). On this basis, four important factors that constitute family resilience are proposed, "A" (stressors and their severity), "V" (vulnerability factors of the family), "T" (family type), and "C" (stress evaluation and perception).

4.7 Walsh's Family Resilience Process Model

In the past ten years, in the field of family resilience process research, more attention has been paid to the key characteristics of the family in the general sense in this process. To reflect on guiding and encouraging more families to build resilience. For example, Walsh (2006) has proposed a core framework for family resilience in general: family belief systems, including family members' shared perceptions of the meaning of adversity, positive outlook, and spiritual transcendence; family organizational patterns, including flexibility, connectedness, and social and economic resources; and family communication processes, including perspective clarification, open emotional expression, and collaborative problem-solving. This framework can forge resilience, grieve and adapt to devastating losses and dislocations, strengthen vital bonds, tolerate uncertainties, and overcome daunting challenges going forward (Walsh, 2020).

5. Analysis of the Research Lineage of Family Resilience

The seven models of family resilience described above are only a summary. This paper attempts to comprehensively outline the family-centered internal and external interaction patterns, value standpoints, and methods from multiple perspectives. These seven models are not only a cumulative process of gradual enrichment and improvement of theoretical models but also reflect the different value orientations and clinical approaches in the process of theoretical evolution. Such as the shift from the early pathological perspective and deficit perspective to the dominant perspective and clinical perspective; the shift from static structural research to

dynamic process research; the shift from labeling type research to empowering dominant perspective; the shift from a focus on individual ability acquisition to integrated construction of social relationships.

Hawley and Dehaan (1996) detailed three important contextual elements in the generation of family resilience, which may help to appreciate the reasons underlying the paradigm shift in research. Three primary streams of research include family strengths, developmental psychopathology, and family stress theory. These three theories focus on explaining the importance of family as a research object and outline the risk factors and protection mechanisms affecting family well-being, which become the theoretical source of family resilience theory (Hawley, 2013).

5.1 Family strengths

Since the 1970s and 1980s, the family strengths perspective has emerged as an important part of the family's life, both theoretical and clinical (e.g., strategy-focused therapy, narrative therapy, etc.), has generally focused on the qualities of family capacity-building, family health promotion, and resilience building, thus gradually replacing the pathological or problematic perspective of the past. Family strengths research has placed particular emphasis on common characteristics possessed by functioning families, such as openness to communication, conflict resolution, etc (Fisher & Sprenkle, 1978). Walsh (2006) suggests that the research framework of family resilience will fundamentally change many people's views based on the perspective of the past. Instead of asking how family members deal with adversity and failure, we focus on how they successfully overcome adversity.

5.2 Developmental psychopathology

The research focuses on the many elements of risk and protection that drive individuals in the face of significant adversity. The element mechanism that constitutes risk may be the joint promotion of genetics or environment, which constitutes the conditional factor for individuals to face crisis pressure; the risk mechanism is regulated by the protection mechanism, including various intrinsic qualities of the individual (such as IQ, internal control ability, self-confidence, etc.) and the external social environment (such as interpersonal relationships, parental support, community resources, etc.), the basic point of view of this method is that individuals with high protection mechanisms are more likely to actively face risks and form suitable resilience (Rutter, 1999).

5.3 Family stress theory

Patterson (2002) argues that the family has an important role to play in individual, family, and community stress theory. The set of needs challenges experienced by the three levels is

mastered by the corresponding three levels of mastery, and family members at individual levels will exhibit different meaningful relationships between needs and competencies than family entities as a whole. These perceptions will affect their sense of identity, values, and many other aspects of the family. Family stress theory suggests that resilient families can use individual, family, and social resources to find the best balance between the three and to cope with the challenges of adversity on multiple levels.

In conclusion, family stress theory has strong parallels to developmental psychopathology research, both of which argue that resilience functions as a balance between stress and strengths. The former tends to view family-level constructs as another important factor in the expression of resilience. This is different from the traditional view of the family as a risk or protection mechanism for resilience generation, which occurs not only at the individual level but also as a result of the interaction between family members and the overall synergy.

6. Conclusion

Over the past two decades, the dominant trend in the field of family clinical practice still focuses on the ability and resilience-based meaning construction (Amatea et al., 2006), including research on family beliefs and expectations, research on family emotional associations, research on family organizational styles, and family learning opportunities (Fernandez et al., 2013). The shift from the vantage point of view to clinical service also heralds the practical development trend of family resilience (Walsh, 2003). In other words, the early research on family resilience mainly focused on the individualized qualities of resilience, such as emotional behavior management, self-control, etc., and now it gradually begins to focus on effective parenting styles, prosocial behavior in peer relationships, community reconstruction of social relations such as resource mobilization, including the use of solution focused therapy, narrative therapy, family functional therapy, and other clinical strategies.

In addition, in the specialized field of family coping with internal and external risks and pressures, research on ambiguous trauma (Bloom, 2007) and Walsh's (2003) research on general families have achieved the most significant results. The former focuses on family trauma when faced with risks and pressures full of uncertainties or the loss experience and the reconstruction of the family ecological pattern, the latter is more concerned about how individuals and families in the normal or general sense can change and reshape the internal dynamics of family development through their relationship with each other.

Comprehensively reflecting on the above research foundations of family resilience, if many risks and uncertainties from outside the family system are a normal manifestation of daily life, then family resilience is an attractive concept and research tool. It is not only a risk and protection mechanism, but also a product of the established social and cultural context, and a developmental coping strategy to help individuals acquire inner energy that will benefit them

throughout their lives. No one will deny that adversity seems to be an inevitable encounter for every family. However, very few families are considered to have real resilience. In the process of facing different adversities and setbacks, family members can dare to face up to reality and seek positive developmental coping strategies and processes is a normal expression that is conducive to the generation of individual resilience. This is also a reflection on the significance and value of conducting specialized systematic research instead of simply taking the family as a background reference factor.

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Integration of Social Work Embedded in Service-oriented Community

Governance Theoretical Logic Study

Guo Wenmei & *Mohd Haizzan Yahaya

School of Social Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia

*Corresponding Author E-Mail: m_haizzan@usm.my

Abstract

The development of community governance services and social work has undergone a shift from "fragmentation" to "integration" and there is a logical relationship between the integrated service models. The design of this study used a qualitative approach by collecting secondary data and analyzing it manually to answer the research questions. The results of the study indicate clear advantages of integrating social work into service-oriented community governance, focusing on constructing a working model for integrating social work into service-oriented community governance by utilizing the structural ideas of "vertical" and "horizontal" integration. Therefore, this article is also an initiative to provide an operationalized framework for exploring the development of social work embedded in community service integration, as well as a localized development idea for the vision of the inter-construction of the two.

Keywords: Social Work, Service-oriented Community Governance, Integration, Theoretical Logic

1. Introduction

Community governance, as the foundation of urban governance, social governance, and even national governance, is an important basis for guaranteeing social harmony and national stability and has a bearing on the realization of the modernization of the country's governance system and governance capacity (Yang, 2023). The emergence of community service projects for different subjects has separated community assistance, which is mainly cash help, from community service, which is mainly labor supply (Zhang & Chen, 2022). For a long time, community governance still suffers from the problems of community "fragmentation", such as the diversity of community types, the diversity of community needs, the low level of participation of residents, and the lack of norms for the process of action (Zhao & Zhang, 2023).

With the emergence of the aging crisis in the welfare state, community service has developed from "fragmentation" to "integration" in the practical world, and "the third way" has emerged

in the theoretical world. In theory, there is a "third way" of cooperation among government, citizens, and society (Lin, 2014). The integration of community governance among individuals and administrative agencies first started in Europe and has experienced a paradigm shift from "institutional integration" to "community integration" (Duijn et al., 2018). The Council of Europe recommended that the whole country in 2011, the European Council recommended the introduction of integrated care systems across the country to improve the quality of services and reduce inequalities between services (Amelung et al., 2017). Thus, the concept of "integration" has been extended to the whole social service field, which is more complex and broader in-service content, and community services in Western welfare states have begun to shift from "fragmentation" to "integration". The concept of 'integration' was then extended to the whole field of social services with more complex and broader service contents.

With the advance of industrialization and urbanization, the market economy and consumerism, modern science and technology, and hedonistic lifestyles have torn away the traditional and ideal community (Zhang, 2020). The character of the community is shifting from a "territorial community" to a "de-territorialized society" (Wang, 2013). The emergence of trends such as "service standardization", "service purchasing", and "service specialization" has led to the trend of "integration" of community services. The trend of "integration" of community services has been highlighted. In specific practice, the community governance model is neither a community management, community self-governance type of decentralized governance, nor is it a unitary management of holistic governance, but it should be holistic thinking as the core of the new governance model - service-oriented community governance (Wang, 2015). This model takes coordination and integration as the core idea, the re-organization of society as the logic of practice, and good governance as the ultimate value orientation.

Service-oriented community governance is recognized in terms of both concept and need, but appropriate tools are needed at the operational level of practice to achieve functional and resource integration. In the specific practice of social work and its professional reflection (Guo et al., 2023), more and more social workers have recognized the importance of integrating professional theories, values, and practices in local contexts (Timothy et al., 2013). Currently, integrative social work, as advocated by the European welfare state, fits the conditions of service-oriented community governance and has become the appropriate tool of the moment.

This study intends to elaborate on the match between the concept and the tool by sorting out the inherent logical relationship between the two. In addition, the effectiveness of the tool is analyzed through the advantages of integrating social work into service-oriented community governance. Finally, it is hoped that the design of the interlocking "vertical and horizontal alternation" working model will provide a reference path for the embedding of integrated social work into service-oriented community governance.

2. Methodology

This study relied on secondary sources and used data and literature from secondary sources. Secondary knowledge was used as a valuable source of informative explanations of some of the main ideas in the study, which contributed to a more accurate understanding of the dynamics of the issue under study (Guba & Lincoln, 2005). This approach involves a detailed interpretation of the literature. Secondary sources included books, academic journals, papers, and reports. Internet search engines used include Google Scholar, Microsoft Academic Search, JSTOR, and Internet Public Library. In addition to the use of Internet search engines, materials such as dissertation collections and research reports were obtained from the libraries of public and private universities. Keywords used in searching for materials included "social work," "service-oriented community," and "integration."

After the data collection, the data was analyzed manually. The researcher used several techniques suggested by both Miles and Huberman to analyze the data. These techniques include data filtering, data presentation, forming conclusions, and data validation (Miles & Huberman, 1994).

3. The Internal Logic of Social Work and Community governance

Retracing the development of social work and service-oriented community governance reveals the transformation of the relationship between the two in integrating service models.

In terms of theoretical paradigms, they share the same theoretical paradigms, forming a flexible service model. First, both are influenced by the theory of the culture of poverty, the religious ideology of "fraternity", humanism, and humanitarianism (Wei & Wang, 2023), which serve as the theoretical support for their work. Secondly, with the formation of the social assistance system, the service field is oriented to the urgent need to solve social problems, and the two service targets and service areas are groups in need of relief. In addition, compared with other paid services, both emphasize the "non-profit" and "non-cash" nature of their services, which are social and service-oriented (Wu & Kang, 2023).

In terms of practical orientation, the two have formed systematic service characteristics through the integration of practical content and service subjects. On the one hand, in terms of service objects, social work has shifted to supplying groups with more specialized service needs (Yang, 2023), and social work has assumed diversified roles within limited-service time; while service-oriented community governance mainly supplies specific groups oriented to policies and systems (Yu, 2023), which change along with social changes and have a smaller scope of change. On the other hand, in terms of service content, the integration theory of social work advocates the integration of service subjects and pays more attention to the humanitarian behavior of human relations (Han, 2023), while service-oriented community governance

mainly focuses on the normative services of policies and systems. As a result, both promote resource linkage and practical cooperation among multiple governance subjects to increase the systemic nature of services.

In terms of methodological techniques, the integration of social work methods is used to explore multiple means of intervention in service-oriented community governance. The practice of integration theory has normative and basic requirements for service types, service contents, service processes, and service standards. Specifically, manifested in the following: functionally, the three major approaches of social work case, group, and community intersect in practice (Zhang & Teng, 2020), focusing on the use of professional work methods and concepts to carry out services as a way to improve the quality of services, and the governance of service-oriented communities makes the integration of social work more goal-oriented and planned. In terms of delivery, social work can act as a "hub" between community services and service recipients (Liu, 2023), directly influencing service recipients and providing them with community services. In addition, in terms of structure, service-oriented community governance is mainly funded by the government, purchasing social public services (Du, 2019), and social forces undertake a large number of supplies, while social work fully demonstrates its advantages in many types of services by its professionalism, and social work understands individuals, groups, organizations, communities, relevant social policies, and even the larger social structure (Liu, 2017), so that elastic and personalized professional social work services can be carried out based on community services.

By sorting out the logic between social work and service-oriented community governance (Table 3.1), it can be found that the common theoretical guidance allows the two to be linked organically in terms of value concepts and practice logic, and to use the differences in practice for mutual construction. Social work can be used to make up for the defects of non-professional "fragmentation" caused by the policy and institutionalization of community governance, and the establishment of service-oriented community governance also creates a favorable policy environment for the development of professional social work at this stage.

Table 3.1: The Internal Logic of Social Work and Community Governance

Internal Logic	Findings
Common Origin	<ol style="list-style-type: none"> 1. Common theoretical support 2. "Homogeneity" between the service recipients and the service areas. 3. "Homogeneity" in nature.
Heterogeneity	<ol style="list-style-type: none"> 1. Service object: social work provides professional supply service with diverse objects; community service provides policy and system supply service with specific objects; 2. Service content: social work pays more attention to

Isomorphism	<p>humanitarian behavior; community service is mainly a policy and system to regulate the service.</p> <ol style="list-style-type: none"> 1. Functionally, it realizes the close connection between macro and micro; 2. Delivery mode, community governance through different subjects as a hub to realize the delivery of services, social work directly affects the service recipients; 3. Structurally, community governance is supplied by social forces, and social work emphasizes its professionalism.
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4. Strengths of Integrating Social Work Involvement in Service-oriented Community

The asset-based community development model emerged in the United States in the 1990s (Kretzmann & Mcknight, 1995) and has become a widely recognized model of community development practice. Sorting through existing theoretical and practical results reveals that the academic community has developed four orientations for understanding asset-based community development practice models: asset-building orientation, rights orientation, community-driven orientation, and strengths orientation (Huang et al., 2017). Based on the need for risk sharing and individualized choices, practitioners need to highlight the strengths of the community and the resources of the community in many asset-based community development model practices (Wang, 2024).

In addition to the "community development" model, there are other models of practice in social work, such as social planning to address community needs through the provision of services, programs, and policies, which are very similar to the service-oriented community governance that is currently widely practiced. The model used for targeted interventions depends on the nature of the community's needs, issues, problems, and available resources.

In conjunction with the views of this study, the community strengths-oriented asset-based community development model was selected by the needs of service-oriented community governance, based on which a change in the practice focus of the substantive model was realized. Thus, the integration of the social work model is advantageous in the context of service-oriented community governance (Figure 4.1).

Firstly, the efficiency of work can be enhanced through the integration of resources. The Asset Based Community Development (ABCD) model recognizes the need to fully grasp the existing assets of the community to expand community capital before implementing services (Kretzmann & Mcknight, 1995). Based on this, integrated social work coordinates the relevant resources of other governance bodies inside and outside the community, and solicits the support of community volunteering resources from community residents to expand the resource

channels for activating community services (Wang, 2023). In addition, with the organic integration of the three major approaches of case, group, and community., social workers encourage service recipients to actively participate and express their needs while receiving services, stimulating the ability of community residents to self-service and self-management, and realizing empowerment (Xu, 2023). At the same time, the screening of the supply service to the service subject, to avoid excessive homogeneous services caused by the redundant service environment (Niu & Qin, 2023), to improve the efficiency of the work.

Secondly, integrate the relationship to improve the order of service. First, integrating relationships within the main body of service provision. Social workers can play the role of managers, integrating service professionals in different fields within the same service system (Liu & He, 2021), improving communication efficiency, thus maintaining the order of the integrated service system, and strengthening the internal cohesion within the system and among the subjects of action. The second is to integrate the relationship between the service provider and the service object. Raeymaeckers (Peter) and Dierckx (Danielle) emphasize that integration is coordinated only when members of the service system are in a state of "availability" of existing resources (Raeymaeckers & Dierckx, 2012). This can be accomplished by making community resources available to residents equitably to avoid disorganization due to service access. Third, integrating relationships between service users. In service-based governance, the direction of 'empowerment' of service users requires consideration of how to play a role in promoting community self-governance (Zhi, 2022). Consideration should be given to how to nurture and incubate community social organizations, how to cultivate community volunteer teams, and how to form a "volunteer + social worker" model of work, to achieve empowerment of service recipients through the integration of resources and the establishment of partnerships (Wen & Xiao, 2022).

They are moreover, integrating tools to meet individualized needs. Provan and Milward argue that networks formed among social service organizations can be used as tools for service delivery to respond to needs that cannot be met by relying on a single organization (Provan & Milward, 2001). Applying the professional approach of social work to a variety of integrated services enhances system compatibility by deepening the degree of inter-subjective connectivity. At the same time, network relationships are used to ensure the continuity of services in response to the dynamic nature of individualized needs (Liu & He, 2021). They are developing differentiated professional services for various groups.

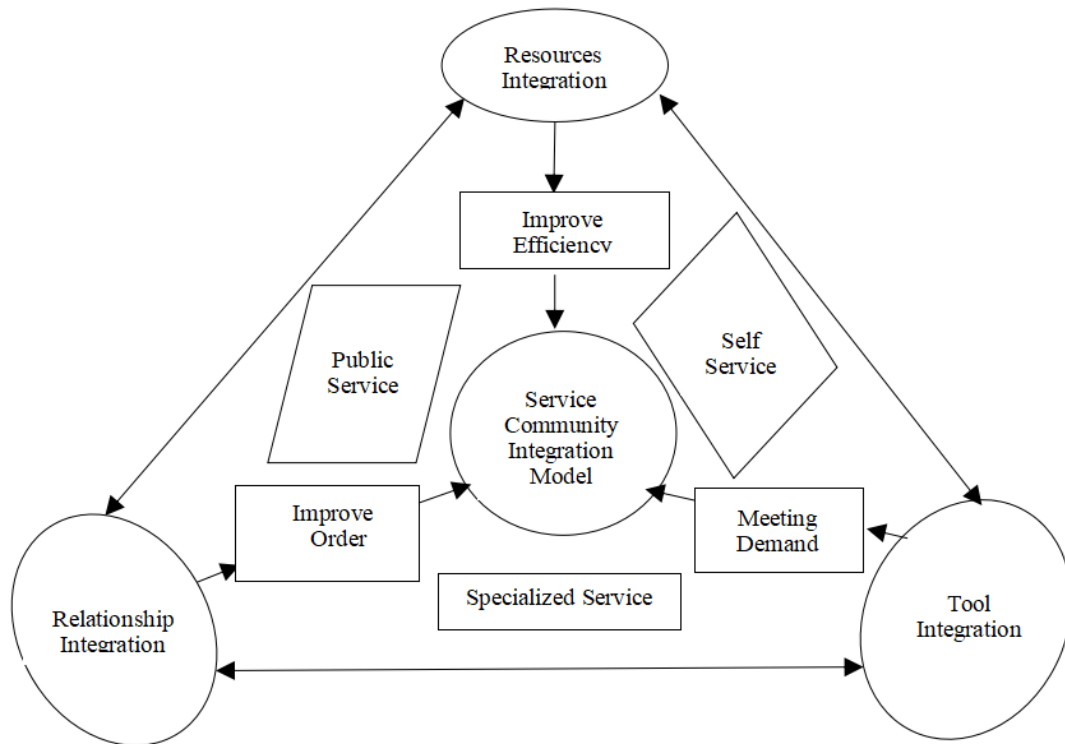


Figure 4.1: Strengths of Integrating Social Work Involvement in Community Governance

5. Exploring the Path of Integrating the Role of Social Work in Service-oriented Community

Combining Munday Brian's structure of "vertical" and "horizontal" integration (Munday & Brian, 2007), this study proposes a "vertical and horizontal alternating" working model that is compatible with the "five integrative tools" and "five phases" of integrating social work into the practice of social services (Figure 5.1).

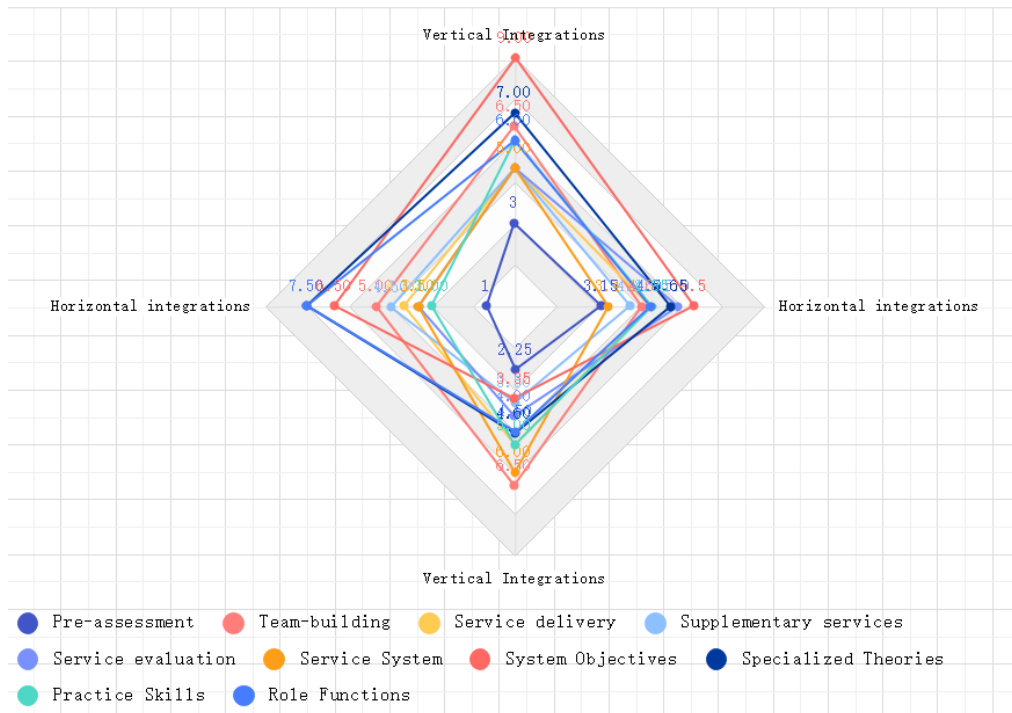


Figure 5.1: Integrating Social Work Role in the Community Service Integration Model

Stage 1: Pre-research, is an assessment of the resources available to the client before the service is carried out. Rosenheck and others believe that inter-systemic integration and community capital can effectively enhance the degree of collaboration between individuals and between organizations (Rosenheck et al., 2001). Social workers carry out problem (needs) analysis of various groups in the community and public issues in the community at the beginning of each project cycle, collect information through community residents, street-related departments, group organizations, community party organizations, and government websites, and conduct discussion and analysis. In addition, social workers need to carry out progressive assessments on the levels of personal relationship networks, community resources, and policies and regulations, and they also need to assess the needs of service recipients (Lin, 2021). Therefore, social workers need to understand the resources that have been developed and utilized and their utilization rate, make plans for the use of existing resources that meet the next stage of service needs but are not utilized (Zhang, 2022), and link to resources that cannot be met within the system but are needed accordingly.

Stage 2: Incubation team. The core team formulates the theme and overall service idea for the year after considering community problems, residents' needs, leaders' wishes, document guidelines, indicator requirements, and social workers' abilities. Social workers recruit relevant professionals, social organizations, social enterprises, or volunteers to form a professional service team based on the preliminary survey and understanding (Table 4.1).

Table 4.1: Team Building

Team Building	Incubation Teams
Resources Integration	At the beginning of the formation of the system team, in conjunction with the resource network of the service recipients, it is necessary to clarify the network relationship between the systems belonging to different subjects through the initial team members' meeting, to look for the resource chain, to unclog the service supply channels and to carry out resource integration.
Role	Within the integrated service system, the social worker should act as a manager, organizing and coordinating the relationships among the members within the service system, and carrying out work scheduling rationally based on a full understanding of the resource network.
Service Theory	Before the formal service is carried out, consultation and interpretation of the theoretical foundations within their respective professional fields that fit the service objectives, and the formation of a personalized knowledge framework for each project will lay a solid foundation for developing and implementing the service plan.
Ethical Norm	There is a need to upgrade and integrate the ethical rules by forming a consensus of values through group work or team coaching based on the original professional segmentation.

Stage 3: Providing services. In the process of service development, social workers need to convene regular meetings of members to address the communication barriers caused by differences in different professional discourse systems in the process of integrative service development, resulting in reduced integration efficiency, which in serious cases can lead to integration difficulties (Niu & Qin, 2023). Meanwhile, social workers need to pay attention to the maintenance of self-regulation of different professional service systems (Wang, 2015). The uniqueness of the system makes the system need to maintain its unique function based on self-regulation, and different professional service systems need to retain their true professional functions in the process of service integration, rather than losing their professional characteristics within the service system (Gao, 2015). At the same time, it is also necessary to establish risk awareness of the service system, and the core team will train social workers around the theoretical knowledge and research methods related to community capacity building every month to cultivate the risk-resistant ability of service team members (Wang, 2023). Therefore, in the process of service delivery, the professional service system needs to be calm and responsive to risks.

Stage 4: Service supplementation. After the completion of the services carried out by the established service objectives, the service system is not yet detached from the service system but needs to be supplemented by the service needs derived from the service recipients (Li, 2023). The development of services is a gradual process, and integration emphasizes the continuity and completeness of service stages and service contents (Tong & Lin, 2015).

However, the dynamic nature of the needs of service recipients makes it necessary for the service plan to be constantly updated by changes in demand. This link greatly ensures that the integrated community service is characterized by service completeness (Wang, 2023), and focuses on fostering self-satisfaction among service recipients about the next stage of their needs.

Stage 5: Evaluation of the effectiveness of services. Due to the special supply structure that exists in the integrated community governance, their assessment can be divided into two parts (Table 4.2):

Table 4.2: Service Evaluation

Service Assessment	Findings
Systematic Internal Evaluation	<ol style="list-style-type: none"> 1. The assessment of social workers by social work supervisors includes the assessment of the professional services carried out by social workers and the assessment of the degree of integration of the service provision system by social workers as managers of the service system; 2. Mutual evaluation within the service system, mutual evaluation among different service subjects, and evaluation of the social worker manager's role function by service team members; 3. Assessment of service recipients, including the degree of psychological satisfaction, recovery of physical functioning, degree of capacity enhancement, and level of community integration of service recipients.
Systematic External Evaluation	<p>Through the intervention of a third-party organization, the degree of integration of services and the effectiveness of services will be objectively assessed. The establishment of a systematic internal and external evaluation system can provide a relatively objective evaluation of the integration of services in terms of objectives, values, processes, technologies, resources, and other dimensions, to accept its effectiveness and test the operability of community service integration for future research and learning on community service integration.</p>

6. Conclusions

In this study, the researchers explored three basic topics. First, integrating the internal logic of social work and community governance is discussed in terms of the theoretical, practical, and methodological techniques of social work and community governance. Second, the discussion focuses on the advantages of integrating social work embedded in service-oriented community governance, which is based on the needs of community risk sharing and residents' individualized choices, and the integration of the social work model highlights the advantages in the context of service-oriented community governance. Third, the focus is on the exploration of the path of integrating social work embedded in service-oriented community governance,

which concludes that integrating social work embedded in service-oriented community governance is feasible and practically operational. The results of the study show that the interface between service-oriented community governance and social work determines the mutual development of the two in the context of "integration."

Moreover, the findings suggest that the uncertainty and correlation of risks reinforce the need for integration of government policy design and service practice in social theory and social practice. From a theoretical paradigm perspective, the development of social work integration will replace residuals as the dominant paradigm to uphold the principle of sustainability in social work practice. From a practical point of view, the integration of social work encompasses the role of social workers, working methods, ethical values, and other dimensions. From the perspective of methodological skills, the arrival of big data, artificial intelligence, and the all-media era has led to the embedding of social networking media into social work as a new and indispensable technological tool that effectively enhances collaborative learning and communication. Therefore, communities, as grassroots governance units, need social work to integrate community services in theory and practice.

Accordingly, whether it is the transformation of the Western welfare state or the social welfare reform in China, integrative social work is functioning in community governance in terms of value concepts, practical operations, and technical methods, and the trend of integrating service-oriented community services has provided a platform for integrative social work to be practiced.

However, the integration of social work and service-oriented community governance research is still in the developmental stage in terms of theoretical research, and no mature research paradigm has been established, and research in China is even more in its infancy. The integration paradigm explored in this study is only a preliminary exploration of the logical relationship and role played by social work and service-oriented community governance in the context of integration, in the hope that it will provide an instrumental operational framework for service-oriented community governance currently underway.

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China's Township (street) social work stations: High-quality participation strategies in grassroots governance

Xiaoyi Wu^{a,*}, Paramjit Singh Jamir Singh^a

^aSocial Work Programme, Universiti Sains Malaysia, Malaysia

Email: wuwuxiaoyi@student.usm.my

Abstract

Township (street) social work stations are an essential practice form of social work participation in rural grassroots governance in China. This paper adopts the method of case investigation to study three practice modes of social work stations in townships (streets) in Hainan Province, China. The data were collected through the literature and interview methods and analyzed through induction and summary. The research found that the practice strategy of high-quality participation in grassroots governance by township (street) social work stations in Hainan Province, China, is inseparable from the grassroots governance mechanism of government responsibility, social organization coordination, public participation, and policy system guarantee. The main strategies include policy guidance to promote a complete coverage strategy, focusing on positioning to create a social work station operation system strategy, cultivating social worker talents to improve professional quality strategy, community and social organizations, social workers, community volunteers, and social charity resources. Linkage" builds a resource-sharing platform to improve service quality strategy.

Key words: social work station; governance; strategy.

1. Introduction

According to the Sustainable Development Goals (SDGs) of the United Nations, since 1990, 1.2 billion people are still living in extreme poverty; 805 million people in the world, or one-ninth of the planet's population, do not have enough food to enjoy a healthy and active life; in 2013, 3,200 children flee every day due to war Homeland seeks asylum. With the development of economic globalization, informatization and urbanization, diversified public security crises continue to spread and aggravate the turbulent changes in the world. The 17 sustainable development goals of the United Nations call on all countries/regions to take action to protect the earth while promoting the shared prosperity of all humanity. General Secretary Xi Jinping proposed "improving the social governance system" in his report to the 20th National Congress. It improves the social governance pattern of standard construction, shared governance and sharing and improves the effectiveness of social governance. Building everyone is responsible, everyone is responsible, everyone enjoys Community of social governance." For this reason, social governance is essential; the grassroots is the cell of society, and rural grassroots governance is an essential cornerstone of social governance. Social work plays a role in it with its unique professional advantages, which are conducive to the overall revitalization of the

countryside.

In China, the unbalanced development of urban and rural areas and the insufficient development of rural areas are prominent manifestations of the leading social contradictions. The Chinese government has gradually realized the importance of rural revitalization and has vigorously promoted social work entry into the countryside. For example, in 2006, the "Decision on Several Major Issues Concerning the Construction of a Harmonious Socialist Society" proposed to build a large social work talent team and take social work as a vital force to promote innovation in social governance and has high hopes for the social work profession. Various rural areas in China actively explore different social work practice models to participate in grassroots governance, such as community service, five social associations, family comprehensive service centres, etc. Among them, township (street) social work stations are an essential practice form for Chinese social workers to participate in rural grassroots governance. In 2021, the Chinese government policy documents "14th Five-Year Plan for the Development of Civil Affairs" and "Notice on Accelerating the Construction of Social Workstations in Townships (Streets)" proposed that a social work service system should be constructed. The construction of social workstations in townships (streets) should be accelerated to ensure that by the end of the "14th Five-Year Plan", all townships (streets) will have built a social workstation so as to make them an essential force in grassroots governance and services. Social workstations have been rolled out on a large scale throughout China to participate in grassroots governance. The purpose of social workstation construction is mainly to solve the current structural imbalance in the supply of public services in rural China and to open up the "last kilometre" problem of policy services (Hu,2019). How do rural social work stations participate in grassroots governance? How does it work in practice? This paper adopts a case study approach to examine three practice models of township (street) social work stations in Hainan Province, China, to explore practice strategies for high-quality participation in grassroots governance by township (street) social work stations.

2. A Review of Social Work Stations Participating in Grassroots Governance.

Social governance is the activities of the government and social organizations to resolve conflicts and problems in the social field, maintain social order, and promote social construction through consultation and cooperation according to certain norms (Wang, 2015). However, social work is highly consistent with social governance in terms of governance concepts, professional methods, governance methods, and goals (Huang, 2015). Social work promotes the construction of a service-oriented government by coordinating the relationship of multiple subjects in social governance, which helps to realize the interactive situation of multiple participation in social governance. Build a community of social governance, innovate the functions of social governance, and promote the formation of new governance structures and mechanisms (Wang, 2020; Wang, 2016). In innovating social governance, the starting point is the community, and the core is service (Zhou, 2014). Social work participation in community governance has a dual purpose. Li,W. (2014) pointed out that, on the one hand, social work contributes to the improvement of community functions by providing community services, resolving community conflicts and disputes, and solving community problems to embed its

concepts and methods into the existing community governance system and promote the improvement of community governance methods. In general, social work must drive more service resources and power resources to sink to the grassroots.

Township (street) social work stations are the specific practice of social workers participating in community governance through direct services. Chinese scholars have conducted relevant research on social work stations regarding their legitimacy, functions, and strategies. For example, the "Opinions on Reforming and Improving the Social Assistance System" issued by the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council in 2020 clearly stated that social work service agencies and social workers should be encouraged to assist social assistance departments in carrying out social assistance through the establishment of grassroots social work stations related services. It is inevitable and legitimate for social workers to enter rural areas and participate in grassroots governance through social work stations. Relevant literature analyzes the functions of the social workstation from the individual to the organizational level. At the individual level, Yu et al.(2021) believed that the social work station focuses on the critical service objects of civil affairs, accurately identifies the needs of crucial service objects of civil affairs, develops refined and precise professional social services, assists them in solving practical problems, and establishes an effective demand support system to promote the deepening of social work in the field of civil affairs Elaborate work. At the organizational level, Li and Xu (2022) believe that the township social work station is a product of the strategic planning of rural revitalization, mainly to solve the problem of government governance capabilities and government services sinking to the grassroots level and activating the subjectivity of government service objects. Sun,Y. (2022) believed that the primary function of the social work stations in street towns is to serve grassroots civil affairs objects, implement welfare policies accurately, and open up the "last mile" of serving the people. In other words, the function of the social work station is the value of its entry into the countryside. Why can these functions of the social work station play a role? The academic circles analyze the reasons from the perspectives of the social work station's legitimacy, professionalism, and talents. Chen and Fu (2022) believed that the legitimacy of the social work station is the basis for the organization to obtain other resources. The social work station can fully coordinate and link through administrative, political, and social legitimacy and provide a reference for the service positioning of other township (street) social work stations. Zhang and Liao (2021) believed that the advantage of the social work station lies in the refined professional services. Yao (2021) believed that the function of the social work station is based on three aspects. One is to establish a good team access mechanism. The second is to build an effective, comprehensive supervision mechanism. The third is to create a built-in professional embedded system.

To summarise the above literature review, social work stations rely on the legitimacy of policies to enter rural communities with different forms of unique projects and realize different functions through administrative legitimacy, political legitimacy, professional legitimacy and ideas, such as helping rural revitalization and development and promoting social development. Governance, improving the basic service capabilities of civil affairs and key service targets

within the civil affairs system. Previous studies have focused more on discussing the model, policy starting point, function and reasons for social work stations, and more research needs to be done on the strategy of social work stations participating in rural governance. Based on the perspective of actual social practice, this study focuses on the practical strategies of social work stations participating in rural grassroots governance.

3. Research Methodology

This research adopted case study methods in qualitative research, taking the three practice modes of social work stations in townships (streets) in Hainan Province, China, as examples. Maxwell (2008) argued that even a single case study involved a choice of this case rather than others and required sampling decisions within the case itself. This research collected data through literature and interviews to analyze information on coverage, service orientation, funding, and staffing of social work stations in townships and made comparative analyses. The data were analyzed using induction and summarization to introduce the situation of different models of social work stations in Hainan further and to summarize the practical strategies of the township (street) social work stations participating in rural grassroots governance. Further, it summarizes the practical strategies of township (street) social work stations participating in rural grassroots governance.

4. Practical cases of township (street) social work stations participating in governance

Located at the southernmost tip of China, Hainan Province is a provincial-level administrative region of the People's Republic of China. It is also China's largest special economic zone, largest free trade pilot zone and the only free trade port with Chinese characteristics. As of September 2015, Hainan Province has jurisdiction over 27 cities and counties (districts), including four prefecture-level cities, five county-level cities, four counties, six autonomous counties, eight districts, and 218 townships. As of the end of 2020, the total population of Hainan is about 10.0812 million, and the proportion of the rural population is 40.94%. In order to respond to the needs of the masses in rural grassroots communities, in December 2020, the Hainan Provincial Department of Civil Affairs issued the "Pilot Work Plan for the Township (Street) Social Work Service Station Project in Hainan Province" to start the construction of township (street) social work service stations across the province. The construction of social work stations is guided by party building. Around three service cores, three social work station construction models are explored: township social work station model, street social work station model and large community social work station model. See Table 1 for details.

Table 1 Comparison table of the basic characteristics of three different modes of social work stations

Three modes Feature	Street social work station model	Township social work station model	Large community social work station model
Nature of service	Basic care services, social governance services	Basic care services	Grass-roots basic services and inclusive services
Implementa	Haikou	Qionghai City,	Sanya

tion area		Wuzhishan City and other places	
Service object	Civil service groups	Civil service groups	Civil service groups
Service focus	Taking "playing the linkage effect of the five societies" as the service core	Taking "comprehensive support for rural revitalization" as the core of the service	Taking "building a resource link platform" as the service core
Realize function	Promote the embedding of social work services into the social governance system of urban communities and improve the level of social governance.	Promote social work services to penetrate rural communities and improve people's livelihood security.	Explore innovations in the field of social work services and improve the level of public services.
Service effectiveness	Haikou has built a "three-level" social work service system of city, district, and town (street), achieving full coverage of social work in 43 towns and streets in urban and rural areas. At the same time, focus on serving special groups such as needy families, low-income people, "the elderly and the young", cultivate no less than 43 professional social work teams, incubate no less than 215 urban and rural community service social organizations, and serve no less than 50,000 people to attract more social work talents to do practical things for the masses, and continuously enhance the sense of gain, happiness and security of the masses.	Qionghai City adopts the linkage model of "social worker talents + volunteers" to create a highlight project of social work stations in Qionghai townships. Wuzhishan City adopts the method of "government-school cooperation" and relies on the Institute of Tropical Oceanography to cultivate local social work talents. The services of township social work stations are standardized and effective.	Relying on the large community to establish a resource link platform, the first social work station dedicated to mental health in the province provides refined services to the masses, explores and trains "home-based social workers", and realizes "Help others help themselves". Through the joint service of "social work professionals + volunteers + social organizations + enterprises", 19 community social organizations and enterprises were mobilized to effectively realize the compelling connection between service objects and social resources and realize the redistribution of resources within the jurisdiction. Alleviate difficulties and rescue dangers.

5. Practical strategies for township (street) social work stations to participate governance

The practical strategy of high-quality participation in grassroots governance by township (street) social work stations in Hainan Province, China, is inseparable from the grassroots governance mechanism of government responsibility, social organization coordination, public participation,

and policy and system guarantees. The main strategies include policy guidance to promote complete coverage strategies; focus Positioning strategy to build a social work station operation system; layered cultivation of social worker talents to improve professional quality strategy; community and social organizations, social workers, community volunteers, and social charity resources composed of "five social linkages" to build a resource sharing platform to improve service quality strategy.

In terms of policies leading the strategy of promoting full coverage of social work stations, the Hainan Provincial Department of Civil Affairs issued the "Notice of the Hainan Provincial Department of Civil Affairs on Adjusting the Pilot Work Plan for the Township (Street) Social Work Service Station Project in Hainan Province" in February 2021. The Civil Affairs Department entrusts social work organizations to implement projects through government procurement services, formulates the implementation standard operation system of social work stations, compiles the "Social Work Station Service List", and clarifies the construction standards. Each social work station is equipped with three social work professionals. The plan is 2023. A total of 230 social work stations will be built in 2019, realizing policy guidance to promote full coverage of social work stations in townships (streets) across the province. By the end of 2022, more than 400 township (street) full-time social workers will provide material assistance, psychological support, capacity building, social integration and other services to the masses to promote the implementation of three different models of social worker stations in Hainan Province.

In terms of focusing on positioning and building the operation system strategy of social work stations, the township (street) social work stations in Hainan Province take the leadership of the party as the core and actively explore three social work station construction models according to the economic development, cultural characteristics and administrative management methods of different cities and counties. , which are the township social work station model, the street social work station model, and the large community social work station model, to focus on the primary responsibility and principal business of civil affairs and create a "1+1+5+X" service system for the poor and special groups, that is, to build 1 1 resource link platform, highlighting one critical service project, focusing on five primary service areas of social assistance, elderly care services, child care and protection, community governance, and social affairs, exploring X local brand services, and establishing "daily monitoring, weekly summary, monthly Reporting, quarterly scheduling, semi-annual notification, and year-end assessment" working mechanism, detailing and decomposing target tasks, formulating timetables and roadmaps, effectively promoting professional social work to participate in grassroots social governance.

In terms of cultivating social worker talents at different levels and improving professional quality strategies, Hainan Social Work Station adopts the "internal cultivation + external introduction" method. It adopts "online + offlineoffline", "group + individual", "theory + practice", "supervision + training", and other all-around methods. The form of supervision provides support for the social work station operation management, project design, and financial standard management for the social work talent team, thus forming a working

mechanism that integrates internal, external and multi-dimensional supervision and guarantees the professional effect of the supervision of social work stations in townships (streets). According to 2021 According to government data at the end of the year, the Hainan government invested 500,000 yuan in Welfare Lottery public welfare funds to carry out social work station supervision projects, carried out online social work knowledge training for 6,500 people, and 760 people for offline pre-employment training and social worker professional exam pre-examination training, and passed multiple rounds of multi-level training Improve the service capability of the social work station.

In terms of the strategy of building a resource-sharing platform to improve service quality in the "five-community linkage" composed of communities and social organizations, social workers, community volunteers, and social charity resources, the Hainan Provincial Social Work Station organized a resource platform to carry out services. As of 2022 At the end of the year, the social workers of social work stations across the province visited more than 50,852 households of civil affairs objects, accurately filed more than 17,330 cases, followed up 729 critical cases, held 4,173 community activities, developed more than 21,338 volunteers, and served more than 4.61 million people. Among them, Haikou takes "playing the joint effect of five societies" as the service core, builds a "three-level" social work service system in the city, district, and town (street), cultivates no less than 43 professional social work teams, and incubates urban and rural community service social organizations Not less than 215, serving not less than 50,000 person-times. Sanya relies on an extensive community to establish a resource link platform through the joint service of "social work professionals + volunteers + social organizations + enterprises", mobilizes 19 community social organizations and enterprises, effectively realizes the compelling connection between service objects and social resources, and realizes Redistribution of resources within the jurisdiction to alleviate difficulties and rescue crises.

6. Research Findings

The analysis of this study found that the practice strategy of high-quality participation in grassroots governance by township (street) social work stations in Hainan Province, China, was inseparable from the grassroots governance mechanism of government responsibility, social organization coordination, public participation, and policy system guarantee. The main strategies included:

- Policy guidance to promote a complete coverage strategy;
- Focusing on positioning to create a social work station operation system strategy;
- Cultivating social worker talents to improve professional quality;
- Community and social organizations, social workers, community volunteers, and social charity resources.

Linkage built a resource-sharing platform to improve service quality strategy. Therefore, the relevant government departments could adapt to local conditions, adopt various methods to promote social work in the countryside, explore multiple possibilities for rural social workers to work in the countryside, and jointly promote rural revitalization and grassroots social governance.

7. Conclusion

Rural revitalization was a multi-departmental collaboration between civil affairs, group organizations, justice, and the Rural Revitalization Bureau, mobilizing all available forces to participate. Through social work services, life affected life, took root, had a foothold, and promoted flowering and fruiting (Wang, 2020). Township (street) social work stations were an essential form of practice for Chinese social workers to participate in rural grassroots governance. Three models of social work stations had to enter rural communities and participate in community governance in different forms, such as service-oriented governance. It was a social governance action in which social work institutions undertook service tasks entrusted by the government, used government and social resources to provide professional services to groups in need, special groups, and people in need, and alleviated and solved their fundamental life problems.

This study summarized practical experience for social work services, which was of practical significance for social work practice. Firstly, the basis of service delivery in rural community work was establishing a trusting service relationship between social workers and the public. Moreover, the legitimacy status of the social work station was a precondition for social workers to gain the trust of the masses. Secondly, social work's active action, through the input of professional services, assisted rural groups in alleviating their difficulties and solving problems effectively to increase their hope and confidence in life, which was the strategy of social work intervention in rural treatment. Lastly, multi-participation in rural development was an indispensable service strategy in social work practice.

8. Disclosure statement

No potential conflict of interest was reported by the authors.

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The Development of Elderly Care Service System in China: Experience of Active Ageing and a Theoretical Model of the Elderly Care Service System

Zhao Jing^{a,*}, Ong Beng Kok^b

^aSchool of Social Sciences, Universiti Sains Malaysia, Penang, Malaysia

Email: zhaojingchina@student.usm.my

^bSchool of Social Sciences, Universiti Sains Malaysia, Penang, Malaysia

Abstract

Ageing is an inevitable and common problem that most countries in the world have been dealing with. However, different countries deal with ageing problems differently because of their different policies and solutions they adopted. Their policies and solutions are influenced by national conditions. While the base of the elderly population is large, the construction of the elderly care service system in China started late. In addition, there is an imbalance between the elderly care service system and the needs of the elderly in China.

Active ageing, which is based on the United Nation (UN) principles of independence, participation, dignity, care, and self-fulfillment, is a particular perspective on ageing that takes a life-course approach to ageing. This perspective has guiding significance in solving the problems that arise during the construction of the elderly care service system in China.

This paper aims to review the literature on the experience of active ageing of the elderly in developed countries and regions and to identify policies and systems of ageing that have been employed in developed countries and regions. This paper hopes to construct a theoretical model of the elderly care service system from the perspective of active ageing, and then promote the “Sinicization” of active ageing in China.

Keywords: Ageing; Active ageing; Elderly care service system.

1. Introduction

Populations in most countries around the world are ageing in terms of number and proportion of the elderly. This phenomenon is not only one of the developed world; in many of the rapidly growing developing countries categorized as “newly industrialized” the proportion of elderly is growing at a never seen speed (Pettersson & Schmöcker, 2010).

According to data from the National Bureau of Statistics of China, since 2001, more than 7 percent of China's population has been aged 65 years and over. In the data from the seventh national census, the number of the elderly aged 65 years and over-reached 191 million, accounting for 13.5 percent of the total population (National Bureau of Statistics of China, 2021). According to the international standards, when the number of the elderly aged 65 and above accounts for more than 7% of the total population, it means that the country or the region has entered ageing (WHO, 2002). Problems in the development of China's elderly care service system have already appeared such as large population of the elderly, ahead of modernization, imbalance between elderly care services and the needs from the elderly, uneven service levels in elderly institutions, insufficient service standardization in community home-based elderly care, etc. It is shown that China has entered an ageing society at the beginning of the 21st century.

The ‘Political Declaration’ and the ‘International Plan of Action on Ageing’ passed in 2002 by the United Nations Second World Assembly on Ageing emphasized that countries should not treat the elderly as a burden, but as an important social force (Guo & Shi, 2008). As significant resources for both families and the society, the elderly should participate in social development through active ageing (Dong, 2004).

In 2002, the World Health Organization (WHO) published a document entitled *Active Ageing: A Policy Framework*, which was developed by WHO’s Ageing and Life Course Programme (drafted by Peggy Edwards, a Health Canada consultant) with international input, as a contribution to the Second United Nations World Assembly on Ageing held in April 2002 in Madrid, Spain. The resulting Active Ageing Policy Framework defines Active Ageing as ‘the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age’ (WHO, 2002). The word “active” in this concept refers to the continued participation in social, economic, cultural, emotional, and civil matters, and does not refer solely to being physically active, nor does it refer solely to having the capacity to engage in labor (Tokushige et al., 2014). Active ageing is a new perspective in addressing ageing issues in the whole world.

2. Policies making in the field of Active Ageing in different countries

2.1 Government-Supported Active Ageing Initiatives in Japan

As the world’s fastest case of population ageing, the documentation of Japan’s path of active ageing initiatives will be closely observed by other depopulating countries trailing along this same path. The Japan government-inspired and -initiated active ageing programs contributed significantly towards ageing policies, programs and funding for the past 60⁺ years. The Japanese national government’s early efforts to create an active ageing infrastructure emerged in the 1960s to encourage the elderly to maintain healthy, meaningful, and independent lives (Someya & Hayashida, 2022).

There are three Active Ageing programs in Japan since its inception sixty years ago—the Senior Clubs, Welfare Centers and Senior Colleges. Active Ageing measures have developed as a national government initiative since the 1960s. During the past half-century, the Japanese government initiated various active ageing efforts that have greatly contributed to healthy ageing and possibly extending the nation’s life expectancy. Since the 1960s, urbanization trends, economic growth, high literacy rates (Saito, 2012), and changes in the living arrangement from living with adult children’s family in old age to living only with one’s spouse or alone have buttressed the support of national Active Ageing initiatives.

The three plans implemented in Japan for Active Ageing promote the construction of the elderly care service system in the form of scale and chain. This has supported the development of abundant influential, competitive, well-known and exemplary elderly care branding programs. The sustainable development of excellent brand programs will better address a range of issues arising from ageing.

2.2 Reflections from the Active Ageing in the United States

Nationally, the primary impetus of Active Ageing governmental initiatives in the United States may be said to have emerged via the Corporation for National and Community Service, an

independent agency of the U.S. government. This agency oversees a variety of community service programs for youth and the elderly. Under its older adult initiative known as Senior Corps, three programs support volunteer activities for those 65 and older. The first is the Foster Grandparent Program, which recruits the elderly to teach and mentor children in elementary classroom settings. The second, known as the Senior Companion program, recruits low-income elderly to serve as companions to the frail elderly to promote independent living and ageing in place in their own homes. Low-income Senior Companions volunteers are provided a modest stipend (below minimum wage) for their services. Additionally, the third program, known as RSVP (Retired Senior Volunteer Program), is more flexible in how and where they dispatch senior volunteer assistance. In many instances, the RSVP senior volunteers are persons aged 55 and above, providing critical community services and high-quality experience enriching the lives of volunteers. The Senior Corp programs were formed around 1993 and are available throughout the United States (Someya & Hayashida, 2022).

The U.S. government created the Older Americans Act in 1965, resulting in national funding for the elderly and the National Administration on Ageing, the State Units on Ageing for all 50 states, and the Area Agencies on Ageing at the county or local level. This national initiative has supported nutrition and community-based supportive services, health promotion, and the national family caregiver support program. While the range of services this Act supports is wide-ranging, Section 5 of this Act explicitly supports low-income seniors in community service employment and volunteer opportunities in coordination with the aforementioned national Senior Corps program. As far as senior college initiatives are concerned, no known national government initiatives are taking place in the U.S. today. However, the non-profit Road Scholar Program (formerly known as Elderhostel) is one of the largest educationally oriented travel programs in the world targeting the elderly. It has provided educational journeys to over 100 countries, and in 1999, it enrolled over 250,000 lifelong learners.

It is characteristic in the U.S that dedicated government agencies are responsible for promoting the implementation of Active Ageing policies. The participation of social forces in addressing the construction of the elderly service system is also necessary. In addition to the family, community, and government as the basis, elderly care institutions and NGOs (non-government organizations) can provide a platform for the participation of social workers, volunteers, psychological counselor to establish a model of multi-principal participation in elderly care service system.

2.3 The meaning of “Active Ageing” to older Australians

During the 39th Australian Association of Gerontology Conference in 2006, it is proposed that although the concept of active and healthy ageing has been adopted in Australia as a guiding principle for enhancing the ageing experience for the quarter of Australians who will be aged 65 years and over by 2051, little is known about how the elderly themselves define “active ageing” (Buys & Miller, 2006). Thus, what the essence of active ageing, being “actively engaged in life”, means to older Australians, needed to be unequivocal.

After investigating by emails, it is obvious that most older Australians, whilst acknowledging the importance of health and security in enabling active engagement in life, defined active ageing in terms of social participation, interactions and involvement. These findings position participation as the key to active ageing, with responses highlighting how issues of physical, mental, social and financial health intertwine to determine the quality of the ageing experience. As the first study to explicitly ask older Australians to define what being actively engaged in

life means to them, the findings illustrate both the expectations and experiences of active ageing for older Australians (Mehta & Thang, 2022).

In Australia, the Active Ageing Taskforce (AAT), an initiative of the West Australian state government, utilizes the WHO definition but places social participation as the central feature of active ageing, both supporting and requiring the health and security dimensions. In addition, the AAT definition of the participation pillar included interactions with family, whereas in the WHO definition, issues of social contact and isolation were grouped under the health pillar.

The elderly are psychologically vulnerable, and the psychological conditions have a direct impact on their physical health. Surveys have shown that the psychological needs of the elderly can be met and expressed through participation in various public activities in the community. As the health of the elderly continues to improve, the elderly group has new demands in their lives and careers. They begin to expect to participate in different social activities. They also actively learn and develop in their daily lives to keep up with the times.

2.4 Experiences from Active Ageing strategy in the European Union

Since the 1990s, the paradigm of Active Ageing has been slowly gaining ground in European institutional, professional, and scientific spheres as the ideal framework for public policy planning and for responding to the population's ageing (Walker & Zaidi, 2019).

Since 2002, the EU has established a process of mainstreaming the concept of ageing at all levels, from the European Parliament to the European Commission, from the EU to the Member States, and in the formulation of policies in various fields such as elderly care, health care and labor and employment. For example, the Treaty of Lisbon, which is regarded as a "simplified version" of the EU Constitutional Treaty, proposes to "fight against social exclusion and discrimination, promote social justice and protection, and advance gender equality and intergenerational solidarity", establishing the macro-objectives of the EU's social policy. On this basis, in 2010, the European Commission formulated the "Europe 2020" strategy, clearly realizing the meso-objectives of "inclusive growth, increasing the labor force participation rate, and reducing poverty and social exclusion rates".

In 2012, the European Commission adopted the European Year of Active Ageing and Intergenerational Solidarity Declaration, which specifies policy measures for active ageing among the elderly in the context of the above objectives, covering the three areas of employment, social participation and independent living. Among them, employment measures include eight measures such as continuing vocational education and training, healthy working conditions, age management strategies, and employment services for the elderly; social participation includes six measures such as income security, social inclusion, lifelong learning, and participation in policy development, etc.; and independent living includes five measures such as health promotion and disease prevention, adapted housing and services, and accessible and affordable transportation, etc.

For each of these areas, the EU has adopted more than 300 specific measures or policies, such as the Recommendation on the Rights of Older Migrants (2003), Recommendation "The Situation of Older Persons in Europe" (2007), Resolution "Promoting Active Ageing: Harnessing the Work Potential of Older Persons" (2011), Recommendation "Decent Pensions for All" (2012), and the "Pensions for All" (2012). Recommendation "A Decent Pension for All" (2012), etc. (Zhu, 2022).

Mainstream ageing refers to the policy process of integrating ageing into all policy areas and levels. Based on the evolution of the system and policy development, the EU advocates for the integration of mainstream ageing into the EU's socio-economic development strategies. Institutional policy support is well established. Systems of social justice, social security, employment and social participation are actively and steadily promoted. A range of age-friendly policies are advocated and introduced.

3. Active Ageing and China: Perspectives and issues

China's current ageing policy and management system was developed after the First World Assembly on Ageing in 1982. From the very beginning, China's ageing program has clearly set out the development direction of “Care giving for the elderly, Health care for the elderly, Education for the elderly, Active Ageing and enjoyment of life for the elderly” (Chen & Chen, 2009). The Five-year Plan for the Development of China's Ageing Program for 2006-2010 combines learning and guidance in the field of education (added at the direction of former President Jiang Zemin), so that the goals now include six goals, or “six principles for the elderly”. The official translation of this goal is: “All the elderly will be cared for and have access to appropriate medical care. They will have the opportunity to pass on their experiences and learn new things. They should be given the opportunity to do what they can for society while enjoying their old age” (State Council of the People's Republic of China, 2006).

The general requirements in “The 14th Five-Year ” National Ageing Career Development and Pension Service System Plan of China, promulgated in December 2021, states that the national strategy of coping with ageing population should be implemented actively in order to promote the synergistic development of pension care and pension industry, vigorously develop the silver-haired economy, promote the coordinated development of the cause of the elderly and industries, basic public services and diversified services, and strive to meet the multi-level and diversified needs of the elderly (Asian Development Bank, 2021). Taking into account the problems of the rapid ageing process in China, the path of ‘Active Ageing’ is in line with the policy direction of the World Health Organization and the strategic deployment of the 20th National Congress of China to ‘Actively respond to the ageing of the population’.

The protection for the elderly in China under the perspective of Active Ageing is not only the traditional protection in the economic sense such as pensions and pension subsidies, but also the protection for the health, life, security and social participation for them. A sound social security system for the elderly should be established and a health support system for the elderly need to be improved based on the current situation in China and the experiences from foreign countries.

4. Cultural disparities between western and eastern countries on ageing

Ageing is not only about a biological phenomenon, but it is also a social and cultural construction that is influenced by ethnicity, class, gender, the political and economic climate (Makri & Giannouli, 2022). Culture refers to the learned and shared values, beliefs and behaviors of a community of interacting people. Rather than an individual’s personal experiences, culture appears to have a greater influence on perceptions of ageing. A great deal of research has disclosed important differences across cultures in their beliefs about old age and attitudes toward the elderly (e.g., Brewer, Dull, & Lui, 1981; Levy, 1999; Levy & Langer, 1994; Schmidt & Boland, 1986).

The most important and influential cultural difference is that Western people adopt the values of individualism, while people in the East uphold the values of collectivism. The development of western culture is based on individualism. As a result, human rights are highly regarded, and personal attributes are largely admired. Being independent is people's favorite way of life. They do not live with their children and would not like to trouble their children. Therefore, elderly people prefer to choose institutions to spend the rest of their life when they are old and not able to handle themselves. Children are encouraged to leave their house and to stay on their own when they reach the age of independence. For example, in the United States, when the children become independent at the age of 18, they are not fully under the control of their parents. They have more time to take care of their own affairs and enjoy their life more freely. Sometimes we can see old couples helping each other on the street, but rarely do we find old people and children together in public.

The Chinese, on the other hand, emphasize and treasure family value and hierarchy. That is why, with traditional Chinese concepts of "four generations under one roof" and "family reunions" the extended family is quite normal in China. Chinese group culture values the relationships with family members, relatives and friends as an integral part of society. The elderly in China always desire to choose a comfortable life by retiring early from their jobs and by living with their children. This is because, according to them, the greatest joy in older age is to live in a united family surrounded by their children.

In China, everything revolves around the children. Even after the children have grown up, the elderly still desire to care about their lives. The parents want to live around their children. They want them to stay around their block. They are all relatives. The same happens to young couples. According to traditional Confucianism, filial piety means not only about supporting the elderly and fulfilling material filial piety to parents, but also about fulfilling spiritual filial piety. This means that while honoring the elderly, one should also respect their wishes, act according to their teachings, and give them spiritual comfort.

5. Discussion: The abstract descriptions of the elderly service system in China

Elderly care institutions and social care should be unified organically. More "Home care beds" need to be developed, followed by the establishment and standardization of the system requirements, clarification of service standards, and improvements to the operation and construction policies on services, management, and technology. Then the elderly who age in place can enjoy professional elderly care services with confidence, comfort, and stability. To achieve the above results, one method is that the elderly who need care are cared for by service organizations or by professionals in their communities. Besides, social support networks (such as families, relatives and friends, neighbors and volunteers in the community) must be established to provide care services for the elderly. The construction of four levels of elderly care service system with facilities at provincial, municipal, county and township levels, especially for the elderly in rural areas, ensures the creation to guarantee systems and the gradual improvement of the quality of rural elderly care service. These are closely related to China's current situation. Furthermore, state and government departments should promote the development of the elderly service industry by social forces, and give them various policy preferences, such as financial subsidies, land allocation, and tax exemptions and reductions, to the main responsible parties for elderly care institutions and community care.

The modern technology needs to participate in solving the construction of the elderly care

service system to promote the intelligent elderly care. By using network information technology such as 5G, big data and cloud computing, the intelligent elderly care will strengthen the product innovation, research, development and manufacturing, along with the scientific and technological support for the elderly products. At the same time, the consumption of elderly services should be upgraded. The communities have a responsibility to create a wisdom recreation and health industry system, including digital skills training and education for the elderly to enhance their information literacy. For example, using big data can realize smart elderly care service systems and supervise the health of the elderly (such as intervening in the development of chronic disease complications, online consultation). This can also achieve online contact between the elderly and their children (children can timely detect psychological and physical diseases of their parents). In addition, the opening of online service functions specifically for the elderly should be advocated, while in terms of home intelligent age-appropriate transformation, intelligent emergency protection equipment for the disabled elderly, one-touch call for emergency help can monitor the safety and health for them at home in a timely manner.

The combination of healthcare and nursing in the construction of the elderly service network must be established. The key to the integration of healthcare and nursing is to get through the “last mile” of social care in order to turn healthcare and nursing from “two separate sections” to “integration”. The elderly can “enjoy their time” at home and improve health education and preventive care from the services provided by medical and health institutions. By expanding the effective supply of medical and health services, the ability of the elderly to prevent and control epidemics and diseases has been strengthened, ultimately achieving healthy ageing and the integrated development of healthcare and nursing.

Professional social work service intervenes in the development of the elderly service system. Since October 2020, China has been promoting the construction of social work stations in townships. Professional social workers have been relying on the stations to integrate resources and get through the elderly service system from the grassroots level by the government's purchase of services. They apply the practical skills of geriatric social work to the community elderly practice and improve the allocation efficiency of elderly service resources. For example, the community-based model of elderly service delivery mechanism and the establishment of community day-care centers enable the elderly services to be provided in proximity. With the activities from social workers, such as group social work, case work, community social work, the elderly can receive professional service nearby. While the elderly care without leaving their home can solve the problem of psychological barriers for the elderly who are far away from the community, their relatives and familiar environment. Furthermore, it is significant to the mutual aid elderly care model in which the lower-aged elderly (60-69 years old) drive the middle and upper-aged elderly (70 years old and above) to become the mainstream volunteers or workers for the elderly care service.

6. Conclusion

Considering the problems in China's rapid ageing process, the path of Active Ageing is in line with the policy guidance of the World Health Organization and the strategic plan of the 20th National Congress of China to “Actively respond to the ageing of the population”. The report of the 20th Party Congress proposed to “implement the national strategy of actively coping with population ageing, develop the elderly care business and the elderly care industry, optimize the services for widows and orphans, and promote the realization of basic elderly care services for all elderly people” (Xi, 2022). The suggestions above will outline suitable avenues to solve the

ageing problems in China based on experiences from developed countries.

While practicing Active Ageing, developed countries have formed policies that are suitable for their own development. The practice in China of Active Ageing needs to absorb the experience of developed countries. Solving existing ageing problems in China from the perspective of Active Ageing is in line with the current national conditions. At the same time, the road of Active Ageing with Chinese characteristics which is called “Sinicization” will be developed.

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Young Generation's Perception on Saving for Sustainable Old Age Consumptions

Nor Asmat Ismail
Universiti Sains Malaysia
norasmat@usm.my

Abstract

Most Malaysians are financially affected by the Covid-19 pandemic because they are unprepared for economic uncertainty. Economic shocks always happen, and rational consumers have strategies to prepare for uncertain situations. According to the Prophet Yusuf, who interpreted the dream of the King of Egypt about years of prosperity and deprivation, people must save a portion of today's income for future consumption or during a hard time. This study investigates students' perception of future conditions and intention to save to prepare for their old age. The survey form was distributed randomly to the students at Universiti Sains Malaysia, and the data was analyzed using Binary Logistic Regression. This study found that expectations of personal situation, expectation of economic uncertainty, social security and social structure influence savings intention. The study supports the application of Prophet Yusuf's theory of saving and the theory of planned behaviour.

Keywords: economic shocks, future consumption, old age, Prophet Yusuf, savings

1. Introduction

Pandemics or the spread of disease are not new in civilization. In 2019, the Covid-19 epidemic is spreading across the world. In Malaysia, several preventive measures have been implemented to break the transmission chain of Covid-19. As a consequence of that, it affects production, consumption, and international trade. From a macroeconomic point of view, communities that are vulnerable to any economic shock need to be given some assistance to survive. In this regard, the government needs more financial funds as the government tends to spend more than income, leading to huge indebtedness to help people in need. Most people do not have enough savings to cover daily expenses, especially those who lost their jobs during this pandemic.

A survey conducted by the Department of Statistics Malaysia (DOSM) on 18 March - 31 March 2020 showed that more than two-thirds (71.4 percent) of self-employed respondents had savings amounts sufficient for daily expenses of less than one month only. 77.2 percent of employers and 82.7 percent of private employees have sufficient savings for daily expenses for up to 2 months. Meanwhile, 78.9 percent of GLC employees and 75.2 percent of MNC employees have savings sufficient for up to 4 months of daily expenses. Only 32.7 percent of respondents said they have savings that can cover daily expenses for more than 6 months. It was found that 69.7 percent of the respondents had worked in less than one year, and 63.2 percent had worked in 1-3 years, each of their financial savings lasting less than one month. 25.4 percent who had worked 4-10 years and 27.5 percent who had worked 11-20 years have sufficient savings for up to 2 months. At the same time, 11.4 percent who had worked 21-30

years and 11.7 percent who had worked more than 30 years have sufficient financial savings for up to 4 months. It was found that only 6.2 percent of respondents were less impressed financially in facing the period of the Movement Control Order. In comparison, 52.6 percent of respondents stated they were very impressed during this period. Among the states that were most affected in facing the MCO period were Sabah (66.7%), followed by Kelantan (65.5%) and Perlis (64.0%). The Covid-19 pandemic profoundly impacts the national economy and individuals, especially low-income groups and workers in the informal sector. The effect of Covid-19 can be seen in two significant aspects: the impact of Covid-19 itself and the result of the government's Movement Control Order (MCO) to reduce the spread of the Covid-19 pandemic. A DOS study (2020) found that 52.6% of households were financially affected during MCO. To help ease the people's burden, the government announced an Economic Stimulus Package of RM250 billion on March 27, 2020. RM25 billion has been allocated for deferred loan repayments, one-off cash assistance, credit facilities, rebates, and direct fiscal injections. However, citizens can only rely partially on the government or assistance from individuals when a disaster strikes. They should have sufficient savings to face any future uncertainty. According to Islamic beliefs and Prophet Yusuf's life cycle theory of saving, people need to save today for future consumption. The saving definition is quite different from the conventional, where, according to Prophet Yusuf, saving is not the residual of current income after consumption ($Y-C=S$), but current income must be put aside for saving before consumption ($Y-S=C$). Thus, this study examines the students' perception of their old age and whether they intend to save for their old-age consumption.

This study contributes to the literature by offering preliminary findings about the perception of old age among young people and the variables that affect their saving intention. This study also provides proof of the application of Prophet Yusuf's theory of saving and the theory of planned behaviour. Understanding the factors of saving intention can help improve saving culture and programmes focused on saving activities, such as retirement savings plans.

2. Literature Review

2.1 The Prophet Yusuf Life-Cycle Theory of Savings

Chapter Yusuf verses 42-48 in the Al-Quran tells the story of the King of Egypt who saw two dreams. In the first, seven fat cattle were eaten by seven lean cattle. In the second, seven green stalks and seven dry stalks. Prophet Yusuf prophesied that Egypt would face seven years of prosperity, followed by seven years of deprivation. The dream of the King, "seven fat cattle were eaten by seven lean cattle" Yusuf (AS) referred to the country will be facing seven consecutive years of abundance (where there is bumper crop).

In comparison, the seven thin cattle and seven dry stalks, he (AS) interpreted as seven difficult years (where there is no harvest). The seven fat cattle eaten up by the lean cattle depicted that the wheat stored during the first seven good years will be consumed during the seven difficult years (Jameel et al., 2012). To ensure people lived in good condition, the Prophet Yusuf recommended a strategy to work in an extraordinary effort for seven years continuously. Save some of the earnings sufficiently to be used during deprivation. According to the Tafseer Ibnu Kathir, the King embraced this plan and appointed the Prophet Yusuf as finance minister. The

Prophet Yusuf's (1745-1635BC) theory of saving to smooth consumption during prosperity and deprivation precedes the famous life-cycle theory by Ando and Modigliani (1963). These two theories have distinguished differences. Prophet Yusuf's theory of savings encourages people to forecast future needs and put aside some portion of their current income to save for future consumption. The portion to save must be taken away from current income before consumption is done, not saving the balance after consumption. However, there is no such thing in the life-cycle theory of savings by Ando and Modigliani (1963).

The definition of saving by Muslims and Westerners is different. Based on Western literature and the Theory of Consumption, saving is simply the difference between income and current consumption (Browning & Lusardi, 1996). However, for Muslims, savings are defined as income minus expenditures on consumption and include spending for Allah's sake, such as paying zakah, giving sadaqah, and contributing to waqf (Md Shabri Abd Majis & Nazirudin Abdullah, 2001). Muslims save not only to meet their obligations but also for the hereafter, which they spend on their family and donate to mandatory and voluntary charitable activities for the sake of Allah (Rahmatina Kasri & Salina Hj Kassim, 2009). Zakah, sadaqah, and waqf are Muslim terms to fulfil these obligations. Thus, a Muslim's saving behaviour incorporates its philanthropic intention: to save for the afterlife, not only to meet worldly needs.

2.2 The Theory of Planned Behaviour

Theory of Planned Behaviour (TPB) discusses how attitudes, subjective norms and perceived behavioural control contribute to intention changes that lead to the final behaviour (Ajzen, 1991). According to Ajzen (1991), the more favourable attitude and subjective norm the person has, together with greater perceived behavioural control, the more robust an individual's intention to perform the behaviour in question. The stronger the intention to perform the behaviour in question, the more likely the behaviour will be performed.

The theory of planned behaviour is a widely used model for explaining human behaviour, and its applicability can be found in many different domains of human and consumer behaviour. The intention is the antecedent of actual behaviour (Ajzen, 1991). Intention can be used as a proximal measure of behaviour. However, perceived saving barriers such as lack of knowledge or insufficient resources mediate the relationship between saving intention and saving behaviour (Magendans et al., 2017).

2.2.1 Attitude towards saving and financial anxiety

Attitude is "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question." (Ajzen, 1991). Attitude toward saving is one of the most important predictors of one's behavioural intention to save (Shim et al., 2012). Furnham (1985) showed a link between beliefs and attitudes toward saving and saving behaviour, however, with somewhat less predictive power. A positive attitude towards saving will lead to increased intention to save, whilst a negative attitude to save reduces the intention to save.

Katona (1975) suggested that people's beliefs about the economy mediate their saving intentions and behaviour. Attitudes develop from people's beliefs about the object of the

perspective (Ajzen 1991). These beliefs are measured by using attitudinal measures such as Consumer Sentiment Index (CSI). Consumers' evaluations and expectations of their personal and economic financial situations influence their savings levels. Crises, wars and other threats make people more pessimistic about the future and less willing to purchase durable goods, which results in increased savings levels for future security. Likewise, people's attitudes towards money can significantly affect how people save and spend money (Hayhoe et al., 2012).

Previous savings experiences influence the chance of future savings (Katona, 1975). During the Great Recession, there was a positive association between uncertainty and saving (Mody et al., 2012). Households using savings as a financial cushion to protect themselves throughout the financial crisis will likely continue acting similarly in the future situation. Magendans et al. (2017) evaluated financial risk tolerance to gauge attitudes towards saving. They found that households with low financial risk have a stronger saving intention than households with higher risk tolerance.

2.2.2 Subjective norms for saving and financial anxiety

Subjective norms are defined as “perceived social pressure to perform or not to perform the behaviour” (Ajzen, 1991). It is believed that subjective norms have two components: 1) normative beliefs or beliefs about how people who are important to the person would expect them to behave and 2) the person's motivation to perform a particular behaviour. Societal beliefs, especially from peers, influence and pressure the opinions and outlooks of individuals.

Social pressure is another critical element of saving. According to Potter et al. (2020), people tend to compare their financial situations with their peers. As aforementioned, during the crisis, people save money to establish control over their life, lowering their anxiety levels. If someone's savings are lower than their counterparts, this can result in higher levels of financial anxiety (Potter et al., 2020). Ruefenacht et al. (2015) found a positive relationship between subjective norms and perceived savings concerns. Social pressure, especially from family and friends regarding savings, causes anxiety, positively affecting saving behaviour (Ruefenacht et al., 2015). The relationship between financial stress and subjective norms could be bidirectional.

On the one hand, people concerned about future income streams and with negative attitudes about their financial situation will likely feel more substantial perceived social pressure. Social pressure supports saving money if people who are important to them are positive towards saving. On the other hand, perceived social pressure to save money can increase financial anxiety among people, positively affecting saving.

2.2.3 Perceived Behavioural Control for Saving and Financial Anxiety

People are influenced not only by the ability to save but also by the willingness to save (Katona, 1975). Willingness to save is associated with subjective perceptions of economic and financial situations, and it is proved that these perceptions are more highly influenced by psychological factors during economic downturns than during normal times. Likewise, it has been found that attitudes towards money affect people's perception of their income (Tang et al., 2004). Financial anxiety has negatively influenced financial well-being (Sages et al., 2013). Financial well-being

can be viewed as a subjective perception of one's financial situation that can help us predict future financial behaviour. Therefore, financial anxiety can negatively influence the perception of one's financial situation or perceived behavioural control to perform a desired financial behaviour, in this case, saving.

Similarly, Gasiorowska (2014) found that money anxiety influences subjective wealth. The concept of subjective wealth can be associated with perceived behavioural control since it measures one's assessment of their financial situation and the perceived ability to fulfil needs and wants. A negative attitude about one's financial situation or financial anxiety may result in an individual's perception that performing saving behaviour is difficult for them, leading to a lower level of perceived behavioural control to save and indirectly impacting saving intention.

According to the TPB model, behavioural intentions are determined by three constructs: attitude towards the behaviour in question, subjective norms regarding the behaviour, and perceived behavioural control. The application of the TPB model in financial saving behaviour has been proven. Some examples are related to saving for retirement, future saving behaviours and saving for financial buffer (Magendans et al., 2017).

2.2.4 Financial Anxiety and Saving

Financial, mental health have recently become a topic of interest among many researchers. However, this topic still needs to be investigated, and information regarding financial management's emotional aspects is scarce. Financial well-being is one's perception of the ability to sustain their current standard of living, the anticipated desired living standard, and financial freedom. It has been commonly measured by one's overall satisfaction with a financial situation (Archuleta et al., 2013).

Financial anxiety is an unhealthy attitude or an individual's reaction to their financial situation (Peterson & Miller, 2019). Financial satisfaction or well-being is inversely associated with financial anxiety, meaning that the higher the financial satisfaction, the lower the financial anxiety (Archuleta et al., 2013). According to Archuleta et al. (2013), financial anxiety should be measured separately from overall anxiety using the Financial Anxiety Scale (FAS). FAS is developed from a general anxiety measure, and it can be measured by 13 items (Archuleta et al., 2013).

Campbell and Shore-Sheppard (2020) suggested that health and economic threats, including the Covid-19 crisis, can affect consumers' ontological security or insecurity, which further leads to a variety of responses, from short-term affective and psychological (e.g., fear), to long-term psychological (e.g. anxiety or depression), to behavioural. Economic downturns can cause long-lasting psychological illnesses which influence a decline in people's overall and financial well-being (Shim et al., 2012). Hall et al. (2021) claim that the inability to predict future income streams is a constant source of stress and anxiety. Likewise, income uncertainty positively impacts saving behaviour, as previously proved by the two most significant recessions.

Financial anxiety is essential in shaping consumer intention to engage in future financial planning activities (Grable et al., 2015). Magendans et al. (2017) emphasized the psychological and economic need for saving during economic downturns. Saving as a financial buffer can be

a personal risk management strategy against financial setbacks and provides psychological benefits regarding subjective well-being (Magendans et al., 2017). Households tend to accumulate wealth to self-insure themselves because they fear being constrained in the future by a negative income shock. Emergency saving against such economic shocks is the most crucial saving goal for the lowest-income populations, leading to enhanced financial well-being (Gjertson, 2016). As aforementioned, lower levels of financial well-being are associated with higher financial anxiety among people. Moreover, one way to cope with increased financial anxiety is to put money aside or save.

2.3 Factors Influence Saving

In the 1990s, the Theory of Planned Behavior (Ajzen, 1991) emerged as a model for studying saving behaviour. Ajzen's model identifies saving as a psychological process influenced by self-efficacy and risk tolerance (Satsios & Hadjidakis, 2018). According to the Theory of Planned Behavior, individuals with high levels of self-efficacy and risk-taking will save more (Lown et al., 2015). In recent years, culture has also been considered to explain saving and those, as mentioned earlier, economic, sociological and psychological factors (Fuchs-Schündeln et al. 2020). It is generally viewed that cultural factors such as ethnicity, religion, and language (Chen, 2013) influence individuals' and households' saving habits.

Mody et al. (2012) studied Canada, Germany, the UK, Japan, France, Italy, and the United States. They found that households increased their savings rates when uncertainty occurred, namely in the 2007 and 2009 economic recessions, by reducing consumption and economic growth. The study results align with the precautionary savings model, where the more significant the uncertainty of labour income, the higher the household savings. The results of this study are robust, with savings rate determinants such as income-wealth ratio, government fiscal balance, demographics, credit conditions, and global growth and financial stress as control variables. The results showed that the increase in household savings rates in 2007 and 2009 was for precautionary savings. Studies related to precautionary savings using micro or primary data are minimal. Murata (2003) studied precautionary savings in Japan using microdata and tested the relationship between precautionary savings and two kinds of uncertainties: income uncertainty and social security (public pension benefit). He used panel data where respondents were asked to provide information every October of each year for six years. Murata (2003) found that households living in small families and not receiving transfer income from the family would make precautionary savings due to uncertainties related to social security. He also found that respondents save starting when they are young. The results of this study show that households living in small families reduce the risk of uncertainty by dividing the risk over their lives. However, this study found no relationship between labour income uncertainty and precautionary savings.

Menegatti (2007) says that when households expect future uncertainty, the utility gain from higher consumption is smaller than the utility loss from lower consumption in the future. So risk-averse households will save to reduce utility losses in the future. Nikolas et al. (2020) support this argument when they found that future uncertainties positively correlate to saving. However, Catherine et al. (2017) clarify that goal clarity, subjective knowledge, and perceived risk did not directly affect the intention to save.

Poterba (2002) identifies factors influencing household savings and why they differ between countries. He found that the availability of pension programs and social structures like education and health care reduces the saving incentive. Household savings are impacted negatively by the income expected to rise over time. Households that expect slower income growth will save more than those who wish for rapid income growth. Natalia (2020) studies the determinants of household saving in Europe, focusing on the impact of labour income uncertainty using panel data for 22 European countries from 1996–2017. The findings show that income growth and labour income uncertainty motivate the household saving rate.

The title of the consumer was derived from the word consume. Most people focus on purchase behaviour when discussing consumption, and there is a good reason. Saving is an essential aspect of consumer behaviour, especially in times of crisis. However, despite being an integral part of consumption, saving is often treated as a residual rather than a primary activity (Eriksson & Hermansson, 2018). The saving decision is a complex, intertwined process of psychological, socio-psychological and economic factors (Fisher & Montalto, 2010). Economists and social scientists define saving as the money left when consumption is deducted from disposable income (Lunt & Livingstone, 1991). From a psychological perspective, saving is a deliberate practice associated with a goal that people want to achieve by putting money away (Canova et al., 2005). According to Fisher and Anong (2012), savings motives are directly related to saving behaviour. Savings motives are categorized in a variety of ways by different authors. Keynes (1936) was the first author to talk about savings motives, identifying eight reasons that cause people to save. Katona (1975) suggested six general motives for saving. Xiao and Noring (1994) studied several motives for saving based on Maslow's hierarchy of needs. They found that savings motives are connected to financial resources, meaning that with increased income, people change their priorities and, thus, savings motives. Wärneryd (1995) suggested four motives for saving, claiming that individuals can simultaneously save for one or more motives.

Motives for saving are found to not necessarily be mutually exclusive (Dynan et al., 2004). Browning and Lusardi (1996) summarized Keynes's (1936) eight motives for saving by assigning them a title and adding a reason to the list - the downpayment motive. Canova et al. (2005) identified 15 savings goals and emphasized the importance of co-existing savings motives. One of the most important theories in terms of saving is the life cycle theory (Canova et al., 2005). According to this theory, people save money for retirement when they can no longer earn an income.

Since Keynes's (1936) motives seem the most comprehensive and Browning and Lusardi (1996) also deal with them in their study, we decided to explain saving motives from their lists in detail. According to Keynes (1936), the life-cycle motive refers to the relationship between the needs of the individual and their family in the future and the required income for those needs, such as retirement savings. The intertemporal substitution motive is related to interest and appreciation that can be achieved due to giving up on small immediate consumption in favour of more significant consumption later. The improvement motive arises from a desire to increase living standards gradually. The independence motive is associated with the sense of power to do things, and the independence people feel when saving money. The enterprise's motive to save is to enable investment in business projects. The bequest motive is to arrange for money or property to be given to somebody after someone's death. The avarice motive is related to

miserliness. They save for the downpayment motive resulting from a desire to buy a house, car, or other durable goods.

It is no coincidence that the first motive on Keynes's list, the precautionary motive, is left for the end. According to Keynes (1936), people tend to save to protect themselves from unforeseen contingencies. People who believe they can control relevant aspects of their life savings at higher levels and, in some cases, as a percentage of their permanent income (Cobb-Clark et al., 2016). Saving money creates a financial buffer that prevents people from getting into problems when they experience a financial setback (Shekinah et al., 2020). Furthermore, Leland (1968) confirmed a positive precautionary demand for saving, and that uncertainty about future income will impact consumption and increase savings.

Similarly, Durante and Laran (2016) claim that strategic resource allocation occurs when people face stressful situations, resulting in money savings. Crises are usually characterized by unforeseen circumstances, income uncertainty and stressful situations.

3. Methodology

This study adopted a survey questionnaire approach. The survey was conducted online via email, Facebook, and WhatsApp between 18th January and 20th Mac 2023, and respondents were chosen randomly among young people (aged 20-30). There 405 respondents aged 20-30 years old participated in this survey. Females comprised 71.1% of the sample (288 participants), while 28.9% (117 participants) were male. 76.5% of the respondents are Malays, 15.3% are Chinese, 5.2% are Indian, and 2.8% are other ethnicities. All procedures have been approved by the Human Research Ethics Committee of Universiti Sains Malaysia with an approval code of USM/JEPeM 19-23, and all participants provided informed consent before the study. After giving consent, participants were asked to complete a series of questionnaires related to the determinant of saving, consumer sentiment index and how much they intend to save in a month, especially for their old age and unexpected situation.

This study uses binary logistic regression to analyze factors influencing saving, where the dependent variable is binary, and the independent variables are the demographic variables and factors influencing saving. The equation is written as follows:

$$Y = \alpha + \beta_1 X + \beta_2 PS + \beta_3 EEU + \beta_4 EFI + \beta_5 SS + \beta_6 SSTR + \varepsilon \quad (1)$$

where

Y = Yes or No answer for intention to save

X = vector of households characteristics variables

PS = personal situation

EEU = expected of economic uncertainty

EFI = expected of future income

SS = social security

$SSTR$ = social structure

$\beta_1 - \beta_6$ = the coefficient of the variable

ε = error term

Since the study employed categorical variables as dependent variables, a general logistic regression model presented by equation (2) was used to identify the significant factors influencing consumers' behavioural intention to save.

$$Y = \ln \left[\frac{P}{1-P} \right] = \alpha + \beta_1 X + \beta_2 PS + \beta_3 EEU + \beta_4 EFI + \beta_5 SS + \beta_6 SSTR + \varepsilon \quad (2)$$

Where P is the probability of a consumer's intention to save, α refers to a constant and β_1 - β_6 denotes the coefficient of variables.

4. Result and discussion

Descriptive analysis

Descriptive analysis shows the percentage of yes and no answer to the question given as shown in Table 1. About 92% of respondents opined that they will live alone with their wife or husband in their own house when they are old and they expected that the price of goods are more expensive. About 95% of respondents predicted that they do not have wealth/properties to support them when they are old. However about 92% of respondents expected that they will have personal savings other than EPF/ pension to support their old age. About 36% of respondents perceived that they will have a good relationship with their children and will live with them when they are old.

Table 1: Descriptive analysis

	Questions	Yes (%)	No (%)
Personal situation	In old age, I live alone or with my husband/wife in my own house	92.2	7.8
	In my old age, I had to work to support myself	23.3	76.7
	In old age, I will suffer from various diseases	33	67
Expectation of economic uncertainty	The price of goods are more expensive than now	92.2	7.8
Expected of future income	In my old age, my children did not help me financially	29.1	70.9
	I may not have the wealth/properties to support myself in my old age	94.7	5.3
Social security	In my old age, I expect EPF/pension money to support my life	52.9	47.1
	In my old age, I will live in the old folks house	9.2	90.8
	I have personal savings other than EPF /pension to support my life in old age	92.7	7.3
Social structure	I have a good relationship with my children and I will live with them when I am old	35.9	64.1

Intention to save

The regression results showed that the logistic regression model was statistically significant ($\chi^2 = 23.513$, $df = 4$, $N = 405$, $p < 0.05$). The results of Cox & Snell, and Nagelkerke R-squared estimates indicated that independent variables explain between 10.8% and 23.5% of the variance in intention to save. Moreover, Hosmer and Lemeshow test for the goodness of model fitness is not significant, chi-square result ($\chi^2 = 13.292$, $df = 3$, $p > 0.05$), supporting the good model fitness.

TABLE 1 : Diagnostic tests

Omnibus Tests of Model Coefficients				Model Summary			Hosmer and Lemeshow Test			
	Chi-square	df	Sig.	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Chi-square	df	Sig.	
Step 1	Step	23.513	4	0.009	103.248 ^a	0.108	0.235	13.292	3	0.102
	Block	23.513	4	0.009	a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.					
	Model	23.513	4	0.009						

As shown in Table 2, the demographic variables are not significant. Personal situation (PS) ($B = -0.876$, $p < 0.05$) is significant in predicting the intention to save at a 5% significant level. People expecting bad personal situations in the future are more likely to have the intention to save 87.6 times higher than those who expect good personal situations in the future. This finding supports the study of Potter et. Al (2020), Ruefenacht et.al (2015), Nikolas et.al (2020) and Natalia (2020). The expectation of economic uncertainty (EEU) ($B = 2.153$, $p < 0.05$) is significant in predicting the intention to save at a 5% significant level. People who expect economic uncertainty in the future are more likely to have the intention to save 215% times higher than those who expect economic stability in the future. This finding supports Mody et al. (1012) and Hathou (2012). Expected future income (EFI) ($B = 0.584$, $p > 0.05$) is insignificant for predicting the intention to save. Social security (SS) ($B = 1.138$, $p < 0.05$) significantly predicts intention to save. People expecting good social security in the future are more likely to have the intention to save 113.8 times higher than those not wishing good social security. This finding supports Murata (2003). Social structure (SSTR) ($B = 0.343$, $p > 0.05$) is insignificant in predicting the intention to save at a 5% significant level. However, it is significant in predicting the intention to save at a 10% significant level. People expecting to live with their children in the future are more likely not to have the intention to save 34.3 times higher than those expecting to live alone.

TABLE 2 : Regression result

		Variables in the Equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Gender	-1.009	0.562	3.225	1	0.073	0.365
	School	-0.019	0.057	0.107	1	0.744	0.981
	Year of study	0.032	0.248	0.017	1	0.897	1.033

Race	0.015	0.196	0.006	1	0.938	1.015
Parent income	0.030	0.150	0.040	1	0.841	1.031
PS	-0.876	0.394	4.935	1	0.026	0.416
EEU	2.153	0.824	6.820	1	0.009	8.612
EFI	0.584	0.594	0.966	1	0.326	1.793
SS	1.138	0.439	6.724	1	0.010	3.121
SSTR	0.343	0.593	0.335	1	0.563	1.410
Constant	-6.755	3.146	4.610	1	0.032	0.001

a. Variable(s) entered on step 1: Gender, School, Year of study, Race, Parent income, PS, EEU, EFI, SS, SSTR.

This study found that from young generation' point of view, factors that influence their intention to save are the personal situation, as we know that people are getting old in the future and may be unable to work to support consumption at that time. So, today's saving is significant to ensure comfortable living in the future. Another factor is the expectation of economic uncertainty. For example, the price will increase, or in other words, inflation will happen in the future. Another factor is social security. Parents usually wanted to live in their house and were uncomfortable living in their children's houses, not to mention living in old folk's houses. To prepare for their personal life in the future, people are saving their money today. Therefore, this empirical study proves the application of Prophet Yusuf's theory of saving and the theory of planned behaviour.

5. Conclusion

This study investigates the saving intention to prepare for old-age consumption of young generation in Malaysia. This study found that factors influencing the intention to save are the personal situation, expectation of economic uncertainty, social security, and social structure. The findings shows the proof of the application of the Prophet Yusuf's theory of saving and the theory of planned behaviour.

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Factors Related to Non-Compliance with The Community-Based Drug Rehabilitation (CBDR) Treatment: A Qualitative Study Among Drug Users

Paramjit Singh Jamir Singh^a, Shankar Durairaja^{a,b,*}, Azlinda Binti Azman^a, Farah Wahida Binti Suhaimi^c, & Mohd Syaiful Nizam Abu Hassan^d

^a School of Social Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia
*Email: durairajashankar@gmail.com

^b School of Investigation and Enforcement, Kolej UNIKOP (Milik Koperasi Polis Diraja Malaysia), Block 3420, Persiaran Semarak Api, Cyber 4, 63000 Cyberjaya, Selangor, Malaysia.

^c Centre for Drug Research, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia.

^d Faculty of Applied Social Sciences, Universiti Sultan Zainal Abidin, Gong Badak Campus, Gong Badak, 21300 Kuala Nerus, Terengganu Darul Iman, Malaysia.

Abstract

Community-based drug rehabilitation (CBDR) reflects the efforts and partnership of various organisations and social institutions to help drug users to regain their physical and mental health and prevent them from social discrimination and criminal activities. Studies from different countries have shown that non-compliance to drug treatment is widespread, which affects the sustainability of drug treatment. There are several factors associated with non-compliance to drug treatment, including CBDR treatment, by drug users. The aim of this qualitative study was to explore the factors that lead to non-compliance with the CBDR treatment under the National Drug Agency (NADA). Focus group discussions (FGD) were conducted with 45 drug users undergoing the CBDR programme in the state of Penang. The data collected was then analysed using thematic analysis and four themes emerged. The themes are cognitive, psychological, behavioural, and social factors. The cognitive factors are inadequate knowledge of treatment, lack of motivation, weak religious beliefs and convictions, and poor attitudes towards decision-making. Second psychological factors are stigmatisation, lack of awareness of rules, multiple stresses, obsession, fear of job loss and denial. The next behavioural factors are an unhealthy lifestyle and drinking and smoking habits. Finally, the social factors are poor communication and lack of employability. A nuanced understanding of these factors can guide the development of more tailored, multi-faceted solutions and resources for providers and communities alike.

Keywords: Community based, drug users, non-compliance, qualitative, rehabilitation

1. Introduction

Community-based drug rehabilitation (CBDR) is an effective treatment for drug addiction which reflects the efforts and partnership of micro, mezzo, and macro levels of society. CBDR represents the best option for treating drug users by providing effective, voluntary, comprehensive, and evidence-based drug treatment and support services (Bailey, 2018; Bussmann & Werle, 2006). CBDR provides a sustainable and long-term approach to drug addiction treatment (Lash et al., 2013; Laudet & Humphreys, 2013), by providing a supportive network of care and support (Lin & Zhou, 2020; Mutschler et al., 2022) that effectively reduces

the risk of relapse and long-term recovery (Ali & Stevens, 2022; Yang & Giummarra, 2021). Compared to other treatments, such as institutional treatments, CBDR is more accessible and affordable (King, 2021; Xu et al., 2021) and can reach a greater number of people who need help. Moreover, due to its nature, CBDR is client-centred (King, 2021; Tiu et al., 2020), meaning that treatment aims to meet the drug user's needs and preferences.

CBDR in Malaysia is based on the i-Pulih model, which focuses on the biopsychosocial spiritual program (National Anti-Drugs Agency Malaysia, 2021). Biopsychosocial spiritual programs under the i-Pulih model focused on nine components such as guidance and counselling, social support, psychoeducation, psychospiritual, health education, family programs, skills training, job placement, recovery coach, and sports and recreations (Ibid). Multiple facilities under NADA such as hundred nine NADA district offices, twenty-nine NADA service centres, sixteen client integration centres, forty-eight community houses, and thirteen intermediate homes involved in CBDR by providing four different services (health and clinical treatment; advanced care and maintenance of recovery; rehabilitation and social support programs; social and community services) under NADA's CBDR (Ibid).

Non-compliance among drug users in drug rehabilitation treatment has become a significant challenge for rehabilitation officers and healthcare professionals. Drug users' compliance is a substantial aspect of the effectiveness of the existing community-based drug rehabilitation (CBDR) treatment. Therefore, the aim of this study is to investigate the factors that lead to noncompliance with CBDR treatment by the National Drug Agency (NADA). Thus, this study is of great value in evaluating and improving the existing CBDR treatment to achieve better recovery and care for drug users.

2. Literature Review

Without compliance, the recovery process will fail, leading to weaker outcomes. Several studies indicated barriers that lead to non-compliance with CBDR treatment among drug users in Philippine (Allado et al., 2019; Hechanova et al., 2022), Indonesia (Nurhotimah & Besral, 2019), and China (Ma et al., 2016). These studies indicated that there are multifaceted factors that contribute to non-compliance with CBDR treatment.

Several studies (e.g., Andrews et al., 2015; Guerrero et al., 2014, 2016; Hasin et al., 2016; Livingston et al., 2012; Morgan et al., 2018), including those mentioned above, pointed to various factors that influence non-compliance, including stigma, social discrimination, problematic relationships, lack of social support networks, mental health problems, low self-efficacy, negative attitudes toward treatment, denial, accessibility issues, unemployment, poverty, poor quality of treatment programs, inadequate programs, polydrug use, cultural beliefs, and language barriers.

Recent local studies have identified several factors that can lead to relapse and non-adherence to drug treatment programs (Baharuddin et al., 2021; Chie et al., 2016; Nawi et al., 2021). However, limited research has been conducted on the reasons for non-adherence to community-based drug rehabilitation (CBDR) in Malaysia. Furthermore, there is limited qualitative research on this important topic. A more in-depth study of clients' experiences in CBDR programs could help treatment providers to better understand non-compliance and improve intervention strategies. Further mixed-methods studies examining the socioeconomic, psychological, and cultural determinants of treatment adherence would help to expand the evidence base and promote the development of more effective, culturally sensitive support

services across the country.

3. Materials and Methods

This section describes the research methods of this study. Four main issues are described. These are the sampling and recruitment criteria, procedure, and ethics.

3.1 Sampling and Recruitment Criteria

This study utilised qualitative research method by employing focus group discussion (FGD) technique. The selected study locations were within Penang state, namely the districts of central Seberang Perai, north Seberang Perai, northeast Penang Island, south Seberang Perai, and southwest Penang Island. Penang state was chosen as the research location due to the researcher's mobility and the research time frame.

The research population of this study was drug users who are attending CBDR treatment programs under NADA in each district of Penang state. Their lifetime experiences were utilised to obtain an in-depth understanding of the multifaceted factors related to non-compliance with the CBDR treatment. In total, ten FGDs were conducted with 45 drug users. Each focus group discussion consisted of 5-7 participants. Two focus groups were held in each district of Penang.

The sampling procedure of this current study is a non-probability sampling procedure, which was purposive sampling. Selected participants were clients undergoing CBDR programme in the state of Penang and aged between 18 to 60 years old. Patients with mental instability or dangerousness, and expecting monetary compensation, were excluded from participation.

3.2 Procedure

The FGD session with the respondents were conducted face-to-face. They recruited during the CBDR treatment programs at the NADA district offices. The respondents' participation was voluntary without involving any monetary gains. Semi-structured face-to-face focus group discussion interview guide was used as research instrument. The questions in the focus group discussion guide were broad, open-ended, and include probing questions. This guide was labelled as RDU-FGD.

Participants were provided with clear verbal and written instructions to respondents by providing them with a Participant Information Sheet and Participation Consent Form to make them aware of their rights. Participants were informed that their identities and responses were kept anonymous and secret to achieve integrity of responses. FGDs last between 60 minutes to 180 minutes.

3.3 Ethics

Before the data collection the ethical approval (JEPeM USM Code: SM/JEPeM/21040293) was obtained from Human Research Ethics Committee USM. Further special approval was obtained from the NADA (RefNo: AADK.100-12/1/6 Jld.2(16)) so that data collection could be done at the NADA district offices involving the drug users.

4. Results and Discussion

Among the respondents, 90% of the respondents were male followed by the remaining 10% of the respondents were female. Most of the respondents were Malays (69%). This was followed by Indians (25%), Chinese (3%) and respondents of other races (3%). Most respondents (46%) were aged between 26 and 49, followed by the remaining 35% of respondents aged between 50 and 65. The remaining 19% were between 18 and 25 years old. Most respondents (56%) were married, 36% of respondents were single and the remaining 8% were divorced.

There were four themes spawned in relation to the factors that lead to non-compliance with CBDR treatment by the National Drug Agency (NADA) which are cognitive, psychological, behavioural, and social factors. Table 1 below shows the themes and sub-themes generated from the raw data.

Table 1: Themes and sub-themes generated from the raw data.

Main themes	Emerged themes
Cognitive	<ol style="list-style-type: none">1. Inadequate knowledge about treatment2. Lack of motivation3. Weak religious ideas and beliefs4. Poor attitudes toward decision making
Psychological	<ol style="list-style-type: none">1. Stigma2. Lack of rule consciousness3. Multiple strains4. Obsession5. Fear of job loss6. Denial
Behavioural	<ol style="list-style-type: none">1. Unhealthy lifestyle2. Drinking and smoking habits
Social	<ol style="list-style-type: none">1. Poor communication2. Lack of employability

4.1 Cognitive Factors

As Roy (2013) notes, cognitive factors are identified as internal attributes of an individual that influence performance and learning and serve to modify behaviour and behavioural responses to external stimuli such as stress and drug addiction. Under this theme, the respondents shared various cognitive factors behind the non-compliance with the CBDR based on their experience. Lack of motivation was the main cognitive factor cited by three quarters of the respondents. Many of them reported that at the initial stages of CBDR treatment they experienced low motivation due to other factors which can be classified under psychological, behavioural, and social factors. Several studies (e.g., Fernandez-Lazaro et al., 2019; Manmohan et al., 2012; Tan, 2020) indicated motivation acts as a significant role in the compliance and adherence to various treatment including chronic disease therapies and drug treatment. According to Köpetz et al. (2013), motivated individuals have a high probability to immerse themselves in the drug treatments consistently and effectively to cure their drug addiction.

“Initially, I did not have the motivation to continue treatment at AADK. I have to change a lot about myself and my environment. I have to control myself not to take drugs, I have

to avoid seeing my old friends, I have to change my lifestyle and so on. The beginning was really hard, I did not come to the program for a few months, I was late and took drugs several times, but after being reprimanded by the officer several times, I was fine. But there are also those who leave the program because they cannot control themselves.” (R-DU 5)

In addition, a quarter of respondents indicated that insufficient knowledge about CBDR treatments leads to noncompliance. In their opinion, some clients do not fully understand and accept CBDR treatments. Some of them indicated that they were confused at the beginning of the treatment and underestimated the effects of CBDR treatments, which led to non-compliance. Respondents' feedback suggests that understanding and accepting CBDR treatments can lead to maintaining motivation in the long term, which improves treatment adherence and outcomes. Lack of knowledge and its influence on noncompliance can also be observed in outpatient therapeutic patients (Naghavi et al., 2019) and medication (Kumar & May, 2021).

“There are friends of mine who don't want to come to the program because they don't understand what's going on and think the program at AADK has no effect and is just a waste of time.” (R- DU 8)

A quarter of respondents also indicated that weak religious beliefs and convictions lead to low moral commitment to comply with treatment guidelines, including abstaining from drug use during CBDR treatment. Psychospiritual is one of the components of the current CBDR model, which focuses on both psychological and sophisticated approaches to improve the spiritual side of drug addicts, which can prevent them from relapsing (Shafie et al., 2019, 2018). According to the interviewees, due to the different cultural context and religious beliefs, not all of them are ready to accept and strengthen their belief in God and be aware of heaven and hell. This may lead to patients not perceiving their actions as overseen by a divine authority, resulting in non-compliance and repeated similar substance abuse behaviours.

“...follow the teachings of religion, it is very important that we must face God to get out of this problem. This belief in God gives strength to clients like me during treatment.” (R-DU 5)

“Religion and belief in God are an important belief and is needed by people like us. This religious faith is like a support for us, but there are also clients who have no religious faith, who are easily distracted from treatment and often fall back into drug addiction.”(R-DU 11)

Some individuals agreed that at the initial stages of the CBDR treatment they went through a hard time in coping with treatment schedules, treatment methods, public stigma, and social support. Due to this, they became hesitant in decision making and most of the time they tend to non-comply with CBDR treatment guidelines and drug rehabilitation officers. This led to frequent absence of the CBDR treatment programs, late attendance and poor participation in treatment programs that closely associated with non-compliance of the CBDR treatment.

4.2 Psychological Factors

As indicated by various research findings (e.g., Corrigan & Nieweglowski, 2018; Courtwright, 2009; Keyes et al., 2010; Krawczyk et al., 2018; Truong et al., 2019), stigma can affect treatment attitudes, treatment choices, and treatment adherence among people with substance

use problems. According to Wogen and Restrepo (2020), stereotypes, prejudice, and discrimination are the different stigma components that negatively affect mental health and daily activities of drug users. Similarly, one-third of respondents indicated that stigma caused some of them not to comply with CBDR treatments by not attending programs or skipping treatment programs on certain days to hide their identity as clients at NADA for fear of losing respect and dignity in society.

".....Because of the stigma, we can't live normal lives, don't get jobs as easily, and aren't treated well, and some of us usually failed to continue treatment out of fear and shame."
(R- DU 13)

Some of the respondents expressed their disappointment with employers. In their opinion, many employers are unwilling to provide drug users with a job, and when they do, many employers are not flexible enough to allow drug users to participate in CBDR programs at NADA. In addition, many drug users who work do not identify themselves as drug users to their employers because they are afraid of losing their jobs and income, which leads to noncompliance with treatment.

"Most of us have difficulty getting a job because many employers do not want to hire drug users or former drug users as employees to avoid problems. When we get hired, some of us cannot identify ourselves as clients of NADA. So, we must skip certain programs, stay away from the program on certain days, especially weekdays, and so on" (R- DU 17)

The participants also stated individuals with lack of rule consciousness which means without fear or awareness of the legal consequences made the drug users engaged in non-compliance with CBDR treatment programs. Multiple strains, obsession, and denial were among the least reported factors cited by respondents as non-compliance factors.

"Looking around now, I have observed that many clients who are facing various pressures, whether financial, family or work, are not fully engaged in the NADA program. Last time, even I do not care about the program, ignoring the officers' advice when I am under stress."(R- DU 15)

"Sometimes drug users, myself included, are in a denial mode in the early stages where we don't understand drug addiction and how to overcome it. If we don't understand the importance of these treatments, it will be difficult to persevere." (R- DU 19)

4.3 Behavioural Factors and Social Factors

Behavioural habits and lifestyle were classified in this section. Participants indicated that some of the drug users do not accept some of their behaviours, such as a disciplined lifestyle, strong physical health, and abstaining from alcohol and smoking, and cannot easily change them.

"When we undergo treatment, we need to maintain our lifestyle so that we can get the full benefit of existing CBDR treatments. This includes being disciplined, such as continuously attending programs, showing up on time for treatment, respecting each other, communicating effectively, and staying away from alcohol and drugs." (R-DU 21)

When it comes to drinking and smoking habits it have significant influence on drug use (Leventhal et al., 2008; Roemer et al., 2005; Weinberger & Sofuoglu, 2009). Alcohol consumption and smoking are usually considered as triggers that can increase the risk of relapse (Maqbool et al., 2019; Ramsewak et al., 2020), non-compliance of the treatment (Abubakar et al., 2021; Aziz & Mahad, 2022), lower inhibitions (Liu et al., 2021) and impair judgement (Brevers et al., 2014; Zhang et al., 2020).

Finally, social factors such as poor communication and lack of employability were also mentioned by respondents. The current study shows that many of the respondents stated that they are unable to find adequate work to support themselves and their families. Lack of job offers and unfair treatment and discrimination against former drug users are some of the difficulties cited by respondents.

“This is the second time I've been here to take part in the rehabilitation programs. After the first time I was fine, I wanted to change something in my life. I decided to change my lifestyle and work properly. Unfortunately, I couldn't find a job for the first 7 months, which resulted in me going back to hanging out with my friends due to boredom and disappointment.” (R-DU 27)

“I am currently working, but I am not paid as well as others. My superiors always look down on me, disrespect me and sometimes I am not treated equally, which kills my motivation and confidence to continue my work. My previous job did not allow me to take time off to participate in a rehabilitation program at NADA. So, I moved to a new job that does allow me to participate in the programs, but I am not treated well, which has led me to believe that becoming a new person is pointless.” (R-DU 32)

Similarly, many studies (e.g., Cole, 2022; Pant et al., 2023; Pranglely et al., 2018; Rognli et al., 2022; Sherba et al., 2018) have exposed that individuals undergoing substance abuse treatment, including drug rehabilitation programs, frequently encounter numerous obstacles to securing and retaining employment. These studies demonstrate that steady employment can provide needed structure, accountability and goal setting for people struggling with drug addiction. Adherence to treatment demonstrates the development of skills such as dependability, discipline and work ethic that impact employability and career success. With employment and an income, individuals are better able to progress in their drug rehabilitation program.

Sometimes, poor communication with drug users and rehabilitation officers can lead to uncomfortable situations for them, contributing to their nonadherence to them and eventually to CBDR treatment programs. This is because some of the respondents mentioned that there are drug users who cannot speak English or Malay, which makes communication between them difficult. The interviewees also mentioned that some drug users have conflicts with the drug rehabilitation officers because the officers arrest the drug users and are involved in the drug rehabilitation programs at the same time, which creates a gap between the officers and the drug users.

“Communication between officials and clients must be good. Because the client must always communicate with the official during the rehabilitation program, and not only that, he or she must also communicate with other people. If this communication is not successful, the client will lose interest in the program and will not follow the rules of the program.” (R- DU 23)

5. Conclusion

Recently, there are several issues in Malaysia, including population growth, new categories of drug abuse, psychosis due to synthetic drug abuse, polydrug users, and different categories of drug users (Department of Statistics Malaysia, 2021; Ham et al., 2017; Mustapha et al., 2020; National Anti-Drugs Agency, 2020). All these critical issues show that the government needs to continuously plan and implement new drug policies, prevention, enforcement, treatment, and rehabilitation approaches. Thus, the results of the present study show that the factors related to CBDR treatment include cognitive, psychological, behavioural, and social factors.

By understanding these factors, health professionals and policy makers could improve current CBDR programs in terms of human resources, flexibility and creativity in program delivery, and policies related to drug users. In addition, integrating the existing CBDR model with technological applications such as virtual reality, online support groups, digital assessment and diagnostic tools, therapeutic gaming, telemedicine, wearable computing and monitoring devices could make the critical difference in drug rehabilitation at NADA. These options will give sufferers a greater edge in the modern and technology-driven world with various flexible and creative treatment programs.

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A Systematic Review of the People's Daily's

Coverage on COVID-19 in China

Lyu Hao & Nik Norma Nik Hasan*

School of Communication - Universiti Sains Malaysia, China

lyuhao@student.usm.my ; nikhnorma@usm.my

School of Communication - Universiti Sains Malaysia, Malaysia

Abstract

This paper systematically reviews COVID-19 news patterns in the People's Daily. This study contends that media reports of COVID-19 in China are restricted to policies imposed by the government. In order to explore this contention, a systematic review of past research was conducted by collecting data using Scopus journal search with In order to explore this contention, a systematic review of past research was conducted by collecting data using Scopus journal search with specific keywords such as COVID-19, pandemic, media, newspapers, people's daily and China. The purpose of this study is to comprehend the media's response towards pandemic emergencies in socialist country, especially the reports on government policies and people's well-being. Most of this research also focused on studying its coverage using content analysis. The study focused on 30 articles reported between May 2020 and March 2021. First, the People's Daily reports consistently about the pandemic and massive news can be found to avoid the spread of panic. Lastly, the news theme is highlighting about humanity. In a small conclusion, the People's Daily's news reports on COVID-19 does not restrict to certain boundaries or policies but it focuses on peoples' well-being and the way the government mitigates the pandemic. It is hoped that this review provides useful reference for further study on health communication through media and make positive contribution to reducing the impact of health emergencies on public.

Keywords: Public health emergencies, narrative analysis, People's Daily, socialist system,

1. Introduction

Since 2019, the outbreak of the COVID-19 pandemic has had a major impact on the world, affecting lives, production and economies. Various countries and regions have taken different measures to prevent and control the disease. Media coverage of the epidemic has also become increasingly important. There is a need to disseminate accurate information and to guide the behaviour of the public. In China, the People's Daily, the leading official newspaper and one of the most influential media outlets, has played a key role in reporting on COVID-19. Understanding the news coverage in the People's Daily can provide valuable insights into the

role of the media in public health emergencies and the impact of government policy on media coverage.

This article provides a systematic review of the news model used by the People's Daily in its coverage of COVID-19. As a widely read government newspaper, the People's Daily is important in disseminating official information and shaping public opinion. By examining the interplay between government policy and media coverage, this study aims to provide a systematic review of the coverage of COVID-19 in the People's Daily, focusing on the newspaper's news patterns, themes and narratives. And it will also explore the implications for Chinese society and the global community. By gaining insight into the news model adopted by the People's Daily, researchers can better understand the impact of the media in shaping public understanding of and response to health crises.

2. Literature Review

2.1 People's Daily

The People's Daily is the official newspaper of the Central Committee of the Communist Party of China (CPC). It therefore represents the Party's orthodoxy, which guides the whole nation, and its daily circulation is more than 3 million (Ye,2020). Named one of the top ten newspapers in the world by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1992. The People's Daily is not only the mouthpiece of the Party, but also the mouthpiece of the government. The People's Daily is a testimony to China's reform and progress, and a stage to show the world the prosperity of the new socialist China with Chinese characteristics (Su,2021). In the early stages of the outbreak, People's Daily reported more news about government regulations and people's lives. After the epidemic was effectively controlled, People's Daily shifted its coverage to the recovery phase . The People's Daily promotes government policies, economic achievements and people's well-being (Zhang, 2020).

2.2 Public health emergencies

Public health emergencies refer to emergencies that seriously affect public health and social development(Wang,2010). These include major infectious diseases, severe food and occupational poisoning, and diseases caused by unknown causes. According to Cai, public health events have five characteristics: sudden, diversity, mass, social and phased (Cai, 2013). According to Ye Dongqing, public health events have the characteristics of sudden occurrence, high attention, severity of harm, and chain reaction (Ye & Cha,2009). In their study, Wang et al. found that public health emergencies have a significant impact on the economy, safety and social order, but they can also cause public tension, excessive anxiety, extreme depression and other emotional problems, and affect the normal social life of the public (Wang, 2003).Not only China, but the whole world has been affected by the COVID-19 epidemic. How to release the information and truth of the incident through information disclosure, appease the public, maintain social security and stability, and improve the credibility of the government has always been one of the important topics of news media.

3. Methods

This study conducted a analysis of the news on the new crown pneumonia outbreak in People's Daily to visit the features of the news and to summarize them. In the first step, articles and stories were searched from scopus and the People's Daily database. The time period was from May 2020 to March 2021, and the specific keywords were COVID-19, narrative analysis, People's Daily, socialist system and China. In the second step, eligible news articles were collected. The study was finalised with 30 news items and articles.

Epidemic news is one of the key ways in which people access information about the epidemic, and people use news reports to understand the development and impact of the epidemic. First, can help us gain insight into the subjective experiences of audiences as they read and encounter epidemic news. By analysing factors such as, plot, and character roles, we can reveal the emotions, opinions, and attitudes that audiences develop when confronted with epidemic news, so that we can better understand their perceptions and behaviours. Secondly, analysis can help researchers reveal factors such as implicit meanings, values and power relations in news stories. By analysing structures and narrative strategies, it can provide insights into how epidemic news constructs specific frames and the impact of these frames on public ideology, policy decisions and social action. Thirdly, analysis can help researchers to track and understand the evolution and changes in epidemic narratives. By comparing news reports across time, changes in narrative patterns, themes and sentiments can be identified, thus revealing changes in public perceptions and attitudes towards the epidemic. Fourth, news coverage of an epidemic is often influenced and controlled by the government, the media and other stakeholders. By analysing the narrative elements and narrative strategies in news stories, it is possible to understand the power structures, information choices and framing behind the stories, as well as the impact on audience views and behaviour.

By using analysis methods, deeper and more comprehensive insights can be gained about epidemic news, and theoretical and empirical contributions can be made to public opinion, media effects and social impact.

4. Discussion and results

A sample of reports from the People's Daily was collected. These samples should cover multiple time periods and different types of reports, in order to collect a total of 505 sample news items, from which 30 reports and articles were selected for the study based on the content and characteristics of the study. The first of these reports was "Voluntary Labour Passing on Love", published on 1 May 2020.

After conducting a summary and analysis, the following conclusions have been drawn. First, the People's Daily reports consistently about the pandemic and massive news can be found to avoid the spread of panic. A large amount of outbreak coverage is important for the public to understand the outbreak, convey authoritative information, be alert to risks and assess the effectiveness of prevention and control. Media volume theory suggests that there is a strong

relationship between the amount of news coverage and the importance of the news issue. The number of stories highlights the importance of an issue and indicates the level of media and social interest in a news event. At the same time, changes in the amount of coverage also reflect the priority of the development of the issue and the change in the extent to which the issue affects the public (Xu, 2022).

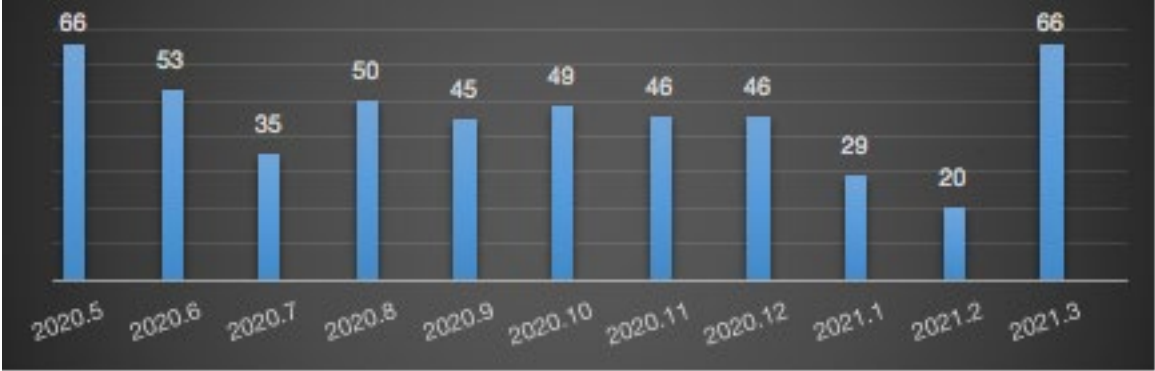


Figure 1: People's Daily May 2020 - March 2021, Number of stories on covid-19

There are two main reasons for this high number of news reports: 1. The Covid-19 was a global event with major implications, involving many areas such as public health, social economy and government decision-making, and therefore attracted widespread attention. As one of China's major official media, People's Daily had the important responsibility of conveying information about the epidemic to the public, publicising the government's prevention and control measures and advocating scientific protection knowledge during this period. 2. Due to the complexity and uncertainty of the epidemic, news coverage needed to be updated and tracked in a timely manner to reflect the dynamics and changes of the epidemic. People's Daily, as a media with a strong news gathering team and extensive information resources, actively tracks the progress of the epidemic, summarises authoritative expert opinions, reports relevant events and advocates scientific protection, etc. to meet the public's demand for information on the epidemic. These reports not only provided real-time information on the outbreak and the government's preventive and control measures, but also conveyed the solidarity of the people behind the outbreak, the strength of the fight against the epidemic and the results of the efforts of all parties.

Among these many reports, a neutral tone is predominant. This provides objective and accurate information, enhances the credibility of government communications, and avoids public opinion bias. This helps the public to have a more comprehensive and accurate understanding of the government's work and policies, and contributes positively to crisis management and social stability during the epidemic. In the text, we find a large number of neutral words: objectively neutrally impartially balanced impartially factually.

Neutral journalism: The goal of neutral journalism is to report facts objectively, present multiple points of view and provide readers with comprehensive information.

Table 1: Examples of Neutral Reporting

Date of publication	Title
2020.05.21	Precise efforts to preserve the bottom of life
2020.11.30	China's contribution to the global fight against covid-19
2021.03.30	Strengthening international cooperation to tackle challenges together

Published on 21 May 2020, the report on "Precise efforts to preserve the bottom of life" reflects on the precision measures and the science of the Government's policies on outbreak prevention and control. This includes targeted prevention and control measures for high-risk areas, populations and sites to ensure the protection of the life-bloodline. The rational allocation of healthcare resources is also covered, with attention given to the rational deployment and allocation of healthcare resources to meet the needs of outbreak prevention and control to ensure that patients receive timely and appropriate treatment (Li,2020).

In the course of news coverage, in addition to neutral news that makes up the majority, there is also positive news and negative news.

Positive journalism: Positive journalism means that the focus is on the positive part or bright side of society and its tone is one of advocacy and encouragement. News stories inspire people and convey hope and positive energy, as well as recognising those people and organisations that have made a positive contribution to the outbreak (Yan,2021).

Table 2: Examples of Positive Coverage

Date of publication	Title
2020.05.01	Let youth shine in all its splendour
2020.05.20	Gathering the strength to fight the epidemic
2020.05.20	We are capable of overcoming any obstacle
2021.03.26	Keeping the grassroots both vibrant and stable

One of the positive stories, "Gathering the majestic forces to fight the epidemic", published on 20 May 2020, highlights the cohesion and solidarity of the community and presents the feat of people working together to fight the epidemic. The report also focuses on the dedication and service actions of volunteers during the epidemic. They made a significant contribution to the fight against the epidemic by participating in community service, distribution of supplies, publicity and education. The coverage also focused on the general public's voluntary compliance with preventive and control measures during the outbreak, demonstrating people's sense of responsibility and action to protect themselves (Li,2020).

Table 3: Examples of negative publicity

Date of publication	Title
2020.05.10	China-related lies and the truth about the covid-19 in the US
2020.08.25	Pompeo's China speech full of lies and the original truth

Most of the negative news stories were critical of inaccurate reporting by individual countries and media outlets. For example, the article "China-related lies and the truth about the New Coronavirus outbreak in the US" published on 10 May 2020 reported that some politicians and media in the US. For example, they made up the story that the NCCP virus was the "China virus" or "Wuhan virus" and falsely accused Wuhan as the source of the virus. The truth is: WHO regulations stipulate that the name of a virus should not be associated with a specific country or place. On 11 February 2020, the World Health Organization announced the official name of the new coronavirus-infected pneumonia as "Coronavirus Disease 2019" (COVID-19). Virus tracing is a serious scientific issue, based on science and studied by scientists and medical experts.

Second, the news theme is highlighting about humanity.

In the sample of reports collected from the People's Daily, the researcher paid particular attention to reports on humanity, including those about the state's concern for people's lives during the epidemic, personal experiences, heroic deeds, and other content. The aim is to explore and convey the common human emotions and human characteristics. By showcasing human emotions, behaviours and values, human nature journalism provokes emotional resonance, explores values, highlights social issues and contributes to the shaping of social consciousness. This type of reporting has an influential role in communication and can make a significant contribution to social progress and human development.

Table 4: Examples of Positive Coverage

Date of publication	Title
2020.05.01	The "Life First"
2020.05.19	Every life does not give up
2020.06.02	The people are the highest position
2020.09.24	Remembering our heroes is about moving forward with courage

Published on 1 May 2020 "Life First" shows the glory of humanity, reported that when the Chinese government faced the epidemic, everything was done with the priority of saving lives. From the very beginning, General Secretary Xi Jinping stressed the need to "always put the safety and health of the people first", even at the cost of city shutdowns and economic downturns! The Chinese government immediately announced that the cost of treating patients and suspected patients with Newcastle Pneumonia would not be borne by individuals. Sincerely caring for every living person, sincerely respecting every life, and making every effort to save

every patient, China's fight against the epidemic shines with a human light that evokes a desire for solidarity and conveys warmth at a time when the virus is raging(Chen&Qu,2020).

Every life does not give up", published on 19 May 2020, focuses on the attitude towards life, which tests the value orientation of a country. Respecting every life and saving every patient demonstrates the glory of humanity and the responsibility of a great nation. "Focus on key populations and vulnerable groups such as the elderly, children, pregnant women, people with disabilities, and people with serious chronic diseases. Not abandoning and not giving up every life is the reverence for life."

5. Conclusion

As the first country to experience a major outbreak of the disease, it is important to study the media coverage of the epidemic, not only for China but also for the prevention and treatment of the epidemic worldwide. In this study, the number of reports on the New Coronary Pneumonia outbreak, content topics and reporting tendencies in the People's Daily from May 1, 2020 to March 31, 2021 were examined. As the benchmark of mainstream media in China, People's Daily played an important role. These reports have helped the public understand the epidemic, boosted confidence and gathered strength, and delivered positive messages to society. As the epidemic develops and changes, the role and influence of the media will continue to play an important role. The People's Daily and other media outlets have played a vital role in providing accurate information to the public and shaping public opinion. It is able to make a greater contribution to the development of society and the well-being of the public through its continued commitment to fair, objective and caring reporting.

Overall, the aim of this paper is to systematically review the coverage of the New Crown Pneumonia outbreak in the People's Daily, which allows for the conclusion that, the People's Daily reports consistently about the pandemic and massive news can be found to avoid the spread of panic. And, the news theme is highlighting about humanity. The present study of the People's Daily on China's new crown pneumonia outbreak provides a useful reference for future research on media health communication and its role in reducing the impact of public health emergencies.

Finally, due to the limitation of space and the difficulty of sample collection, this paper still has many shortcomings. For example, in terms of samples, the selected period is from May 2020 to March 2021, and this time span can only be analyzed at a shallow level. There is also a lack of ability to summarize more media strategies in reporting the Covid-19. I hope that some scholars can improve relevant research in the future.

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Japanese Occupation in The History of Singapore, A British Colony in A. Samad Said's *Lazy River*

Missing information

Abstract

A. Samad Said is a Malaysian National Laureate and is one of the most important Contemporary Malay writers in the canon of modern Malay literature. His novel *Lazy River* translated from the original Malay novel titled *Sungai Mengalir Lesu* which was first published in 1967 will be used as a tool for analysing the Japanese Occupation of Singapore. This novel is based in multi-racial Singapore during the Japanese occupation of the Southeast Asia, during World War II, between 1942-1945. The river which is described as dirty and sluggish is the centre of the story. It is a means of survival for the people in the area. The river represents time; grudgingly slow moving during the occupation of one of Britain's richest and most successful colonies. This paper will discuss the importance of the river as a means used by the author to represent shared feelings of commonality, culture, heritage and power dynamics, exclusion, and oppression of the marginalized groups in Singapore during World War II. The river is also a tool for survival. The research will incorporate historical data on World War II and the Japanese Occupation of Malaya and Singapore for the purpose of analysis and read the fiction using a New Historicism approach.

Keywords: Japanese, World War II, Singapore, History, New Historicism

1. Introduction

A. Samad Said is a Malaysian National Laureate and is one of the most important contemporary Malay writers in the canon of modern Malay literature. His novel *Lazy River* translated from the original Malay novel titled *Sungai Mengalir Lesu* which was first published in 1967 will be used as a tool for analysing the Japanese Occupation of Singapore. This novel highlights multi-racial Singapore during the Japanese occupation of the Southeast Asia, between 1942-1945. The plot of this novel moves along with the events that happen along the river. It is portrayed as dirty and sluggish but is central to the narrative. The river connotes survival for the war-stricken country and its people. It is juxtaposed to time in the fiction and shows how slowly time moves vis-à-vis the action and the plot. The project of this paper is to highlight the importance of the river to the author's agenda in presenting to his audience feelings of solidarity, culture and heritage, power dynamics, inclusion, and exclusion as well as oppression of marginalized groups in one of Britain's richest and most successful colonies as the river is projected to be a tool of survival. The paper amalgamates historical data on World War II and the Japanese Occupation of Malaya and Singapore to provide the background to the research, and to support the analysis and reading of the fiction using a New Historicism approach. It must be discussed using this approach because of the historical issues that it portrays. It is a compact novel that highlights a major problem and event: World War II and its effects. The novel ends with the surrender of the Japanese soldiers. What happens to the characters after the war is left to the imagination of the readers.

Lazy River is a realistic novel. The author has been influenced by a style that was created or discovered by Abdullah Munsyi the author that has been hailed as the Father of Modern Malay Literature. Ungku Maimunah Mohd. Tahir and Washima Che Dan. 2019. Winstedt acknowledged that Abdullah Munsyi includes the element of reality in Malay literature. It is a style that was introduced by Abdullah Munsyi and it gave a new life and meaning to Malay literature. This style of realism has been traced back by Winstedt to the 15th century in the West. *Lazy River* is a modern Malay novel, thus the realistic style that the author uses. It is set within a realistic temporal framework; the second world war and the Japanese Occupation of Singapore. Although the characters are fictional, time and space is not.

1.1 The Importance of the Novel

Much has been written on A. Samad Said. This is a criticism by Nur Hafeza Ahmad Marekan and Goh Sang Seong titled Strategi Penterjemahan Nilai dan Kepercayaan dalam Novel Sungai Mengalir Lesu (2013) published in *Jurnal Bahasa*. The authors discuss Harry Aveling's translation of *Sungai Mengalir Lesu* (1967) that is titled *Lazy River* (1981).

Why was the novel translated into English? Aveling in the Introduction of the translation argues that this is because the author and his works are important and render Singapore's history. Nur Hafeza and Goh discuss Aveling's views. According to them.

(Jelas ditunjukkan bahawa tujuan Sungai Mengalir Lesu diterjemahkan adalah untuk menyampaikan idea dalam novel A. Samad Said ini kepada golongan pembaca sasaran. Bagi beliau, isi penulisan novel Sungai Mengalir Lesu ini amat penting untuk pembaca. Malahan, Aveling mengatakan bahawa Sungai Mengalir Lesu setanding dengan Salina dan wajar diperkenalkan kepada orang ramai. Selain itu, tujuan kedua penterjemahan novel Sungai Mengalir Lesu adalah untuk menceritakan kehidupan penduduk kampung di Singapura semasa penjajahan Jepun. Pembaca sasaran yang dijangkakan daripada golongan yang berminat dengan kesusasteraan dan sejarah Tanah Melayu. Dengan itu, fungsi terjemahan yang dihasilkan dijangkakan adalah untuk memperkenalkan budaya orang Melayu kepada pembaca sasaran. Maka, mana-mana strategi penterjemahan yang dapat mengungkapkan budaya Melayu dalam teks sumber ke dalam teks terjemahan dianggap sesuai (p. 280-281).)

It is clearly shown that the purpose of the translation of *Sungai Mengalir Lesu* is to convey the idea in A. Samad Said's novel to a target audience group. For him, the content of writing the novel *Sungai Mengalir Lesu* is especially important for the reader. In fact, Aveling says that the *Sungai Mengalir Lesu* is comparable to *Salina* and should be introduced to the public. In addition, the second purpose of the translation of *Sungai Mengalir Lesu* is to recount the life of the villagers in Singapore during the Japanese occupation. The expected target readers are groups that are interested in the literature and history of Malaya. Therefore, the function of the resulting translation is expected to be to introduce Malay culture to target readers. So, any strategies of translations that can reveal Malay culture in the text sources into the translated text are considered appropriate (p. 280-281).

Therefore, Said's novel is important because it renders Malay culture as well as the culture of other races that lived in Singapore during World War II. The history of the war years was also rendered. Thus, it is an important novel in the Malay literature canon.

Another research conducted on the novel *Lazy River* is titled *Pemindahan Mesej Mentifaks Melayu Dalam Terjemahan Novel Sungai Mengalir Lesu* (2012) by Nur Hafeza Binti Ahmad Marken and Goh Sang Seong. It discusses the issue of transferring mentifacts from the Malay language into the English language. The influencing factors are also discussed. The research data is collected from the novels *Sungai Mengalir Lesu* and its translation *Lazy River*. The research utilizes the concept of situational meaning proposed by Larson (1984). This research is different from the current research because it concentrates on the translation factors of the texts. This paper analyses the novel using a New Historicism approach and does not discuss the translation techniques.

The creative process of this novel is discussed by Abdul Halim Ali through his essay *Proses Kreativiti A.Samad Said Berasaskan Teori Teksdealisme (Creativity Process of A.Samad Said Based on Textdealism Theory)*. His project is to comprehend the creativity process of A.Samad Said, using on Textdealism Theory. The analysis is conducted via literature review and interview. The data shows that his creative process was undertaken on the parallel premise to the four levels suggested by Textdealism Theory: existence, collision, consolidation, and individuality. His creativity process has been influenced by his previous experiences; the war, as a good listener, a reader and a novelist, poet, short story writer and eventually a National Laureate. This research is different from the current research. It analyzes the poet writer and his mind as well as his creative process. Very few researches have taken up this kind of research.

2. Theory and History

2.1 New Historicism⁵

This section will discuss the New Historicism theory. This approach has been influenced by structuralist and post-structuralist. It tries to reconnect with the time when it was produced and believes that it is similar to the movement of culture and politics of the time. New Historicism argues that every work of literature is the product of the second in history that has created it.

New Historicism has brought a difference in the field of historical theory because it does not believe that everything happens in linear. According to New Historicism historical facts can be read according to culture and time. The interpretation of history is something subjective.

The main thinker of New Historicism is Michel Foucault. He has produced many works. One of his works which will be discussed in this essay is Michel Foucault (1988) *Politics, Philosophy and Culture: Interviews And Other Writings 1977-1984*. Foucault questions the idea of power. Some of his questions are, What is power?, How is it used? And What happens when someone uses power over others? He states that power is something that is complex (Focault,

⁵ This section has been published in Ali, Halimah Mohamed; *The Other in Thailand: Thai-Muslim Identity in Kanogpong Songsompun's "The Goats In The Cemetery"*; ,(2015); *Journal of Literature, Language & Culture (COES&RJ-JLLC)* 1, 3, pp:121-128.

1988: 102). According to Foucault, power has been misunderstood exclusively when it is said that power oppresses, and because power is evil it is totally negative (Foucault, 1988: 102).

New Historicism is a powerful theory although it is difficult to understand and employ for analysis. According to Simon During in his essay *New Historicism* (1991)

New Historicism's diffuseness, however, is not dissociable from its reach and strength. Where it is strongest and most innovative, it expresses less a development within literary studies than a shift in the relations between literary criticism and other disciplines—in particular, history and ethnography (Simon During, 1991: 171).

During discusses World War I writers like F.R. Leavis, T.S. Eliot and I.A. Roberts. These authors produced a new way of thought on discussing literature. During emphasizes the reason for this. According to him,

It is not difficult to see why historical disciplines threatened such a discipline. To regard texts as communicative acts in a setting that has long since disappeared seemed to destroy literature's autonomy and its claim to have a stable meaning or value. In sum, for criticism, history threatened literature's life (During, 1991: 172).

Literature ceased to be important because of the war. People became more interested in history to read about the war. History and historical texts are realistic, and depict the truth, while literary discourses lull its readers and create stories that are sometime unbelievable. So from a time literature became unfashionable. Thus, creative writers started to write historical novels about the war. *Sungai Mengalir Lesu* is a novel that was written nearly twenty years after World War II because humans were still obsessed by the after effects of the war. Thus, it is apt to use New Historicism to analyze and criticize the text because it is connected to history.

During argues that “New Historicism became possible because history and criticism ceased to be defined against each other” (During, 1991: 173). Criticism of literature became important after the first world war. New Historicism can be traced in early African-American writings but, it did not have a label until much later (During, 1991: 175). Since New Historicism is diffuse it has not been able to properly educate. It does not align with the philosophy of the humanities and its promise to educate, and to provide students with new skills. New Historicism relies a lot on literary criticism. They complement each other. That is why this approach is appropriate to use in criticizing historical fiction. Since New Historicism has yet to develop a pedagogy on its own, it needs literary criticism as a voice to support its philosophy, theory and arguments.

2.2 Singapore the War Years and Power Struggle

Singapore was a modern metropolis in 1941. The estimated population was 650,000 people. It is also called the City of the Lion. (Morisson, 1994: 87). Historically it has always been an important business hub to Southeast Asia. It was even during the days of colonialism a centre for business and one of the most important ports in the region. This island was the capital or centre of British colonialism of the region. The British ruled Southeast Asia from Singapore. That is why it was important for the Japanese to seize it from British power.

Singapore was also a military base. A new airport was formally opened in 1937. It also had “the largest naval base in the world, capable of accommodating the entire British Fleet, completed in 1938” (Morrison, 1994: 87). Thus, it became

“...the centre-piece for the Imperial defence of the British Empire in Asia. With Europe at war since 1939, southeast Asia with its French, Dutch, and American colonies had to be defended against any hostile action. The most likely candidate appeared to be the Japanese who had invaded China in the 1930s, and were now poised to extend their slogan of "Asia for the Asiatics" southward. (Morisson, 1994: 87).

Due to Singapore’s strategic location the Japanese soldiers attacked in took over form Malaya. When the British retreated from Malaya, they moved towards Singapore. From there they went on board of ships and planes to go back to Britian or Australia. The takeover was sudden, and the British were not quite prepared for it.

The *Lazy River (Sungai Mengalir Lesu)* by A. Samad Said portrays a multi-cultural society that suffers the ravages of war and the humiliation and as well as the pain of the Japanese Occupation. The excerpt below depicts the Singapore of before the war years.

Beneath the surface of military and economic might, Singapore was a multi-cultural colony with a diversity of languages and religions-all of which lived in an, at times, uneasy relationship with each other and with British colonial power. Historically, Singapore was an entrepot, a clearing house of labour and talent, goods and capital for peninsular south-east Asia. Immigrants came from the Middle East (Moslem and Jew), India and China to labour, accumulate capital, and perhaps start their own retail enterprises, or to gain employment with the colonial administration and/or the European (Morisson, 1994: 87)

Thus, the Japanese occupation took over a multi-cultural society that was the economic backbone of the region and the world. The attack was on British military might, economy and the human-capital that Britain had honed and trained. From the above description it can be understood that Singapore was East and West because this is where the twain met.

However, Singapore was not a multi-cultural and multi-racial haven. There are reports that describe the society of Singapore during the pre-World War II era. It is reported that,

B.H. Melwani certainly noticed these divisions upon his arrival in Singapore in 1941: There was very little of inter-mixing between the races in Singapore. Although we were Chinese and Indians staying perhaps side by side, but they are a secluded community. Business also, we had very little with the Chinese. But normally, everyday life, we were surrounded by Indian Community...everything was Indian, our food was Indian, games, everything were all Indian. If I'm not mistaken, even among the Chinese, the Hokkiens were on their own. It's only after the war that they began intermingling. Before that they were all closed community (6) (Morisson, 1994: 88).

The British rule did not promote mingling between the different races. They practiced the divide and rule policy until Malaya's Independence and later Singapore's Independence.

Therefore, although Singapore was a cultural hub, the different races and religious groups did not inter-mingle due to British policy. The solidarity and camaraderie that you see today amongst the different races and religious groups in Singapore and Malaysia did not exist then. Every single person had an assigned role to play under British colonialism.

3. *Lazy River: An Analysis*

The river which is described as dirty and sluggish is the centre of the story. The fiction centralizes the river from the beginning. According to the text,

The early morning rain fell lightly onto the black water of the river, forming endless small circles. The rubbish on the water's surface, mainly rotting food scraps and sawdust, scarcely moved. The tide was so full that the steps, and the three blocks of wood near them, were completely submerged. A rusty old tar drum bobbed up and down as a rat tried to scramble onto it (2010: 1).

The description shows that the river is not clean. War has turned it into a dumping ground and it has become a place where rodents live.

The river is also depicted as a means of survival for the people in the area. It represents the harsh realities of war. The fiction states,

Into this torpid scene came Dalim, looking for Sukon...He couldn't see his friend, nor was there anything worth having in the river...Once he found out that Sukon wasn't near the junk, and having already established that he wasn't behind the chicken coops either, Dalim became very much more active. His eyes lit on the rotting food scraps, then shifted to the rat which was still trying to claw its way onto the tar drum as it slowly drifted with the current (2010: 2).

The river is a means of survival for both man and animals. Dalim hunts for food in the river. Scraps of leftover food that is thrown into the river. The war has made humans eat rotting food, that they would discard during normal times of peace. The river represents time; grudgingly slow moving during the occupation of one of Britain's richest and most successful colonies.

This paper discusses the importance of the river as a means used by the author to represent shared feelings of commonality, culture, heritage and power dynamics, exclusion, and oppression of the marginalized groups in Singapore during World War II. The Singaporeans are marginalized, no matter what their race is. They become victims of bombings, starvation, illness, and suicide that is brought on by the river. The first half of the fiction introduces to us the multi-racial community of Singapore that was created by British colonialism. According to the text,

As usual the shelter was crowded...People of all race and religion mixed together in the shelter. When they were together they talked about good times and bad, about their loves and their hopes, and what they would do once the war was over. Tuminah always sensed the deep emotion which lay behind the stories and intensity of their hopes for the future.

All sorts of feelings came together at the shelter. Tuminah sometimes thought that if the shelter wasn't wiped out by a bomb from the B24s or B29s, she would try to write a book about Echon, Ma Burok, Salimah, Basir, Sayeed Ayuub, Kuldip Singh, Irwan and Mulyadi, Ahmad Jani and Soosay (2010: 8).

Shelters were the norm during World War II. They protected people from bombings. Once the air raids were over people used to leave the shelters. Sometimes they used to be in the shelters for days to avoid death. Tuminah's thoughts indicate that even shelters were not a guarantee. They could be destroyed by bombings and the inhabitants could die. However, the above excerpt shows that during the war the races had to mix due to the emergency. Before the war the British practised the divide and rule theory on the Singaporeans and the Malaysians. Inter-racial mixing although it was allowed on certain occasions and in places like schools, was not encouraged.

There is a bridge that runs over the river. While the river represents survival, the bridge represents death. According to the fiction,

An old Chinese woman, who was walking behind him, also stopped to watch Dalim as he swam in the sluggish river. Suddenly she let out a horrified scream, "Someone's hung himself!" It was the second life the bridge had claimed in a week. Five days earlier a Chinese man, still in his twenties, and dressed only in a pair of blue underpants, had hung himself there. Some people said he had been disappointed in love, but most thought that he had committed suicide because the Japanese took his mother and father away and they had never returned. And now an old Indian had done the same thing, wearing a cotton sarong and a dirty yellow jacket. No one knew who he was, no one wept when he was laid beside the road and covered with paper and rags, and no one came for him. Two to three hours later, that rubbish cart came and took him away to some unknown grave (2010: 4-5).

The above excerpt shows that the bridge is a suicide point. The lives that commit suicide there are indiscriminate. The fiction states that they are Chinese and Indians, and regardless of age. The Chinese suicide victim is young while the Indian is old. The Japanese not only created fear in the community, especially the Chinese community that they killed indiscriminately due to the grudges that they held against them since the Sino-Japanese war, they also gave them depression and a feeling of loss and hopelessness which normally leads to suicide. The victims of World War II in Singapore did not have the benefit of hospitals and experts that could deal with medical problems or psychological difficulties.

The novel ends with the Japanese soldiers marching after they surrender to the British. According to the fiction they gave in without a fight. The novel comes full circle, in history as well as in fiction. It begins with the description of the suffering of the British colonized subjects that were left at the mercy of the Japanese soldiers. According to the fiction,

The long line of Japanese soldiers marching towards Changi reminded Giap Hong of the British prisoners and their misfortunes. So, Giap Hong thought, the wheel has come full circle, sometimes you win, sometimes you lose, sometimes you're up, sometimes

you're down. It was a long row of prisoners than usual...The Japanese offered no resistance (2010: 116).

When the Japanese occupied Malaya and Singapore in 1942, the British and the people of both countries were at their mercy. After the bombings of Hiroshima and Nagasaki by the Americans, the Japanese had to declare defeat. They became prisoners of war in 1945 like previously the British were. There was no resistance because of the Hiroshima and Nagasaki incident. Many historians state that they did not resist due to shame, that they were shamed by the Americans. However, we must understand that the bombings destroyed two islands that were bombed using atom bombs. The destruction was major and shocking. To avoid more destruction and losses of Japanese civilian lives the soldiers surrendered without offering resistance. It was a sacrifice that they made for their homeland and fellow countrymen.

4. Conclusion

This paper has discussed and analysed a major work of A. Samad Said Malaysia's National Laureate. He has depicted the World War II tragedies in Singapore via fiction excellently. The solidarity of the different races that comes about due to the war, shows that humans need each other to survive regardless of their race and religion. No matter what the caste and creed is of the characters in the fiction, they support each other and help each other to survive in a war-torn country.

The central setting of the novel, which is also the title of this fiction, the lazy river dominates the storyline as discussed and argued in the analysis section. The river represents time which dominates the plot of this fiction. Another important object used by the author in the novel is the bridge. A bridge connects one part of land to another, most of the time built across the river. However, in this novel as discussed and highlighted in the analysis the bridge signifies death. It becomes a suicide point. It ceases to symbolize a bond between one place to another. It becomes a symbol of life and death, a connection between this world and the next. The bridge gives the suffering humans a way out of the predicament that they have been put in by the war.

This research has successfully shown that the *Lazy River* is a historical novel and portrays the events of World War II well. It depicts the suffering of the characters realistically and gives its readers a realistic picture of the war years. The New Historicism approach works well in setting and outlining the background of this research and in the analysis of the data from the novel.

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MALAYSIAN DIASPORA: EMBRACING CHALLENGES BY REVITALIZING PERSONAL RELATIONSHIP TOWARDS COMMUNITY WELLBEING

Nur Hafeeza Ahmad Pazil, Nur Farah Wani Mohd Nasir, Julia Abyana Aziya
School of Social Sciences, Universiti Sains Malaysia
Email: hafeezapazil@usm.my

Abstract

This paper discloses the voices of the Malaysian diaspora's current situation of working abroad by exploring their wellbeing and sense of belonging. This study involved eleven single Malaysian diasporas residing in the United States of America, the United Kingdom, Australia, and Canada. A qualitative approach was employed in this study by using in-depth interviews to examine the socio-cultural challenges they experienced while working and living in a country different from their own. The specific challenges reported among the Malaysian diaspora are in terms of wellbeing, which comprises physical, emotional, and mental aspects. This study seeks to prove the Malaysian diaspora's reliability to the community for social support. The social support discussed encompasses emotional, instrumental, and informational support that ensures adaptation and adjustment during the pandemic, aligning with the Sustainable Development Goals, SDG3, focusing on good health and wellbeing. Furthermore, this study discusses the sense of belonging among Malaysian diasporas and the sense of familiarity they experience within the community. The belongingness of the Malaysian community in this study includes the cultural adaptation required to retain their Malay identity while living abroad, which is also connected to another Sustainable Development Goal, specifically SDG 10, on reduced inequalities. The results presented in this article contribute to an increasing understanding of the Malaysian diaspora's challenges and the future of social harmony and community wellbeing.

Keywords: Malaysian diaspora, Belongingness, Close friendship, Social support, Community wellbeing, Reduced inequalities

INTRODUCTION

The term diaspora is understood as the "scattering of seeds" (Anthias, 1998), as it was first used to describe a group of people that were exiled (Tölölyan, 1996). Early theorists contended that diasporas were those who were forcibly displaced from their native land due to a traumatic event; however, nowadays many researchers concur that diasporas include voluntary migration as well (Cohen, 2008; Faist, 2010). Migration in this sense refers to international migration, as Clark (2020) claims one of the structures of international migration is seeking jobs in foreign countries to create social and economic impact. Thus, the terms diaspora and migration represent a larger semantic domain, such as immigrants, expatriates, refugees, guest workers, exile communities, overseas communities, and ethnic communities (Faist, 2010). The Malaysian Government defines a Malaysian diaspora as

one who is a Malaysian citizen and possesses relevant academic qualifications and work experience in their industries and professions as they were sent abroad to improve the country's research and development capability (Koh, 2015). This indicates that Malaysian diasporas consist of individuals who study and work abroad to gain professional experience in their field of expertise.

This paper focuses on exploring issues and challenges of the Malaysian diaspora working abroad during the pandemic while embracing close friendship for social support to increase their quality of life in their surrounding environment. Although we have entered into the post-pandemic phase of COVID-19, we cannot deny the pandemic has caused everyone to not only be separated by their families but to be separated from their surrounding community. The status of temporarily living abroad due to work purposes not only brings challenges as an emigrant encountering unfamiliar conditions but also changes the way one practices intimacy and experiences social support from others. Thus, this paper seeks to discuss how Malaysians can cope with living in Anglosphere countries (the US, UK, Canada, and Australia) which separates them from co-national friends and families back home and instead embrace others around them for social support to improve their quality of life.

LITERATURE REVIEW

Malaysian Diaspora Working Abroad

Diaspora migration is one of the many types of migration that is expected to increase during the early twenty-first century (Shuval, 2000). In Quah et al. (2014) study, they found that the Malaysian diasporas are rapidly growing and are estimated around 844, 000 from 1 million and consist of those who are aged 25 years and above. Foo (2011) claimed among the 1 million Malaysian diaspora, 455,000 are highly skilled professionals who completed their tertiary education. Thus, Malaysia is considered one of the countries influenced by international migration globally, as experiences often involve both emigration and immigration to various countries (Hugo, 2011).

Watkins, Ho, and Butler (2017) claim that Anglosphere countries such as Australia, Canada, the United States (US), and the United Kingdom (UK) received increasingly high levels of Asian immigration. This is because the US migration programmes favoured middle-class professionals from Asian countries, while Australia and Canada embraced cultural diversity by retaining their multiculturalism policies since 1970 (Watkins et al., 2017). A significant increase of Asian immigrants to the United States has also been found, which has links to the phenomenon of 'Asian successes', as individuals within the middle-class range seek to relocate due to educational purposes or achieve success in other ways (Watkins et al., 2017). Moreover, the topic of migration and the growth of global diasporas significantly influence the 'Leave No One Behind' pledge in the 2030 Agenda, which is centered around four goals and five targets in the Sustainable Development Goals (SDG) (United Nations, 2016).

According to Hugo (2011), Malaysia has experienced impressive economic growth and improvements in welfare, which were contributed by immigration. Despite the positive impact such as brain gain within the diaspora community through economic growth, knowledge exchange, as well as skills transfer (Glytsos, p. 89, 2010), several issues have arisen as a result of its negative outcome as well. Research by Quah et. al. (2014) analysed

the push and pull factors influencing the return intentions of Malaysia's diaspora, shedding light on the factors that contribute to the phenomenon of brain drain, which leads to Malaysians deciding to stay and work abroad much longer. Nonetheless, the outbreak of COVID-19 has halted all common social and religious gatherings due to social distancing and staying-at-home policies being implemented, which has led to challenges for these people who are staying abroad, which may strain and influence their intimacy and friendship practices when trying to survive in these Anglosphere countries. Koh (2017) elaborated that Malaysian's embrace the strengthening and maintenance of kinship when living abroad. This is also supported by recent studies of Nasir, Aziya, & Pazil (2022) in which the outbreak and lockdown during the pandemic has made many Malaysians working abroad to understand the importance of having homophily, sense of familiarity and belongingness among the Malaysian diaspora community to promote social connectedness and community well-being.

It is imperative for all parties, including the communities, government, and embassy, to provide support and resources for the diaspora populations to maintain their mental and emotional well-being during these challenging times. By embracing the different challenges, while working abroad, and reconnecting relationships with other people due to the pandemic can help the Malaysian diaspora community to enhance their social support and experience sense of community well-being. Thus, this addresses the health and well-being concerns within the diaspora populations as it aligns with Sustainable Development Goal 3 (SDG 3), which is to ensure healthy lives and promoting well-being for all at all ages (United Nations, 2016).

Close Friendship as Social Supports

The discussion on diaspora has become the main subject regarding migration and development for the past several years. New issues and challenges constantly exist due to current events, such as COVID-19 which has taken a pause on all physical gatherings. Among the issues that individuals face while in foreign countries are their difficulty coping with situations of being in a new environment and their difficulty adjusting themselves in performing their work obligations overseas (Ko & Yang, 2011). This relates to the Malaysian diaspora's difficulty in adjusting and having to endure cross-cultural adaptation in a foreign country which contributes to their sense of displacement and vulnerability (Adzmi & Bahry, 2020). Moreover, according to the study by Bahar Moni et al. (2021), it is found that psychological distress was prevalent among Malaysians during the pandemic, with a notable impact on mental health. They highlighted a few reasons regarding this and one of the reasons is social isolation. During the pandemic, social distancing measures and lockdowns have contributed to feelings of loneliness, isolation, and lack of social support, leading to psychological distress. Hence, seeking connection with others is vital as it can provide a sense of validation, and emotional support, and fulfil the need for social belonging (Liu et. al., 2020).

Friendship is significant among human beings as it connects an individual to a larger social network and creates informal social connections (Putnam, 2000). Sias and Cahill (1998) claim the factors that influence friendship development are due to individual and environmental factors. Individual factors are obtained from the relationship partners themselves, such as personality, while environmental factors are procured from the context in which the friendship exists, such as marital problems, health concerns, and neighbour issues (Sias, Smith, & Avdeyeva, 2003). Environment factors can be elaborated by Sias and

Bartoo's (2007) study, as they occur when an individual vents about their routine stressors to prevent the stress or negative feelings from escalating. Thus, human relationships are socially constructed, and the development of a friendship is the result of communication through homophily and providing emotional and physical support to one another. This is in line with Sustainable Development Goal 10 (SDG10), which aims to reduce inequalities. By fostering the development of friendships and social support networks, individuals can reduce feelings of isolation while enhancing their sense of belonging, contributing to more inclusive societies.

Furthermore, friendship and social support networks play a crucial role in mitigating psychological distress and enhancing community well-being among the diaspora during challenging times which in this case, the pandemic (Shin et al.,2022). Three major types of social support involve interpersonal relationships which are emotional, informational, and tangible (Schaefer et al., 1981). Emotional support is providing direct empathetic and compassionate behaviours, informational support occurs when one is sharing knowledge to help others make sense of a specific social experience, while tangible support entails the provision of tangible resources to help with the task (Sias & Bartoo, 2007). The various approaches of social support can be received and given to close friends, as the action performed for an individual by significant others such as family members, friends, and coworkers. Overall, the different phenomena of social support provide insight to the study as to how the Malaysian diaspora are able to survive and embrace close friends as their social support in order to increase their sense of community well-being, thus influencing their quality of life during the pandemic.

METHOD AND STUDY AREA

Participants

The recruitment of participants for this study was done using both the purposive and snowball sampling methods. Purposive sampling is a non-probability sampling technique in which units are chosen because they possess characteristics that are required in the researcher's sample (Nikolopoulou, 2022). Snowball sampling is a method used to recruit interviewees for research projects by relying on referrals from existing participants (Bailey,2019). This research has involved eleven participants; five males and six females who are Malaysian Malay diaspora in the United Kingdom (UK), United States of America (USA), Australia, and Canada. The purpose of focusing on one group of participants who share a similar nationality, race, and experiences is to understand the expected and accepted behaviour, based on similar situations encountered by the participants. Moreover, this research intentionally consists of participants aged below 30 years old as this is the age of fresh graduates seeking experience in their expertise. The participants involved have also completed their tertiary education as all of them originally studied abroad prior to their employment. In addition, the researchers focused on professional jobs to narrow down the job scope of the participants. The demographic background of participants is illustrated in detail in Table 1. Pseudonyms were used for the names of participants to maintain confidentiality.

Table 1: Demographic Background of Participants

Name	Age	Job	Country
Adam	28	Teaching Assistant	United Kingdom
Anna	24	Digital Marketer	United Kingdom
Zayn	24	Pharmacist	United Kingdom

Danielle	25	Counsellor	Australia
Harry	25	Investment Officer	Australia
Jennie	29	IT Specialist	Canada
Natalie	26	Customer Service	Canada
Zeke	26	Administrative Specialist	Canada
Isaac	27	Architect	USA
Sylvia	27	Manufacturing Engineer	USA
Suzanne	27	Senior Research Tech	USA

Data Collection

The data collection methods involved in this study are semi-structured in-depth interviews. The data collection was conducted online with eleven participants who were chosen for the study. Initially, certain participants in this study were recruited through personal networking via social media platforms such as Instagram and WhatsApp, where they were contacted via direct messages. Through the method of snowball sampling, the researchers then ask the participant to nominate or suggest other potential participants who meet the recruitment criteria, as snowball sampling involves few participants or a high degree of trust, which is valid for the study (Baltar & Brunet, 2012). After reaching out to the chosen participant, they would update the researchers their willingness to participate the study, followed by their availability date and time to be set. The researchers would email the Webex meeting link to the participants to conduct the in-depth interview. Before the interview, participants will complete an ethical consent form. Due to the limitation of the COVID-19 pandemic during the time of data collection and geographic distance, the interview has been conducted virtually via Webex. The data collection for each participant took about an hour, with some ethical restrictions that had to be followed to ensure the participants' comfort and confidentiality throughout the interview process

Data Analysis

The data of the study is analysed using thematic analysis which involves identifying and organising patterns or themes within the data to derive meaningful insights (Caulfield, 2019). There are five steps that need to be acquired when doing the thematic analysis according to Clarke and Braun (2006), which involve becoming acquainted with data familiarisation, coding, generating initial themes, reviewing themes, and writing up. Initially, researchers transcribe and analyse the data manually before categorising or coding the related sections depending on their content or significance. The codes are organised into primary themes that encapsulate the core of the data. Themes are then thoroughly analysed and refined to mirror the facts and address the study objectives. Lastly, the researchers analyse the themes, document their findings, and provide significant insights based on the data.

RESULTS AND DISCUSSION

Diaspora's Reliability on Social Support with Immediate Friends

Human beings are inherently social animals that rely on one another for their survival and well-being (Fitness, 2013). In this paper, the participants clarify the types of support they experienced in order to ensure their wellbeing and life satisfaction, especially during the pandemic phase. The social support mentioned includes emotional (empathy and

sympathy), instrumental (physical help with tasks), and informational (sharing knowledge to understand the social experience) (Schaefer et al., 1981; Cai et al., 2021). In terms of emotional and informational support, most participants would first mention they would seek their family members, such as their parents and siblings. However, since the participants' family and close friends are in Malaysia, social media platforms were used. This includes Skype, WhatsApp, FaceTime, Facebook, and Instagram which help them communicate and stay connected. The participants describe the increased relationships they have with their family members and close friends, as shown below:

Danielle: *I feel like I became closer to my parents during COVID-19. I contact my parents a lot of times but not really with my two older siblings because I'm not that close with them. I'm much closer with my two younger siblings, and I constantly keep in touch with them and tell them everything about what's going on.*

Adam: *Before this, it felt like I always did call my parents, like using video calls and such. But ever since COVID-19, it's like I call them (family) every day and update them with things like 'How are you feeling now' and so on. I also have a friend who is from Devon, Liverpool, and my supervisors as well. Basically, I share everything with them, and they will give advice and support me.*

Based on the statements above, it is agreeable that the development of social media can create and maintain bonds between distant relationships (Delva et al., 2014). Moreover, Danielle and Adam expressed they were able to disclose more about themselves to their family members, as their families can acknowledge, understand, provide advice, and motivate the participants, especially during the pandemic phase. This resulted in a closer bond and is linked to better health and self-esteem among participants (Fuller-Iglesias et al., 2013). However, there are also ramifications when they are not in close proximity. Even though various tools can be used to contact and maintain relationships, some participants expressed that they felt distant from their close friends during the pandemic. This is due to the inability of their close friends to comprehend the participants' challenges, which contributes to feelings of detachment. Unlike family members who offer support and motivation, close friends who are back home may struggle to empathise with the participants' experiences due to the different circumstances and struggles, leading to feelings of isolation and emotional distance. This aligned with Adam's statement:

Adam: *I also talked to my friends back in Malaysia. But I find that they don't know the lifestyle here, and they can't really imagine how your well-being, and what is it that we're actually facing here. So even though you have a best friend, your best friend doesn't actually know what it is that you are facing right now.*

Adam's experience highlights the challenge of maintaining social connectedness and receiving understanding and support from friends and family back home. This emphasises the importance of fostering inclusive communities and support networks, which aligns with the objectives of SDG 10, reducing inequality. Moreover, although social media can serve as a primary means of communication with friends and family back home, Adam noted that not all situations can be understood by his loved ones. Findings by Nasir, Aziya, and Pazil (2022) discussed that international students studying abroad who expressed their contact with co-national friends and families from back home through social media were not able

to fulfil their need for social connectedness during the pandemic. Therefore, the participants tend to rely on the Malaysian community abroad, as the community is able to better relate and connect with the situation the participant is facing. Furthermore, many participants also describe the experiences of tangible or physical support from housemates, neighbours, friends from the Malaysian community, and the Malaysian embassy. For example, Natalie mentions that the perceived help from the Malaysian community has led to a closer bond:

Natalie: *When I felt me and my close friend from my class drifted apart a bit, I started to become closer to the Malaysian community. Which I wasn't that close to before. I would have to agree that whenever any of my Malaysian friends would invite me. I feel much closer to them. Especially like there was one time I had lost my phone, and all four of my Malaysian friends tried to help me get it back. I feel much closer to them ever since the pandemic.*

Social support and belongingness can directly or indirectly influence information sharing, responsibility, feedback, and advocacy behaviours (Liu et. al., 2020). As mentioned above, the realisation of dependability towards the Malaysian community helps Natalie feel closer and belong. Being connected to the Malaysian community and receiving support from friends can enhance a sense of belonging and boost overall well-being, in line with Sustainable Development Goal 3, which focuses on promoting good health and well-being. Being able to relate to and empathise with their situations can create a deeper social bond between close relatives and ingroup members, as well as promote compassion and cooperation (Chiao & Mathur, 2010). This has also been mentioned by Anna:

Anna: *I talk about my life to non-Malaysian friends, they are always shocked on how close Malaysians are in the overseas, on how we are willing to support each other like searching for rental house which we have a group for that and like there is a student organization UKEC and stuffs like that. They are always shocked to know how close Malaysians are because they do not really have that close bond with people from their home country. So, I believe that being a Malaysian bond you with other Malaysians when you are in oversea because you understand the culture.*

Christou and Mavroudi (2016) emphasised that Malaysians tend to create good connections with the communities they live in as a way to strengthen the bond as clarified by Anna. Moreover, according to Koh (2012), the attachment and sense of belonging to Malaysians often merge with the concept of 'family' among Malaysians, including the presence of family members, familiarity, comfort, and belonging to an imagined family of fellow Malaysians. Overall, the participants agreed on the significance of providing various types of support including emotional, instrumental as well as informational support to one another. For individuals to thrive, everyone needs to play a part in providing different types of social support to one another, especially during difficult times such as the pandemic.

Belongingness in Surrounding Environment Improve Quality of Life and Community Wellbeing

Many diaspora and migration studies intertwine with each other as they involve leaving one's territory of origin, having a sense of belonging, and a strong yearning to return to the original homeland (Koh, 2015). Throughout the interview, several factors have been found

in shaping diaspora communities and the motivations driving migration patterns. For instance, Suzanne emphasises her reason for staying abroad:

Suzanne: *Most of my friends in the U.S in general told me not to go home. It'll be hard to get a job and most of them are engineering majors. When everyone said the same thing and I was in the early stage of my career, I didn't want to simply take a risk to go home and couldn't pursue whatever I wanted. To find a job in Malaysia is possible but with the engineering salary and workload... It's not worth it.*

Fear of returning to their home country with no job prospects in their respective field after spending money to study abroad has influenced the decision to remain in the host country. This highlights as one of the challenges faced by migrants in achieving social and economic inclusion which is a key focus of SDG10. In Suzanne's case, the perception of the job market regarding finding a suitable position is likely to affect her decision to stay abroad. According to Baruch (2007), a suitable position would allow individuals to maximise their abilities and provide excellent opportunities for advancement within the institution's hierarchy which led to the decision to migrate abroad. Moreover, the fear of being rejected by the community has also influenced their decision to stay abroad:

Jennie: *I feel like now I identify as Malay-Canadian. Like I am not just Malaysian, but I am also Canadian because I feel if I go back to Malaysia, I don't fit in completely either, culturally. I feel like I am in between the two, internally.*

Jennie's experience of feeling torn between her Malaysian and Canadian identities highlights challenges related to cultural integration and belongingness. This is related to Cosmos's study (2014), where he observed that individuals undergo changes in mentality when they relocate to a different country, experiencing stages of integration and adaptation that result in an alteration in identity. Hence, it is crucial to make sure that individuals feel included and accepted in communities, regardless of their background, to reduce inequalities and promote social cohesion, which is pertinent to SDG 10. Problems that have arisen in experiencing belongingness in the community have been described by Jennie. Experiencing a sense of community in this context involves feeling a sense of belonging to a group, having a personal stake in it, understanding and maintaining boundaries, being associated with the group as rewarding, and sharing emotional connections with the surrounding community (McMillan & Chavis, 1986). Regardless of the successful assimilation experienced by the participants within the host country, they still could not avoid the challenges of how others view them. This includes issues regarding xenophobia and Islamophobia that they experienced, as shown below:

Harry: *I've experienced that in public places like on the bus and walking on the streets. Imagine minding your own business and then suddenly someone shouts 'Go back to your country, f*ggot'. Sorry, but they do call us those harsh words. Of course, it hurts, but we're very small people and Caucasians are typically bigger in body structure. So, I just ignored it. I was traumatised by it especially when it was during the Christchurch Mosque shooting.*

Sylvia: *Because I wear a hijab, the local people don't immediately see me as Asian, but they see me as someone who is somewhere from the*

Middle East instead. But my friend from work who is Taiwanese, told me that she was out shopping and then someone said to her 'You cannot be here because you caused the virus'. So, from then on, I was scared to go out and I am Asian.

Although the participants have adapted to the host country, they are still viewed differently by the locals when walking in public spaces. These issues were a soft reminder to the participants that they do not fully belong to the surrounding community in the host country. The participants had to face these difficult challenges while trying to make an honest living in the host country. The spread of hate crimes against minority groups, believing that Asians of Asian descent was solely responsible for causing the spread of COVID-19 (Gover, Harper, Langton, 2020; Grove & Zwi, 2006), did not make it any easier for them. However, despite the hate crime, the participants also discussed the treatment they received from colleagues, supervisors, and close friends from the non-Malaysian community. They provided support and empathy and also showed their concern for the participants' health and mental well-being. The discussions are shown below:

Jennie: *When the Asian hate crimes were increasing, our company addressed it and we talked about it. The company is very open about these issues and is very supportive. We had these separate groups. They are like clubs, but like virtual clubs, cause for a little conversation online, they are not in person, right. Yeah, so we all are supportive of each other. It's good that we definitely have people that I can talk to for sure.*

Sias and Bartoo (2007) explained that social support can be described as a communicative phenomenon. Social support is a verbal and nonverbal communication between receiver and provider that reduces feelings of uncertainty about a situation, relationship, or oneself as it enhances the perception of control over an individual's life (Albrecht & Adelman, 1987). In Jamila's case, the supportive environment and open conversation between colleagues and close friends not only helped improve her state of mind but also provided emotional healing. In addition, some participants also express the importance of constantly having traditional, heritage, and national celebrations to help them feel like they belong and remind them of home:

Anna: *Usually, Malaysian society and stuff will have a big gathering like Christmas, Raya, and Nottingham games but because of COVID-19, the events cannot be held so that is why I think if it was not for COVID-19 we would have been closer. Actually, during Hari Raya, there was a big gathering, but I did not join because I am afraid of spreading the virus, but I know that there were so many people join but during Raya Haji I did go to the gathering.*

Sylvia: *As for me Malaysian community is important, especially for festive celebrations and gatherings such as Hari Raya. Gathering with the Malaysian community will make you feel like home.*

The participants emphasise that a celebration like Hari Raya does not only bring the community together but also helps them feel united, experience belongingness in the community, and feel grateful. This links to the definition of community well-being, as it can refer to individuals living cooperatively within the community scale or having the role of the community scale aspects of living to facilitate everyone's well-being (Atkinson et al., 2017). Thus, the activities and common gatherings of social events created help to bring the

Malaysian community together and increase the Malaysian community's well-being in their surrounding environment. Overall, a supportive environment and good relationships with the surrounding community have helped them improve their quality of life as well as enhance community wellbeing.

CONCLUSION

In conclusion, embracing challenges and friendship can help one's life. Most of them were accustomed to living independently; they did not realise how vital it was for them to receive emotional, informational, and tangible support from family members and close friends. The pandemic has influenced the participants to understand the significance of receiving and providing social support to other people as a way to improve their well-being and quality of life, which directly relates to SDG 3's objective of promoting overall health and well-being. However, the relationships the participants have with their family members and close friends result in both positive and negative influences. Those who had a positive influence mainly had a closer relationship with their parents. For this reason, their parents were worried and ensured the participant's health and mental well-being were in a good state. The relationship between their close friends from Malaysia varied, as some participants felt distant from them. Even before COVID-19, participants' experiences of xenophobia and Islamophobia highlight the existence of discrimination and intolerance, which SDG 10 seeks to address by promoting policies and actions that combat all forms of discrimination based on race, religion, or ethnicity. During the pandemic, a rise in hate crimes against Asians influenced the participants' experience of belongingness in the community. However, close friends from their workplace and from the Malaysian community provided aid and offered support whenever needed. These gestures help the Malaysian community improve their quality of life by embracing positive relationships with others around them.

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