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The Moderating Role of Fintech App Usage in Lower-Income Households in Malaysia: A Financial Well-Being Roadmap

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A B S T R A C T

In Malaysia, the B40 group represents households with a monthly income below MYR4,850 (USD1,093), constituting the lowest 40% of earners facing economic challenges. Amid rising living costs and employment instability, managing finances becomes crucial. Fintech apps, known for accessibility and convenience, offer various financial services. A cluster sampling strategy was used to identify 1,948 B40 households from across Peninsular and East Malaysia to serve as the study's sample population. The data was obtained through a cross-sectional study then scrutinised via SEM-PLS. This study aims to determine factors such as locus of control, financial knowledge, and financial behaviour concerning the usage of fintech apps that impact the financial well-being of Malaysian B40 households. The study findings indicate a significant positive correlation between an individual's Financial Knowledge and Locus of Control toward Malaysia B40 Financial Well-Being. The study suggests that Financial Behaviour partially mediates the relationship between Financial Knowledge, Locus of Control, and Financial Well-Being. The study also indicates that Fintech App Use moderates the relationship between Financial Knowledge, Locus of Control, and Financial Well-Being. The present study contributes to the theoretical understanding of financial well-being by investigating the mediating and moderating factors influencing this construct.

Keywords: Financial Well-Being, Malaysia B40, Financial Knowledge, Financial Technology, Financial Behaviour

Ⅰ. Introduction

The increasing cost of living, escalating debt, and uncertainty in job prospects make it essential to have a strategic plan for managing finances and achieving financial security (Feige & Yen, 2021). A solid financial plan acts as a backbone, providing a sense of stability and security. It also paves the way for achieving financial goals, such as amassing a retirement fund, buying a house, or setting up a new business. By making judicious financial decisions, people can steer their financial position towards growth and stability. In the context of the digital era, smartphones and high-speed internet connectivity have significantly impacted the financial landscape. This widespread technological adoption has catalysed the growth of fintech companies that provide innovative financial services (Cumming et al., 2023), moulding the traditional

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financial industry into a more accessible, convenient, and efficient sector.

According to a report from EY's Global Fintech Adoption Index, as of 2019, the adoption rate of fintech services stood at 64% globally, a figure which is likely to have grown given the recent digital acceleration (Ernst & Young, 2019). Furthermore, advances in technology, such as artificial intelligence (AI), blockchain, and cloud computing, have facilitated the creation of cutting-edge financial products and services that were unimaginable a few years ago. For instance, AI is enabling more personalised banking and investment services, blockchain is providing a new level of transparency and security (Suryavanshi et al., 2023), while cloud computing has significantly reduced the cost and time needed for transactions (Achar, 2021). Fintech applications, which provide easy access to a wide array of financial services such as banking, investment, budget planning, and payment processing, have been embraced by consumers worldwide for their user-friendly interfaces, accessibility, and convenience. For instance, Statista reported that the number of fintech start-ups worldwide reached 26,393 as of early 2023, demonstrating the industry's thriving ecosystem (Statista, 2023). Despite the convenience of fintech apps, they bring about legitimate concerns regarding their impact on users' financial well-being. As fintech applications become more integrated into our everyday lives, the question becomes: Do they enhance or hinder our control over financial health and progress towards financial prosperity?

It is crucial to understand that fintech apps can provide tools to better manage finances, offering instant access to financial information, budgeting tools, investment platforms, and more. However, these tools are most effective when used responsibly and with a solid understanding of their functions. Some studies suggest that the use of personal finance apps can lead to improved financial behaviours. A 2021 study published in the Journal of Behavioural and Experimental Finance found that using fintech apps could lead to increased savings rates (Kumar et al., 2022). That said, it is also important to be aware of potential risks such as cybersecurity threats and the possibility of overspending due to easy access to digital payments. Thus, while fintech apps can be a powerful tool in managing finances and working towards financial goals, their effective use also requires financial literacy, discipline, and a proactive approach to managing personal finances. As we move forward in this digital age, it is clear that fintech applications will continue to evolve and shape our financial behaviours (Dapp et al., 2014; Koskelainen et al., 2023). However, our control over our financial future largely depends on how effectively we utilise these digital tools and adapt to the changing financial landscape.

Financial literacy, particularly in the era of accelerating fintech advancements, is more crucial than ever. However, it is concerning that globally, financial literacy rates are not as high as they should be (Setiawan et al., 2021; Siddik et al., 2023). According to a survey by Standard & Poor Global FinLit Survey (Klapper et al., 2015), a mere 57% of adults in developed countries are financially literate. In less developed economies, the percentage is even lower. This lack of knowledge can lead to poor financial decisions and hinder financial stability. Parallel to the low rates of financial literacy is the rising utilisation of digital financial services. The World Bank's Global Findex Database indicates that 1.2 billion adults worldwide have gained access to a bank account since 2011, with over half of them securing their first account through a mobile money provider. With the continuous expansion of digital financial services, understanding these platforms and leveraging them effectively is becoming increasingly vital. This underscores the urgent need for financial literacy education to incorporate aspects of cybersecurity, equipping individuals with the knowledge necessary to safeguard their financial assets in the digital space.

As financial literacy is critical in today's fast-paced digital world, fintech innovations continue to revolutionise the way we manage money. Malaysia, like many other countries, is on the path of fintech adoption, and it is crucial to understand how financial literacy, financial behaviour, and fintech intersect, particularly among the Bottom 40% (B40) income group. According to research by the World Bank, just 36 percent of adults in Malaysia have adequate knowledge of financial concepts (Klapper et al., 2015). According to the findings of a survey carried out by the OECD, thirteen percent of respondents in Malaysia rated their own levels of (financial) knowledge as very low (OECD, 2016). The financial literacy rate among the B40 group, particularly, was found to be lower than the national average. Digital financial services offer opportunities for the B40 group to access financial services, and there has been a concerted effort to encourage fintech adoption among this group. According to Bank Negara Malaysia, digital payments adoption has increased from

1.4% in 2011 to 16% in 2019. Mobile banking adoption was at 47% in 2019, up from 17% in 2015. This digital adoption is expected to assist in achieving financial inclusion for underserved and underprivileged communities.

However, the rise of fintech also brings new challenges. According to the 2020 PwC Global Economic Crime and Fraud Survey, 47% of companies in Malaysia reported suffering from fraud. Cybersecurity and financial fraud are major concerns with the increasing use of digital financial services, highlighting the importance of financial literacy in understanding how to protect oneself. As for financial behaviour, the same AKPK survey found that only 15% of the B40 group have sufficient emergency savings, 25% often have outstanding credit card balances, and 40% do not have any form of retirement planning. Despite the increasing adoption of fintech services, poor financial behaviours persist, underlining the need for continued financial education. Overall, these facts highlight the importance of improving financial literacy to ensure that the benefits of fintech can be realised while mitigating associated risks, particularly among the vulnerable B40 group. As Malaysia continues to push for a digital economy, efforts to enhance financial literacy, instil good financial behaviours, and ensure cybersecurity, must be prioritised to ensure that no one is left behind. Therefore, this study seeks the need for financial knowledge and locus of control of B40 individuals to evolve concurrently with these digital advancements, ensuring that individuals are well-prepared to navigate this new financial terrain towards their financial well-being.

Ⅱ. Literature Review

A. Theoretical Background and Hypotheses Development

The current research utilises two theoretical frameworks: Ludwig von Bertalanffy's (1967) systems theory and Deacon & Firebaugh's (1988) family resource management model. Systems Theory, initially proposed in 1966 and subsequently developed, categorises the world into two fundamental elements: the environment and the system (Luhmann, et al., 2012). The Systems Theory examines the dynamic interplay between a system and its environment by assessing the system's outputs in relation to its goals or objectives. The Family Resource Management Model, derived from the Systems Theory and formulated by Deacon and Firebaugh (1988), serves as the underlying framework for the current research model (Figure 2). Past studies in the field of personal finance, including Hira (2012) and Mimura (2014), have recognised and supported the model. These scholars have outlined the three main components of the model, namely input, throughput, and output, to illustrate how families strategically plan and utilise their resources to fulfil their consumption needs. Van Campenhout (2015) and Serido et al. (2014) have stressed the importance of considering these three components in order to fully understand financial decision-making and its resulting outcomes. These scholars highlight the significance of comprehending how the input, throughput, and output factors interrelate when studying financial choices and their consequences. In a recent study conducted by Dari et al. (2021), a mediation model was proposed and examined, revealing the interconnectedness of financial behaviour, financial socialisation, and financial vulnerability. The findings of the study underscore the importance of considering all three components in order to gain a comprehensive understanding of financial decision-making and its subsequent outcomes. Deacon and Firebaugh (1988) identified three fundamental components that constitute the concept of the Family Resource Management Model. Lastly, the third component, output, pertains to the outcomes of the planning and action taken, serving as an overall assessment of goal achievement.

To further add strength to our study, we utilised the Unified Theory of Acceptance and Use of Technology (UTAUT) as a supporting theory. UTAUT is a model that aims to understand and explain individuals' acceptance and use of information technology and was developed by Venkatesh et al. (2003). The UTAUT model combines and extends several existing technology acceptance models, such as the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model (MM), and the Theory of Planned Behaviour (TPB). It identifies several key factors influencing individuals' behavioural intentions to use technology and their actual usage behaviour. In the context of financial well-being, the Unified Theory of Acceptance and Use of Technology (UTAUT) helps to understand and explain the acceptance and use of technology in order to enhance individuals' financial well-being. This model provides insights into how technology can influence and improve individuals' financial well-being. This current study adopts the Family Resource Management Model, with Financial Knowledge and Locus of Control serving as input, Financial Behaviour as throughput, and Financial Well-Being as output. By utilising this model's input-throughput-output sequential process, this study aims to investigate the inter-relationships between Financial Knowledge and Locus of Control, Financial Behaviour, and Financial Vulnerability, while also exploring the influence of Fintech App Usage.

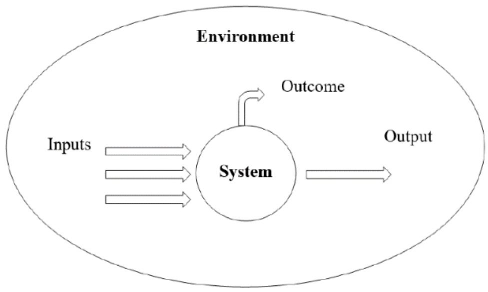

Figure 1. Illustration of Systems Theory (Deacon & Firebaugh, 1988)

B. Financial Well-Being

Financial well-being is a state where one can fully meet current and ongoing financial obligations, feel secure in their financial future, and make financial choices allowing them to enjoy life, which is a universal aspiration. However, financial vulnerability, a condition that affects people across all socioeconomic backgrounds, as highlighted by the study by Magli et al. (2021), can seriously hinder achieving this state. This vulnerability is particularly evident in Malaysia, where data from the Department of Insolvency (2020) reported 299,186 recorded bankruptcy cases from 2015 to 2019. This significant figure indicates a clear issue with financial stability across the nation, underscoring the urgent need for strategies to bolster financial well-being. Furthermore, the situation seems even more critical among the B40 group in Malaysia. High credit card debt among this group was the cause of a significant proportion of the bankruptcy cases recorded in 2018. A survey by the S&P Global FinLit found that only 36% of adults in Malaysia are financially literate. When focusing on the B40 group, this financial literacy rate drops even further, making this group particularly vulnerable to financial instability.

Moreover, according to a report by the Employees Provident Fund (EPF), more than 75% of Malaysians earning less than RM5,000 a month (which includes a significant portion of the B40 group) do not have sufficient savings to withstand financial shocks. This lack of financial buffer further exacerbates the financial vulnerability of the B40 group, often resulting in high debt levels and financial distress. The link between financial vulnerability and well-being is evident. Thus, these findings illustrate the importance of improving financial well-being among the B40 group. In light of the current economic challenges Malaysia faces, it becomes imperative to address the financial vulnerability of its most economically disadvantaged citizens, particularly the B40 group. This involves financial education initiatives, access to affordable financial services, and the promotion of healthy financial habits. By taking such actions, the financial well-being of this group can be improved, contributing to a more equitable and financially secure society.

The financial well-being of the B40 income group in Malaysia is a topic of significant research, with various studies shedding light on the complexities and challenges these households face. For instance, a recent study unravels the importance of socio-economic factors for this demographic. They discovered that income levels, employment status, education, and household size significantly influence the well-being of B40 households (Munisamy et al., 2022). Their findings suggest that strategies focusing on enhancing income and employment opportunities and improving access to education could substantially ameliorate the living conditions of these households. Further underlining the importance of education, a study elucidated the inverse relationship between financial literacy and financial distress among B40 households (She et al., 2021). The study strongly suggests that targeted financial education initiatives could be a powerful tool in alleviating financial distress and promoting overall financial well-being in the B40 group (Mansor et al., 2022; She et al., 2021).

Another study delved into the financial vulnerability of low-income households, which constitute a significant portion of the B40 group (Abid & Shafiai, 2018; Magli et al., 2021). Their study revealed that these households often adopt coping strategies like taking on additional work or borrowing money to handle financial distress. They concluded with the recommendation for more robust social safety nets and financial assistance programmes to bolster the financial well-being of these households. These demonstrate the multifaceted nature of financial well-being among the B40 group in Malaysia, underscoring the importance of comprehensive solutions that address income and employment opportunities, education, financial literacy, financial inclusion, and social protection.

C. Financial Knowledge

Financial knowledge is defined as the "knowledge and understanding of financial concepts and risks, and the skills, motivation, and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life" (OECD, 2013). Huston (2010) conceptualised financial knowledge as the knowledge of personal finance as well as the application of that knowledge. Financial knowledge is the "ability to use knowledge and skills to manage financial resources effectively for lifetime financial security" (Jump$tart Coalition, 2007). Elaborating on financial knowledge, it involves understanding the basics of personal finance, such as managing income and expenses, creating a budget, and tracking spending habits. It also encompasses knowledge about different financial products and services, such as bank accounts, credit cards, loans, mortgages, and investment vehicles (Sujaini, 2023). Financial knowledge empowers individuals to take control of their finances, enabling them to effectively manage their daily expenses, establish and maintain an emergency fund, plan for their children's education, and prepare for a secure retirement (Goyal & Kumar, 2020).

Previous literature has demonstrated that financial knowledge plays a crucial role in influencing financial well-being. Chatterjee et al. (2017) emphasised that financial knowledge helps individuals set realistic and achievable financial goals. By understanding the importance of setting goals, individuals can prioritise their financial objectives, such as saving for retirement, buying a house, or paying off debt. This clarity enables them to create effective strategies and allocate resources accordingly, leading to progress and improved financial well-being.

Additionally, enhanced financial knowledge helps individuals to better recognise fraudulent practices and prevent fraud (Engels et al., 2020). It increases their awareness of common scams, develops critical thinking skills to evaluate financial opportunities, and provides knowledge about financial products and identity theft protection. Overall, improved financial knowledge plays a vital role in deterring fraud and creating a safer financial environment. Financial knowledge empowers individuals with the knowledge, skills, and confidence to manage their money effectively. It enables them to set goals, budget, manage debt, save, invest, protect against risks, and make informed financial decisions. By improving financial knowledge, individuals can enhance their financial well-being, reduce stress, and work towards long-term security and prosperity.

H1. Financial knowledge significantly affects financial well-being.

D. Locus of Control

Research has consistently shown that locus of control plays a crucial role in influencing financial behaviour. Individuals who possess an internal locus of control tend to demonstrate responsible financial behaviours, such as budgeting, saving, and making informed financial decisions. They believe that their actions and choices have a direct impact on their financial well-being. On the other hand, individuals with an external locus of control are more prone to financial difficulties, as they attribute their financial outcomes to external factors beyond their control, leading to a sense of helplessness and a lack of proactive financial management (Anthony et al., 2021; Magli et al., 2021). Furthermore, studies have revealed that individuals with an internal locus of control are more likely to engage in long-term financial planning, establish emergency funds, and exhibit higher levels of financial literacy. They take ownership of their financial situation and actively seek opportunities for financial growth and stability. In contrast, individuals with an external locus of control may struggle with financial decision-making, display impulsive spending behaviours, and experience difficulties in managing debt and financial obligations (Churchill & Smyth, 2021; O'Connor & Kabadayi, 2020). It is important to note that locus of control is not a fixed trait and can be influenced and developed through various interventions, such as financial education programmes and counselling (O'Connor & Kabadayi, 2020). By promoting an internal locus of control and empowering individuals to take control of their financial lives, it is possible to improve financial behaviours, enhance financial well-being, and mitigate financial difficulties among individuals and communities (Sehrawat et al., 2021; Tyler et al., 2020).

Extensive research has consistently demonstrated the significant influence of locus of control on financial behaviour. Individuals who possess an internal locus of control tend to exhibit responsible financial behaviours and are more likely to make informed financial decisions. They believe that they have control over their financial outcomes and attribute their success or failure to their own actions and choices (Furnham & Cheng, 2017). These individuals take a proactive approach to their finances, engaging in activities such as budgeting, saving, and investing. They are more likely to seek out financial information, plan for the future, and practice self-discipline when it comes to managing their money. These individuals tend to perceive their financial outcomes as being influenced by external forces beyond their control, such as luck or fate (Galvin et al., 2018; Hampson et al., 2021). As a result, individuals with a strong external locus of control may experience higher levels of financial stress and struggle to effectively cope with financial stressors (She et al., 2021; Prawitz & Cohart, 2016). They may feel powerless in managing their finances and rely heavily on external factors for financial stability. This dependence on external factors can make them more susceptible to economic downturns, unexpected expenses, and financial difficulties. Moreover, individuals with an external locus of control may exhibit behaviours that further exacerbate their financial vulnerability. They may engage in impulsive spending, lack long-term financial planning, and rely on external sources of credit without considering the long-term consequences. This can lead to a cycle of financial instability and difficulties. Based on the aforementioned insights, we put forth the following hypothesis:

H2. Locus of control significantly affects financial well-being.

E. Mediation Effect of Financial Behaviour

It is essential for individuals, regardless of their level of wealth, to engage in financially responsible behaviour consistently. It involves a wide range of initiatives, including the drafting of a budget, the management of cash flow, the formulation of a spending plan, the prompt fulfilment of financial commitments, the efficient administration of credit, and the preparation of a retirement plan (Brown & Taylor, 2014; Grable et al., 2020). Engaging in risky financial behaviours, such as impulsive and unnecessary spending or excessive borrowing, can significantly increase an individual's vulnerability to financial hardships, particularly when their debt burden becomes unsustainable (Lea et al., 1995; LeBaron, 2021). Numerous studies have shown that adopting responsible financial behaviours contributes to better financial well-being and decreases the likelihood of experiencing financial difficulties (Sabri et al., 2020; Robb & Woodyard, 2011). Fei et al. (2020) highlighted that engaging in such behaviours can jeopardise financial well-being and lead to negative outcomes. It is essential to note that financial well-being is not limited to individuals with lower incomes, but impacts people across various income brackets. Additionally, Daud et al. (2019) found that factors such as income, marital status, education, and financial behaviour play a significant role in determining an individual's level of financial well-being. These findings underscore the importance of practicing responsible financial behaviour to enhance financial well-being and mitigate the risk of negative consequences.

Given the significance of financial behaviour in determining financial well-being, it is crucial for policy-makers to develop strategies and initiatives that promote good financial habits from an early age. The integration of technology, fintech, and social media platforms can play a pivotal role in educating and promoting positive financial behaviour among young adults (Shim et al., 2009; Bartholomae & Fox, 2021). By leveraging these digital tools, financial education can be made more accessible, engaging, and tailored to the needs of young adults.

In addition, an individual's financial behaviour is shaped by their locus of control, with those who have a stronger internal locus of control tending to demonstrate more responsible financial behaviour. Individuals with a higher internal locus of control are often associated with having greater self-control, improved money management skills, and the ability to resist external influences and distractions, as well as the capacity to successfully tackle challenging tasks (Arifin & Anastasia, 2017). This internal sense of control empowers individuals to take ownership of their financial decisions and actions, leading to more prudent financial behaviours and positive outcomes. In contrast, individuals with a strong internal locus of control are more likely to take personal accountability for their financial decisions and their resulting outcomes (Kresnayana et al., 2020; Mutlu & Özer, 2021). This suggests that one's perception of control over financial matters significantly influences their financial behaviour, with those who believe in their ability to shape their own financial destiny exhibiting more responsible financial practices.

The rise of financial technology and social media has also increased everyone's exposure to various financial products and information, which may further contribute to their willingness to take on financial risks (Ozili, 2020). Overall, these findings suggest that an individual's locus of control and generation can play a role in their financial behaviour and overall financial well-being. It is important for individuals to develop a strong internal locus of control and financial literacy skills to make informed and responsible financial decisions that contribute to their financial well-being (She et al., 2021; Ullah & Yusheng, 2020). Empowering individuals with a strong internal locus of control can help them feel more confident in their ability to manage their finances effectively. By instilling a belief that their financial outcomes are within their control, individuals can be motivated to take proactive steps towards improving their financial well-being. Based on the previous discussion and findings, we put forth the following hypothesis:

H3. Financial knowledge significantly influences financial behaviour.

H4. Locus of control significantly influences financial behaviour.

H5. Financial behaviour mediates the relationship between financial knowledge and financial well-being.

H6. Financial behaviour mediates the relationship between locus of control and financial well-being.

F. Moderation Effect of Fintech App Usage

The advent of innovative information technology has brought about a transformation in facilitating everyday commercial transactions, as highlighted by Salmony (2014). Innovations in financial technology have contributed to the creation of diverse business models that cater to the evolving needs of customers. Notably, the impact of new information technology extends to various economic aspects, including payment services, the banking industry, and financial regulations. This emergence of technology-driven advancements in the financial service industry is commonly referred to as "fintech", a term formed by combining "finance" and "technology". Fintech refers to the application of software and hardware to financial services and processes, making them faster, easier to use and more secure (Sam Daley, 2022). According to Philippon (2016), fintech encompasses digital innovations and technology-enabled business model innovations within the financial sector. Over the past few years, the term fintech has gained substantial global attention and has become increasingly prominent in driving incremental, radical, or disruptive innovation within the financial services industry. Malaysia is not exempt from the fintech revolution. In Malaysia, fintech application's growth rate stands at 30% a year since it was introduced in this country (Alwi et al., 2019). The penetration rate of mobile application in Malaysia has an upward trend. The continuous emergence of fintech mobile applications serves as clear evidence of the ongoing innovation within the fintech industry. Malaysia has witnessed rapid growth in this field, with an increasing number of diverse innovations. Fintech plays a crucial role in Malaysia, where it has gained increasing importance for the national economy and holds substantial growth potential. Fintech innovation is widely expected to thrive in Malaysia, a country with a large middle class and increasing cell phone penetration and supportive government toward the digital economy (Alwi et al., 2019). Malaysian businesses and consumers also tend to be open to new technologies (International Monetary Fund, 2020).

In the realm of fintech, there are numerous mobile applications that cater to different financial needs and services. However, when it comes to the category of shopping apps, some of the prominent ones that have gained immense popularity are Shopee, and TikTok Shop (Techinasia, 2022). These fintech shopping apps have transformed the traditional retail landscape, providing individuals with quick, convenient, and personalised access to an extensive range of products and services (Metilda & Shamini, 2022). With secure payment gateways and user-generated reviews, these apps build trust and confidence among consumers. Furthermore, they utilise advanced algorithms to offer personalised recommendations, creating a tailored shopping experience for each user. They have effectively shaped and reshaped the shopping landscape, fuelling the growth of e-commerce and driving digital transformation in the retail industry. Mobile payment is experiencing widespread acceptance in developing countries, contributing to 35% of global growth, with a projected Compound Annual Growth Rate (CAGR) of 23.5% (Capgemini, 2019). Specifically, the Global Consumer Insight Survey (PWC, 2019) revealed that among the top ten countries embracing mobile payment, several are located in Southeast Asia, including Thailand, Vietnam, Indonesia, the Philippines, and Malaysia. Fintech shopping apps have experienced immense popularity in Malaysia (Metilda & Shamini, 2022). Based on monthly active user statistics from both Apple and Android phones, the five most popular mobile payment apps that have gained significant popularity in Malaysia are GrabPay, Touch n' Go, eWallet, BoostPay, Fave, and BigPay (Chew, 2019). The growing acceptance of these emerging platforms signifies a degree of technological convergence within Malaysia's digital ecosystem, creating favourable conditions for the successful implementation and commercialisation of similar platforms (Lai & Scheela, 2018).

Fintech, which stands for financial technology, has gained significant traction in recent years due to advancements in digital technology and the need for more convenient and efficient financial services. Fintech brings financial services to more people by leveraging digital technology and eliminating geographical barriers. Through mobile banking, online platforms, and digital wallets, individuals can access financial services conveniently, even without a physical presence of a bank branch (Tenorio, 2021). On the other hand, fintech has disrupted traditional banking models by reducing overhead costs associated with brick-and-mortar branches. As a result, many fintech companies offer financial services at lower fees and reduced transaction costs. This cost-effectiveness benefits both consumers and businesses (GDS Modellica, 2022). Besides, fintech solutions have significantly improved the convenience of financial transactions (GDS Modellica, 2022). Users can perform banking activities such as transferring funds, paying bills, and managing investments from the comfort of their homes or on the go through mobile apps. However, like any other industry, fintech also has its disadvantages. One of the disadvantages of fintech usage in Malaysia is the potential increase in cybersecurity risks. With the adoption of digital financial services and online transactions, there is an elevated risk of cyber threats, such as hacking, data breaches, and identity theft.

Fintech usage has greatly influenced how people manage their finances and make financial decisions. Through the adoption of mobile payment apps, digital wallets, and online investment platforms, fintech has brought about significant changes in financial behaviour. According to a survey conducted by Business Insider (2020), 67% of Malaysian individuals choose to use cashless payments over cash payments. This adoption of digital payments has reduced reliance on cash and traditional banking methods, providing convenience and efficiency in financial transactions. Besides, fintech apps often offer features that help users track their expenses and manage their money more effectively. By having a clearer picture of their spending patterns, individuals can make more informed decisions about their purchases and develop better spending habits (ElHaffar et al., 2020; Testa et al., 2020). Fintech tools have empowered individuals to take charge of their financial planning and management. Budgeting apps, expense trackers, and financial management platforms allow users to set financial goals, track their progress, and manage their finances more effectively (Bagwell et al., 2014). Having confidence in the ability to manage one’s financial situation is key to improving financial well-being (Fernandes et al., 2014; Letkiewicz et al., 2016). It empowers people to take control of their finances, make informed decisions, alleviate stress, and develop

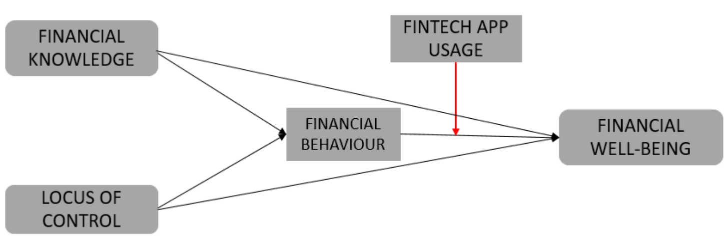

Figure 2. Conceptual framework

resilience. This self-assurance serves as a motivation to cultivate healthy financial habits and strive towards a more prosperous future.

H7. Fintech App Usage moderates financial behaviour towards financial well-being.

Ⅲ. Methodology

A. Data Sampling

A cross-sectional study was performed to collect the data to achieve the objective of the research. A multistage sampling approach was utilised to select respondents from B40 households across Malaysia. The researchers obtained respondent information by utilising the National Household Sampling Frame (NHSF) and following the guidance of the Department of Statistics Malaysia (DOSM). After dividing Malaysia into five zones, one state was chosen at random from each zone through a ballot. As a result, Pulau Pinang was selected for the North zone, Johor for the South zone, Pahang for the East zone, Selangor for the West zone, and Sabah for the East Malaysia zone. 400 respondents represented each state, contributing a total of 2,000 respondents, by which only 1,948 data were accepted after cleaning the missing values and straight-lining errors. Referring to G-power analysis, with an alpha value of 0.05 and a magnitude power of 0.95, the appropriate number of samples to run a path analysis is 210 respondents. Having a big sample size is not a problem as Najib (1999) emphasised that bigger sample size will strengthen the reliability and validity. The data collection process involved the use of self-administered questionnaires, allowing respondents to complete the task without interruption from researchers. The questionnaire was designed to be completed within approximately 20 minutes, and once respondents finished answering the questions, they returned the questionnaire. The researchers conducted descriptive analysis and path analysis to examine the demographics of the respondents and assess the proposed hypotheses. Structural Equation Modelling (SEM) using Partial Least Squares (PLS-SEM) was employed to analyse the relationships among various variables in the study. This approach allowed for a comprehensive examination of the interconnections between the variables. The primary objective of PLS-SEM is to assess the effectiveness of a proposed theoretical model in estimating the covariance matrix for a sample dataset and its ability to explain the variance in endogenous variables. PLS-SEM is considered the most suitable analysis approach for examining direct and indirect paths, as it allows for an investigation of the relationships between independent, mediator, moderator, and dependent variables (Hair & Ringle, 2011). Additionally, this research framework incorporates new variables into existing theories. Therefore, based on the studies by Henseler et al. (2009) and Hair et al. (2013), PLS-SEM is deemed the most appropriate analysis approach for conducting the current study.

B. Data Measurement

The questionnaire consists of demographic information and the socioeconomic backgrounds of the respondents. There are further questions on financial knowledge, locus of control, financial behaviour, fintech app usage and financial well-being. To gauge the level of financial knowledge among respondents, a set of ten true or false questions was used. The questions were designed to assess various domains of financial knowledge, including savings, investment, general financial knowledge, credit cards, and financial products. The scale was adapted from a Malaysian-based study conducted by Sabri et al. (2006). A higher score, indicating a greater number of correct answers, reflects a higher level of financial knowledge. The measurement of locus of control used in this study was based on the items developed by Sumarwan and Hira (1993). It consisted of both internal and external locus of control items, which assess individuals' beliefs regarding their control over situations. The respondents were asked to rate their agreement with the provided statements on a four-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (4). The internal consistency of the scale was evaluated using Cronbach's Alpha, and a value of 0.83 was reported, indicating good reliability. To assess the financial behaviour of the B40 group, statements from the financial behaviour item developed by Kapoor et al. (2001) were utilised. The scale comprised 10 statements that aimed to capture various aspects of financial behaviour. The reliability of the scale was evaluated using Cronbach's Alpha, and a value of 0.781 was reported, indicating a satisfactory level of internal consistency.

To assess the financial well-being (FWB) of B40 households, eight items were adapted from a questionnaire specifically designed for the Malaysian context. The questionnaire, known as the Malaysian Financial Well-Being Scale (MFWBS), was originally developed by Garman and Jariah and later utilised in a study conducted by Mokhtar and Husniyah in 2017. The scale measures various aspects of FWB, including overall financial satisfaction, ability to cover daily expenses, financial planning, recent financial satisfaction, and financial sustainability. The scale consists of eight positively-worded items, which are scored on a 4-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" (1 to 4). A higher total score indicates a higher level of FWB among the respondents. During the validation process of an instrument, the content and face validation primarily concentrate on the relevance of the addressed material, the accuracy of the questionnaire's wording, and the adequacy of the sampled items for measuring the construct (Ary et al., 2010). In the present study, two subject matter experts, who were selected from ethics committee boards, were involved as reviewing experts. Their role was to assess the content validity of the items, specifically evaluating their clarity and readability.

Ⅳ. Results and Discussion

A. Profile of Respondents

Table 1 displayed the demographic characteristics of the respondents in this study. The age group of 41-60 years old constituted the largest proportion of participants (45.32%), and there was a greater number of males (67.8%) compared to females. In the present study, a significant proportion of the participants are Malay, constituting approximately 69.8% of the total sample. This indicates that the majority of the participants belonged to the Malay ethnic group. Furthermore, a substantial portion of the participants, accounting for 69.7% of the sample, reported being married. Furthermore, a detailed analysis reveals that a significant proportion of the participants, specifically 77.24% of them, had completed their secondary education. This finding suggests that the majority of the participants had attained at least a secondary school education level. In terms of income, the data shows that over 54.4% have income less than RM2000 and only 0.3% respondents have income of more than RM6001. This indicates that a considerable proportion of the participants had relatively low-income levels but a negligible number of participants had higher income levels in comparison to the rest of the sample.

Table 1. Descriptive Analysis

Variable	Frequency	Percentage (%)
Age Group		
< 20	12	14.76%
20-40	737	37.8%
41-60	883	45.32%
61-80	305	1.56%
>81	11	0.56%
Gender		
Male	1320	67.8%
Female	628	32.2%
Ethnicity		
Malay	1360	69.8%
Chinese	157	8.1%
Indian	162	8.3%
Bumiputera Sarawak	68	3.5%
Bumiputera Sabah	124	6.4%
Others	6	4.1%
Marital Status		
Single	298	15.29%
Married	1358	69.7%
Divorced	249	12.8%
Widow/ Widower	43	2.2%
Level of Education		
Secondary Education	1463	77.24%
Tertiary Education	431	22.76%
Income		
No Income	306	15.7%
Less than RM2,000	1060	54.4%
RM2,001-RM4,000	529	27.2.%
RM4,001-RM6,000	49	2.5%
Above RM6,001	4	0.3%

B. Measurement Model

The purpose of the measurement model is to evaluate the reliability and validity of the items. In a reflective measurement model, there are three criteria that should be considered: internal consistency reliability, convergent validity, and discriminant validity. Reliability is evaluated using measures such as Cronbach's Alpha (CA) and composite reliability (CR). The CA and CR results for Locus of Control (LOC) (0.778, 0.95), Financial Behaviour (FB) (0.856, 0.89) and Financial Well-Being (FWB) (0.891, 0.91), Financial Knowledge (FK) (1.00, 1.00) and Financial Apps Usage (FAU) (1.00, 1.00) are portrayed in Table 2. The CR and CA values reported fall within the acceptable range as they exceed 0.7, which is in line with the criteria established by Hair and Ringle (2011). In addition, to establish convergent validity, the researchers calculated the AVE values. The AVE values were 1.000 for FK, 0.44 for LOC, 0.46 for FB, and 0.57 for FWB. As suggested by Henseler, Hubona, and Ray (2016), it is considered acceptable that all AVE values exceeded the threshold of 0.5. To evaluate discriminant validity, the heterotrait-monotrait ratio (HTMT) was employed as a measurement tool, as proposed by Fornell and Larcker (1981). Based on the results presented in Table 3, the HTMT values demonstrated that all values exceeded the threshold of 0.85, as proposed by Kline (2011). These findings indicate that the reflective measurement model successfully satisfies the criteria for discriminant validity.

Table 2. Measurement Model

Constructs	Loadings	α	CR	AVE
Locus of Control (LOC)				
G2	0.678			
G3	0.689			
G4	0.685			
G5	0.693	0.778	0.95	0.44
G6	0.596			
G7	0.627			
G8	0.572			
Financial Behaviour (FB)				
F1	0.533			
F2	0.690			
F3	0.726			
F4	0.734			
F5	0.728	0.856	0.89	0.46
F6	0.703			
F7	0.691			
F9	0.593			
F10	0.700			
Financial Well-Being (FWB)				
VH1	0.670			
VH2	0.778			
VH3	0.674			
VH4	0.818	0.891	0.91	0.57
VH5	0.797			
VH6	0.762			
VH7	0.751			
VH8	0.762			
Financial Knowledge (FK)				
FK1	1.00	1.00		
Financial Apps Usage (FAU)				
FAU 1	1.00	1.00		

Note: Average Variance Extracted (AVE); Cronbach's Alpha (CA); Composite Reliability (CR)

Table 3. Heterotrait-Monotrait ratio (HTMT)

	Heterotrait-Monotrait Ratio (HTMT)				
Construct	FB	FK	FWB	FAU	LOC
FB					
FK	0.011				
FWB	0.904	0.010			
FAU	0.018	0.001	0.016		
LOC	0.857	0.010	0.900	0.018	

Note: Financial Behaviour (FB); Financial Knowledge (FK); Financial Well-Being (FWB); Financial Apps Usage (FAU); Locus of Control (LOC)

C. Assessment of Structural Model

After completing the measurement model, an evaluation of the structural model was conducted. The structural model depicts the underlying concept of the path model. Through the evaluation of the structural model, researchers can assess the extent to which the empirical data supports the concepts proposed in the research framework. The purpose of the structural model is to examine the relationships among the constructs as suggested in the research model. The evaluation of the structural model in PLS-SEM involves several key criteria: checking for collinearity issues (Step 1), evaluating the significance of path coefficients (Step 2), examining the R^2 value (Step 3), assessing the effect size (f^2) (Step 4), and evaluating the predictive relevance (Q^2) (Step 5). To evaluate the structural model in this study, 5000 bootstraps were utilised. Table 4 presents the VIF (Variance Inflation Factor) values for all constructs in the structural model. The results indicated that there were no collinearity issues within the model, as all VIF values were 1.00, which is below the threshold of <5 as recommended by Hair et al. (2017). The significance of the path coefficients for all constructs in the current study was displayed in Table 5. The results portrayed that Financial Knowledge (FK) and Locus of Control (LOC) contributed to Financial Behaviour (FB) positively with (β=0.019, $p<0.05$) and (β=0.857, $p<0.00$) respectively. Besides that, Financial Behaviour (FB) positively contributed Financial Well-Being (FWB) (β=0.304, $p<0.00$). Nevertheless, the findings showed that Financial Apps Usage (FAU) has a negative significant effect on Financial Well-Being (FWB) with β= -0.037, $p<0.05$. The results in Table 6 also showed that the R^2 value for Financial Behaviour (FB) is 0.735, suggesting that 73.5% of the variance in Financial Behaviour (FB) was explained by Financial Knowledge (FK) and Locus of Control (LOC). Meanwhile, for Financial Well-Being (FWB), the R^2 value is 0.818 which stated that 81.8% was explained by Financial Behaviour (FB) and Fintech App Usage (FAU). The results of effect size indicate that Financial Knowledge (FK) has no effect size on Financial Vulnerability (FV). Besides, Financial Apps Usage (FAU) also showed a similar result to Financial Well-Being (FWB). However, Locus of Control (LOC) showed a large effect size on Financial Behaviour (FB) with a value of 2.771 while Financial Behaviour (FB) also showed a large effect size on Financial Well-Being (FWB) with a value of 4.482. The Q^2 of Financial Behaviour (FB) and Financial Well-Being (FWB) are 0.710 and 0.785 which signifies that the research model has a good predictive relevance, with Q^2 values larger than zero. The mediating results displayed in Table 7 indicate that Financial Behaviour (FB) significantly mediates the relationship between Financial Knowledge (FK) and Locus of Control (LOC) towards Financial Well-Being (FWB) with β= 0.775 and β=-0.017, $p<0.05$ respectively. The indirect effect of 0.775, 95% Boot CI: [LL= 0.433, UL = 1.000] shall not straddle a zero in between indicating that Financial Behaviour (FB) positively mediates the relationship between Financial Knowledge (FK) and Financial Well-Being (FWB). The indirect effect of 0.017, 95% Boot CI: [LL= 0.004, UL = 0.030] shall not straddle a zero in between indicating that Financial Behaviour (FB) positively mediates the relationship between Locus of Control (LOC) and Financial Well-Being (FWB). For moderating effect, Financial Behaviour (FB) showed a significant difference between Financial Apps Usage (FAU) and Financial Well-Being (FWB) (Table 8). The results indicate that Financial Behaviour (FB) negatively moderates the relationship between Financial Apps Usage (FAU) and Financial Well-Being (FWB). The R^2 value for Financial Behaviour (FB) is 0.818, suggesting that 81.8% of the variance in Financial Behaviour (FB) was explained by Financial Knowledge (FK) and the Locus of Control moderated by Financial Apps Usage (FAU). The results of effect size indicate that Financial Behaviour (FB) and Financial Apps Usage (FAU) have no effect size on Financial Well-Being (FWB).

Table 4. Variance Inflation Factor (VIF) of all Constructs

Exogenous Variables	FB	FWB
FB		1.00
FK	1.00	
FAU		1.00
LOC	1.00	

Note: Financial Behaviour (FB); Financial Knowledge (FK); Financial Well-Being (FWB); Financial Apps Usage (FAU); Locus of Control (LOC)

Table 5. Path Coefficient Result (Direct Effect)

Relationship	Original Sample	Sample Mean	Standard Deviation	t-value	p-value	Decision
LOCàFB	0.857	0.852	0.088	9.735	0.000	Significant
FKàFB	0.019	0.019	0.009	2.023	0.043	Significant
FBà FWB	0.304	0.901	0.071	12.771	0.000	Significant
FAUà FWB	-0.037	-0.037	0.015	2.450	0.014	Significant

Note: Financial Behaviour (FB); Financial Knowledge (FK); Financial Well-Being (FWB); Financial Apps Usage (FAU); Locus of Control (LOC)

Table 6. Indices of Structural Model

Relationship	Coefficient Determination (R^2)	Effect size (f^2)	Predictive relevance (Q^2)
LOCàFB	0.735	2.771	0.710
FKàFB		0.000	
FBà FWB	0.818	4.483	0.785
FAUà FWB		0.000	

Note: Financial Behaviour (FB); Financial Knowledge (FK); Financial Well-Being (FWB); Financial Apps Usage (FAU); Locus of Control (LOC)

Table 7. Mediating Effect Result (Indirect Effect)

Path	OS	SE	SD	95% Bias Corrected Confidence Interval		t- value	p- value	Mediation
				LL	UL			
FKàFBàFWB	0.775	0.773	0.130	0.433	1.000	5.384	0.000	Partial mediation
LOCàFBàFWB	0.017	0.017	0.007	0.004	0.030	2.430	0.013	Partial mediation

Note: Financial Behaviour (FB); Financial Knowledge (FK); Financial Well-Being (FWB); Locus of Control (LOC); Original Sample (OS); Sample Mean (SM); Standard Deviation (SD)

Table 8. Moderating Effect Result

Relationship	Beta	Standard Error	t-value	p-value	Decision	Coefficient Determination (R^2)	Effect size (f^2)
FB* FAUàFWB	-0.516	0.130	2.717	0.007	Significant	0.818	4.482

Note: Financial Apps Usage (FAU); Financial Behaviour (FB); Financial Well-Being (FWB)

V. Discussion

The findings of the study provide insights into the financial well-being of low-income households in Malaysia (B40). This research examined the main factors contributing to the financial well-being (FWB) of these households, which included financial behaviour (FB) and fintech app usage (FAU) as independent variables. Furthermore, this study also examined the relationship between locus of control (LOC) and financial knowledge (FK) with financial behaviour (FB). The results showed that financial knowledge (FK) and locus of control (LOC) were found to have a positive influence on financial behaviour (FB). These findings are supported by Mien and Thao (2015) and Baptista and Dewi (2021). In contrast, the study found that financial behaviour (FB) positively influenced financial well-being (FWB), whereas the usage of fintech apps (FAU) had a negative impact on the financial well-being (FWB) of the urban poor community.

Locus of control (LOC) is found to be the most influencing factor compared to financial knowledge (FK) in predicting financial behaviour (FB) of the low-income group in Malaysia. The study suggests that individuals with a stronger internal locus of control, who believe they have control over their financial outcomes, are more likely to exhibit positive financial behaviours. On the other hand, financial knowledge alone may not be sufficient to drive significant changes in financial behaviour if individuals do not perceive themselves as having control over their financial situations. Due to the ever-increasing cost of living, those who fall into the B40 income bracket and who live in urban areas, frequently have trouble maintaining a quality of living that is considered to be satisfactory. They have a variety of difficulties in dealing with the costs associated with housing, healthcare, education, transportation, and the essentials of daily life. Because of this, a considerable percentage of their meagre income may be eaten up by these expenses, leaving them with little opportunity for savings or financial stability. The inability to save money for unexpected expenses, retirement, or future investments is one of the top problems of individuals in the B40 income bracket. The study conducted by Khazanah Research Institute in 2016 revealed a concerning trend among B40 households in Malaysia, which shows that these households were found to spend approximately 95 percent of their income on consumption items listed in the household expenditure survey.

As a result of the exorbitant cost of living in urban areas, a significant number of individuals have chosen to relocate and seek opportunities in suburban and rural areas. The high cost of living in urban areas has driven many individuals to seek more affordable living conditions in suburban and rural areas. These regions often offer lower housing costs, reduced transportation expenses, and a relatively slower pace of life. Individuals are attracted to the prospect of a lower cost of living and the potential to stretch their income further. This trend sheds light on the financial challenges faced by individuals residing in this region. Surprisingly, Kedah has emerged as the third state in Malaysia with the highest bankruptcy rates (Department of Insolvency, 2023). The prevalence of bankruptcy cases in Kedah highlights the underlying financial difficulties faced by its residents. While Kedah may be perceived as a less bustling state compared to urban centres, the financial burdens faced by its population are evident. The reasons for bankruptcy can vary, including mounting debts, financial mismanagement, job loss, or business failure. These factors contribute to the financial distress experienced by individuals, leading to the declaration of bankruptcy. The higher bankruptcy rates in Kedah indicate the need for effective financial management, access to financial education, and support systems to help individuals navigate through financial challenges. It is crucial for individuals in Kedah and other similar regions to have access to resources and programmes that promote financial literacy, debt management, and entrepreneurship.

The presence of instalment payment options within various apps, such as Shopee, and dedicated instalment payment platforms like ShopBack and Atomee, have created an environment that fosters impulsive buying behaviour. These instalment payment systems allow individuals to easily purchase items they desire, rather than focusing on what they truly need. This convenience and accessibility can lead to increased spending and potentially exacerbate financial difficulties for B40 individuals. It is essential to recognise that while instalment payment options can provide short-term convenience, they can also perpetuate a cycle of debt if not used responsibly. B40 individuals, who may already face financial constraints, can be particularly vulnerable to the allure of instalment plans. Without proper financial education and control, they may become trapped in a cycle of accumulating debt, which can hinder their financial well-being in the long run.

In terms of mediation, the results showed that financial behaviour (FB) mediates the relationship between financial knowledge (FK) and locus of control (LOC) towards financial well-being (FWB). The study found a significant positive relationship between financial behaviour (FB) and financial well-being (FWB) among the poor urban community in Malaysia. This aligns with a previous research by Zaimah (2019) that also reported a positive association between financial behaviour (FB) and financial well-being (FWB). These findings suggest that individuals who exhibit positive financial behaviours such as budgeting, saving, and responsible spending, are more likely to experience higher levels of financial well-being. By engaging in prudent financial practices, individuals can enhance their financial security and overall well-being. As for moderation analysis, the usage of fintech apps (FAU) has a significant and negative influence on moderating the relationship of financial behaviour (FB) and financial well-being (FWB) of the poor urban community in Malaysia. It is important to recognise that the desire to have a stylish lifestyle and display an image of wealth often serves as a driving factor in purchasing expensive items such as luxury cars, stylish homes, or high-end electronic devices. B40 individuals, who may face financial constraints, may feel compelled to buy these items through debt in order to fit into the ongoing trend of wealth. One of the influencing factors behind this tendency is the influence of social media and consumer culture which involves the mindset of "fitting in" or "conforming". The presence of social media showcases glamorous and often unrealistic portrayals of life, which can trigger individuals' desires to achieve a similar lifestyle. Facts indicate that ownership of expensive electronic devices such as iPhones and other luxury products has increased among the low-income segment. According to a report from Kantar Worldpanel ComTech, in 2020, 28% of iPhone users in Malaysia came from low-income households. This suggests a tendency to shop based on desires and lifestyle, even if it may not align with an individual's financial situation. However, it is important to understand that fulfilling these desires through debt and purchasing expensive items does not directly contribute to long-term financial well-being. Overreliance on debt to sustain an expensive lifestyle can lead to unmanageable debts and financial difficulties in the future.

Using a financial technology app can lead to excessive spending, which can be caused by a number of different circumstances. The convenience of use that these apps give is a primary factor that contributes to impulsive purchasing behaviour. Users are able to make purchases with only a few clicks thanks to quicker checkout processes, saved payment information, and personalised recommendations. Because of this, it is extremely convenient for users to engage in impulsive buying without fully understanding the repercussions of their actions. Studies have shown that those who use shopping apps are more likely to make impulse buys. People may be tempted to make rash decisions about their finances and long-term goals due to the availability and ease of use of these apps, as well as the persuasive marketing strategies that accompany them. Do et al. (2020) and Chopdar et al. (2022), for example, found that the ease and availability of mobile shopping apps relate to users' propensity for impulsive purchases. Overusing the convenience of online purchasing might put unnecessary strain on a person's budget. Overspending, credit card debt, and other financial problems are all possibilities when it is so simple to shop with a smartphone app. Their economic security may be jeopardised as a result of this. In line with this research findings, it has been shown that individuals who have fewer fintech apps tend to have better control over their financial behaviour, leading to improved financial well-being. This emphasises the significance of combining financial knowledge and locus of control to shape responsible financial behaviour, ultimately contributing to enhanced financial well-being.

Ⅵ. Conclusion

Individuals who possess a strong grasp of personal finance and money management are more inclined to make prudent financial choices, exercise self-control, and avoid excessive spending. Financial education plays a critical role in providing individuals with the knowledge and skills required to navigate the online shopping landscape responsibly. Research has demonstrated that financial literacy positively impacts financial behaviour. According to a study conducted by the OECD in 2017, individuals with higher levels of financial literacy are more likely to compare prices, plan their purchases, and resist impulsive buying tendencies (Khoirunnisaa & Johan, 2020). They are also more inclined to set financial goals, create budgets, and save for the future. Furthermore, a study also found that financial education programmes have a positive influence on individuals' financial behaviour, leading to improved financial well-being and reduced financial stress (Warmath & Zimmerman, 2019). Participants in financial education programmes exhibited greater knowledge about budgeting, saving, and managing debt, which resulted in better financial decision-making and improved financial outcomes.

In Malaysia, efforts have been made to enhance financial literacy among the population. The National Strategy for Financial Literacy 2019-2023, initiated by Bank Negara Malaysia, aims to improve financial literacy levels among Malaysians and empower individuals to make informed financial decisions. Various financial education initiatives and programmes have been implemented, targeting different segments of the population, including young adults, low-income individuals, and entrepreneurs. However, the level of financial literacy among Malaysians remains relatively low. This raises questions about the effectiveness of the mediums used, the extent to which programmes have been implemented, and whether individuals are more influenced by influencers on platforms like Instagram and TikTok when it comes to shaping their financial behaviour.

The government and NGOs need to implement new initiatives. One example could be organising financial knowledge courses in every company, regardless of whether they are private or government-owned, and making them mandatory for all employees. By making these courses compulsory, individuals would have the opportunity to acquire the necessary financial knowledge and skills to manage their finances wisely. Additionally, financial literacy programmes should be presented in a more creative and engaging manner to capture the interest of the public. Apart from financial literacy programmes, the government should also promote responsible financial practices through stricter regulations regarding advertisements and promotions related to financial products and services. This would help reduce the negative influence of advertisements that may encourage impulsive behaviour or uncontrolled spending. Furthermore, a closer collaboration between the government, financial institutions, and influencers on social media can be an effective strategy to strengthen the message of financial literacy. By leveraging the popularity and reach of influencers on platforms such as Instagram and TikTok, messages about the importance of sound financial management can be delivered more extensively to the public.

In order to improve financial well-being among the B40 individuals, it is crucial to make financial education materials readily available and easily understandable. These materials should be accessible through various mediums such as websites, mobile applications, and community centres, ensuring that individuals from different backgrounds can easily access them. Additionally, when designing educational content, it is important to avoid programmes that promise unrealistic outcomes. Instead, the focus should be on providing practical knowledge and skills that individuals can apply in their real-life financial situations. By recognising the unique challenges and perspectives of different communities, educational content can be tailored to address specific needs and reflect the realities and aspirations of the target audience. By setting standards for transparency, affordability, and responsible lending, individuals can make informed decisions when it comes to borrowing and managing their finances. In summary, promoting financial literacy and responsible financial behaviour requires a multi-faceted approach involving accessible educational materials, collaboration among stakeholders, and a focus on practical knowledge and skills. By fostering a supportive ecosystem and equipping individuals with the necessary tools, B40 individuals can make informed financial decisions and improve their financial well-being.

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References

Abid, A., & Shafiai, M. H. M. (2018). Determinants of household financial vulnerability in Malaysia and its effect on low-income groups. Journal of Emerging Economies and Islamic Research, 6(1), 32-43.

Achar, S. (2021). An Overview of Environmental Scalability and Security in Hybrid Cloud Infrastructure Designs. Asia Pacific Journal of Energy and Environment, 8(2), 39-46.

Alwi, S., Alpandi, R. M., Salleh, M. N. M., Basir, I. N & Md. Ariff, F. (2019). An empirical study on the customer satisfaction on Fintech mobile payment services in Malaysia. International Journal of Advanced Science and Technology, 28(16), 390-400.

Anthony, M., Sabri, M. F., Wijekoon, R., Abdul, H., Rahim, H. A., Othman, M. A., & Yusoff, I. S. M. (2021). The influence of financial socialization, financial behavior, locus of control and financial stress on young adults' financial vulnerability. Social Sciences, 11(19), 289-309.

Arifin, A. Z., & Anastasia, I. (2017). The affect of financial atittude, locus of control and income on financial behavior. In International conference on economic, business, and accounting (Vol. 1, No. 1, pp. 92-92).

Ary, D., Jacobs, L. C., & Sorensen, C. (2010). Introduction to research in education (8th ed.). California: Thomson Wadsworth.

Bagwell, S., Hestbaek, C., Harries, E., & Kail, A. (2014). Financial capability outcome frameworks. http://www. thinknpc. org/publications/financial-capabilityoutcome-frameworks.

Baptista, S. M. J., & Dewi, A. S. (2021). The influence of financial attitude, financial literacy, and locus of control on financial management behavior. International Journal of Social Science and Business, 5(1), 93-98.

Bartholomae, S., & Fox, J. J. (2021). Overview of financial education. In The Routledge Handbook of Financial Literacy (pp. 173-186). Routledge.

Brown, S., & Taylor, K. (2014). Household finances and the 'Big Five'personality traits. Journal of Economic Psychology, 45, 197-212.

Busines Insider (2020, January). Generation Z News, Latest characteristics, research, and facts. https://www.businessinsider.com/generation-z

Capgemini (2019, September). WORLD PAYMENTS REPORT 2019. https://www.capgemini.com/news/press-releases/world-payments-report-2019/

Chatterjee, S., Fan, L., Jacobs, B., & Haas, R. (2017). Risk tolerance and goals-based savings behavior of households: The role of financial literacy. Journal of Personal Finance, Forthcoming.

Chew, J. (2019, March). Which E-wallet App Do Malaysians Use Frequently? https://iprice.my/trends/insights/best-ewallet-malaysia

Chopdar, P. K., Paul, J., Korfiatis, N., & Lytras, M. D. (2022). Examining the role of consumer impulsiveness in multiple app usage behavior among mobile shoppers. Journal of Business Research, 140, 657-669.

Churchill, S. A., & Smyth, R. (2021). Locus of control and energy poverty. Energy economics, 104, 105648.

Cumming, D. J., Johan, S., & Reardon, R. (2023). Global Fintech Trends and their Impact on International Business: A Review. Multinational Business Review.

Dapp, T., Slomka, L., AG, D. B., & Hoffmann, R. (2014). Fintech–The digital (r) evolution in the financial sector. Deutsche Bank Research, 11, 1-39.

Dari, K., Hossain, M., & Raman, M. (2021). Financial behavior, socialization and vulnerability among young adults: A mediation model. International Journal of Adolescence and Youth, 26(1), 280-291. https://doi.org/10.1080/02673843.2020.1861021

Daud, S. N. M., Marzuki, A., Ahmad, N., & Kefeli, Z. (2019). Financial vulnerability and its determinants: Survey evidence from Malaysian households. Emerging Markets Finance and Trade, 55(9), 1991-2003.

Deacon, R, E., & Firebaugh, F, M, (1998). Family Resource Management, Principles and Applications. Boston, MA: Allyn & Bacon, Inc

Department of Insolvency (2023). Bankruptcy Statistic 2023. Department of Insolvency Malaysia, Putrajaya.

Do, H. N., Shih, W., & Ha, Q. A. (2020). Effects of mobile augmented reality apps on impulse buying behavior: An investigation in the tourism field. Heliyon, 6(8), e04667.

ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. Journal of Cleaner Production, 275, 122556.

Engels, C., Kumar, K., & Philip, D. (2020). Financial literacy and fraud detection. The European Journal of Finance, 26(4-5), 420-442.

Ernst & Young. (2019). Global FinTech Adoption Index 2019.

Fei, C. K., Sabri, M. F., Mohamed, N. A., Wijekoon, R., & Majid, A. Z. A. (2020). Determinants of financial vulnerability among young employees in Malaysia. Journal of Critical Reviews, 7(15), 3097-3107.

Feige, S., & Yen, J. (2021). The making of financial subjects: A phenomenological study of student debt. Theory & Psychology, 31(4), 611-631.

Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. Management Science, 60(8), 1861-1883.

Furnham, A., & Cheng, H. (2017). Socio-demographic indicators, intelligence, and locus of control as predictors of adult financial well-being. Journal of Intelligence, 5(2), 11.

Galvin, B. M., Randel, A. E., Collins, B. J., & Johnson, R. E. (2018). Changing the focus of locus (of control): A targeted review of the locus of control literature and agenda for future research. Journal of Organizational Behavior, 39(7), 820-833.

GDS Modellica (2022, Februaury). https://www.gdslink.com/en/7-benefits-of-fintech-for-consumers/

Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. International Journal of Consumer Studies, 45(1), 80-105.

Grable, J. E., Archuleta, K. L., Ford, M. R., Kruger, M., Gale, J., & Goetz, J. (2020). The moderating effect of generalized anxiety and financial knowledge on financial management behavior. Contemporary Family Therapy, 42, 15-24.

Hair, J. F., & Ringle, C. M. (2011). The use of partial least squares (PLS) to address marketing management topics. Journal of Marketing Theory and Practice, 19(2), 135-138.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Hampson, D. P., Gong, S., & Xie, Y. (2021). How consumer confidence affects price conscious behavior: The roles of financial vulnerability and locus of control. Journal of Business Research, 132, 693-704.

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. Industrial Management & Data Systems, 116 (1), 2-20.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009), "The use of partial least squares path modeling in international marketing", Sinkovics, R.R. and Ghauri, P.N. (Ed.) New Challenges to International Marketing (Advances in International Marketing, Vol. 20), Emerald Group Publishing Limited, Bingley, pp. 277-319.

Hira, T. K. (2012). Promoting sustainable financial behaviour: Implications for education and research. International Journal of Consumer Studies, 36(5), 502-507.

Huston, S. J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316. International Monetary Fund (2020, February). Malaysia: Selected Issues. https://www.imf.org/en/Publications/CR/Issues/2020/02/27/Malaysia-Selected-Issues-49106

Jump$tart Coalition. (2007). National Standards in K-12 Personal Finance Education. http://www.jumpstart.org/guide.html

Kapoor, Jack R.; Dlabay, Les R.; Hughes, Robert J. 2001. Personal finance. Singapore, McGraw-Hill Higher Education.

Khazanah Research Institute (2016). Lower-income households in Malaysia left with $25 every month after expenses: Survey | Asiaone Online. https://www.krinstitute.org/Read-@-Lower-income_households_in_Malaysia_left_with_$25_every_month_after_expenses-;_Survey_%7C__Asiaone_Online.aspx

Khoirunnisaa, J., & Johan, I. R. (2020). The effects of financial literacy and self-control towards financial behavior among high school students in Bogor. Journal of Consumer Sciences, 5(2), 73-86.

Klapper, L., Lusardi, A., & van Oudheusden, P. (2015). Financial Literacy around the World: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey.

Koskelainen, T., Kalmi, P., Scornavacca, E., & Vartiainen, T. (2023). Financial literacy in the digital age—A research agenda. Journal of Consumer Affairs, 57(1), 507-528.

Kresnayana, I. G. A. B., Putra, I. G. C., & Sunarwijaya, I. K. (2020). Sistem Pengendalian Intern, Locus Of Control, Partisipasi Anggaran, Dan Kinerja Lembaga Perkreditan Desa. Kumpulan Hasil Riset Mahasiswa Akuntansi (KHARISMA), 2(2).

Kumar, S., Rao, S., Goyal, K., & Goyal, N. (2022). Journal of Behavioral and Experimental Finance: A bibliometric overview. Journal of Behavioral and Experimental Finance, 100652.

Lai, P. C., & Scheela, W. (2018). Convergence of technology in the E-commerce world and venture capital landscape in South East Asia. In Global Entrepreneurship and New Venture Creation in the Sharing Economy (pp. 149-168). IGI Global.

Lea, S. E., Webley, P., & Walker, C. M. (1995). Psychological factors in consumer debt: Money management, economic socialization, and credit use. Journal of economic psychology, 16(4), 681-701.

LeBaron, A. B., & Kelley, H. H. (2021). Financial socialization: A decade in review. Journal of family and economic issues, 42(Suppl 1), 195-206.

Letkiewicz, J., Robinson, C., & Domian, D. (2016). Behavioral and wealth considerations for seeking professional financial planning help. Financial Services Review, 25(2), 105‑126

Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: a meta-analysis. Journal of Personality And Social Psychology, 102(3), 592.

Magli, A. S., Sabri, M. F., Rahim, H. A., Othman, M., Mahzan, N. S. A., Satar, N. M., & Janor, H. (2021). Mediation effect of financial behaviour on financial vulnerability among B40 households. Malaysian Journal Consumer Family Economics, 21, 191-217.

Mansor, M., Sabri, M. F., Mansur, M., Ithnin, M., Magli, A. S., Husniyah, A. R., ... & Janor, H. (2022). Analysing the Predictors of Financial Stress and Financial Well-Being among the Bottom 40 Percent (B40) Households in Malaysia. International Journal of Environmental Research and Public Health, 19(19), 12490.

Metilda, M., & Shamini, S. D. (2022). The Impact of Fintech on Customer Satisfaction and Its Intention to Use: an Empirical Study. Journal of Production, Operations Management and Economics (JPOME) ISSN 2799-1008, 2(06), 46-59.

Mien, N. T. N., & Thao, T. P. (2015, July). Factors affecting personal financial management behaviors: Evidence from Vietnam. In Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP15Vietnam Conference) (Vol. 10, No. 5, pp. 1-16).

Mimura, Y. (2014). The relationship between life satisfaction among wives and financial preparedness of households in Japan. Journal of Family and Economic Issues, 35, 532-541.

Mokhtar, N., & Husniyah, A. R. (2017). Determinants of financial well-being among public employees in Putrajaya, Malaysia. Pertanika Journal of Social Sciences and Humanities, 25(3), 1241-1260.

Munisamy, A., Sahid, S., & Hussin, M. (2022). A Financial Literacy Model of Malaysian B40 Households: The Case of Financial Well-Being, Education Level and Socioeconomic Status. In Proceedings (Vol. 82, No. 1, p. 64). MDPI.

Mutlu, Ü., & Özer, G. (2021). The moderator effect of financial literacy on the relationship between locus of control and financial behavior. Kybernetes, 51(3), 1114-1126.

Najib (1999). Penyelidikan pendidikan Skudai. Universiti Teknologi Malaysia

O'Connor, G. E., & Kabadayi, S. (2020). Examining antecedents of health insurance literacy: The role of locus of control, cognitive style, and financial knowledge. Journal of Consumer Affairs, 54(1), 227-260.

OECD (2016). “OECD/INFE International Survey of Adult Financial Literacy Competencies.” OECD, Paris. www.oecd.org/finance/OECD-INFE-Internationa l-Survey-of-Adult-Financial-Literacy-Competen c ies.pdf

OECD. (2017). PISA 2015 Results (Volume IV): Students' Financial Literacy. Paris: OECD Publishing.

Organization for Economic Cooperation and Development (OECD) (2013), PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy, OECD Publishing, Paris.

Ozili, P. K. (2020). Contesting digital finance for the poor. Digital Policy, Regulation and Governance, 22(2), 135-151.

Philippon, T. (2016). The fintech opportunity (No. w22476). National Bureau of Economic Research.

Prawitz, A. D., & Cohart, J. (2016). Financial management competency, financial resources, locus of control, and financial wellness. Journal of Financial Counseling and Planning, 27(2), 142-157.

Robb, C. A., & Woodyard, A. (2011). Financial knowledge and best practice behavior. Journal of Financial Counselling and Planning, 22(1).

Sabri, M. F., Hayhoe, C. R., & Ai, G. (2006). Attitudes, values and belief towards money: Gender and working sector comparison. Pertanika Journal of Social Sciences & Humanities, 14(2), 121-130.

Sabri, M., Wijekoon, R., & Rahim, H. (2020). The influence of money attitude, financial practices, self-efficacy and emotion coping on employees' financial well-being. Management Science Letters, 10(4), 889-900.

Salmony, M. (2014). Access to accounts: why banks should embrace an open future. Journal of Payments Strategy & Systems, 8(2), 169‑170.

Sam Daley (2022, September). What Is Fintech? A Quick Definition. https://builtin.com/fintech

Sehrawat, K., Vij, M., & Talan, G. (2021). Understanding the path toward financial well-being: Evidence from India. Frontiers in Psychology, 12, 638408.

Serido, J., Shim, S., Xiao, J.J., Tang, C., & Card, N.A. (2014). Financial Adaptation Among College Students: Helping Students Cope with Financial Strain. Journal of College Student Development 55(3), 310-316. https://doi.org/10.1353/csd.2014.0032.

Setiawan, B., Nugraha, D. P., Irawan, A., Nathan, R. J., & Zoltan, Z. (2021). User innovativeness and fintech adoption in Indonesia. Journal of Open Innovation: Technology, Market, and Complexity, 7(3), 188.

She, L., Rasiah, R., Turner, J. J., Guptan, V., & Nia, H. S. (2021). Psychological beliefs and financial well-being among working adults: the mediating role of financial behaviour. International Journal of Social Economics, 49(2), 190-209.

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. Journal of applied developmental psychology, 30(6), 708-723.

Siddik, A. B., Rahman, M. N., & Yong, L. (2023). Do fintech adoption and financial literacy improve corporate sustainability performance? The mediating role of access to finance. Journal of Cleaner Production, 137658.

Statista (2023). Number of fintech startups worldwide 2018-2023, by region. Statista Research Department. https://www.statista.com/statistics/893954/number-fintech-startups-by-region/

Sujaini (2023, June). Financial Literacy. https://cleartax.in/g/terms/financial-literacy

Sumarwan, U., & Hira, T. K. (1993). The effects of perceived locus of control and perceived income adequacy on satisfaction with financial status of rural households. Journal of Family and Economic Issues, 14, 343-364.

Suryavanshi, A., Apoorva, G., TN, M. B., Rishika, M., & Haq, A. (2023). The integration of Blockchain and AI for Web 3.0: A security Perspective. In 2023 4th International Conference on Innovative Trends in Information Technology (ICITIIT) (pp. 1-8). IEEE.

Techinasia, (2022, March). TikTok, Binance, Shopee among the most popular apps in SEA: report. https://www.techinasia.com/popular-finance-apps-sea

Tenorio (2021, June). Advantages and disadvantages of Fintech companies https://www.bbva.ch/en/news/advantages-and-disadvantages-of-fintech-companies/

Testa, F., Iovino, R., & Iraldo, F. (2020). The circular economy and consumer behaviour: The mediating role of information seeking in buying circular packaging. Business Strategy and the Environment, 29(8), 3435-3448.

Tyler, N., Heffernan, R., & Fortune, C. A. (2020). Reorienting locus of control in individuals who have offended through strengths-based interventions: Personal agency and the good lives model. Frontiers in Psychology, 11, 553240.

Van Campenhout, G. (2015). Revaluing the role of parents as financial socialization agents in youth financial literacy programs. Journal of Consumer Affairs, 49(1), 186-222.

Ullah, S., & Yusheng, K. (2020). Financial socialization, childhood experiences and financial well-being: The mediating role of locus of control. Frontiers in Psychology, 11, 2162.

Warmath, D., & Zimmerman, D. (2019). Financial literacy as more than knowledge: The development of a formative scale through the lens of Bloom's domains of knowledge. Journal of Consumer Affairs, 53(4), 1602-1629.

World Economic Forum (2017). We’ll Live to 100 – How Can We Afford It? https://www3.weforum.org/docs/WEF_White_Paper_We_Will_Live_to_100.pdf

Zaimah, R. (2019). The probability factor influences the level of financial well-being of workers in Malaysia. Geografia, 15(3), 122-135.

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Financial Impact of COVID-19 on the Livelihood of Urban Poor: A Study on Dhaka Metropolis Slum Dwellers of Bangladesh

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A B S T R A C T

This research explored urban slum dwellers' financial repercussions during COVID-19 in Bangladesh. The study investigated financial implications using 51 attributes grouped in seven categories related to work/jobs, wage/earning, stakeholders, savings/expenditure/debt, food, family well-being, and offspring. The study noted that during Covid-19 households are affected in almost all the attributes and areas. Notable attributes are surpassed expenditure over income, more spending, no more saving, spending from savings, more spending due to commodity price hikes, reduced income due to lockdown, reduced other income-generating activities, difficulty in payment of utility and other bills, extra fare to reach workplaces, more spending on transportation, failure to repay loans, family members living without required medical care/services, and work scarcity. Financial implications related to savings, expenses, and debt are the highest concern for the slum dwellers, followed by family well-being, work/job, wage/income, and stakeholder related financial implications. Least impacted implications are food and offspring related. Overall, Covid-19 ruthlessly impacted the financial wellbeing of the households responding to this survey.

Keywords: COVID-19, family well-being, financial insecurity, income loss, slum dwellers, Bangladesh

Ⅰ. Introduction

Coronavirus disease 2019 (COVID-19), is the most challenging crisis the world has ever faced (Yang & Wang 2020). The virus has disrupted lifestyles, livelihoods, regular outdoor and household activities, working patterns and environments, and the physical and mental wellbeing of people. As of July 2022, there have been 546,357,444 confirmed cases and 6,336,415 losses of lives in the world (WHO 2022). Observations led many to believe that low-income countries are more invulnerable to COVID-19; however, this has been proved to be a misconception (Roy, 2020). Although it primarily emerged as a fatal, dangerous public health problem, COVID-19 also caused global economic upheaval, and its ubiquitous prevalence transcends all segments of the society and economy across nations and cultures. As a result, the pandemic has impacted lives and livelihoods of everyone in this world; however, it is the poorer and underprivileged groups of society who became the worst victims of this pandemic-induced economic and financial shock (Ria et al., 2020; Sharma & Mahendru, 2020).

While the developed world could extend relatively better support to the disadvantaged population with their well-established social security systems, in developing countries like Bangladesh economically vulnerable people were left with deep uncertainties despite the government's sincere efforts in terms of expanded social protection programs, stimulus packages, and reliefs (Bacil & Soyer, 2020). Initially, the response of Bangladesh's government

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to the COVID-19 pandemic has been nationwide lockdown in two phases, prolonged school closures, mobility and transport restrictions, and limitations on religious and political gatherings (Wilder-Smith, & Freedman, 2020). Such shutdown adversely affected almost every sector of the economy and disrupted the socio-economic situation of people and livelihoods (Kumar et al., 2021, Genoni, et al., 2020). Wasima & Rahman (2022) and Kamruzzaman (2020) found that the poorest and informal sector of the economy (85.1% of total employment of Bangladesh) with minimal or no savings bore the ultimate brunt of the pandemic.

Bangladesh experienced a slow progress of COVID-19 from its first detection on 8 March 2020 until April 2020. Since then, the cumulative confirmed cases along with fatality began to grow gradually (Islam, et al., 2020), reached a peak on 4 July 2020, and then started to decline with sporadic rises and falls. The detection rate was much lower until mid-February 2022. However, the proportion started to grow at a geometric rate from the end of February and reached a peak in April. More than 1,980,974 infection and 29,174 death cases have been registered til now (WHO 2022). While urban slums have been recognized as potential risky hives for the spread of viral respiratory infections (Hasan et al., 2022), a majority of the slum residents in Bangladesh face serious financial consequences due to COVID-19 (Bacil & Soyer, 2020; Islam et al., 2020).

As the livelihood of informally employed slum people largely depends on temporary jobs with everyday travel, COVID-19's induced mobility restrictions hit hard in terms of income losses and disrupted necessities, and heightened their suffering ruthlessly (Hossain, 2021; World Bank, 2022). However, the economy started to rebound after the initial shock and lifting of lockdowns in FY 2021. According to Bangladesh Economic Outlook (June 21, 2022) the GDP growth picked up to 7.2% in FY 2022, and per capita income was reported at $2,591 (ADB, 2021). This was partly due to faster growth in manufacturing activity. These figures prove that the overall economy of the country has shown strong resilience and has been relatively quick in recovering the unexpected loss in this journey with the global pandemic. In this backdrop, it becomes imperative to analyze the degree of lasting impact of the pandemic and to unveil the real situation of the poorest cluster of society.

Dhaka, the capital of Bangladesh, holds more than 1.1 million slum dwellers who are deprived of modern amenities (Hossain, 2020). The households include maids, rickshaw pullers, taxi drivers, guards, garment workers, etc. Slum residents of each age, gender, education, and income group are at higher risk of financial setback due to Covid-19 since they were already in a precarious situation without much work and income (Banik, Rahman, Sikder, & Gozal 2020). They dare to move places with minimum precautions for their livelihood (Mollah & Islam, 2020). So, the question arises, what made the slum residents so daring to face the virus in a very difficult situation of work, income, and livelihood. To understand such issues, it is important to know what this unprivileged group's financial implications were during the Covid-19 period.

The broad objective of this research is to find out the financial impact on the livelihood of slum inhabitants of Bangladesh due to COVID-19. The study is confined to the slums of Dhaka city, the capital of Bangladesh. The slums of Dhaka accommodate a majority of the bottom-of-the-pyramid people. Though Dhaka slum dwellers do not represent the slums of the entire country, their structure, mobility, versatility, income, and dynamism are unique and worth researching. A study about the slum residents of the whole country is outside the scope of this work. By understanding the views of this group, the government, ministry of health and family welfare of Bangladesh, and NGOs can improve health risk communication as well as strengthen the foundation of public health governance.

II. Methods

The study used both primary and secondary data as well as relevant literature appraisals. The primary data was collected through a structured questionnaire survey of slum dwellers. A combination of convenience, quota, and judgmental sampling were used for sample selection (n=381) with a significance level of 5%, precision of 5%, and a proportion of 50%. The questionnaire was pretested with 20 respondents. Secondary data was collected from various journal articles, reports, and relevant studies to understand the financial implications of slum dwellers in Bangladesh due to COVID-19 pandemic. A rigorous literature survey was undertaken to understand the necessity and application of such a perception-based study on slum residents of Dhaka metropolis. A coordination schema was developed to identify the parameters, simple variables, complex variables, and values. The variables were identified through literature review and consultation with knowledgeable persons, health experts, NGO workers, etc. The survey questionnaire was designed based on this schema.

The survey contained 51 questions about the financial implications of COVID-19, grouped into seven categories related to A) Work/Jobs, B) Salary/Wage, C) Stakeholders/ustomers, D) Savings/expenditure/debt, E) Food, F) Family well-being, and G) Offspring. A single question H) about the overall financial implications of COVID-19, is treated in the analysis as the dependent variable. The questions contain ordinal data statements (focusing the variables) using a 5-point Likert scale to explore the financial implications of COVID-19. The variables are designed in statement form in negative tone. The respondents are asked to respond to each question using the scale 1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree.

Table 1 reports the group categories and results of reliability tests. High Cronbach's alpha for overall (0.915 $\geq$ 0.7) and group responses except for group E (food-related implications) suggests that the variables had acceptable internal consistencies among them and are reliable.

The questionnaire contained nominal data questions to determine different demographic attributes of the respondents. Mean index analysis, ANOVA[1], correlation, and t-test, are incorporated to analyze the data. The study used face validity to identify the study variables.

Ⅲ. Literature Review

A. Urban slums in Bangladesh - A harsh reality

World Bank (2022) data showed that around 47.2% of the urban population of Bangladesh live in slums (around 5.3 million people) of which around 2.23 million are in metropolitan area slums. The average density of these urban slums is 1,104 persons/km^2 (Rahaman et al., 2020, Akter et al., 2021). The major contributing factors behind these huge settlements are unplanned urbanization, lack of proper housing policies, poor distribution of utility and sanitation services, etc., (Uddin, 2018). Most of the slum dwellers are bottom-of-the-pyramid people with mean earnings below TK. 10,000 ($ 118) per month with destitute livelihood status (Rahman et al., 2022). These overcrowded slums lack COVID-19 safety measures, required quarantine measures, social distancing, and lockdown strategy (Mamun & Fatima 2020; Sakamoto, Begum, & Ahmed, 2020, Wilkinson, 2020). Mamun & Fatima (2021) observed that slum dwellers do not have a very clear idea about COVID-19, its causes, prevention mechanisms, etc.

In such dense urban slum reality, implementation of WHOs IPC guidelines on social distancing, handwashing, or isolation to combat the pandemic have almost been impossible, ineffective, and unsuccessful (Akter et al., 2021; de Groot & Lemanski, 2020; Molina-Betancur et al., 2020; Ndi et al., 2021; Obasi & Anierobi, 2021). As a result, this huge population with their extremely destitute living conditions has been identified as a potential reservoir for the spread of COVID-19 (Hasan et al., 2021, World Bank, 2022, Kumar et al., 2021). Surprisingly, the reality was the opposite. No reliable study has been found to verify whether COVID-19 has affected these

Table 1. Categories and Reliability Test Results of Survey Questions

Survey Question Groups	Groupwise and Overall Cronbach's Alpha
A. Work & job-related implications	Group A (8 items) 0.711
B. Wage & salary related implications	Group B (9 items) 0.831
C. Customer related financial implications	Group C (6 items) 0.798
D. Savings, expenditures & debt implications	Group D (9 items) 0.804
E. Food related implications	Group E (7 items) 0.507
F. Family well-being implications	Group F (9 items) 0.760
G. Offspring related implications	Group G (3 items) 0.689
H. Overall financial implications	Overall (52 items) 0.915

overcrowded settlements more than other areas (Zaman, Hossain, & Matin, 2022). On the downside, although research supports that slum dwellers have somehow been able to tackle this deadly, contagious disease with minimum fatality (Zaman et al., 2022), it is evident in several studies that this poorer cluster of society has become the worst victim of COVID-induced financial turmoil and shutdown.

B. Abrupt income and job loss

To tackle the first wave of pandemic, Bangladesh imposed a nationwide shutdown (26 March - 31 May 2020), with all works suspended and movement restricted. In this unprecedented situation, both formal and informal businesses were severely hampered (Shammi et al., 2020). As a result, slum people lost their job/income completely, and the life of approximately 18 million informal workers along with their families fell under serious uncertainty. According to Islam et al (2020), the informal sector faced a loss of 11.1 million jobs economywide during the 1st lockdown. In urban areas it was 1.08 million. As a consequence, average income in the urban slums plunged by more than 80% and a total of 63% of slum dwellers became unemployed with per capita income fallen by 82% from Tk. 108 ($1.30) to BDT 27 ($0.32) per day (Sakamoto et al., 2020, Kamruzzaman, 2020, Khan, 2022, Billah & Billah, 2021, Hossain, 2021).

Sumiya et al. (2022) and Sohel et al. (2022) indicated that in June, 94.3 percent of the Dhaka slum dwellers were worried about unemployment and reduced earnings. A previous survey found a 75% income decline in urban slum respondents (Rahman, et al., 2020). Another study claimed that the daily income of day laborers, Rickshaw pullers, transport workers and so on was reduced by 64.37 percent (Kumar et al., 2021). A BRAC study team revealed that 88% of informal sector workers experienced an income drop, among which wage level of urban informal workers was highest in monetary terms (Morshed, et al., 2021). In another survey, 50% of the urban informal respondents experienced reduced earnings during lockdown, when the income level of 47% of respondents dropping to zero (Islam, et al., 2020).

The scenario of lost jobs and income was similar nationwide. As claimed by Rahman et al (2022), after the initial shock of radical drop of income, the situation started to improve gradually. But during second lockdown (August 2021), income faced another hit as evidenced by per capita daily income, which was found 23 percent lower than its pre-COVID level in September 2021. They also claimed to find an indication of shift in occupations, i.e., only 54% of employees had retained their jobs. The rest moved to more vulnerable occupations including unskilled laboring (8%), rickshaw pulling (4%), and unemployment (11%) as of August 2021.

Such devastating livelihood effects were also found in the Bengaluru and Patna slums of India where most slum dwellers lost their jobs for several months (Downs-Tepper, Krishna, & Rains, 2021). Khambule (2020) pointed out that in South Africa, less educated, low-income people, Black African, female, and marginalized populations were disproportionally affected by losing their sources of income. Similar findings were claimed by a study in Colombia, where 78% of the new poor that emerged during the pandemic were informal workers and 82% resided in urban areas (Cuesta & Pico, 2020). Also, in Thailand, around 95% of the informal sector workers experienced a drastic fall in income (Komin et al., 2021).

C. Food insecurity, general well-being, and other socio-economic issues

As an obvious consequence of such financial shock due to unexpected job loss and wage decline, the urban poor had to withstand unimaginable suffering in terms of food insecurity, starvation, inaccessible healthcare, sanitation, and other well-being (Akter et al. 2021, Firoj et al., 2021). According to Rahman et al. (2020), urban slum dwellers faced a 28% reduction in food expenditure. 24% of the respondents could not afford 3 meals a day in the 1st lockdown, and during the 2nd lockdown in August 2021 it was 16%. Many people were found to reduce their consumption of nutritious food (no meat, milk, and reduced fruit intake) and increase consumption of cheaper, high-calorie food like rice and potatoes (Rahman et al., 2022, Ruszczyk et al., 2020). According to Fattah et al. (2022), the pandemic affected 74.67% of the respondents' food habits, 95.33% of respondents' child education, and deteriorated basic services. Similar socio-economic impact has been found in several other studies globally (Nuwematsiko et al. 2022, Chauhan & Arora, 2020, Nyadera, 2020, de Groot & Lemanski, 2020).

D. Survival/coping strategies

At the advent of the pandemic, FAO (2020) identified the COVID-19 crisis to have significant impacts on the unemployment and underemployment levels of informal workers who, in turn, would end up with negative coping strategies such as forced sale of assets, high interest loans from informal moneylenders, or resorting to child labor. The gradual erosion of financial capacity compelled the vulnerable slum dwellers to follow similar survival strategies such as taking loans, reducing expenses, consuming less food, forced selling of land, jewelry and goods, support from relatives and neighbors, and government relief (Sohel et al., 2022, Morshed et al., 2021, Rahman, et al., 2020). All these resulted in exhausted savings, and non-food expenditures (such as rent and utility payments, non-emergency medical costs, educational expenses) were delayed (Rahman et al., 2022). A consistent rise in outstanding loans also implies negatively affected long-term financial capacity (Hossain, 2021; Ruszczyk et al., 2021; Sohel et al., 2022, Downs-Tepper et al. (2021).

E. Emergence of "New Poor"

In a study, Rahman et al. (2020) claimed that since the advent of the pandemic in 2020, poverty levels have increased by 12.5% and a category of 'new poor' has been emerging, which is supported by Kumar et al (2021). Further, The South Asian Network on Economic Modelling (SANEM) found that households below the poverty line and extreme poor had increased from 21.6% in 2018 to 42% in 2020 and from 8.4% in 2018 to 28.5% in 2020 respectively. Six million jobs are estimated to have been lost (Dhaka Tribune, July 15, 2022). A nationwide joint study of PPRC–BIGD (Rahman et al., 2020) has estimated that the percentage of "new poor" was 18.54% in May 2022.

IV. Data analysis and Findings

A. Demographic Features of the Respondents

This study surveyed 381 slum dwellers of which 303 (79.5%) are male and 78 (20.5%) are female. Of the total respondents 68 (17.8%) are single and the rest 313 (82.2%) are married. In addition, 108 (28.3%) have a nuclear family[2] and 273 (71.7%) live in a joint or extended family[3] structure. Education-wise 55 (14.4%) have no formal education, 136 (35.7%) have primary education, 102 (26.8%) have secondary education, 77 (20.1%) have secondary education and the rest 11 (10.0%) have other educational expertise (e.g., vocational, trade certificates). In terms of occupation, 154 (40.4%) are different types of informal workers, 41 (10.8%) are rickshaw pullers, 39 (10.2%) are drivers, 36 (9.4%) are day laborers, 27 (6.2%) are shopkeepers, 24 (6.3%) are maids, 20 (5.2%) are housewives and the rest 40 (13.8%) have other professions. The average age of the respondents is 33.44 years with a standard deviation of 9.37 years (the age range is 15 years to 80 years). The average monthly income of the respondents is Tk. 12,170.13 ($143.18) with a standard deviation of Tk. 5,292.98 ($62.27) and range of Tk. 1000 ($12) to Tk. 40,000 ($471). Of the total respondents, 49 (11.3%) have no regular income.

B. Analysis of Financial Implications of COVID-19

As described already, slum dwellers' financial status during COVID-19 is analyzed by 51 independent variables (specific implications) and one dependent variable (overall implication). The overall financial impact of COVID-19 was examined with the statement "COVID-19 impacted negatively the financial wellbeing of my family". The respondents mentioned that COVID-19 ruthlessly impacted the financial wellbeing of their family: 48.6% agreed with the statement and 42.5% strongly agreed. The mean response was μ=4.30 (σ=0.25515), significantly different from 3.00 (neutral) at the 5 percent confidence level.

The 51 independent and their mean responses are reported in the Appendix table. The variables are grouped into seven categories focusing on different finance related implications. Responses to the questions are analyzed and tested for understanding the financial implication of Covid-19 on their family, grouped by category, are reported below.

1. Work/Job related implications

The work/job related implications during COVID-19 contain eight simple variables (Table 2). It is noted that the slum dwellers strongly agreed to each of the implications. But the most emphasized ones are reduced income generating activities (μ=4.10), not getting enough work (μ=4.0), and increased job insecurity (μ=3.97). Next emphasized ones are going to hometown as no jobs available (μ=3.82), shift from a higher position to a lower position (μ=3.76), increased work burden (μ=3.76), job lost (μ=3.76), and part-time job lost (μ=3.71). Overall, it can be said that during COVID-19, the slum dwellers had serious work/job related implications (μ=3.85).

2. Earning (Wage/Income) related implications

The earning related implications (wage/salary/others) during COVID-19 contain nine repercussions (Table 3). The survey respondents reported family income reduction (μ=3.99), salary curtailing (μ=3.90) and major income loss in comparison to the pre-pandemic period (μ=3.89) as the leading implications. These are followed by no annual increment (μ=3.85), no regular income (μ=3.80), reduced tips (μ=3.77), lost overtime pay (μ=3.76), no festival bonuses (μ=3.75) and more income reduction among females than males (μ=3.69). Overall, it can be said that during COVID-19, the slum dwellers have serious income related implications (μ=3.82).

3. Stakeholder/customer related implications

The stakeholder related implications during COVID-19 have six consequences (Table 4). The study tried to identify the respondents' perception regarding different institutional scenarios that have financial implications on their livelihood. The important one is government lockdown (μ=4.11), followed by reduced business activities (μ= .82), decreased purchase power of the customers (μ=3.79), reduced number of customers (μ=3.73), reduced number of passengers (μ=3.69) and closure of educational institutions (μ=3.66). Overall, it can be said that during COVID-19, the slum dwellers had severe stakeholder related implications (μ=3.80).

Table 2. Work/Job related implications

Variables	μ	Respondents who	
A. Work/Job related implications	**3.85**	Agreed	Strongly agreed
1) Other income generating activities reduced	4.10	239 (62.7%)	99 (26.0%)
2) Not getting enough work	4.00	265 (69.6%)	68 (17.8%)
3) Job insecurity increased	3.97	184 (48.3%)	107 (28.1%)
4) Go to my hometown as no job available	3.82	237 (62.2%)	53 (13.9%)
5) Shifted from a higher- to a lower-level job	3.76	233 (61.2%)	51 (13.4%)
6) Increased work burden	3.76	241 (63.3%)	50 (13.1%)
7) Lost my job/livelihood	3.71	213 (55.9%)	56 (14.7%)
8) Lost my part time job	3.71	225 (9.1%)	53 (13.9%)

Table 3. Earning related implications

Variables	μ	Respondents who	
B. Wage/Salary related implications	**3.82**	Agreed	Strongly agreed
1) Family/household income reduced	3.99	266 (70.3%)	66 (17.3%)
2) Salary curtailed	3.90	250 (65.6%)	62 (16.3%)
3) The family lost more than 50% of pre-pandemic period income	3.89	275 (72.2%)	45 (11.8%)
4) Not received annual increment	3.85	221 (58.0%)	75 (19.7%)
5) No regular income for months	3.80	250 (65.6%)	48 (12.6%)
6) Tips has reduced	3.77	218 (57.2%)	56 (14.7%)
7) Lost my overtime pay	3.76	250 (65.6%)	43 (11.3%)
8) Not received festival bonuses	3.75	216 (56.7%)	62 (16.3%)
9) Household income reduced more among females than males	3.69	225 (59.1%)	48 (12.6%)

Table 4. Stakeholder related implications

Variables	μ	Respondents who	
C. Stakeholder related financial implications	**3.80**	Agreed	Strongly agreed
1) Income reduced due to lock down announced by government	4.11	252 (66.1%)	90 (23.6%)
2) Income reduced as business activities have slowed down	3.82	248 (65.1%)	48 (12.6%)
3) Income reduced since purchasing power of customers decreased	3.79	249 (65.4%)	48 (12.6%)
4) Income reduced due to a smaller number of customers	3.73	253 (66.4%)	34 (8.9%)
5) Income reduced since the number of passengers using rickshaw, CNG driven auto rickshaw decreased	3.69	237 (62.2%)	33 (8.7%)
6) Income reduced since educational institutions are closed	3.66	232 (0.9%)	33 (8.7%)

4. Savings, Expenditures and Debt related implications

The savings/expenditure/debt related implications during COVID-19 have nine concerns (Table 5). The important ones are expenditure surpassed income (μ=4.14), spending more as all food price increased (μ=4.14), no more savings (μ=4.13), spending from savings (μ=4.11), and spending more due to commodity price hike (μ=4.11). Others include extra fare to reach workplace (μ=4.08), increased transportation fare (μ=4.04), failed to repay loan (μ=4.04), and taking loan at high interest rate from informal sector (μ=3.81). Overall, it can be said that during COVID-19, the slum dwellers have grave savings/expenditure/debt related implications (μ=4.07).

5. Family food related implications

The food related implications during COVID-19 have seven attributes (Table 6). The important ones are difficulty in arranging three meals a day (μ=3.97), consuming less

Table 5. Savings, expenditures, and debt related implications

Variables	μ	Respondents who	
D. Savings, Expenditure & Debt related implications	**4.07**	Agreed	Strongly agreed
1) Expenditure surpassed income	4.14	264 (69.3%)	91 (23.9%)
2) Spend more since price of all food items increased	4.14	246 (64.6%)	101 (26.5%)
3) Cannot save any more	4.13	256 (67.2%)	93 (24.4%)
4) Spending from my savings	4.11	273 (71.7%)	81 (21.3%)
5) Spend more due to commodity price hike	4.11	271 (71.1%)	83 (21.8%)
6) Pay extra fare to reach workplace	4.08	245 (64.3%)	90 (23.6%)
7) Spend more as transportation fare increased	4.04	269 (70.6%)	70 (18.4%)
8) Failed to repay loan	4.04	268 (70.3%)	71 (18.6%)
9) Take loan from informal sources at high interest rate	3.81	227 (59.6%)	51 (13.4%)

Table 6. Family well-being related implications

Variables	μ	Respondents who	
E. Food related implications	**3.74**	Agreed	Strongly agreed
1) Facing difficulties to arrange daily meals	3.97	278 (73.0%)	38 (10.0%)
2) Consuming less protein & healthy food	3.90	279 (73.2%)	39 (10.2%)
3) Consuming less quantity of food	3.86	282 (74.0%)	32 (8.4%)
4) Cannot purchase baby food	3.82	246 (64.6%)	44 (11.5%)
5) Cannot purchase enough supplies/items	3.75	249 (65.4%)	38 (10.0%)
6) Sometimes family members need to starve	3.60	244 (64.0%)	17 (4.5%)
7) Family members are living on dry food only	3.28	140 (36.7%)	20 (5.2%)

amount of protein and healthy food (μ=3.90), consuming less amount of food (μ=3.86), and not being able to purchase baby food (μ=3.82). Others include not being able to purchase enough supplies/items (μ=3.75), starving sometimes (μ=3.60), and living on dry food (μ=3.28). Overall, it can be said that during COVID-19, the slum dwellers have some concern for food related implications (μ=3.74).

6. Family Well-being related implications

The family well-being related implications during COVID-19 has nine traits (Table 7). The important attributes in this group are difficulty in payment of utility bills (μ=4.09), and family members are without required health care services (μ=4.02). These are followed by not being able to purchase cleanliness/hygiene kits (μ=3.96), walk to places instead of transport (μ=3.94), sending family to village (μ=3.94), and failure to pay house/ shop/ stall rent (μ=3.85). Other least agreed attributes are selling valuables (ornaments, property, etc.) to survive (3.73), selling source of income/ livelihood (3.54), and becoming homeless (μ=3.53). Overall, it can be said that during COVID-19, the slum dwellers have serious concern for family well-being related implications (μ=3.84).

7.Offspring related implications

The offspring related implications during COVID-19 has three attributes (Table 8). Here the responses are quite diverse: in one case they agreed, in one case they disagreed and in one case the response is indifferent. The respondents agreed regarding involving minor family members in odd jobs (μ=3.70); but they disagreed that they need to sell their newborn baby for being unable to pay the hospital bills (μ=2.86). They were indifferent regarding getting their underaged girl married (μ=3.04). Overall, it can be said that during COVID-19, the slum dwellers have some concern for offspring related implications (μ=3.20).

C. Demographic Differences in the Responses

1. Gender

Opinions regarding financial implications during

Table 7. Family well-being related implications

Variables	μ	Respondents who	
F. Family well-being related implications	**3.84**	Agreed	Strongly agreed
1) Difficulty in payment of utility and other bills	4.09	263 (69.0%)	84 (22.0%)
2) HH living without required medical care/services for not being able to bear healthcare cost	4.02	257 (67.5%)	76 (19.9%)
3) Not able to purchase cleanliness/ hygiene kits (mask, sanitizer, soap, etc.)	3.96	283 (74.3%)	53 (13.9%)
4) Walk to my work and other places instead of using transport	3.94	290 (76.1%)	39 (10.2%)
5) Had to send my family to village	3.94	235 (61.7%)	72 (18.9%)
6) Failed to pay house/shop/stall rent for months	3.85	252 (66.1%)	49 (12.9%)
7) Sell my valuables (ornaments, property, etc.) to survive	3.73	258 (67.7%)	28 (7.3%)
8) Sell source of income/ livelihood (rickshaw, autorickshaw, van, photocopy machine, etc.)	3.54	221 (58.0%)	17 (4.5%)
9) Family became homeless	3.53	182 (47.8%)	38 (10.0%)

Table 8. Offspring related implications

Variables	μ	Respondents who	
G. Offspring related implications	**3.20**	Agreed	Strongly agreed
1) Involve minor family members in odd jobs to tackle economic hardship	3.70	253 (66.4%)	31 (8.1%)
2) Got my underaged girl married to combat insecurity of food	3.04	137 (36.0%)	16 (4.2%)
3) Sell our newborn baby for not being able to pay hospital bills	2.86	5 (17.1%)	23 (6.0%)

COVID-19 from male (n=303) and female (n=78) respondents were found to be significantly different between genders at a 5% level for thirteen specific attributes. The attributes where the responses are different are i) Shifted from a higher-level job to lower-level job (3.71 vs. 3.97), ii) Lost overtime pay (3.70 vs. 3.96), iii) Not received annual increment (3.81 vs. 4.04), iv) Not received festival bonuses (3.66 vs. 4.08), v) Income reduced more among females than males (3.63 vs. 3.88), vi) Income reduced due to lockdown (4.07 vs. 4.24), vii) Needed to take loan from informal sources at high interest (3.77 vs. 3.96), viii) Failed to repay loan (4.00 vs. 4.18), ix) Difficult to arrange three meals a day (3.87 vs. 4.33), x) could not pay shop/house/stall rent (3.8 vs. 4.04), xi) Family became homeless (3.49 vs. 3.72), xii) Got my underaged daughter married (2.99 vs. 3.26), xiii) COVID-19 negatively impacted the financial wellbeing of the family (4.24 vs. 4.51). As noted, in each of these cases the females are found to agree more strongly than the males. Overall, it can be said that in the majority of cases the responses are not different.

2. Marital status

Opinions regarding financial implications during COVID-19 from single (n=66) and married (n=315) respondents were found to be significantly different at a 5% level for fourteen attributes. These attributes are: i) Work burden increased (3.53 vs. 3.81), ii) On average family lost 50% of pre-pandemic income (3.62 vs. 3.95), iii) Less customers are coming (3.47 vs. 3.78), iv) Purchasing power of customer reduced (3.50 vs. 3.85), v) Spend more since price of all food item including rice has increased (3.97 vs. 4.18), vi) Difficult to arrange three meals a day (3.57 vs. 4.05), vii) Consuming less quantity of food (3.65 vs. 3.91), viii) Cannot purchase baby food (3.36 vs. 3.92), ix) Consuming reduced amount of protein and healthy diet (3.76 vs. 4.07), x) Family members need to starve (3.26 vs. 3.67), xi) Needed to sell source of income /livelihood (3.24 vs. 3.60), xii) Could not pay shop/house/stall rent for months (3.64 vs. 3.89), xiii) Sell valuables to survive (3.42 vs. 3.79), xiv) Got my underaged daughter married off to combat insecurity of food (2.67 vs. 3.12). As noted, in each of these cases the married are found to agree more strongly than the single respondents. Overall, it can be said that in the majority of cases the responses are not different.

3. Family type

Based on family type (i.e., nuclear[1] or joint[2]), respondents differ in 12 attributes (out of 52) regarding financial impact during COVID-19. The attributes on which the nuclear (n=108) and joint (n=273) family members significantly differ (α = 5%) are i) go hometown as there is no job at capital (3.59 vs. 3.90), ii) income reduced due to lockdown (4.28 vs. 4.04), iii) spend more as price of all food item i/c rice has increased (4.28 vs. 4.09), iv) consuming less quantity of food (3.74 vs. 3.91), v) cannot purchase baby food (3.68 vs. 3.88), vi) family members need to starve (3.38 vs. 3.68), vii) not being able to purchase hygiene kits (4.12 vs. 3.89), viii) had to send family to village (3.71 vs. 4.03), ix) needed to sell source of income/livelihood (3.34 vs. 3.61), x) sell valuables to survive (3.56 vs. 3.79), xi) involve minor family members in odd jobs (3.53 vs. 3.77), xii) COVID-19 negatively impacted the financial wellbeing of my family (4.56 vs. 4.20). In seven of the 12 cases the joint family members are more critical about financial impact. Overall, it can be said that in the majority of cases the responses are not different.

4. Education

Respondents having different educational backgrounds are found to possess variation in financial implications during COVID-19. The different educational levels of the respondents are i) no formal education, ii) primary, secondary, iii) higher secondary, and iv) others. Group wise testing of difference of means are done by ANOVA test[3]. The means of 16 attributes (out of 52) that sig-

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1 A nuclear family, elementary family or conjugal family is a family group consisting of a man and a woman and their children (one or more). It contrasts with a single-parent family, the larger extended family, or a family with more than two parents.

2 Joint families are composed of sets of siblings, their spouses, and their dependent children. Extended families include at least three generations: grandparents, married offspring, and grandchildren.

3 For ANOVA, first the results of the Levene statistic are analyzed. If a variable satisfies homogeneity of variance, then it is tested for equality of means. For the variables that do not satisfy homogeneity of variance, the Brown-Forsythe and Welch robust tests for the equality of means are conducted. Usually, both yield results in the same direction. If Brown-Forsythe and Welch tests do not yield the same results regarding equality of means, the Post Hoc multiple comparisons (Games-Howell) are checked to ensure the difference in means values. There are many Post Hoc multiple comparison tests. One group is for variables that satisfy homogeneity of variance.

nificantly differ with different educational backgrounds are i) Lost part time job, ii) Job insecurity increased, iii) Not received annual increment, iv) Not received festival bonuses, v) Tips I used to get reduced, vi) Household income reduced more among females than males, vii) Educational institutions are closed, viii) Number of passengers using rickshaw, auto-rickshaw decreased, ix) Needed to take loan from informal sources at high interest, x) Consuming less quantity of food, xi) Not being able to purchase hygiene kits, xii) Could not pay shop/house/stall rent for months, xiii) Family became homeless, xiv) Had to involve minor family members in odd jobs to tackle economic hardship, xv) Got my underaged daughter married off to combat insecurity of food, and xvi) COVID-19 negatively impacted the financial wellbeing of my family. As noted in most cases where there are differences the less educated (no formal education, primary, others) are more financially affected during COVID-19.

5. Profession

Respondents having different professions are found to have different types of financial implications during COVID-19. Profession wise the respondents are housewife (20), worker (154), day laborer (36), driver (39), shopkeeper (27), rickshaw puller (41), maid (24), and others (40). The study noted that slum dwellers of different occupations have significantly different financial implications regarding 29 attributes during COVID-19. These include i) Lost job/livelihood, ii) Lost part time job, iii) Job insecurity increased, iv) Shifted from a higher-level job to lower-level job, v) Work burden increased, vi) Needed to go to hometown as there is no job at capital, vii) Salary has been curtailed, viii) Lost my overtime pay, ix) Not received annual increment, x) Not received festival bonuses, xi) Family/household income reduced, xii) Tips reduced, xiii) Household income reduced more among females than males, xiv) Educational institutions' closer reduced earning, xv) Decreased number of passengers using rickshaw, auto-rickshaw affected income, xvi) Income reduced due to lockdown, xvii) Spending from my savings, xviii) Spend more as commodity price hiked, xix) Spend more since price of all food item including rice has increased, xx) Needed to take loan from informal sources at high interest, xxi) Difficult to arrange three meals a day, xxii) Cannot purchase baby food, xxiii) Family members need to starve, xiv) Could not purchase enough supplies/items, xxv) Difficulty in payment of utility and other bills, xxvi) Could not pay shop/house/stall rent for months, xxvii) Family became homeless, xxviii) Had to involve minor family members in odd jobs to tackle economic hardship, and xxix) COVID-19 negatively impacted the financial wellbeing of my family. The study noted that in each of the above-mentioned cases the day laborer, rickshaw puller, and maid are comparatively more affected than other professionals.

6. Age

Pearson's correlation is conducted to observe the correlation between financial implications during COVID-19 and age of the respondents. The statistically significant correlation coefficients indicate very weak association of financial implications of COVID-19 with age. Among all the variables representing slum dwellers' financial implications during COVID-19, only ten are found significantly correlated to age at 5% level. These include i) Lost part time job, ii) Needed to go to hometown as there is no job at capital, iii) Not received annual increment, iv) Spend more as commodity price hiked, v) Spend more since price of all food item including rice has increased, vi) Cannot purchase baby food, vii) Walk to my work and other places, viii) Sell my valuables to survive, ix) Got my underaged girl married, and x) COVID-19 negatively impacted the financial wellbeing of my family. Except for three attributes, all variables are positively related to age.

7. Monthly income

Pearson's correlation of the financial implications of slum households during COVID-19 and monthly income show that 21 of the 52 variables have a statistically significant correlation at 5% level, of which 17 are negative and 4 are positive. The variables with a negative relationship with income include i) Job insecurity has increased, ii) Not getting enough work, iii) Shift from a higher-level job to a lower-level job, iv) Lost my overtime pay, v) Tips has reduced, vi) HH income reduced more among females than males, vii) Income reduced due to lock

Another for those that do not satisfy the condition. One commonly used test for the first group is "Turkey" and one such test for the second group is "Games-Howell".

down, viii) Spending from my savings, ix) Spend more since price of all food items including rice increased, x) Needed to take loan from informal sources at high interest rate, xi) Consuming less quantity of food, xii) Family members need to starve, xiii) Difficulty in payment of utility and other bills, xiv) Living without getting required medical care/services, xv) Not being able to purchase hygiene kits, xvi) Walk to my work & other places, and xvii) Family became homeless. The variables with a positive relationship with income include i) Less customers are coming, ii) Spend more as commodity price hiked, iii) Could not purchase enough supplies/items, iv) COVID-19 negatively impacted the financial wellbeing of my family.

V. Conclusion

The research attempted to dig into different financial aspects of Dhaka metropolis slum dwellers during COVID-19. Specifically, this study tried to explore slum residents' financial implications using 51 attributes grouped in seven categories related to work/job, wage/earning, stakeholder, savings/expenditure/debt, family food, family well-being, and offspring. The primary data is collected through a pre-tested structured questionnaire survey of 381 slum dwellers.

Of the 51 specific implications excepting one (got my underaged girl married), the overall mean values of the variables are significantly different from 3 (neutral). In the rest of the cases the respondents agreed with the statements except one (sell our newborn baby) which they disagreed with. The study noted that the most agreed ($\mu \geq 4$) variables are (i) expenditure surpassed income (4.14), (ii) spending more (4.14), (iii) no more savings (4.13), (iv) spending from savings (4.11), (v) more spending due to commodity price hike (4.11), (vi) income reduced due to lock down (4.11), (vii) other income generating activities reduced (4.10), (viii) difficulty in payment of utility and other bills (4.09), (ix) pay extra fare to reach workplace (4.08), (x) spend more on transportation (4.04), (xi) failed to repay loan (4.04), (xii) family members are living without required medical care/services (4.02), (xiii) not getting enough work (4.0).

Further groupwise analysis shows that only the group mean of "Offspring" is not significantly different from 3 (Indifferent) at 5% level. Overall, group means are found significantly different at 5% level of significance. As noted, saving/expense/debt related financial implication (4.07) is the major concern for the slum dwellers followed by family wellbeing implication (3.90). Next in the queue are Work/Job (3.85), Wage/Income (3.82) and Stakeholder (3.80) related financial implications. Least impacted implications are Food (3.74) and Offspring/Property (3.37).

REFERENCES

Akter, S., Hakim, S. S., & Rahman, M. S. (2021). Planning for pandemic resilience: COVID-19 experience from urban slums in Khulna, Bangladesh. Journal of Urban Management, 10(4), 325–344. https://doi.org/10.1016/j.jum.2021.08.003

Bacil, F., & Soyer, G. (2020). COVID-19 and social protection in South Asia: Bangladesh. ONE PAGER 448, International center for inclusive growth.

Banik, R., Rahman, M., Sikder, M. T., & Gozal, D. (2020). SARS-CoV-2 pandemic: An emerging public health concern for the poorest in Bangladesh. Public Health in Practice, 1(May), 100024. https://doi.org/10.1016/j.puhip.2020.100024.

Billah, A., & Billah, M. A. (2021). The Socio-economic Consequences of the Covid-19 Lockdown on the Economy of Bangladesh: An Analysis Sustainable Development. Journal of Contemporary Business and Islamic Finance, 1(1). https://journals.iub.edu.pk/index.php/jcbif.

Chauhan, I., & Arora, S. (2020). Impacts of COVID-19 in the lives of Urban Poor. International Journal of Policy Sciences and Law, 1(1). 232-246.

Cuesta, J., & Pico, J. (2020). The Gendered Poverty Effects of the COVID-19 Pandemic in Colombia. The European Journal of Development Research, 32(5), 1558–1591. https://doi.org/10.1057/s41287-020-00328-2

de Groot, J., & Lemanski, C. (2020). COVID-19 responses: infrastructure inequality and privileged capacity to transform everyday life in South Africa. Environment and Urbanization, 33(1), 255–272. https://doi.org/10.1177/0956247820970094.

Downs-Tepper, H., Krishna, A., & Rains, E. (2021). A threat to life and livelihoods: examining the effects of the first wave of COVID-19 on health and wellbeing in Bengaluru and Patna slums. Environment and Urbanization, 34(1), 190–208. https://doi.org/10.1177/09562478211048778.

FAO (2020). Novel Corona Virus (Covid-19). Food and Agriculture Organization, United Nations.

Fattah, M. A., Morshed, S. R., Hoque, Md. M., Rabbi, Md. F., & Dola, I. A. (2022). Impacts of COVID-19 outbreaks on the lower-income groups and attainments of SDGs: a study of the fast-growing commercial capital city, Chittagong, Bangladesh. Frontiers in Engineering and Built Environment, 2(2), 107–120. https://doi.org/10.1108/febe-12-2021-0058.

Firoj, M., Khanom, S., Rashid, M. M., Sultana, A., Kallol, H., Islam, M. N., & Sultana, N. (2021). Covid-19 Impact on the Workers of the Informal Sector: A Longitudinal Study of Bangladesh. Asian Development Policy Review, 9(4), 194–208. https://doi.org/10.18488/journal.107.2021.94.194.208.

Genoni, M. E., Khan, A. I., Krishnan, N., Palaniswamy, N., Raza, W. (2020). Losing Livelihoods: The Labor Market Impacts of COVID-19 in Bangladesh. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/34449.

Hasan, M. T., Hossain, S., Safa, F., Anjum, A., Khan, A. H., Koli, K. N., Alam, S. F., Rafi, M. A., Podder, V., Trisa, T. I., Nodi, R. N., Azad, D. T., Ashraf, F. & Akther, T. S. M. Q. (2022). Anxiety and depressive symptoms among physicians during the COVID-19 pandemic in Bangladesh: a cross-sectional study. Global Mental Health, 1–13. https://doi.org/10.1017/ gmh.2022.30 R.

Hossain, B. (2020). Slum of Bangladesh: An Overview. https://doi.org/10.13140/RG.2.2.28678.52800

Hossain, M. I. (2021). COVID-19 Impacts on Employment and Livelihood of Marginal People in Bangladesh: Lessons Learned and Way Forward. South Asian Survey, 28(1), 57–71. https://doi.org/10.1177/0971523121995072.

Islam, M. T., Talukder, A. K., Siddiqui, M. N., & Islam, T. (2020). Tackling the COVID-19 pandemic: The Bangladesh perspective. Journal Public Health Research, Oct, 9(4), 389-397.

Islam, S. D. U., Bodrud-Doza, M., Khan, R. M., Haque, M. A., & Mamun, M. A. (2020). Exploring COVID-19 Stress and Its Factors in Bangladesh: A Perception-Based Study. Heliyon, 6, e04399. https://doi.org/10.1016/j.heliyon.2020.e04399.

Islam, S., Islam, R., Mannan, F., Rahman, S., & Islam, T. (2020). COVID-19 pandemic: An analysis of the healthcare, social and economic challenges in Bangladesh. Progress in Disaster Science, 8, 100135. https://doi.org/https://doi.org/10.1016/j.pdisas.2020.100135.

Kamruzzaman, M. (2020). Coronavirus: Poor Income Drops 80% in Bangladesh. Dhaka: BRAC Institute of Governance and Development.

Khambule, I. B. (2020). The Effects of COVID-19 on The South African Informal Economy: Limits and Pitfalls of Government's Response. Loyola Journal of Social Sciences, XXXIV(1), Jan.- June 2020, 91-109.

Khan, M. A. (2022). Livelihood, WASH related hardships and needs assessment of climate migrants: evidence from urban slums in Bangladesh. Heliyon, 8(5). https://doi.org/10.1016/j.heliyon.2022.e09355.

Komin, W., Thepparp, R., Subsing, B., & Engstrom, D. (2021). Covid-19 and its impact on informal sector workers: a case study of Thailand. Asia Pacific Journal of Social Work and Development, 31(1–2), 80–88. https://doi.org/10.1080/02185385.2020.1832564.

Kumar, B., Kamal, R. S., Parvin, R. A., & Waresi, N. M. (2021). Assessing the Impact of COVID-19 Pandemic on Vulnerable Populations in Bangladesh. https://doi.org/10.31235/osf.io/7d8gc.

Molina-Betancur, J. C., Martínez-Herrera, E., Pericàs, J. M., & Benach, J. (2020). Coronavirus disease 2019 and slums in the Global South: lessons from Medellín (Colombia). Global Health Promotion, 28(1), 65–69. https://doi.org/10.1177/1757975920962797.

Mollah, S., & Islam, Z. (2020). Dhaka Slums: Where Covid is curiously quiet. The Daily Star, July 26, 2020.

Mamun, M. Z. & Fatima, K. (2021). Slum Dwellers' Perception About Covid-19: A Study in Dhaka Metropolis Slums, TECHNIUM Social Sciences Journal, 21, 728-764, July 2021.

Morshed, K., Zamore, L., Das, P. K., Anjum, I., Islam, N, Rabbi, G. A., Rayhan, M. I. & Miah, A. S. M. J. (2021). Demographic and Socioeconomic Changes Induced by the COVID-19 Pandemic in Bangladesh: Dynamics and challenges of new circumstances Study team.

Ndi, H. N., Ndi, R. A., Bang, H. N., Mbah, M. F., & Ndzo, J. A. (2021). Health and economic imperatives for households in the context of the anti-Covid-19 strategy in Cameroon. The case of Yaounde. Journal of Humanities and Applied Social Sciences, 3(5), 356–375. https://doi.org/10.1108/JHASS-01-2021-0016

Nuwematsiko, R., Nabiryo, M., Bomboka, J. B., Nalinya, S., Musoke, D., Okello, D., & Wanyenze, R. K. (2022). Unintended socio-economic and health consequences of COVID-19 among slum dwellers in Kampala, Uganda. BMC Public Health, 22(1), 88. https://doi.org/10.1186/s12889-021-12453-6

Nyadera, I.N., & Onditi, F. (2020). COVID-19 experience among slum dwellers in Nairobi: A double tragedy or useful lesson for public health reforms? International Social Work, 63, 838 - 841.

Obasi, C. O., & Anierobi, C. M. (2021). The Homeless-Poor and the COVID-19 Stay-at-Home Policy of Government: Rethinking the Plight of Homelessness in Nigeria. SAGE Open, 11(3), 21582440211045080. https://doi.org/10.1177/21582440211045078.

Rahaman, K. R., Mahmud, M. S., & Mallick, B. (2020). Challenges of Testing COVID-19 Cases in Bangladesh. International journal of environmental research and public health, 17(18), 6439. https://doi.org/10.3390/ijerph17186439.

Rahman, H. Z., Rahman, A., Islam, M. S., Faruk, A., Matin, I., Wazed, M. A., & Zillur, U. (2022). WIDER Working Paper 2022/13-Recovery with distress: unpacking COVID-19 impact on livelihoods and poverty in Bangladesh. https://doi.org/10.35188/UNU-WIDER/2022/144-0.

Rahman, H. Z., Das, N., Matin, I., Wazed, M. A., Ahmed, S., Jahan, N., & Zillur, U. (2020). Livelihoods, Coping and Support During Covid-19 Crisis. PPRC-BIGD Rapid Response Research.

Ria, A. F., Raha, S. A., Rana, M. S., Roy, P., Aktar, T., al Mamun, S., Anik, M. H., & Alam, (2020). Exploring the impact of covid-19 on adolescents in urban slums in Dhaka, Bangladesh. Policy Note. Gender and Adolescence: Global Evidence.

Roy, S. (2020). Low-income countries are more immune to COVID-19: A misconception. Indian Journal of Medical Sciences, 72(1), 5–7. https://doi.org/10.25259/ijms_26_2020.

Ruszczyk, H. A., Rahman, M. F., Bracken, L. J., & Sudha, S. (2020). Contextualizing the COVID-19 pandemic's impact on food security in two small cities in Bangla desh. Environment and Urbanization, 33(1), 239–254. https://doi.org/10.1177/0956247820965156

Sakamoto, M., Begum, S., & Ahmed, T. (2020). Vulnerabilities to COVID-19 in Bangladesh and a reconsideration of sustainable development goals. Sustainability (Switzerland), 12(13). https://doi.org/10.3390/su12135296

Shammi, M., Bodrud-Doza, M., Islam, A. R. M. T., & Rahman, M. (2020). COVID-19 pandemic, socioeconomic crisis and human stress in resource-limited settings: A case from Bangladesh. Heliyon, 6(5), e04063. https://doi.org/https://doi.org/10.1016/j.heliyon.2020.e04063.

Sharma, G. D., & Mahendru, M. (2020). Lives or livelihood: Insights from locked-down India due to COVID19. Social Sciences & Humanities Open, 2(1), 1-3, 100036. https://doi.org/10.1016/j.ssaho.2020.100036.

Sohel, M. S., Hossain, B., Alam, M. K., Shi, G., Shabbir, R., Sifullah, M. K., & Mamy, M. M. B. (2022). COVID-19 induced impact on informal migrants in Bangladesh: a qualitative study. International Journal of Sociology and Social Policy, 42(5–6), 473–497. https://doi.org/10.1108/IJSSP-02-2021-0046.

Sumiya, N. N., Kabir, M. H., Khatun, H., & Nusrat, M. (2022). Unveiling the Concealed Vulnerabilities to Covid-19 of Low-Income People in Dhaka City: Consequences and Adjustments. The Dhaka University Journal of Earth and Environmental Sciences, 10(2), 9–20. https://doi.org/10.3329/dujees.v10i2.57511.

Uddin, N. (2018). Assessing urban sustainability of slum settlements in Bangladesh: Evidence from Chittagong city. Journal of Urban Management, 7(1), 32–42. https://doi.org/https://doi.org/10.1016/j.jum.2018.03.002

Wasima, S., & Rahman, M. (2022). Economic Vulnerability of the Underprivileged during the COVID Pandemic: The Case of Bangladeshi Domestic Workers. Journal of Social Service Research. 1-13. https://doi.org/10.1080/01488376.2022.2029799

World Bank (2022). Population living in Slums (% of Urban population) – Bangladesh. World Bank data bank 2022.

WHO (2022). COVID-19 Weekly Epidemiological Update

22. World Health Organization website: https://www.who.int/docs/default-source/coronaviruse/situation-reports/weekly_epidemiological_update_22.pdf.

Wilder-Smith, A., & Freedman, D. O. (2020). Isolation, quarantine, social distancing, and community containment: pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. Journal of Travel Medicine, 27(2), taaa020. https://doi.org/10.1093/jtm/taaa020.

Wilkinson, A. (2020). Local response in health emergencies: key considerations for addressing the COVID-19 pandemic in informal urban settlements. Environment and Urbanization, 32(2), 503-522. https://doi.org/10.1177/0956247820922843.

Yang, P. & Wang, X. (2020). COVID-19: A new challenge for human beings. Cellular and Molecular Immunology, 17(5), 555-557. https://doi.org/10.1038/s41423-020-0407-x.

Zaman, S., Hossain, F., & Matin, I. (2022). Ethnography of community governance: a case of COVID-19 response of an urban slum in Bangladesh. Community Development Journal. https://doi.org/10.1093/cdj/bsac006

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Appendix

Table 1. All Indices and their Means

Variables	µ	Variables	µ
A. Work/Job implications		I have to spend more as transportation fare has increased	4.04
I have lost my job/livelihood	3.71	My expenditure surpassed income	4.14
I have lost my part time job	3.71	I have to spend more since price of all food items including rice increased	4.14
My job insecurity has increased	3.97	I have to pay extra fare to reach workplace	4.08
I am not getting enough work	4.00	I had to take loan from informal sources at high interest rate	3.81
I have to shift from a higher level job to a lower level job	3.76	I failed to repay loan	4.04
My work burden increased	3.76	**E. Food-related implications**	
My other income generating activities reduced	4.10	Facing difficulties to arrange three meals a day	3.97
I had to go my hometown as no job available	3.82	Consuming less quantity of food	3.86
B. Wage/Salary implications		Cannot purchase baby food	3.82
My salary has been curtailed	3.90	Consuming reduced amount of protein and healthy food	3.90
I have no regular income for months	3.80	My family members are living on dry food only	3.28
I have lost my overtime pay	3.76	Sometimes my family members need to starve	3.60
I have not received annual increment	3.85	Cannot purchase enough supplies/items	3.75
I have not received festival bonuses	3.75	**F. Family well-being implications**	
My family/ household income reduced	3.99	I have difficulty in payment of utility and other bills	4.09
Tips I used to get has reduced	3.77	My family members are living without required medical care/ ervices for not being able to bear healthcare cost	4.02
Household income reduced more among females than males	3.69	I am not being able to purchase cleanliness/ hygiene kits (mask, sanitizer, soap, etc.)	3.96
On average, the family lost more than 50% of prepandemic period income	3.89	I have to walk to my work and other places instead of using transport	3.94
C. Stakeholder-related financial implications		I could not pay house/shop/stall rent for months	3.85
My income reduced due to less number of customers	3.73	My family became homeless	3.53
My income reduced since educational institutions are closed	3.66	I had to send my family to village	3.94
My income reduced since purchasing power of customers decreased	3.79	I had to sell source of income/livelihood (rickshaw/ autorickshaw/ van/ photocopy machine, etc.)	3.54
My income reduced since the number of passengers using rickshaw, CNG driven autorickshaw decreased	3.69	I have to sell my valuables (ornaments, property, etc.) to survive	3.73
My income reduced due to lock down announced by government	4.11	**G. Offspring-related implications**	
My income reduced as business activities have slowed down	3.82	I had to involve minor family members in odd jobs to tackle economic hardship	3.70
D. Savings, expenditure & debt-related implications		My wife and I decided to sell our newborn baby for not being able to pay hospital bills	2.86
I cannot save any more	4.13	I got my underaged girl married to combat insecurity of food*	3.04
I am spending from my savings	4.11	**H. Overall financial implication**	
I have to spend more as commodity price hiked	4.11	Overall, COVID-19 impacted negatively the financial wellbeing of my family	4.30

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Stabilize Market Sentiment to Protect Investors in the Vietnamese Stock Market

Anh Tram Luong† · Thanh Trung Le** · Huong Thi Thu Phung***

A B S T R A C T

With a large proportion of retail investors, the Vietnamese stock market is still heavily influenced by sentimental factors rather than fundamental factors. Therefore, the issue of stabilizing market sentiment is increasingly essential to protect investors and ensure the development of market securities. The PCA is employed to construct a sentiment index for the Vietnamese stock market. The result shows that the investor sentiment in the Vietnamese stock market has fluctuated over time. Moreover, the index reflects the impact of several political and economic events on investor sentiment in the stock market. This study summarizes policies that the government has implemented to solve objective and subjective reasons for fluctuations in investor sentiment. Moreover, this study also recommends several improvements in policies to stabilize investor sentiment and protect vulnerable investors in the Vietnamese stock market.

Keywords: Investor sentiment, Investor protection, The Vietnamese stock market

Ⅰ. Introduction

The aim of this paper is to examine changes in investor sentiment in the Vietnamese stock market and give some recommendations to stabilize investor sentiment and protect vulnerable investors in this market.

The Vietnamese stock market is a frontier market and has recently attracted many investors. Besides being a potential market, the history of the Vietnamese stock market has also contributed to the growing number of investors in recent years. In the 80s of the 20th century, Vietnam needed significant capital for the country's recovery goals after the war. However, due to the economic siege and the inability to borrow capital or access foreign funding sources, the government realized that it was essential to establish a stock market for the Vietnamese economy. Howev.er, at that time, the free stock market in Vietnam was still tiny and fragile. Nevertheless, the government still decided to establish the State Securities Commission (SSC) in 1997 to lay the foundation for a developed stock market in the future. This is the difference between the Vietnamese stock market and other stock markets in the world. At that time, a state securities regulator was generally established for countries when the free stock market had developed to a level that required a macro-level regulator. In contrast, Vietnam established a stock market regulator when the concepts of stocks, shares, and dividends were still very vague to most residents. In July 2000, the Ho Chi Minh City Stock Exchange Center was opened and marked the first steps of the stock market in Vietnam. In the following years, when the problems of facilities,

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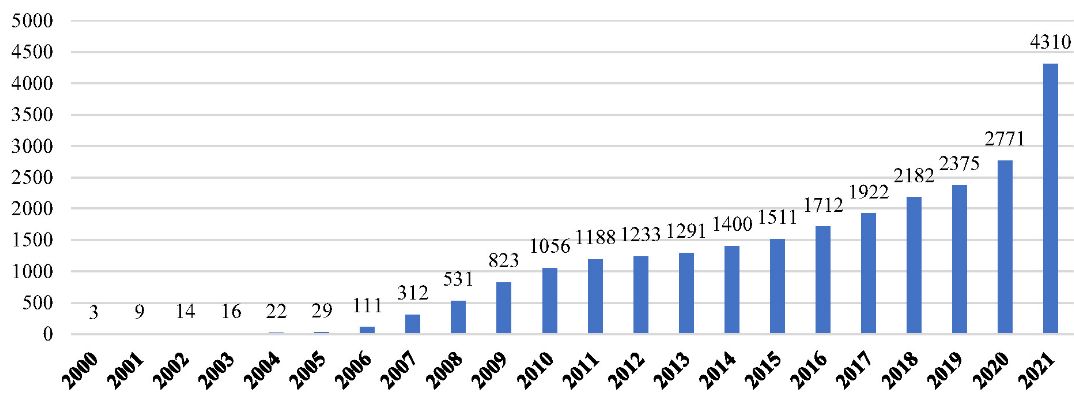
personnel, people, and systems of the stock exchanges were completed, more and more people became interested in the stock market as an investment channel. This has lead to the number of people placing money into the Vietnamese stock market increasing rapidly in recent years.

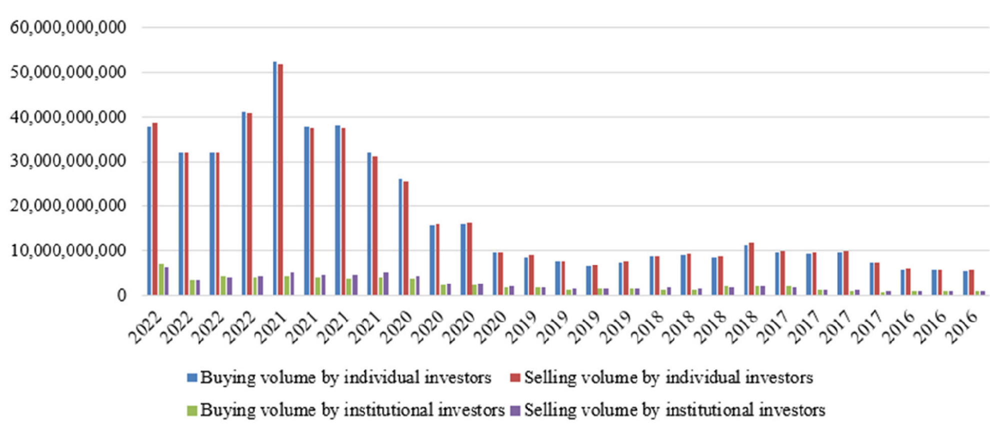
Investors in the Vietnamese stock market are mainly retail investors rather than institutional investors, as illustrated in Figures 1 and 2. Figure 1 shows the rapid increase in domestic investors in the Vietnamese stock market, especially in 2006, 2007, and 2021. The number of individual investors accounts for approximately 97 percent of the total number of domestic investors. Figure 2 shows the trading volume of individual and institutional investors in the Vietnamese stock market. This figure indicates the superior trading volume of individual investors compared to institutional investors over time.

The high proportion of individual investors is because the competing capability of investment funds (institutional investors) in Vietnam is small compared to other financial products such as bank deposits, stocks, bonds, and insurance. Therefore, the number of investment funds in Vietnam is limited. On the other hand, individual investors, who make up the majority of investors in Vietnam, have inadequate financial awareness and usually make decisions depending on sentiment. Ackert & Deaves (2010) also said that retail investors are vulnerable because sentiment



Source: This graph is constructed using data from State Securities Commission, 2022

Figure 1. Number of domestic investor accounts



Source: This graph is constructed using data from FiinPro database, 2022

Figure 2. Buy and selling volume of investors

rather than fundamental factors strongly influence them. This has raised concerns about which sentiments are popular in the Vietnamese stock market and what the government does to stabilize market sentiment and protect vulnerable investors.

This study provides a detailed view of investor sentiment in the Vietnamese market. This is the basis for completing policies to protect investors in the Vietnamese market. Key research questions are:

RQ1: How does the market sentiment in the Vietnamese stock market change over the period from 2012 to 2022?

RQ2: What is the cause of these sentiments?

RQ3: What policies are being implemented to stabilize sentiment and protect investors in the Vietnamese market?

Ⅱ. Literature review

A. Investor sentiment

1. Heuristics and biases

Heuristics are shortcuts to deciding by using specific information that can sometimes lead to bias (Ackert & Deaves, 2010). In many studies, heuristics and biases are often expressed in herding behaviors and anchoring. Regarding herd behaviors, Keynes (2018) pointed out that investors ignore their information and other fellows' decisions under incomplete information. Research by Kim & Nofsinger (2008) said that herd behaviors affect eastern investors' cognitive biases compared to western investors'. Regarding anchoring, when people are uncertain, they often anchor their decision on available data and slowly adjust it. Anchoring can appear even when the anchor is unimportant if the anchor is available. Although heuristics can help investors save time when making decisions, the negative impact of heuristics is that people can be biased (Ackert & Deaves, 2010).

2. Overconfidence

Overconfidence is a phenomenon in which investors believe that they can estimate stock values better than others, so they often overstate the accuracy of their information (Ackert & Deaves, 2010). Many studies suggest that investors' overconfidence can lead to an increasing number of transactions and increased trading volume in the market (Kyle, 1985; De Long et al., 1990). Thus, overconfidence is the reason to use market turnover to measure market sentiment.

3. Emotion

According to Ackert & Deaves (2010), emotion is one of the behavioral science foundations because emotions sometimes motivate people to make decisions at critical moments. Some signs of overconfidence are loss aversion, fear of missing out, and the disposition effect.

- Loss aversion: People often appreciate losses more than gains. When they lose something, their feelings of regret are stronger than their happiness when they receive something of the same value.
- Fear of missing out: The fear of missing out was first introduced by McGinnis (2004) when researching business decision work. The fear of missing out is when a person is worried about missing a reward that other people will achieve. This behavior encourages a person constantly to track social networks and stay in touch with others (Przybylski et al., 2013).
- Disposition effect: This is an anomaly that an investor tends to sell profitable securities and hold losing securities (Odean et al., 1998). This effect is particularly prominent during bear markets.

B. Measures of investor sentiment

Many studies refer to the definition of investor sentiment (Bormann, 2013). The general point of definitions in these studies is the subjective attitude of investors, which leads to deviation in decision making. The investor sentiment index is employed to measure investor sentiment. According to Zhou (2018), there are three types of sentiment index. Firstly, the survey-based sentiment index is determined by surveys of investors. Some notable extensive surveys are the American Association of Individual Investors survey, ING Investor Dashboard Sentiment Index, and Investors Intelligence survey. Secondly, the text-based index and media-based index are determined by data mining tools. For example, the positive and negative words about the stock market in the New York

Times were analyzed to gauge sentiment in the stock market (García, 2013). Jiang et al. (2019) also collected textual data to construct an index for market sentiment. The information collected includes public financial information and private information of the company's managers. This data shows that sentiment can be built in as short a time as a minute Finally, the market-based sentiment index is determined by proxies related to investor sentiment. Several proxies used to determine sentiment are the closed-end fund discount (Zweig, 1973; Lee et al., 2002); Volatility Index, put-call ratio, option premiums, and open interest (Pan & Poteshman, 2006).

C. The background of investor sentiment in the Vietnamese stock market

1. Heuristics and biases

Heuristics and biases are expressed through herding behaviors, anchoring and mistakes between valuing investment in a company and valuing a company's assets

Firstly, in terms of herding behaviors, the collective-community mentality of the Vietnamese people, as noted by Nguyen Hong Phong (1963), is a defining national trait influencing herding behaviors in the Vietnamese stock market. Herding tendencies are more pronounced during bear market declines, as indicated by Doan Anh Tuan and Hoang Mai Phuong (2017). Additionally, the actions of domestic investors in the Vietnamese stock market are significantly influenced by foreign investors, with foreign traders' net selling impacting the market's global position, regardless of its source, as observed by Vu Thi Loan and Nguyen Thi Hien (2021).

Secondly, regarding anchoring in the Vietnamese stock market, investors often base their decisions on rumors, influential figures, and internal company information. (1) Anchoring to rumours: As information becomes more accessible through technology, the Vietnamese stock market is increasingly influenced by rumors. For example, when Mr. Tran Bac Ha, the chairman of the board of directors of the Bank for Investment and Development of Vietnam (BIDV), was arrested, the market experienced a significant drop due to rumors. The interesting point is that the anchoring bias in the Vietnamese stock market has changed over time. For example, the content of rumors has shifted, with investors now more influenced by M&A information than arrest news, reflecting changing economic conditions. (2) Anchoring to influential people: In the Vietnamese market, there is a common term to refer to large investors who influence the market and can manipulate the stock market price: "driver". Taking advantage of investor sentiment, drivers make investors have biases, guiding investors' actions. Although the Vietnamese market has had many "mature" steps, the influence of drivers is still very significant because the market still continuously has many new investors entering the market for the first time. (3) Anchoring to internal company information: Investors are likely to be affected by inside information, especially transactions of companies' senior managers. For example, the price of shares of FLC Group JSC (FLC) dropped sharply after the undisclosed sale of Mr Trinh Van Quyet, the old chairman of the board of directors of FLC, in January 2022 (Tuoi Tre News, 2022). However, on March 31, information appeared on the social network that the new chairman of the board of directors was buying and collecting FLC shares, causing the trading volume on April 1 to increase 100 times compared to the previous day (Tuoi Tre News, 2022). This has shown that “inside information”, whether verified or not, dramatically influences investors in the Vietnamese stock market. According to Mr Nguyen Huu Tai (2021), insider trading and disclosing false information are the most common fraudulent acts on the Vietnamese stock market from 2007 to 2018. However, inside trading can harm investors because information can be delayed.

Thirdly, regarding investment valuation versus company assets, many investors erroneously believe that a company with substantial assets is a good investment, even if the company operates at a loss. In 2021, several real estate companies faced significant income declines, yet their stock prices saw substantial increases (Tien Phong News, 2021). Investors often base their investments on land area and the number of projects a company possesses, which can adversely affect stock prices if transactions are not executed. For instance, Tan Hoang Minh Group's withdrawal from the Thu Thiem land auction led to floor prices for many real estate industry stocks in January and February 2022. Despite unfavorable business results the previous year, there was a substantial investment in real estate stocks. Valuing real estate companies hinges on factors like property rights, project execution capabilities, product sales, and discounted cash flow methods, not solely on land market value.

2. Overconfidence

Nguyen Thi Nhung et al. (2021) showed no evidence that overconfidence affects trading volume on the Vietnamese stock market. The research sample of stocks is the VN30, the group of companies with the top capitalization on the HSX (Bluechips). However, these results may change if we consider all companies on the two exchanges, especially the medium-capitalization stocks (Midcap) and small-capitalization (Penny). Overconfidence often occurs during periods of market booms. According to Pham Luu Hung (2022), the SSI securities company witnessed a decrease in the number of customers using consulting services in 2020 and 2021. However, at the beginning of 2022, when the stock market encountered many problems, the number of customers coming to SSI bounced back again.

In addition, overconfidence also causes investors to reduce the degree of diversification. It can lead investors to invest in only one industry with different stocks. For example, the fact that Tan Hoang Minh Group Joint Stock Company withdrew from the Thu Thiem land auction caused all stocks in the real estate to witness a rapid reversal and decrease in price in January and February 2022. This makes many investors lose due to investing merely in stocks of real estate companies in the previous period of expansion.

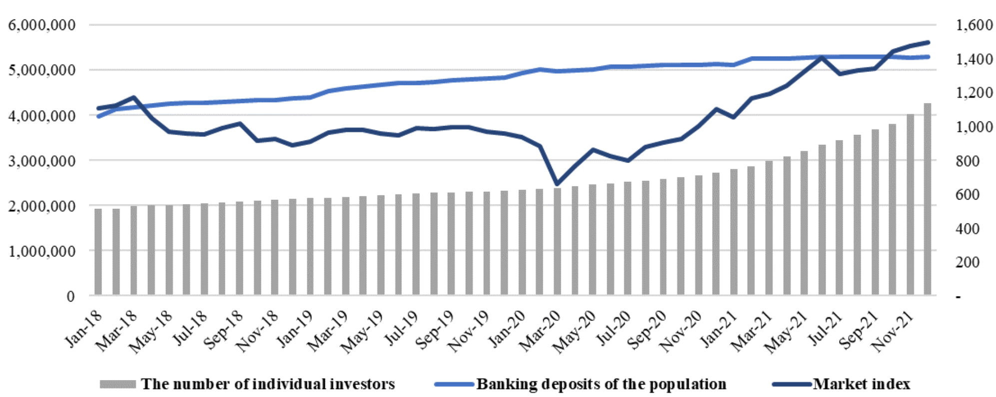
3. Emotion

In the context of the Vietnamese stock market, aspects of emotion are noteworthy.

Firstly, there exists a pervasive concern regarding loss aversion. As exemplified by an incident on January 10, 2022, wherein the Ho Chi Minh City Stock Exchange (HSX) encountered a technical malfunction, resulting in a temporary halt in trading activities while the HNX and Upcom were still trading usually. This incident impacted investors' fear of loss. Many people continuously sold off despite not knowing the actual price of the traded shares (Public Security News, 2022). Although the market was quite good in the morning session with an increase in the VNIndex by 5.64 points, the incident in the afternoon session caused the VNIndex to drop deeply to 24.77 points at the end of the session.

Secondly, with respect to the "fear of missing out", according to Trinh Thi Phan Lan (2021), the fear of missing out has been influential not only for individual stocks but also for the entire Vietnamese stock market in the period from 2020 to 2021, especially in the second half of the year 2021. Figure 3 shows that between 2020 and 2021, the market index and the number of individual investors increased more rapidly than the number of population banking deposits. This contrasts with the difficulty in business operations of many companies during the pandemic. There seems to be a fear of missing out on the Vietnamese stock market during this period when investors feared losing rewards on the stock market.

Finally, concerning the disposition effect, Tran Thi Hai Ly and Huynh Ngoc Thuong (2012) involving a sample of 100 investors within the Vietnamese stock market dis-



Source: This graph is constructed using data from State Securities Commission, 2022 and State bank of Vietnam, 2022

Figure 3. The market index, The number of individual investors, and the banking deposits of the population

cerned a prevailing tendency among 80% of participants to prematurely divest themselves of profitable stocks as opposed to loss-incurring ones. This effect tends to be stronger among female investors or those with small account values. Phan Tran Trung Dung and Nguyen Quang Loc (2019) proved similar results. Research results show that the group of profitable stocks are sold faster than the losing stock. In contrast, losing stocks were held longer than non-losing stocks, although the trend became evident only for stocks withholding periods of more than 50 days.

Ⅲ. Methodology

A. Data collection

Data to measure sentiment on the Vietnamese stock market is collected from January 2010 to June 2022 with monthly frequency. The investor sentiment index is constructed from seven proxies: market turnover (calculated from data taken from the Fiinpro database), number of IPOs (websites of HNX and HSX), average first-day return on IPOs (reports for IPO of listed companies), equity share of new applying (calculated from data taken from the Fiinpro database), and the log difference in book-to-market ratios between dividend payers and dividend non-payers (calculated from data taken from the Fiinpro database), money flow index (calculated from data taken from the Fiinpro database) and the number of new investors (websites of HNX and HSX). The first five proxies were chosen following Baker & Wurgler (2006). The last two proxies are consistent with the literature by Aggarwal & Mohanty (2018), Amromin & Sharpe (2014) and Chen et al. (2010). We do not use the closed-end fund discount to construct a sentiment index for the Vietnamese stock market because of the limitations of closed-end funds in Vietnam. Controlling variables are the number of jobs, the industrial production index, and retail sales of consumer goods and services (General Statistics Office of Vietnam).

This study also used data collected from digital newspapers of government organizations such as the Government News, Thanh Nien, Tuoi Tre Online and other official websites to discuss reasons for investor sentiment and government policies in Vietnam.

B. Data analysis

This study uses the PCA to form a composite index that captures the common component of five proxies. However, because each proxy includes both sentiment and non-sentiment-related components, Baker and Wurgler (2006) suggested regressing each of the raw proxies on fundamental variables. This paper regressed each of five raw proxies on a dummy variable for recession, the industrial production index, employment, consumer price index, and total retail. The residuals from these regressions, labeled , are used to form a "cleaner" investor sentiment index. Then, the Principal Component Analysis (PCA) is adopted to construct a sentiment index for the Vietnamese stock market. PCA is a method of reducing the dimensionality of the data space. Many variables are correlated while ensuring the maximum possible variance of the data (Jolliffe, 2002).

The sentiment index equation is:

$$\begin{aligned} SENT^{\perp} = a \times NIPO + b \times RIPO + \\ c \times TURN + d \times S + e \times \\ P^{D-ND} + f \times MFI + e \times \\ INV \end{aligned} \tag{1}$$

where: is the investor sentiment, is the number of IPOs, is the average first-day return, is the market turnover, is equity share in new issues, is Value-weighted dividend premium, is the market premium, is the size premium, is the value premium, is money flow index and is the number of new investors.

The study also uses trend analysis and comparative analysis methods to discuss reasons for investor sentiment and government policies in Vietnam.

Ⅳ. Result and Discussion

A. The sentiment index in the Vietnamese stock market

Table 1 presents descriptive statistics and a correlation matrix between proxies representing investor sentiment. Panel A describes the raw data, which are sentiment proxies collected without controlling macroeconomic variables. Part B describes the residuals from regressions of each

Table 1. Description of Sentiment components

Variable	Mean	SD	Min	Max	Correlation matrix of sentiment components							
						NIPO	RIPO	TURN	S	P	MFI	INV
Panel A: Raw data												
NIPO	36,50	25,50	10,00	146,00	NIPO	1						
RIPO	8,10	7,56	-9,01	20,71	RIPO	0,31***	1					
TURN	-2,84	0,33	-3,39	-1,99	TURN	0,45***	0,66***	1				
S	0,61	0,08	0,43	0,74	S	0,12	0,34***	0,32***	1			
P	21,68	20,85	-39,25	69,17	P	0,40***	0,37***	0,32*	0,33***	1		
MFI	53,95	14,36	22,63	91,85	MFI	-0,14*	-0,07	-0,23***	-0,07	0,22*	1	
INV	0,01	0,02	0,00	0,09	INV	-0,15*	0,27***	0,22**	0,03	0,15	-0,06	1
Panel B: Controlling for Macroeconomic variables												
						$NIPO^{\perp}$	$RIPO^{\perp}$	$TURN^{\perp}$	$S^{\perp}$	$P^{\perp}$	$MFI^{\perp}$	$INV^{\perp}$
$NIPO^{\perp}$	0,00	12,87	-24,56	42,05	$NIPO^{\perp}$	1						
$RIPO^{\perp}$	0,00	5,90	-13,88	14,04	$RIPO^{\perp}$	0,30***	1					
$TURN^{\perp}$	0,00	0,23	-0,52	0,74	$TURN^{\perp}$	0,15*	0,79***	1				
$S^{\perp}$	0,00	0,08	-0,17	0,15	$S^{\perp}$	0,27***	0,16*	0,25***	1			
$P^{\perp}$	0,00	14,87	-41,68	41,45	$P^{\perp}$	0,24***	0,09	-0,14	0,08	1		
$MFI^{\perp}$	0,00	13,84	-33,04	39,03	$MFI^{\perp}$	-0,06	-0,15	-0,23**	-0,14	0,18**	1	
$INV^{\perp}$	0,00	0,01	-0,01	0,08	$INV^{\perp}$	-0,09	0,21**	0,36***	0,07	-0,13	-0,11	1

raw proxies on macroeconomic variables (denoted by $\perp$). Table 4.2 shows that most of the variables have a statistically significant correlation with each other, so the PCA method can be used to synthesize information from these variables and construct a sentiment index.

Adopting the PCA with the residuals, the first principal component explains 32% of the sample variance of the orthogonalized variables. The investor sentiment index for the Vietnamese stock market from 2012 to 2022 is:

$$SENT^{\perp}{}_t = 0.2710 \times NIPO_t + 0.5719 \times RIPO_{t-1} + 0.5956 \times TURN_{t-1} + 0.3050 \times S_t + 0.0182 \times P^{D-ND}{}_{t-1} - 0.2590 \times MFI_t + 0.2905 \times INV_{t-1} \tag{2}$$

Figure 4 illustrates the investor sentiment for the Vietnamese stock market from 2012 to 2022. It can be seen that the sentiment index varies over time and reflects the impact of several events on the Vietnamese stock market. In 2013, rumours about Mr Tran Bac Ha's arrest led to a large scale security market sell-off, causing the prices of 430 stocks to decline, of which 148 stocks hit floor prices on February 21, 2013 (Figure 4). This event wiped out billions of US dollars in market value (Tuoi Tre News, 2013). In August 2017, this rumour was spread again, negatively affecting banking stocks and the blue-chip stocks such as VNM, PLX and SAB. The market sentiment also dropped in the last half of 2014 when China set up an oil rig in the East Sea and 2018 after the stock market bubbles in 2017. The sentiment also increased significantly in 2020 when many Vietnamese people were investing in the stock market. In general, investor sentiment in the Vietnamese stock market widely fluctuates, and it is strongly influenced by political and economic events. This impacts negatively on vulnerable investors in the market.

Table 2 presents descriptive statistics of the sentiment index. The variable is normalized, so the mean is 0.000. The maximum value is 2.3790 in December 2012 and the smallest value is -3.0764 in June 2022. The skewness, kurtosis and Jarque-Bera tests show that the sentiment index has no normal distribution.

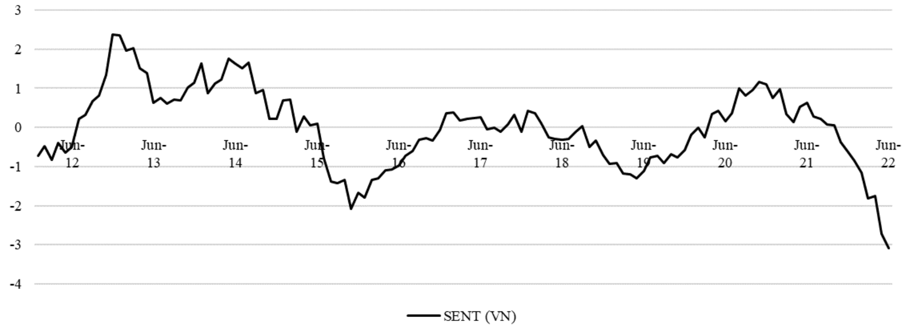


Figure 4. Investor sentiment for the Vietnamese stock market from January 2012 to June 2022

Table 2. Description statistics of investor sentiment index

	Investor sentiment index
Observations	126.0000
Mean	0.0000
Median	0.0626
Max	2.3790
Min	-3.0764
SD	1.0000
Skewness	-0.1689
Kurtosis	3.2338
Jarque-Bera test	0.8864

Figure 5 compares investor sentiment indices between Vietnam and the United States. The investor sentiment series for the US is retrieved from Wurgler's website[1]. Data for the US is available until 2018. It can be seen that there is a moderate relationship between investor sentiment indices for Vietnam and the United States. However, over the study period, the change in market sentiment in Vietnam is more cyclical than in the US market. From 2012 to now, the sentiment of the Vietnamese stock market has also changed more strongly than that of the US market. The next part of this study will discuss some reasons for fluctuations in investor sentiment in the Vietnamese stock market.

B. Discussion reasons for investor sentiment in the Vietnamese stock market

1. Objective reasons

Some of the reasons for fluctuations in investor sentiment in the Vietnamese stock market are a symmetric information in the market, information overload, and the

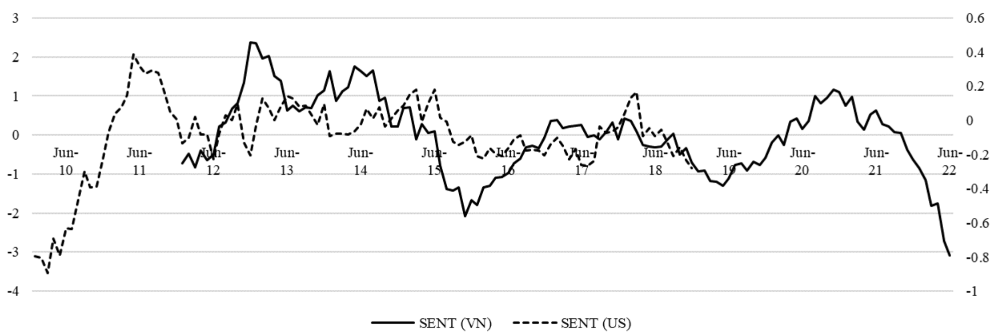


Figure 5. Investor sentiment indices for Vietnam and the United States

1 https://pages.stern.nyu.edu/~jwurgler/

nature of Eastern culture.

Firstly, asymmetric information was proposed by Akerlof, Spence and Stiglitz, making these scientists receive the 2001 Nobel Prize in Economics. This study assumes a difference in the information obtained between the subjects participating in a transaction. This phenomenon often occurs in developing countries (Anayiotos & Dunaway, 1994). According to Dang Thi Bich Ngoc (2018), companies listed on the Vietnamese stock market often disclose information periodically at the request of the SSC. However, unusual information is not disclosed with completeness and timeliness, leading to asymmetric information between internal managers and external investors. Popular information that is not disclosed on time is the business expansion projects, the future products and business plans. According to Ho Chi Minh City Stock Exchange, the number of information disclosure violation cases in HSX was 104 cases in 2017, 68 cases in 2016 and 90 cases in 2015. According to Labor News (2021), by mid-December 2021, more than 270 sanctioning decisions were issued by the State Securities Commission, mainly due to failure to register transaction reports of insiders and majority shareholders. This number is 26.5% higher than the whole of 2020. In addition, the quality of published information is also a big problem. The difference in the financial statements before and after the audit also significantly affects investor sentiment. Asymmetrical information often leads to heuristics and biases in the decision-making of individual investors. In addition, the information asymmetry will also lead to insider transactions, which strongly affect vulnerable investors.

Secondly, in terms of information overload, technology has recently made it easier for investors to access a large amount of information relating to politics, economy, society, and individual companies. With the support of technology, investors can now easily find information to answer their questions. This easy access also has the downside that investors are overloaded with accurate and inaccurate information, affecting the decision-making process. According to Mitchell & Lusardi (2011), people who experience higher information overload are less confident in their choices and less satisfied with their decisions. Therefore, many investors in the Vietnamese market, even though they can gain much information about listed companies themselves, are still not confident in making investment decisions in stocks of good companies if this stock is not recommended by “drivers”. In addition, information overload can create inaccurate rumours, creating noise (Black, 1986). For example, information overload will cause inaccurate rumours, leading to the stock market price not accurately reflecting the company’s intrinsic value, negatively affecting the sustainable development of the stock market.

Third, regarding the nature of eastern culture, Kim & Nofsinger (2008) studied the differences between eastern and western cultures regarding collectivism and individualism that lead to heuristics and biases of individual investors. They further emphasized that Asian countries have a perfect background for studying behavioral finance. Collectivity is one of the most fundamental features of Vietnamese culture. Although collectivism has many positive points, it often leads to the individual's consciousness being lost (Nguyen Huu Dat, 2000; Dao Thi Phuong, 2015). This is the reason for anchoring to influential investors.

2. Subjective reasons

Some of the subjective reasons for investor sentiment in the Vietnamese stock market are the knowledge and financial capacity of investors, and demographic characteristics.

Firstly, in terms of knowledge and financial capacity of investors: By the end of 2021, over 90% of investors in the Vietnamese stock market will be domestic individual investors. According to Dang Cong Hoan (2022), the limited knowledge and financial capacity of individual investors is partly reflected in the change in the market share of securities companies. Table 3 describes the market share of securities companies on the HSX in 2021. Accordingly, VPS securities company rose from eighth place in 2019 to first place with 16.14 percent of the total market share in 2021, while SSI had merely 11.05 percent. The analysis method of these two companies has many differences. SSI tends to employ fundamental analysis, and they regularly deliver business analysis reports to clients. Meanwhile, VPS focuses on competition through fee competition policies, high leverage products, and a team of young brokers; their primary approach is technical analysis. VPS does not seem to provide many in-depth analytical reports on the business aspect of the business. This choice of investors reflects the "disengagement" from the primary purpose of the stock market and indirectly encourages short-term transactions (Dang Cong Hoan, 2022).

Second, regarding demographic characteristics, there is currently no regulation on the age to open a securities

Table 3. The market share of securities companies on the HSX in 2021 (Source: Financial Times Vietnam, 2022)

No	Name of company	Abbreviations	Market share
1	VPS Securities	VPS	16.14%
2	SSI Securities	SSI	11.05%
3	VNDIRECT Securities	VNDS	7.46%
4	Ho Chi Minh City Securities	HSC	6.71%
5	Viet Capital Securities	VCSC	4.87%
6	Techcom Securities	TCBS	4.57%
7	Mirae Asset Securities Vietnam	MAS	4.44%
8	MB Securities	MBS	4.27%
9	FPT Securities	FPTS	3.38%
10	KIS Vietnam Securities	KIS	2.89%

account. Circular 120/2020/TT-BTC dated December 31, 2020, of the Ministry of Finance regulates those investors who open securities accounts are responsible for identifying fully and accurately information when opening a trading account. However, securities companies often stipulate that the minimum age to open a trading account is 18. Currently, the Vietnamese stock market is attracting many young investors. This trend makes many securities companies shift their focus to young investors in the market. In 2021, VPS securities company launched the "Zinvest - Z investment" program exclusively for young customers. The target group of this program is customers aged between 18 and 25 at the date of account opening (customers born between 1996 and 2003) (VPS, 2021). According to Nhan Dan News (2022), young investors today have more knowledge and skills to invest than investors in the 2006-2007 period. However, due to lack of experience, many young investors lack discipline and cannot control their sentiment when making transactions.

Regarding gender, according to some recent surveys, the number of female investors is higher than that of males. Specifically, according to a survey by Vietnam Indochina Research Company (2021), the percentage of women/men participating in the survey is 55%/45%. According to a survey by Vo Thi Hieu et al. (2020), the percentage of women/men participating in the survey is 62%/38%. This happened not only in the Vietnamese stock market but also in the US stock market due to the economic effects of the Covid-19 epidemic (Saigon Economic Newspaper, 2021). The different characteristics of gender will lead to different risk appetites and trading habits among investors.

C. Policies to stabilize investor sentiment on the Vietnamese stock market

The Vietnamese government has introduced many policies to stabilize investor sentiment on the Vietnamese stock market. These policies aim to address the objective and subjective reasons for investor sentiment in the market.

Firstly, regarding asymmetric information, the Law on Securities 2019 has used a chapter (Chapter VIII) to address the issue. Accordingly, the subjects that must disclose information include public companies, institutions that issue corporate bonds to the public, securities companies, securities investment fund management companies and their branches, Vietnam Stock Exchange and its subsidiaries, Vietnam Securities Depository and Clearing Corporation; majority shareholders, founding shareholders, insiders, and some other subjects. The disclosure of information must be done on the following principles: completeness, accuracy, and timeliness. The information disclosure of the organization must be made by a legal representative, or a person authorized to disclose information. The subjects disclosing information must take responsibility before law for the contents of disclosed information. When disclosing information, it must simultaneously be reported to the State Securities Commission (SSC) and the organization where such securities are listed or registered for trading on the contents of the disclosed information. The subjects disclosing information are responsible for preserving and keeping announced and reported information according to law provisions.

Circular 96/2020/TT-BTC dated November 16, 2020, of the Ministry of Finance, was issued to provide more detailed guidance on information disclosure on the Vietnamese stock market. Accordingly, the subjects must disclose information on their websites, the SSC's information disclosure system, the stock exchange website, and other mass media following the law. Which media depends on the specific content of the information. Subjects must publish periodic information, unusual information, and information on demand. The SSC is an agency that supervises, inspects, and handles violations of information disclosure on the stock market. The Securities Law 2019 stipulates the principles of criminal prosecution for crimes in the securities sector, such as forging registration dossiers for offering, knowingly misinforming or concealing the truth, and using inside information to buy and sell securities. According to Nguyen Thi Hai Ha (2017), the legal framework regarding information disclosure in the Vietnamese stock market has been gradually improved. At the same time, the application technology, such as the implementation and use of the Securities Trading Supervision system (MSS System) and Information Disclosure System (IDS), has made storage more accessible and more affordable. The ability to search for information is more accessible than before. The information processing speed is also faster compared to the previous period. The scope of management and monitoring is expanded, increasing the ability to detect transactions with abnormal signs. However, current regulations on information disclosure often only focus on the time limit for information disclosure; the monitoring and checking of information after disclosure is still loose. There are no explicit provisions for protecting investors' interests against damages caused by listed companies' information disclosure violations. These are some of the policy issues that need to be resolved in the future to eliminate asymmetric information.

Second, regarding information overload, it is necessary to pay more attention to financial communication. At the same time, investors need to improve their ability to detect information risks. Some solutions proposed by Nguyen Son (2018) are promoting official communication and enhancing information transparency. Currently, the SSC has also coordinated with functional units of the Ministry of Finance and press agencies such as Nhan dan News, Securities Investment News, and Vietnam Television to orient the information on the stock market to investors (Nguyen Tien Dung, 2017). In addition, good quality companies should communicate to promote their business activities or new projects. The communication sessions of companies owning value stocks are usually aimed at institutional investors and professional investors, while retail and inexperienced investors often access information on social networks. This leads to a group of investors being overloaded with information on social networks but still lacking accurate and necessary information in their investment process.

Thirdly, regarding the nature of Eastern culture, over the years, the government has issued many legal documents to regulate relations in the securities markets, creating a favourable legal basis to protect individual investors. For example, Decree 156/2020/ND-CP dated December 31, 2020, of the Government clearly states that market manipulation can lead to criminal prosecution. However, the elimination of adverse effects of herding behavior requires legal improvement and changes in the knowledge and financial capacity of investors.

Fourth, regarding investors' knowledge and financial capacity, the Securities Training Center of SSC has currently focused on training practice certificates. However, many non-specialists need to learn about investment, while there is currently no standard of knowledge for this group of investors. This demand can be met by coordination between SSC and securities companies to provide basic knowledge to investors (Dang Cong Hoan, 2022).

Fifth, regarding demographic issues, the entry of young and female investors into the market does not negatively affect the market; however, it is necessary to have policies to support this group of investors to enhance investment skills and knowledge. Many universities now have included the stock investment course in their curricula. At the same time, many securities contests were also organized, such as the "Stock Market Training" contest of the University of Economics - Vietnam National University Hanoi and the "Investor bravery" contest of the Banking Academy. This is a valuable opportunity for young investors to acquire knowledge and experience trading in the real stock market.

Ⅴ. Conclusion

After more than 20 years of development, the Vietnamese stock market has also made many new strides. Investors have more knowledge and experience in transactions in the market. However, with many individual investors, the Vietnamese stock market is still heavily influenced by sentiment factors rather than fundamental factors.

There are three popular types of sentiment among Vietnamese investors. Firstly, heuristics and biases are manifested through herding behaviors, anchoring, and mistakes between valuing investment in a company and valuing a company's assets. Second, overconfidence often occurs during periods of market booms. In addition, overconfidence also causes investors to reduce the degree of diversification. Third, Vietnamese investors often act on emotions. Some of the primary emotions that dominate Vietnamese investors are loss aversion, fear of missing out and the disposition effect.

The investor sentiment in the Vietnamese stock market comes from two main reasons. For objective reasons, the Vietnamese stock market still has asymmetric information. Besides, the development of technology has investors overloaded with information in recent years. In addition, the influence of Eastern culture acting in collective action is also the cause of difficult-to-change sentiments in the Vietnamese market. For subjective reasons, the Vietnamese stock market consists of many individual investors, who are vulnerable groups of investors due to limitations in investment knowledge and financial capacity. In addition to demographic characteristics, personality traits also lead to investor psychology problems.

With an important role for the economy in general and enterprises' production and business activities in particular, the Vietnamese stock market is often an interest for the government. Many policies have been put in place to stabilize investor sentiment on the Vietnamese stock market. However, these policies still need to be improved and put into practice to protect a large group of vulnerable investors.

References

・English references

Ackert, L. F., & Deaves, Richard. (2010). Behavioral finance : psychology, decision-making, and markets. South-Western Cengage Learning.

Aggarwal, D., & Mohanty, P. (2018). Do Indian stock market sentiments impact contemporaneous returns? South Asian Journal of Business Studies, 7(3), 332-346. https://doi.org/10.1108/SAJBS-06-2018-0064/FULL/PDF

Amromin, G., & Sharpe, S. A. (2014). From the horsés mouth: Economic conditions and investor expectations of risk and return. Management Science, 60(4), 845–866. https://doi.org/10.1287/MNSC.2013.1806

Anayiotos, G. C., & Dunaway, S. v. (1994). Information Asymmetries in Developing Country Financing. In IMF Working Papers (Vol. 1994, Issue 079). International Monetary Fund. https://doi.org/10.5089/9781451955781.001.A001

Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross-section of stock returns. Journal of Finance, 61(4), 1645–1680. https://doi.org/10.1111/j.1540-6261.2006.00885.x

Black, F. (1986). Noise. The Journal of Finance, 41(3), 528–543. https://doi.org/10.1111/J.1540-6261.1986.TB04513.X

Bormann, S.-K. (2013). Sentiment Indices on Financial Markets: What Do they Measure? In Economics Discussion Papers (No. 58). http://www.economics-ejournal.org/economics/discussionpapers/2013-58

Chen, H., Chong, T. T. L., & Duan, X. (2010). A principal-component approach to measuring investor sentiment. Http://Dx.Doi.Org/10.1080/14697680903193389, 10(4), 339–347. https://doi.org/10.1080/14697680903193389

de Long, J. B., Shleifer, A., Summers, L. H., & Waldmann, R. J. (1990). Noise trader risk in financial markets. Journal of Political Economy, 98(4), 703–738. https://doi.org/10.1086/261703

García, D. (2013). Sentiment during Recessions. Journal of Finance, 68(3), 1267–1300. https://www.jstor.org/stable/42002620

Jiang, F., Lee, J., Martin, X., & Zhou, G. (2019). Manager sentiment and stock returns. Journal of Financial Economics, 132(1), 126–149. https://doi.org/10.1016/J.JFINECO.2018.10.001

Jolliffe, I. T. (2002). Principal Component Analysis. Springer-Verlag. https://doi.org/10.1007/B98835

Keynes, J. M. (2018). The general theory of employment, interest, and money. In The General Theory of Employment, Interest, and Money. Springer International Publishing. https://doi.org/10.1007/978-3-319-70344-2

Kim, K. A., & Nofsinger, J. R. (2008). Behavioral finance in Asia. Pacific-Basin Finance Journal, 16(1–2), 1–7. https://doi.org/10.1016/J.PACFIN.2007.04.001

Kyle, A. S. (1985). Continuous Auctions and Insider Trading. Econometrica, 53(6). https://doi.org/10.2307/1913210

Lee, W. Y., Jiang, C. X., & Indro, D. C. (2002). Stock market volatility, excess returns, and the role of investor sentiment. Journal of Banking and Finance, 26(12). https://doi.org/10.1016/S0378-4266(01)00202-3

McGinnis, P. J. (2004). Social Theory at HBS: McGinnis' Two FOs - The Harbus. The Harbus. https://harbus.org/2004/social-theory-at-hbs-2749/

Mitchell, O. S., & Lusardi, Annamaria. (2011). Financial literacy : implications for retirement security and the financial marketplace. Oxford University Press.

Odean, T., Barber, B., Klein, P., Leland, H., Lyons, R., Modest, D., Nofsinger, J., Poterba, J., Rubinstein, M., Ruud, P., Sansing, R., Thaler, R., & Trueman, B. (1998). Are Investors Reluctant to Realize Their Losses? The Journal of Finance, 53(5), 1775–1798. https://doi.org/10.1111/0022-1082.00072

Pan, J., & Poteshman, A. M. (2006). The information in option volume for future stock prices. Review of Financial Studies, 19(3), 871–908. https://doi.org/10.1093/rfs/hhj024

Przybylski, A. K., Murayama, K., Dehaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. Computers in Human Behavior, 29(4), 1841–1848. https://doi.org/10.1016/J.CHB.2013.02.014

Zhou, G. (2018). Measuring Investor Sentiment. Annual Review of Financial Economics, 10, 239–259. https://doi.org/10.1146/ANNUREV-FINANCIAL-110217-022725

Zweig, M. E. (1973). An Investor Expectations Stock Price Predictive Model Using Closed-End Fund Premiums. The Journal of Finance, 28(1), 67–78. https://doi.org/10.2307/2978169

· Vietnamese references

Báo chính phủ (2013). Vinamilk và NutiFood không dùng nguyên liệu nhiễm khuẩn. Truy cập tại địa chỉ: https://baochinhphu.vn/vinamilk-va-nutifood-khong-dung-nguyen-lieu-nhiem-khuan-102147118.htm

Báo Công an nhân dân (2022). Sàn HSX lại lỗi, nhà đầu tư bức xúc. Truy cập tại địa chỉ: https://cand.com.vn/Kinh-te/san-HSX-lai-loi-nha-dau-tu-buc-xuc-i641005/

Báo Kinh tế Sài Gòn (2021). Đại dịch thúc đẩy phụ nữ Mỹ chơi chứng khoán. Truy cập tháng 4/2022 tại địa chỉ: https://thesaigontimes.vn/dai-dich-thuc-day-phu-nu-my-choi-chung-khoan/

Báo Lao động (2022). Ngoài thao túng giá, còn chiêu trò "úp sọt" nhà đầu tư chứng khoán nào? Truy cập tại địa chỉ: https://laodong.vn/kinh-te/ngoai-thao-tung-gia-con-chieu-tro-up-sot-nha-dau-tu-chung-khoan-nao-1029475.ldo

Báo Lao động (2022). Những tin đồn đang cố "bóp méo" thị trường chứng khoán. Truy cập tại địa chỉ: https://laodong.vn/kinh-te/nhung-tin-don-dang-co-bop-meo-thi-truong-chung-khoan-996541.ldo

Báo Nhân dân (2022). Chứng khoán "gen Z". Truy cập tháng 04/2022 tại địa chỉ: https://nhandan.vn/baothoinay-kinhte-lensan/chung-khoan-gen-z-689678/

Báo Thanh niên (2022). Thêm doanh nghiệp bỏ cọc đấu giá đất Thủ Thiêm, cổ phiếu bất động sản lao dốc. Truy cập tháng 04/2022 tại địa chỉ: https://thanhnien.vn/them-doanh-nghiep-bo-coc-dau-gia-dat-thu-thiem-co-phieu-bat-dong-san-lao-doc-post1427914.html

Báo Tiền phong (2021). Doanh nghiệp thua lỗ, giá cổ phiếu vẫn tăng ngất ngưởng. Truy cập tại địa chỉ: https://tienphong.vn/doanh-nghiep-thua-lo-gia-co-phieu-van-tang-ngat-nguong-post1390006.tpo

Báo Tuổi trẻ (2013). Phát tán tin đồn ông Trần Bắc Hà bị bắt, chỉ bị phạt hành chính. Truy cập từ địa chỉ: https://tuoitre.vn/phat-tan-tin-don-ong-tran-bac-ha-bi-bat-chi-bi-phat-hanh-chinh-559494.htm

Báo Tuổi trẻ (2022). "Món nợ" của lãnh đạo ngành chứng khoán. Truy cập tại địa chỉ: https://tuoitre.vn/mon-no-cua-lanh-dao-nganh-chung-khoan-20220402074951975.htm

Báo Tuổi trẻ (2022). Xem xét kỷ luật nhiều lãnh đạo UB Chứng khoán Nhà nước, Sở Giao dịch chứng khoán Hà Nội, TP.HCM. Truy cập tại địa chỉ: https://tuoitre.vn/xem-xet-ky-luat-nhieu-lanh-dao-ub-chung-khoan-nha-nuoc-so-giao-dich-chung-khoan-ha-noi-tp-hcm-20220331182630811.htm

Công ty Nghiên cứu Đông Dương Việt Nam (2021). Thị trường chứng khoán Việt Nam: Nhà đầu tư cá nhân. Truy cập tại địa chỉ: https://secureservercdn.net/198.71.233.38/bd2.423.myftpupload.com/wp-content/uploads/IRL-VN-Khao-sat-ve-cac-nha-dau-tu-ca-nhan-Viet-Nam-082021.pdf

Công ty TNHH Cốc Cốc (2022). Báo cáo xu hướng tìm kiếm nổi bật 2021. Truy cập tháng 4/2022 tại địa chỉ: https://drive.google.com/file/d/1DQ_lG-m3Jhe4K7MaCevWrUn-Q4kKFC26/view

CTCP Tập đoàn Xây dựng Hòa Bình (2020). Đính chính thông tin về việc Công ty CP Sovico sở hữu 59,06% cổ phiếu HBC. Truy cập tại địa chỉ: https://hbcg.vn/news/9510-dinhchinhthongtinvevieccongtycpsovicosohuu5906cophieuhbc.html

Đặng Thị Bích Ngọc (2018). Bất cân xứng thông tin trên thị trường chứng khoán Việt Nam. Tạp chí Công thương, 3, tr. 396-401

Đào Thị Phương (2015). Tính tập thể và tính cá nhân trong giao tiếp liên văn hóa: Trường hợp tiếng Việt Và tiếng Anh. Tạp chí Ngôn ngữ & Đời sống, 7(237), tr. 46-52.

Đoàn Anh Tuấn & Hoàng Mai Phương (2017). Nghiên cứu "Hành vi bầy đàn" trên thị trường chứng khoán Việt Nam. Tạp chí khoa học đại học Đà Lạt, 7(1), tr. 96-108.

Luật chứng Khoán số 54/2019/QH14 ngày 26/11/2018 của Quốc hội nước Cộng hòa Xã hội Chủ nghĩa Việt Nam

Nghị định 156/2020/NĐ-CP ngày 31/12/2020 của Chính phủ về quy định xử phạt vi phạm hành chính trong lĩnh vực chứng khoán và thị trường chứng khoán

Nguyễn Hồng Phong (1963). Tìm hiểu tính cách dân tộc Việt Nam. Hà Nội: Nhà xuất bản Khoa học, tr. 46 – 118.

Nguyễn Hữu Đạt (2000). Văn hoá và ngôn ngữ giao tiếp của người Việt. Hà Nội: NXB Văn hóa thông tin.

Nguyễn Hữu Tài (2021). Rủi ro tiềm ẩn từ những cổ phiếu hay vi phạm công bố thông tin. Báo Lao động. Truy cập tại địa chỉ: https://laodong.vn/kinh-te/rui-ro-tiem-an-tu-nhung-co-phieu-hay-vi-pham-cong-bo-thong-tin-953806.ldo

Nguyễn Sơn (2018). Thị trường càng lớn, truyền thông chính thống càng quan trọng. Báo Đầu tư. Truy cập tháng 4/2022 tại địa chỉ: https://www.tinnhanhchungkhoan.vn/thi-truong-cang-lon-truyen-thong-chinh-thong-cang-quan-trong-post197239.html

Nguyễn Thị Hải Hà (2017). Cơ sở pháp lý trong kiểm soát và giám sát thông tin công bố của các công ty niêm yết trên thị trường chứng khoán Việt Nam. Trong Kỷ yếu hội thảo khoa học quốc gia: Thao túng báo cáo tài chính của các Công ty niêm yết trên thị trường chứng khoán Việt Nam: Hà Nội, ngày 15 tháng 12 năm 2017

Nguyễn Thị Nhung, Trần Thị Vân Anh và Hoàng Bảo Ngọc (2021). Đo lường tác động của các yếu tố tâm lý tới thị trường chứng khoán Việt Nam. Tạp chí Kinh tế và Phát triển, số 289, tr. 24-34

Nguyễn Tiến Dũng (2017). Nâng cao hiệu quả truyền thong trong công tác xây dựng và ổn định thị trường chứng khoán. Tạp chí Chứng khoán, Số 2, 281.

Phạm Lưu Hưng (2021). Bí mật đồng tiền: Đội lái, bánh vẽ và mật ngọt chết ruồi. [TV boardcast]. VTV. Truy cập tại địa chỉ: https://vtv.vn/kinh-te/bi-mat-dong-tien-doi-lai-banh-ve-va-mat-ngot-chet-ruoi-20211229152451025.htm

Phạm Lưu Hưng (2022). Bí mật đồng tiền: "Sóng" bắt đầu từ đâu?. [TV boardcast]. VTV. Truy cập tại địa chỉ: https://vtv.vn/kinh-te/bi-mat-dong-tien-so-3-song-bat-dau-tu-dau-20220104192003172.htm

Phan Trần Quang Dũng và Nguyễn Quang Lộc (2019). Bằng chứng hiệu ứng ngược vị thế tại Việt Nam thông quan phân tích sinh tồn. Tạp chí Nghiên cứu Kinh tế, Số 10, tr. 36-45

Quyết định số 242/QĐ-TTg ngày 28/02/2019 của Thủ tướng Chính phủ về việc phê duyệt Đề án "Cơ cấu lại thị trường chứng khoán và thị trường bảo hiểm đến năm 2020 và định hướng đến năm 2025"

Thời báo Tài chính (2022). Công ty chứng khoán nào đoạt "quán quân" thị phần môi giới cổ phiếu trên HSX năm 2021?. Truy cập tháng 04/2022 tại địa chỉ: https://thoibaotaichinhvietnam.vn/cong-ty-chung-khoan-nao-doat-quan-quan-thi-phan-moi-gioi-co-phieu-tren-HSX-nam-2021-98378.html

Thông tư 120/2020/TT-BTC ngày 31/12/2020 của Bộ Tài chính quy định giao dịch cổ phiếu niêm yết, đăng ký giao dịch và chứng chỉ quỹ, trái phiếu doanh nghiệp, chứng quyền có bảo đảm niêm yết trên hệ thống giao dịch chứng khoán

Thông tư 96/2020/TT-BTC ngày 16/11/2020 của Bộ Tài chính về Hướng dẫn công bố thông tin trên thị trường chứng khoán

Trần Thị Hải Lý và Huỳnh Ngọc Thương (2012). Hiệu ứng ngược vị thế - Bằng chứng từ các nhà đầu tư cá nhân Việt Nam. Tạp chí phát triển kinh tế, Số 266, tr. 47-55

Trịnh Thị Phan Lan (2021). Cơ hội của nhà đầu tư cá nhân trên thị trường chứng khoán Việt Nam trong bối cảnh đại dịch Covid-19. Tạp chí Ngân hàng. Truy cập tháng 4/2022 tại địa chỉ: https://www.sbv.gov.vn/webcenter/portal/m/menu/trangchu/ddnhnn/nctd/nctd_chitiet?leftWidth=0%25&showFooter=false&showHeader=false&dDocName=SBV469414&rightWidth=0%25&centerWidth=100%25&_afrLoop=51590746259362224#%40%3F_afrLoop%3D51590746259362224%26centerWidth%3D100%2525%26dDocName%3DSBV469414%26leftWidth%3D0%2525%26rightWidth%3D0%2525%26showFooter%3Dfalse%26showHeader%3Dfalse%26_adf.ctrl-state%3D1b7vqbhvrw_9

UBCKNN (2016). 20 năm một chặng đường phát triển. NXB Tài chính. https://tusach.fph.gov.vn/doc-sach/nganh-chung-khoan-viet-nam-20-nam-mot-chang-duong-phat-trien-141.html#dflip-flipbookContainer/287/

UBCKNN (2022). Thống kê thị trường chứng khoán. http://www.UBCKNN.gov.vn/ubck/faces/vi/vimenu/vipages_vithongtinthitruong/thongkettck;jsessionid=mQnvv3KbPgCjY7R4wnMBzT51KGHWD6CMlNpTXLLv1nVSyDJF6ZFv!-164159415!899756448?_afrLoop=16881985670000&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D16881985670000%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dd8la7k9am_4

Võ Thị Hiếu, Bùi Hữu Phước và Bùi Nhất Vương (2020). Tác động của các yếu tố hành vi đến quyết định và hiệu quả đầu tư của nhà đầu tư cá nhân trên thị trường chứng khoán Thành phố Hồ Chí Minh. Tạp chí Kinh tế - Kỹ thuật, 31 (3), tr. 36- 51.

VPS (2021). VPS ra mắt chương trình "Zinvest - Đầu tư chuẩn Z" dành riêng cho khách hàng trẻ. Truy cập tháng 04/2021 tại địa chỉ: https://www.vps.com.vn/News/2021/8/9/583559.aspx

Vũ Thị Loan và Nguyễn Thị Hiên (2021). Tâm lý bầy đàn của các nhà đầu tư cá nhân: Phân tích ảnh hưởng của giao dịch nước ngoài trên thị trường chứng khoán Việt Nam. Hội thảo Năng lực và hành vi giao dịch của nhà đầu tư cá nhân trên thị trường chứng khoán Việt Nam.

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Tasks Remaining for Revitalizing Japanese Legal Expenses Insurance (LEI): Toward Strengthening Victim Protection in Changing Circumstances

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A B S T R A C T

This paper provides a comprehensive overview of the Legal Expenses Insurance (LEI) in Japan, including its historical background, development, and current prospects and tasks. The LEI market in Japan has grown significantly due to its incorporation as an add-on to voluntary automobile insurance and automobile mutual aid policies, which have high enrollment rates. One of the notable features of LEI in Japan is the establishment of a scheme by non-life insurance companies and mutual aid associations in collaboration with the Japan Federation of Bar Associations (JFBA) to refer attorneys to insureds. In addition to the cost risk-bearing function, LEI in Japan has a legal service access function, enabling insureds to access legal services through the JFBA Legal Access Center (JFBA LAC). This scheme was launched in October 2000 and is sometimes referred to as Right Protection Insurance System. From a victim relief perspective, it is crucial to broaden the scope of legal fields covered by LEI and diversify the forms and sales channels of LEI products. Additionally, it is important to increase awareness of LEI among the general consumer and to actively provide comprehensive information regarding LEI coverage to those who are already insured.

Keywords: legal expenses insurance, access to justice, victim protection, Japan

Ⅰ. Introduction

Legal Expenses insurance (LEI) provides coverage for an insured individual's expenses related to legal advice or legal representation in the event of an accident or incident, as specified in the policy terms. These expenses are considered as economic losses, and the insured person seeks damages against the responsible party for the losses suffered. Within the realm of non-life insurance, LEI is classified as an expense insurance (LAC Study Group, 2017). LEI has gained significant popularity in Japan, particularly as an add-on to voluntary automobile insurance and automobile mutual aid policies. The number of policies sold has been consistently rising. Recently, LEI has also been extended to cover a broader range of legal disputes, including non-automobile-related accidents in daily life. This insurance product is anticipated to undergo further advancements and enhancements.

In addition to compensating consumers who fall victim to accidents or incidents for the costs and damages they incur, LEI also plays a crucial role in safeguarding the rights of victims by actively asserting their own rights. Nonetheless, there are unresolved issues that hinder the full realization of these roles. Addressing these issues is imperative for the comprehensive fulfillment of LEI's intended functions. In particular, given the significant changes in the LEI environment in recent years, it is crucial to raise awareness about the existence of this insurance and to promote and develop it in a sound manner in order to strengthen the protection of victims.

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This paper will begin by describing the functions and status of LEI in Japan, along with its historical background. Subsequently, it will outline three pivotal environmental changes impacting LEI and emphasize the necessity of strengthening victim protection considering these shifts. It will then identify the tasks for revitalizing LEI from the perspective of victim protection within LEI, while providing an overview of the prospects for this sector.

II. Function and Status of LEI

A. Functions of LEI

From an individual's risk management perspective, LEI serves as a means to transfer the financial risk associated with becoming a party to a legal dispute and bearing the various costs (such as lawyers' fees and litigation expenses) required to resolve said dispute to an insurance company. In this regard, LEI fulfills "cost risk-bearing function."

In Japan, the policyholder of LEI sold by non-life insurance companies and mutual aid associations that have signed contracts with the Japan Federation of Bar Associations (JFBA), can be referred to an attorney through a local bar association contracted by the JFBA Legal Access Center (JFBA LAC). This arrangement aims to address the issue of access to legal services (specifically, the challenge faced by consumers seeking legal advice but lacking knowledge of available attorneys) when confronted with a legal dispute. This aspect can be considered a "legal service access function" within the framework of LEI.

In the context of Japanese LEI, the combined insurance function covering legal expenses and related costs (cost risk-bearing function) and the attorney referral service provided by the bar association (legal service access function) are collectively referred to as "Right Protection Insurance" (Naito, 2016). For the purposes of this paper, the term LEI will specifically pertain to Right Protection Insurance.

B. Status of LEI

The LEI in Japan exhibits four primary characteristics: firstly, its widespread adoption as an add-on to voluntary automobile insurance policies; secondly, its nature as first-party insurance; thirdly, its contribution to enhancing the accessibility of justice for middle-income populations; and fourthly, its flexible contract forms and product design tailored to meet customer needs. Each of these characteristics is elaborated upon below.

1. Widespread adoption as an add-on to voluntary automobile insurance policies

LEI is distinguished by its extensive adoption as an add-on to voluntary automobile insurance policies and automobile mutual aid policies, both of which have high enrollment rates. Voluntary automobile insurance accounts for 48% of Japan's non-life insurance market based on net premium income (GIAJ, 2022). Insured individuals with voluntary automobile insurance receive compensation for legal costs and lawyers' fees under liability insurance policies when they are held liable for a car accident. Conversely, victims of car accidents are not entitled to receive compensation for lawyers' fees or other costs through their automobile insurance's liability coverage. The development and introduction of LEI for voluntary automobile insurance stemmed from the "imbalanced situation between culpable car accident perpetrators and victims" and the imperative to provide genuine relief to victims by ensuring they have access to legal consultation and the ability to assert their rights (Yamashita, 2011).

In recent years, however, LEI coverage has expanded beyond car accidents (no-fault car accidents), and policies have been introduced that encompass a broader range of legal fields. This coverage includes accidents causing bodily injury or property damage in daily life, violation of personal rights (such as bullying, harassment, molestation, stalking, and defamation), inheritance disputes (such as mediation on the division of estates), labor troubles (such as non-payment or reduction of wages, dismissal, overtime, workplace bullying, and harassment), and obstruction of business (such as unreasonable obstruction of business by customers).[1]

[1] On its website, the JFBA publishes an overview of LEIs in Japan for consumers. It is available at https://www.nichibenren.or.jp/activity/resolution/lac.html

2. First-party insurance

LEI operates as "first-party insurance" since it covers the legal costs (e.g., legal consultation fees, lawyer' fees, and other costs) incurred by the insured individual who becomes a victim of a particular accident, and claims compensation for his or her damage. In contrast, liability insurance is referred to as "third-party insurance" as it covers legal costs associated with defending against a damages claim, as well as providing compensation for losses incurred by the defendant (perpetrator) facing a damages claim.

3. Contribution to enhancing the accessibility of justice for middle-income populations

In Japan, legal aid has evolved as a replacement system for covering legal costs for individuals who cannot afford lawyer fees and litigation expenses. However, this system tends to focus primarily on remedial measures for low-income populations. On the other hand, higher-income populations often have the means to bear legal costs without significant burden. Consequently, LEI has historically been developed as a means to finance access to justice for middle-income populations that may not qualify for legal aid schemes, allowing them to assert their rights effectively (Sase, 2013).

4. Flexible contract forms and product design to meet customer needs

LEI is currently offered as an add-on to individual non-life insurance policies such as voluntary automobile insurance, fire insurance, personal accident insurance, and medical insurance, as well as standalone insurance products. In 2015, a prominent non-life insurance company, in partnership with the JFBA, developed LEI as an add-on to group personal accident and health insurance, covering a broad spectrum of legal dispute risks encountered in daily life. This development aimed to provide policyholders with additional "safety and security" in their daily lives by offering comprehensive coverage for both accidents involving injury and damage by widely marketing a plan that includes LEI as well as a personal liability insurance rider in the personal insurance policy. Additionally, a small-amount short-term insurer introduced Japan's first standalone LEI in 2013, highlighting the advantage of purchasing standalone LEI without the obligation to obtain the main policy (LEI Study Group, 2017).

Furthermore, alongside LEI for individuals, specific LEI products targeting small and medium-sized enterprises have also been developed and marketed, with further expansion and popularization anticipated in the future. Consequently, LEI as an insurance product enables flexible contract forms and product designs tailored to customer needs, with ongoing advancements expected to address emerging legal dispute risks and evolving customer demands.

C. The Diffusion of LEI

The LEI scheme was launched in October 2000. Initially, the number of insurance companies that entered into agreements with the JFBA was limited, resulting in sluggish sales of LEI. However, in 2006, when a major non-life insurance company became an agreed insurance provider, the number of LEI sales surpassed one million cases. Subsequently, the sales of LEI steadily increased alongside the expansion of the network of agreed insurance companies. The widening coverage of legal disputes, encompassing a broad range of damage accidents in daily life rather than solely car accidents, has also contributed to the growth in policy sales.

However, one of the factors impeding early sales was the lack of awareness about LEI among the public and attorneys, compounded by the limited number of insurance companies participating in the scheme. Furthermore, even policyholders who obtained LEI often had inadequate understanding of the circumstances in which the insurance would be applicable. Consequently, there were numerous cases where policyholders, despite being victims of accidents covered by the insurance, refrained from taking legal action and either endured the consequences silently or had to bear the legal costs themselves (LAC Study Group, 2017).

To address these issues and promote the utilization of LEI, the JFBA LAC has undertaken efforts to raise awareness through symposiums and promotional activities conducted within bar associations. Informational leaflets have been distributed to the public to elucidate the importance of purchasing the insurance, and policyholders have been actively encouraged to avail themselves of the insurance coverage in the event of damage accidents (LAC Study Group, 2017). These endeavors underscore the significance of enhancing insurance literacy among

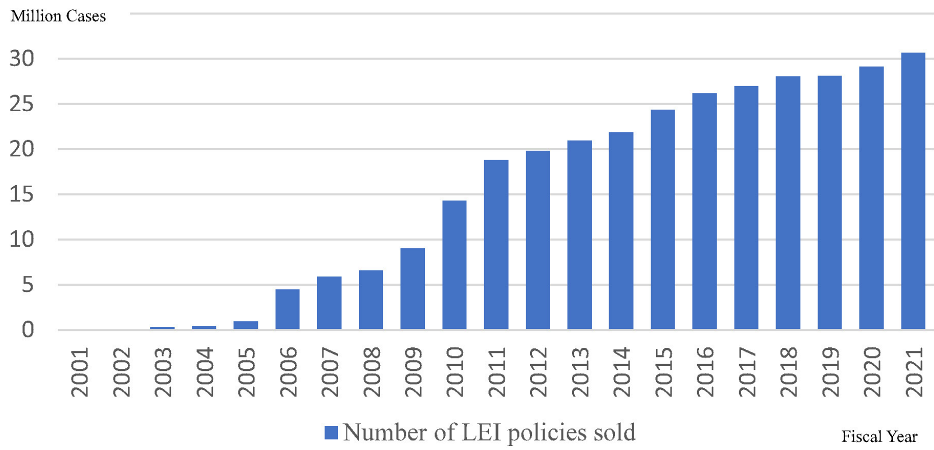

Figure 1. Trends in the Number of LEI Policies Sold

consumers and policyholders as a means of promoting LEI adoption in Japan.

As of FY2021, the number of LEI policies sold stands at approximately 30.6 million (see Graph1), and as of October 2022, a total of 20 insurance companies and mutual aid associations have concluded agreements with the JFBA (JFBA, 2022).

Ⅲ. Changes in the Environment Surrounding LEI

In recent years, three notable environmental changes related to LEI have been observed: the widespread use of new mobility services, advancements in Sustainable Development Goals (SDGs) and enhanced access to justice, and the digitalization and rise of online legal disputes.

A. The widespread use of new mobility services

The automotive industry is currently undergoing a transformative phase due to the influence of digitalization, commonly referred to as the “CASE Revolution”. This term encompasses four major trends: C = Connected, A = Autonomous, S = Shared & Services, and E = Electric. Among these trends, the S = Shared & Services category represents services offered within the sharing economy, a new economic system characterized by a shift in consumer behavior from ownership to utilization. Sharing services encompass five categories: space, skills, mobility, money, and goods sharing.

In Japan, space sharing, facilitated by deregulation, has experienced growth in the market for parking and accommodation services. However, the mobility sharing market, including ride-sharing and shared bicycles, remains relatively small due to stringent regulations.[2] Conversely, the sharing economy within the mobility sector is expanding, particularly with the rise of Mobility as a Service (MaaS), a concept gaining international popularity (MIC, 2018). MaaS, as defined by the Ministry of Land, Infrastructure, Transport and Tourism, refers to a service that provides a seamless combination of multiple public and private transportation options, offering comprehensive trip planning, reservation, and payment functions. MaaS contributes to enhancing travel convenience, addressing regional challenges, and integrating non-transport services, such as tourism and healthcare. In Japan, MaaS is positioned as a key element of next-generation transportation, along with autonomous driving, and it is anticipated that sharing services in the mobility sector, including ridesharing, will expand through the implementation of MaaS (Hidaka et al., 2020).

[2] According to the "*Sharing Economy Related Survey Results*" by the Information and Communication Research Institute, the market size by category is the largest in the FY2030 forecast for space sharing, followed by goods sharing, and skills sharing, in that order.

With the wider adoption of MaaS, users will have access to a diverse range of transportation and mobility services, including railways, buses, taxis, on-demand ride-sharing, and bicycle-sharing. Consequently, MaaS users face various risks, such as liability risks, risk of damage or theft of vehicle and bicycle, risk of injury, risk of delays in public transport and ride distribution services, cyber risks associated with personal data breaches through apps, and risk of getting into legal troubles (such as false accusations of sexual harassment). Thus, it becomes necessary to provide MaaS users with dedicated insurance coverage (MaaS insurance) that comprehensively compensates for the multitude of risks associated with MaaS utilization.[3]

B. Advancements in the SDGs and Enhanced Access to Justice

The SDGs serve as a comprehensive framework to address global challenges and strive for a more sustainable future for all individuals. These goals encompass various dimensions, including poverty and inequality, climate change, environmental degradation, prosperity, peace and justice. Consisting of 17 international goals, the SDGs are accompanied by 169 specific targets. Goal 16, titled "Peace and justice for all," emphasizes the need to foster peaceful and inclusive societies for sustainable development. This goal envisions the provision of universal access to justice and establishment of effective and accountable institutions at all levels. Target 16.3, a key component of Goal 16, underscores the importance of promoting the rule of law both nationally and internationally while ensuring equal access to justice for all individuals.[4]

In September 2021, the JFBA LAC issued a proposal to further promote the use of the LEI Scheme (LAC Scheme) to expand access to justice, as the further development and dissemination of LEI is crucial to the expansion of access to justice envisaged in Target 16.3 of the SDGs. The proposal states that, to make the promotion of the rule of law and equal access to justice effective in terms of costs, research and studies should be conducted on policies to promote LEI, such as making the premiums for LEI tax deductible (JFBA, 2021).

Belgium has already implemented a premium tax deduction system to widely encourage the adoption of LEI among its population, indicating that the introduction of a similar tax deduction system in Japan to promote LEI on a broader scale is an important consideration for the future in the context of the SDGs (Yamashita, 2020). In addition to the implementation of a premium tax deduction system, the further popularization of LEI necessitates a careful examination and implementation of new policies based on the results of surveys and research conducted in other countries.

C. Digitalization and the Rise of Online Legal Disputes

With the spread of Internet-connected devices (smartphones, PCs, etc.), the percentage of individual Internet users has experienced rapid growth, rising from around 50% in the early 2000s (46.3% in 2001) to a consistently high level (84.9% in 2022). In particular, the prevalence of social networking services (SNS) such as Facebook and LINE has witnessed a steady increase, with approximately 80% of Internet users (MIC, 2023).

As the number of individual Internet users continues to rise, so does the prevalence of personal information security threats, commonly referred to as cyber risks. These risks expose individuals to various forms of online harm, including identity fraud, slander, defamation, falsehoods, and financial fraud. The three most common personal cyber risks in 2023 were phishing attacks upon personal information, online defamation, libel, or dissemination of false information, as well as threats and scams employing email, SMS, and other means to extort money (IPA, 2023).

To gain insights into the prevailing extent of damage on the Internet, the Ministry of Justice publishes data on human rights violations cases related to online information (MOJ, 2023). Since reaching a record high in 2017 (2,217 cases), the number of human rights violation cases has persisted at notably elevated level. Invasion of privacy, defamation, and the revealing of identifying

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[3] MaaS insurance is characterized by three points: (1) it is a comprehensive insurance policy that covers risks associated with the use of various means of transportation and mobility services; (2) the entity purchasing the insurance is the MaaS service provider, platform provider, or other business entity; and (3) close collaboration across industry boundaries is required in the development of MaaS insurance (Naito, 2022).

[4] The website of the United Nations Information Centre provides a description of each of the 17 SDGs targets. It is available at https://www.unic.or.jp/news_press/features_backgrounders/31737/.

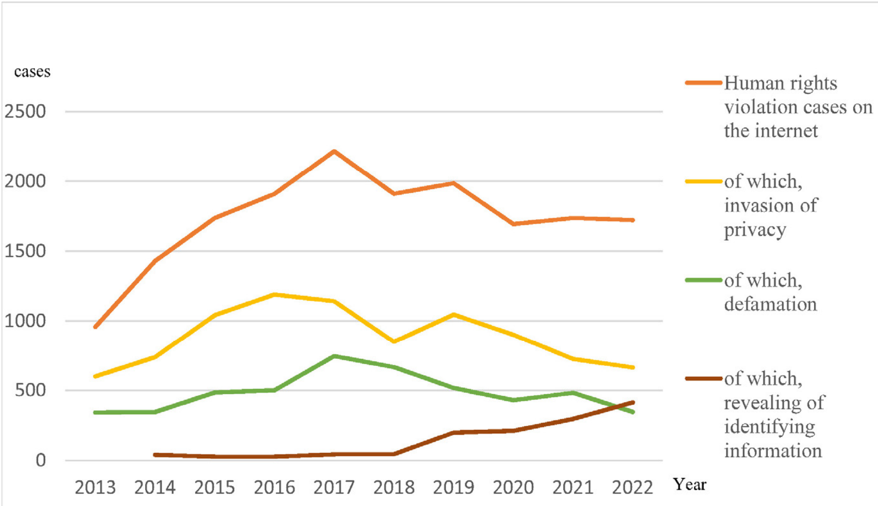

Figure 2. Cases concerning human rights violations on the internet (newly initiated)

information collectively account for approximately 83% of the total number of cases (see Graph 2).

Individuals whose rights have been violated due to online slander or defamation can pursue actions such as requesting the deletion of infringing information from service providers, seeking disclosure of information to identify the sender, and claiming damages against the identified sender (perpetrator). Legal provisions exist to address these issues (MIC, 2020). However, seeking legal consultation or initiating legal proceedings through court cases can entail significant costs. Therefore, obtaining a LEI in advance can provide a means to seek damages and avoid silently enduring online harm.

In Japan, a prominent non-life insurance company that has partnered with the JFBA has developed and introduced a rider-type LEI policy specifically covering disputes related to infringements of personal rights. This LEI policy includes coverage for damage caused by emotional distress resulting from online slander and defamation (LAC Study Group, 2017).

In recent years, with the widespread use of smartphones, the amount of time spent on social media platforms via mobile devices has substantially increased, with usage rates rising year by year. However, reports also indicate a surge in various rights infringements, particularly the escalating severity of slander on SNS (MIC, 2020). Hence, there is a pressing need to widely promote LEI, especially among young individuals who are frequent user of SNS, in order to mitigate the adverse impact of online harm caused by slander and defamation.

Ⅳ. Tasks for revitalizing LEI (From the Viewpoint of Victim Protection)

Considering the three environmental changes surrounding LEI as delineated above, it becomes imperative to further activate the sale of LEI, particularly from the perspective of victim protection. This necessity arises since by proactively purchasing LEI, consumers can effectively delegate the resolution of various legal issues that may arise in their daily lives to attorneys, even in instances where they find themselves victimized by such predicaments. As elucidated earlier, Japanese LEI encompasses not only a cost risk-bearing function but also a legal access function, thereby making a significant contribution to safeguarding the interests of victims. It accomplishes this by alleviating financial anxieties associated with legal issue resolution and concurrently enhancing accessibility to justice. Furthermore, LEI also plays a pivotal role in motivating insured victims to actively assert and safeguard their rights, thereby advancing the cause of victim protection and aligning with the objectives outlined in Goal 16 of the SDGs. Hence, the future of LEI, which plays a pivotal role in enhancing victim protection, is underscored by three distinct tasks: expanding the legal fields covered by LEI and diversifying the forms and sales channels of LEI products; promoting wider awareness of LEI among general consumers; and actively providing information on LEI coverage to insureds.

A. Expanding the Legal Fields Covered by LEI and Diversifying Forms and Sales Channels

In Japan, as consumer behavior gradually shifts from ownership to the utilization of new economic services like sharing services and MaaS, the need arises for insurance coverage that adequately addresses the risks associated with these services. Consequently, insurance requirements will transition from traditional goods-focused insurance products (such as car and fire insurance, commonly known as "goods insurance") to insurance products covering risks related to the provision and use of goods and sharing services, including liability risks (Naito, 2022). Expanding the legal fields covered by LEI to encompass sharing services could be a viable step, considering the potential benefit of inclusive coverage for various legal dispute risks that may arise from the utilization of such services. As mentioned above, it would also be useful to include the risk of legal disputes as one of the risks covered by MaaS insurance provided upon the use of MaaS services. Furthermore, LEI could be automatically included in general personal insurance products (e.g., fire and accident insurance) as a fundamental component. Notably, in Sweden, LEI is virtually compulsorily included as part of household contents insurance, held by approximately 96% of the population (JFBA, 2019).

Innovative approaches to LEI product development and sales channels could involve introducing digitally accessible, small-amount, short-term policies tailored to young individuals and low-income populations, who typically face obstacles in obtaining insurance coverage[5]. Alternatively, exploring the potential of peer-to-peer (P2P) insurance models[6] or "embedded insurance" (wherein non-financial businesses integrate insurance products into their existing services) could effectively facilitate broader consumer adoption. Additionally, offering standalone LEI policies that cover online rights infringements through online platforms may encourage young individuals to consider LEI protection.

B. Promoting Wider Awareness of LEI Among General Consumers

Given the historical association of LEI with voluntary automobile insurance and automobile mutual aid policies in Japan, there exists a prevailing consumer perception that LEI primarily covers legal disputes related to car accidents. To change this perception, it is crucial to raise awareness among general consumers about the broader scope of LEI, extending beyond car accidents to encompass various legal disputes. Effective strategies for publicizing LEI involve collaborative efforts between insurance companies, attorneys, and bar associations. Specifically, it is important to disseminate information about LEI to young individuals, who tend to gather information through online platforms, using easily understandable language and leveraging social networking services.

C. Actively Providing Information on LEI Coverage to Insureds

LEI policy terms and conditions often employ legal terminology that may be challenging for insureds to comprehend. It is essential to provide clear information regarding the types of legal disputes covered, the legal costs included in the coverage, the limit of insurance payments, and potential coinsurance requirements. To facilitate insureds' understanding of the coverage, it would be beneficial to make specific disputes case available on the internet for each area of law, allowing insureds to access them at any time. This approach also enables the addition of new case examples in a timely manner.

Informing insureds about the legal costs covered by LEI, the limit of insurance payments, and the potential for coinsurance is essential. Notably, the inclusion of legal consultation fees, in addition to lawyers' fees and other costs, is significant from the perspective of improving access to legal counsel for insured individuals who have fallen victim. Since access to justice often commences

[5] Because the Insurance Business Law allows the small-amount, short-term insurance business to be operated concurrently by both life and non-life insurers, life insurance companies, in addition to non-life insurers, have recently entered the small-amount, short-term insurance business with digital completion.

[6] German insurance broker Friendsurance offers LEI as a P2P policy, in addition to liability and homeowners' insurance.

with legal consultations, including legal consultation fees in the scope of insurance coverage enhances the utility of LEI for insureds.

Regarding insurance payment limits, the JFBA LAC established the "Insurance Payment Standards for Legal Costs in LEI" (commonly referred to as the "LAC Standards") in 2004. These standards serve as guidelines that insurance companies are required to "respect." They outline the basic approach to insurance claim payments, specifying the maximum legal costs per case and the hourly rate of legal costs. While the actual amount of lawyers' fees may not necessarily coincide with the amount of lawyers' fees compensated by LEI due to the client-attorney relationship, as long as the fees fall within the specified limits of LAC Standards, they are generally reimbursed as insurance claims without issues, assuming they are not unreasonably excessive (LAC Study Group, 2017). Consequently, the LAC Standards play a crucial role in protecting victims by facilitating prompt and appropriate insurance claim settlements for policyholders.

V. Conclusions and Prospects for Strengthening the Protection of Victims in LEI

LEI in Japan stands out for its dual function of providing access to legal services and bearing the burden of cost risks. This dual function plays a crucial role in safeguarding the legal rights of consumers who have fallen victim to various circumstances. To further strengthen victim protection in LEI, it is crucial to foster collaboration between insurance companies as providers of insurance products and attorneys, as well as the JFBA LAC, which facilitates legal services. This collaborative approach aims to address the three key tasks for revitalizing LEI mentioned above, ultimately promoting its growth, and ensuring trust among all stakeholders. Furthermore, this concerted effort is expected to enhance access to justice, thereby facilitating the realization of a fair and equitable legal system.

It is imperative for consumers to acquire a profound comprehension of LEIs. Equipped with this knowledge, consumers can proactively select and effectively utilize LEI as a sustainable means of consistently protecting their own rights.

References

The General Insurance Association of Japan (GIAJ). (2022). *Fact Book: General Insurance in Japan 2022*.

https://www.sonpo.or.jp/report/publish/gyokai/ctuevu0000005387-att/fb2022e.pdf

Hidaka, Y., Makimura, K., Inoue, T., Inoue, K. (2020) *Beyond MaaS The new mobility revolution starting in Japan - the future of mobility and cities*. Nikkei-BP publishing.

IPA. (2023). *Ten Major Threats to Information Security 2023*.

https://www.ipa.go.jp/security/10threats/10threats2023.html

JFBA. (2019). *The Spread of Autonomous Driving and the Expansion of Legal Expenses Insurance*, 21st Attorneys' Practice Reform Symposium (Subcommittee 3), Keynote Report.

JFBA. (2021). *The Role of Legal Expenses Insurance in Expanding Access to Justice: Future Insurance and Attorneys in Relation to SDGs*, 22nd Attorneys' Practice Reform Symposium (Subcommittee Pre-Symposium), Keynote Report.

JFBA. (2022). *White Paper on Attorneys 2022 Edition*.

https://www.nichibenren.or.jp/library/en/about/data/WhitePaper2021.pdf

Naito, K. (2016). The Functions and Issues of Legal Expenses Insurance in Japan, *Journal of Insurance Science*, No.634.

Naito, K. (2020). Personal Cyber Risk and Insurance, *Insurance Research*, Vol.72.

Naito, K. (2022). Sharing Economy and Automobile Insurance, in Hotta, K., Yamano, Y., & Kase, K. (2022). Automobile Insurance in the Digital Age. Keio University Press.

LAC Study Group. (2017). *All about Right Protection Insurance*. Shojihomu publishing.

Ministry of Internal Affairs and Communications (MIC). (2018). *White Paper on Information and Communications in 2008*.

https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h30/pdf/n2500000.pdf

MIC. (2020). *Study Group on the State of Sender Information Disclosure Handout*.

https://www.soumu.go.jp/main_sosiki/kenkyu/informati

on_disclosure/index.html
MIC. (2023). *Results of the 2022 Telecommunications Usage Trends Survey*.
https://www.soumu.go.jp/menu_news/s-news/01tsushin02_02000164.html
The Ministry of Justice (MOJ). (2023). *The Situation of Human Rights Violation Cases in 2022 (Summary)*. https://www.moj.go.jp/content/001393246.pdf
Sase, M. (2013). The History of Right Protection Insurance and Its Future Prospects, *Freedom and Justice*, vol. 64, no. 7.
Yamashita, N. (2011). A Study on Legal Expenses Insurance in Japan, in Ishida, S., Egashira, K., & Ochiai, S., *Issues and Prospects in Insurance Studies and Insurance Jurisprudence - Dr Koichi Otani's 70th birthday celebration*. Seibundo publishing.
Yamashita, N. (2020). SDGs and the Role of Legal Expenses Insurance, *Kinyu Shoji Hanre*i, No.1594.

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Editorial Principles

1. Mission

The International Review of Financial Consumers (IRFC) aims to offer a communication platform for scholars, regulators, and practitioners to share their latest academic research on financial consumers and related public policy issues in both advanced economies and emerging market countries. All theoretical, empirical, and policy papers of relevancy are welcome, with the following as the topics to cover:

① protection for financial consumers
② business ethics of financial institutions
③ market discipline of financial industries
④ corporate social responsibility of financial institutions
⑤ renovation or innovation of law and regulations related to financial consumption
⑥ public policies for financial consumption
⑦ fair trading of financial products
⑧ dispute resolution for financial consumption
⑨ case studies of best practices for financial consumption
⑩ international comparison on any of the above topics

2. Publication schedule and contents

IRFC, the affiliated journal of the International Academy of Financial Consumers (IAFICO), will be published twice a year - April and October each year - and will pursue to be the first international academic journal focusing on the research related to financial consumers. As the contribution of financial consumption becomes increasingly important to the national economy for most countries, how to maintain an efficient and equitable financial market is an imminent issue for research. The trend of globalization and liberalization policies has reinforced the challenges in financial markets. Not only the financial instruments become more complicated and hard to understand by the public, but also the frequent changes in regulations and business practices cause confusions to the financial consumers. Consumption disputes regarding the financial products have drawn attention by the media in recent years. IRFC attempts to serve as a forum to publish and share original and innovative research, both academic and policy-oriented, on all the above issues.

3. On ethics for research

The range of research misconducts

① Misconducts related to academic research (“misconducts” hereafter) means that fabrication, falsification, plagiarism, unfair showing of papers' author, during research proposal, research performing, research report and research presentation, etc. It is as follows.

1) “Fabrication” is the intentional misrepresentation of research results by making up data or research result.

2) “Falsification” is the distortion of research contents or results by manipulating research materials, equipment and processes, or changing or omitting data or results.

3) “Plagiarism” is the appropriation of another person's ideas, processes or results, without giving appropriate approval or quotation.

4) “Self-plagiarism” is the reusing a large portion of their own previously written research.

5) “Unfair showing of papers' author” is not qualifying people, who have been contributing to research contents or results scientifically, industrially and politically, as an author without just reason, or qualifying people, who have not been contributing the same, as an author with an expression of thanks or respectful treatment.

6) Obstructing investigation about misconducts of their own or others, or harming an informant.

7) Action which is out range of usually acceptable in the course of the research.

8) Action which is suggestion, pressure or threat to others to do the above things.

4. On plagiarism

Types of plagiarism

Following two forms are defined the representative action of research misconducts (Plagiarism).

① Using the original author's idea, logic, unique terms, data, system of analysis without indicate the source.

② Indicating the source but copying the original paper's words, idea, data and so on without quotation marks.

Author Guidelines

General

The IRFC publishes rigorous and original research related to protection of financial consumers. IRFCs shall be published twice a year, in April and in October. Papers submissions shall be accepted throughout the year. Editorial Board will evaluate manuscripts in terms of research contribution to the field and paper's quality. Research area includes but is not limited to the following topics:

1. Protection for financial consumers
2. Business ethics of financial institutions
3. Market discipline of financial industries
4. Corporate social responsibility of financial institutions
5. Renovation or innovation of law and regulations related to financial consumption
6. Public policies for financial consumption
7. Innovation or fair trading of financial products
8. Dispute resolution for financial consumption
9. Case studies of best practices for financial services or their consumption
10. International comparison of protection for financial consumers.

Publication Ethics

When authors submit their manuscripts to IRFC for publication consideration, they agree to abide by IRFC's publication requirements. In particular, authors confirm that:

- The manuscript is not under review for publication elsewhere, and will not be submitted to another publication entity during the review period at IRFC
- The empirical results of the manuscript have not been previously published.
- The manuscript has not previously been submitted to IRFC for review. Submission of manuscripts previously presented at a conference or concurrently considered for presentation at a conference does not disqualify a manuscript from submission to IRFC.
- Working papers, prior drafts or final versions of the submitted manuscripts posted on a website will be taken out of it during the review process for the purposes of blind review.

Submission Fee

There is no fee for a submission of an article at the IRFC journal.

Preparing a Manuscript for Submission

1. Papers must be submitted in Microsoft Word format. The structure of the work should be as suggested by the Publication Manual of the American Psychological Association 6 edition:
   - Title
   - Author's name and institutional affiliation
   - Author note
   - Abstract
   - Introduction
   - Method
   - Results
   - Discussion
   - References
   - Appendices and supplemental materials.

2. Manuscripts should be written as concisely as possible without sacrificing meaningfulness and clarity. They should be no longer than 40 double-spaced pages with one-inch margins and Times New Roman 12-point font, including references, tables, figures and appendixes.

3. Submitted papers should be in English, with grammar, spelling and punctuation thoroughly checked.

4. Make sure lettering and sizing of your manuscript, as well as bullet points and numerals are uniform.

5. The title page must include the title of the paper and an abstract of no more than 200 words. Indicate not more than seven key words after the abstract.

6. Please provide author name(s) contact information in a separate page.

7. Sections, including introduction, should be numbered in Roman numerals. Subsection headings should be in letters, e.g. A, B, C.

8. Tables must be typewritten, not in the form of pictures, and given Arabic numerals. They should have a descriptive name following the table number. Tables can be placed either after the text in the paper or in appendix section, if too detailed.

9. Figures must be given Arabic numbers as well and must not include any explanatory materials, which should go to the legend or to the caption. Captions should include a brief description of the figure. Please ensure that figures are of as high quality as possible.

10. The last section of a paper should include main conclusions of the research.

11. References should be placed at the end of the paper. All references must be in the style of American Psychological Association 6th edition, the basics can be found here. Make sure all in-text citations are presented in the reference list. The examples of reference entries are as follows:

For monographs:

Henderson, J. (2012). *Health economics and policy* (5th ed.). Mason, OH: South-Western, Cengage Learning.

For contributions to collective works:

Leonidou, L. (Eds.). (2018). Advances in global marketing: A research anthology.

For periodicals:

Nam, S. (2006). A study on the causality between the insurance and economic growth, *Korea Insurance Journal* 74, 169-197.

Communication

With any issues regarding the publication of your paper, please email the IRFC Editor, Professor Sharon Tennyson, at irfc@cornell.edu.

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1) Fabrication is the intentional misrepresentation of research results by making up data or research result.
2) Falsification is the distortion of research contents or results by manipulating research materials, equipment and processes, or changing or omitting data or results.
3) Plagiarism is the appropriation of another person's ideas, processes or results, without giving appropriate approval or quotation. We define two types of plagiarism:
   3.1) Using the original author's idea, logic, unique terms, data, system of analysis without indicating the source.
   3.2) Indicating the source but copying the original paper's words, ideas, data and so on without quotation marks.
4) Self-plagiarism is the reusing of a large portion of author's own previously written research.

Other misconducts include:

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Bylaws of the International Academy of Financial Consumers (IAFICO)

March 31, 2015
First revision on April 19, 2016
Second revision on September 30, 2019

Section 1 General Provisions

Article 1 (Official Name)

The official name of this academic society shall be the "International Academy of Financial Consumers (IAFICO hereafter)".

Article 2 (Registered office and Branch offices)

The registered office is to be in Seoul, South Korea. Branch offices may be established in provincial cities in Korea or overseas should the need arise.

Section 2 Objectives and Undertakings

Article 3 (Objectives)

*Pending
The IAFICO is a non-profit association aiming at promoting and developing at an international level collaboration among its members for the study of various issues relating to financial consumers, including its education, legislation, creation of best practices, supervision, and policy advancement to contribute to the development of the global economy and financial market, through investigation or research into financial consumers, and other academic activities.

Article 4 (Undertakings)

The following activities shall be carried out in order to achieve the objectives of the IAFICO.
1. Publication of journal and other literature
2. Hosting of academic conferences
3. Additional undertakings corresponding to the objectives of the academic society which are deemed necessary at the board of directors meeting or the general meeting

Section 3 Membership

Article 5 (Requirements and Categories)

The IAFICO shall have following categories of membership:

① Individual member

Individual members are categorized further into a regular member or an associate member.

1. Regular member shall be a specialist in the area such as finance, consumer studies, economics, management, law, or education etc, and must be a full-time instructor at a domestic or overseas university, a researcher at a research institute with equivalent experience, or should hold equal credentials to those mentioned previously, and shall become its member by the approval of the board of directors. Regular members attend general meetings and may participate in discussions, hold the right to vote, and are eligible to be elected to a director or other status of the IAFICO.
2. Associate members shall be divided into either a student member, who is a current domestic or overseas graduate school student, or an ordinary member, who works for a financial institution or a related organization. Associate members do not hold the right to vote and are not eligible to be elected to a director or other status of IAFICO.
3. Both regular member and associate member must pay the membership fee to the IAFICO every year.
4. In the case that a decision is made by the Board of Directors to expel a member due to a violation of the objective of the society, or demeaning the society, or in the case that a member fails to pay the membership fees for two years continuously without prior notice, their membership shall be revoked.

② Institutional member

1. Institutional member shall be organizations related to financial consumers who do not damage the impartiality of the IAFICO subject to approval of the Board of Directors. Institutional members do not hold the right to vote and are not eligible for election.
2. Institutional member must pay its membership fee to the IAFICO every year.

Section 4 Organization

Article 6 (Designation of Board of Director)

The following Directors are designated to constitute the Board of Directors to run the IAFICO.

1. Chairperson
2. Vice-Chairperson
3. President
4. Vice-President
5. ordinary Directors
6. Auditor

Article 7 (Election of Board Members and Director)

① The Chairperson, Directors, and Auditors shall be elected or dismissed at the general meeting.
② Appointment of the Directors may be entrusted to the Chairperson pursuant to the resolution of the general meeting.
③ The Vice-Chairperson, President, and Vice-President shall be appointed and dismissed by the Board of Directors.

Article 8 (General Meetings)

① General meeting shall decide following matters relating to the activities of the IAFICO.
1. Amendments to the Bylaws
2. Approval of the budget and settlement of accounts
3. Election or Dismissal of the Chairman
4. Election or dismissal of Auditors
5. Regulations concerning the duty and rights of members
6. Resolutions regarding items submitted by the President or Board of Directors
7. Other important matters

② The Chairperson must call a regular general meeting at least once a year and report on the undertakings of the IAFICO. Provisional general meetings may also be held by the call of the Chairperson, or at the request of at least a quarter of current regular members, or according to the resolution of the Board of Directors.
③ At a general meeting, a quorum is formed by one third of regular members. However, regular members who are not able to participate in the general meeting in person may be represented by proxy, by entrusting a specific regular member attending the general meeting with their attendance or voting right. In this case the letter of proxy is included in the number of attendees.
④ Resolutions at the general meeting will be made according to the majority vote of the attending members who hold the right to vote.
⑤ In principle, the general meeting shall be held with face-to-face meeting, however, it may be held web-based meeting when needed.

Article 9 (Auditors)

① The auditors shall audit financial affairs, accounts and other transactions of IAFICO, shall participate in, and may speak at board meeting, and must present an auditor’s report at the regular general meeting.
② There shall be two appointed auditors.
③ Auditors are elected at the general meeting.
④ An auditor shall serve a term of two years and may be reappointed.

Article 10 (Board of Directors)

① The Board of directors shall be made up of chairperson and fewer than 80 directors.
② The Board of Directors shall decide a plan of operation and establish the budget, in addition to matters on the running of IAFICO.
③ Board meeting requires a quorum of at least one third of current board members. Resolutions at the Board meeting will be made according to the majority vote of the attending members. However, board members

who are not able to participate in the board meeting in person may be represented by proxy, by entrusting another specific board member attending the board meeting with their attendance or voting right.

④ A board member shall serve a term of two years, with a possibility of serving consecutive terms.

⑤ A number of sub-committees or branches in each country or region may be set up under the Board of Directors to support the running of the IAFICO.

Article 11 (Steering Committee)

① The Board of Directors may entrust some decisions relating to the conducting of business to the Steering Committee.

② The Steering Committee shall be comprised of the Chairperson, Vice-Chairperson, President, and the heads of each subcommittee.

③ Temporary task forces may be established by the Steering Committee when necessary to run the business of the Steering Committee.

Article 12 (Chairperson)

① The Chairperson shall represent the IAFICO and chair its general meeting and board meeting.

② There shall be one appointed Chairperson who serves a term of three years.

③ In the case of an accident involving the Chairperson, the Vice-Chairperson shall complete the remaining term of office of less than one year. If it lasts longer than one year, a new Chairperson shall be elected at the general meeting.

④ A new Chairperson should be elected at the general meeting one year prior to the end of the current Chairperson's term of office.

⑤ Should it be judged that it is difficult for the Chairperson to carry out their duty any longer, he or she may be dismissed from their post by the decision of the Board of Directors and general meeting.

Article 13 (Vice-Chairperson)

① The Vice-Chairperson shall assist the Chairperson, and serve as a member of the Board of Directors.

② The Vice-Chairperson shall serve a term of two years, or the remaining term of office of the Chairperson, whichever is shortest.

③ The Vice-Chairperson shall be elected from one of the regular members at a meeting of the Board of Directors, according to the recommendation of the Chairperson.

④ The Vice-Chairperson may be reappointed.

Article 14 (President)

① During its term of office, the President shall become the head of the organizing committee supervising international conferences, and serves for a term of one year. The President shall attend the board meeting as a member of the Board of Directors.

② The succeeding President shall be elected by the Board of Directors after considering their ability to organize and host the following year's conferences. The succeeding President shall also attend board meeting as a member of the Board of Directors.

③ The Board of Directors may elect the next succeeding President should the need arise. The next succeeding President shall also attend board meeting as a member of the Board of Directors.

④ The President, succeeding President, and the following President may appoint a Vice- President respectively by obtaining approval of the Board of Directors.

⑤ The appointment and dismissal of the President is decided at the board meeting.

Article 15 (Vice-President)

① A Vice-President is a member of the Board of Directors and shall assist the President, supervise applicable international conferences.

② A Vice-President is recommended by the President and shall be approved by the Board of Directors.

③ Multiple Vice-Presidents may be appointed.

④ A vice-President shall serve a term of one year, the same as the term of President.

⑤ In the event of an accident involving the President, a Vice-President shall fulfil the President’s duties during the remaining term of office.

Article 16 (Editorial Board)

① The Editorial Board shall be responsible for editing of journals and other materials to be published by the IAFICO.

② The head of the Editorial Board shall be appointed by the Board of Directors, and shall serve a term of office decided by the Board of Directors.

③ The head of the Editorial Board shall be a member of the Board of Directors.

④ Additional matters concerning the running of the editorial board shall be decided separately by the Board of Directors.

Article 17 (Advisory Board and Consultants)

① The Chairperson may select individuals who could make a large contribution to the development of the IAFICO, and appoint them as advisors subject to the approval of the Board of Directors.

② The Chairperson may appoint consultants subject to the approval of the Board of Directors in order to receive advice relating to all business matters of the IAFICO, such as development strategies, conferences, research plans, and research projects etc.

③ Advisors and consultants shall serve terms of one year and may be reappointed.

Section 5 Financial Affairs

Article 18 (Accounting and Revenue)

① The fiscal year of the IAFICO shall run from the 1st of January to the 31st of December each year.

② The finance required to operate the IAFICO shall be sourced from membership fees, member contributions, society participation fees, and other incomes. Related matters shall be decided by the Board of Directors or the Steering Committee.
③ Should the need arise, the IAFICO may accept sponsored research, donations or financial support from external parties in order to support the business performance of the IAFICO. The Chairperson shall report the details of these at the board meeting.
④ Chairperson should report all the donation from outside and their usage of the year at the IAFICO homepage by the end of March of the next accounting year.

Section 6 Supplementary Rules

Article 19 (Revision of the Bylaws)

① Any other matters not stipulated by this Bylaws shall be resolved by the Board of Directors.
② Revision of the Bylaws shall be carried out, by the proposition of the Board of Directors, or at least one-tenth of regular members, at a general meeting where at least one-third of the total regular members are in attendance, or at a provisional general meeting, with the agreement of at least two-thirds of current members.

Article 20 (Dissolution)

Should the IAFICO intend to be dissolved, it must be decided upon at a general meeting with the agreement of at least two-thirds of current members, and permission must also be received from the Fair Trade Commission. Except for bankruptcy, the dissolution must be registered and reported to the Ministry of Strategy and Finance within three weeks, accompanied by a certified copy of register.

Article 21 (Residual Property upon Dissolution)

Should the IAFC be dissolved, according to article 77 of the Korean civil law, all remaining assets of IAFICO shall belong to the state, local government, or other non-profit corporations carrying similar objectives.

Additional Clause

These Bylaws shall become effective from the 1st April 2015

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