

Awareness of Microtakaful Development among Low-Income Earners in Malaysia

Arnida Jahya, Nur Diyana Yusoff*, Azreen Roslan, Mohd Faizol Rizal Rasid & Anis Sofia Binti Roslan
Universiti Teknologi MARA, Kampus Melaka, Malaysia
arnida@uitm.edu.my, diyanayusoff@uitm.edu.my*, azreenroslan@uitm.edu.my, faizolrizal@uitm.edu.my

Abstract: Malaysia is the third largest takaful market globally and the takaful sector in Malaysia shows sound growth in 2022. Takaful had a penetration rate of 20.1% in 2022, up from 18.6% the previous year. However, only 25% of adult employees in the low-income group have some form of life insurance or family takaful cover, in contrast with 59% of those who are employed in the overall population who have takaful or insurance protection. The Malaysian population can be classified into three income segments: the T20 group, comprising the top 20% of income earners; the M40 group, representing the middle 40% of income earners; and the B40 group, encompassing the bottom 40% of income earners. This study will only focus on the B40 group with a median income of RM3,860. The B40 has minimal wealth and ownership of assets, making them heavily dependent on government assistance to improve their living standards if the economy suffers a shock. Microtakaful is a kind of takaful product entailed for addressing the financial needs of households with low incomes in times of significant expenses. The main objective of this study was to examine the factors influencing the awareness of microtakaful development among the low-income group (B40). This study examines the relationship between (i) income level (ii) knowledge, and (iii) loss of exposure to the awareness of microtakaful. Data was collected by distributing 320 questionnaires to the residents in (PPR) Kerinchi Lembah Pantai, Kuala Lumpur. Based on the findings, it can be concluded that the three independent variables, namely income level, knowledge, and loss exposures, have a strong positive relationship with microtakaful awareness. However, it is found that income level has the biggest impact on the awareness of microtakaful.

Keywords: *Takaful, Family Takaful, Low-Income Earners, B40, Malaysia, Insurance.*

1. Introduction and Background

Introduction of Takaful in Malaysia: The early 1980s saw the formation of Malaysia's Takaful sector in response to the need for a Shari'ah-compliant alternative to traditional insurance. The Malaysian National Fatwa Committee considers traditional insurance to be haram due to the existence of uncertainty (gharar), interest (riba), and gambling (maisir). The government organized a special task team in 1982 to investigate the feasibility of establishing an Islamic insurance corporation (Sharifuddin et al., 2016). The Takaful Act 1984 was enacted in response to the task force's recommendations, and Malaysia's first Takaful operator was founded. Takaful is founded on the concepts of group members' mutual cooperation and accountability.

Takaful products are divided into two categories: Family Takaful, which caters to long-term needs such as a pension, death and disability compensation, children's education, and more; and General Takaful, which is typically a short-term policy in which participants contribute and operators manage the risk (Md Razak et al., 2013). Malaysia has a significant Muslim population, comprising 63.5% of the total population by 2022, which amounts to 21,082,000 people. With Muslims constituting the majority of Malaysians, there is a growing awareness of the need to purchase takaful products rather than conventional insurance, particularly following the 1985 Fiqh Academy ruling declaring conventional insurance haram unless it adheres to Shariah compliance (Banthia et al., 2009). Malaysia ranks as the third-largest takaful market globally, and the sector experienced sound growth in 2022, achieving a penetration rate of 20.1%, up from 18.6% in the previous year. However, just 25% of working individuals in the low-income group have some type of life insurance or family takaful cover, compared to 59% of working adults in the overall population who have takaful or insurance protection (Ringgitplus, 2023). Despite Malaysia's position at the forefront of the global takaful sector, micro takaful is still in its early phases and growing slowly (Ahmed, 2016).

Microtakaful and Microinsurance Development in Malaysia: Planning and financial inclusion were emphasized in the Bank Negara Malaysia Financial Sector Blueprint 2011-2020 to ensure healthy and sustainable economic development. One of the major priorities was to ensure that low-income populations have access to the same financial facilities as higher-income groups because they are more vulnerable to

severe losses and need financial protection like other income groups. Micro-takaful (micro-Islamic insurance) was created to meet the needs of low-income people by providing affordable protection for their lives and property. Bank Negara Malaysia (BNM) established a regulatory framework with industry participation to facilitate the growth of micro-takaful in Malaysia. As a result, in 2016, the "Microinsurance and Microtakaful: Discussion Paper" was issued, to facilitate market expansion and innovation while maintaining the quality and sustainability of microtakaful service in the country.

Despite Malaysia's lengthy history of creating takaful and insurance businesses, the micro takaful sector is relatively new to the country. Several microtakaful projects, however, have been created to service the low-income market, encompassing both rural and urban poor populations. For instance, Takaful Ikhlas and the Selangor Zakat Institution collaborated to construct Malaysia's first microtakaful in April 2007, protecting 100,000 members of The Farmers Welfare Federation at a low premium for urgent death expenses and additional benefits (Abdullah, 2021). Similarly, Etiqa Takaful and Angkatan Koperasi Kebangsaan Malaysia (ANGKASA) introduced the Skim Tabarru' Koperasi microtakaful program in March 2009 for all ANGKASA members, providing coverage against death and total permanent disability at a low cost (Mokhtar et al., 2012).

In September 2010, the Malaysian government asked Takaful operators to develop micro-takaful regulations to reach the low-income market, which covers both rural and urban poverty groups. Because they cannot afford regular insurance, this group is frequently vulnerable and disregarded. As a result, the Tenth Malaysia Plan (2011-2015) was created to improve the lifestyles of the poorest 40% of families (B40) and vulnerable groups. The 1Malaysia Micro Protection Plans (1MMPP) were created in 2010 to encourage low-income households to seek insurance and takaful protection by providing a variety of coverage alternatives at reasonable costs (BNM, 2010). Currently, various microtakaful products are available in the Malaysian market to fulfill the needs of the low-income group.

Figure 1: Detail of MicroTakaful

MicroTakaful Scheme	Sponsor	Beneficiaries	Characteristics
1. <i>Perlindungan Tenang</i>	Bank Negara Malaysia (BNM)	Was launched on 2017, to assist the B40 group	Contributions are affordable monthly. However, determining the premium rate necessitates a detailed examination of several factors, such as the total amount of family members, savings for emergencies, income and the system for social security.
2. 'MySalam'	Malaysian Government	MySalam was created for individuals who are qualified for the government's Sustenance Allowance (BSH).	Covering the expenses of getting treated in public hospitals or other public-designated facilities. A monetary reward of Ringgit Malaysia eight thousand is also provided if a person has been verified for having any of the Malaysian Ministry of Health's thirty-six serious diseases.
3. Asnaf Takaful Scheme	Federal Territory Islamic Religious Council	For <i>Asnaf</i> community members who get monthly financial assistance provided by the Islamic Religious Council of the Federal Territories	The purpose of this scheme is to ease the financial burden on <i>Asnaf</i> who has suffered a catastrophe, such as an accident or death.
4. FWD Kasih	Syarikat FWD Takaful Berhad	Households with low income	Death benefits, lifelong disability, burial costs, Badal Haji for Muslims, charity contributions to non-Muslims, and accidental death are all offered.

5.	Prisma Etiqa Etiqa	Takaful Keluarga Berhad	Etiqua	Provides takaful protection for low-income households.	family Protection is provided in the event of death and total or permanent impairment.
----	--------------------	-------------------------	--------	--	--

Source: Adapted from: Rapi, et al. (2022).

Definition of Poor in Malaysia: The Department of Statistics of Malaysia (DOSM, 2023) stated that the population in Malaysia is divided into three income groups comprising of the B40 group, which includes the bottom 40% of income earners; the M40 group, which includes the middle 40% of income earners; and the T20 group, which includes the top 20% of income earners. The median incomes for these groups are reported as RM13,148, RM6,275, and RM3,860, respectively. The population of the B40 has minimal wealth and possession of assets, making them subject to economic instability and dependent on assistance from the government to better their situation (UNDP, 2020). Due to income loss, company loss, and job loss, the 2019 pandemic has forced many people in Malaysia into lower income brackets. This situation has a direct influence on the livelihoods of Malaysia's B40 communities. Furthermore, twenty-five percent of women in Selangor lost half of their income because their job contracts were canceled, their businesses were forced to close, or they were placed on leave without pay. Income has been proven to have a significant impact on the demand for takaful. (Rapi et al., 2022). Takaful becomes more affordable when income increases therefore it will directly increase the demand for family Takaful. The above statement is supported by (Lo et al., 2011), where a higher-income individual is more likely to use risk-reduction techniques, such as acquiring an insurance policy. In conclusion, an individual with a higher income tends to buy insurance compared to an individual with a lower income.

Program Perumahan Rakyat (PPR): According to the Housing and Local Government Ministry (2022), there are a total of 159 block projects equivalent to 99,196 *Projek Perumahan Rakyat* (PPR) units occupied by individuals categorized in the B40 income group. PPR located across Peninsular Malaysia, Sabah, Sarawak and Wilayah Persekutuan Labuan. To reside in or register for (PPR) residences, applicants must be 18 years or older, married, Malaysian nationals, and the combined earnings of the spouse must not exceed RM3,860. As a result, all of this conforms to the standards for low-income people.

2. Literature Review

Awareness of Microtakaful: According to Sukmana and Hidayat (2015), the microtakaful industry is relatively unknown as compared to the takaful industry as a whole. This lack of recognition poses several challenges to its growth. Firstly, proper and comprehensive regulation is needed to reduce uncertainty and attract investors. However, applying conventional insurance regulations to microtakaful, which operates on the principle of risk-sharing rather than risk transfer, may not be appropriate (Ingram et al., 2011). Secondly, limited public awareness about microtakaful impedes its adoption, as it is mainly taken up by cooperatives rather than Islamic microfinance institutions. Lastly, the lack of skilled human resources dedicated to microtakaful delays its rapid development. To promote growth in the microtakaful sector, a larger pool of specialized professionals is required (Mohamad Puad, 2017). Addressing these challenges can help drive the development and acceptance of micro takaful within the takaful industry.

Abdul Rahman (2008) conducted cross-sectional research on Malaysian awareness of Takaful. The study covered the entire country, with 886 respondents participating to form the sample for the survey. According to the report, 88.6 percent of the people surveyed were knowledgeable about the existence of Takaful in the country. However, more than half of them were unable to identify any Takaful operators in Malaysia. Micro Takaful is defined as "Sharia'h-compliant risk-pooling products intended for the low-wage advertise due to affordable pricing, terms, its scope, and conveying systems.". Microtakaful can be defined as Shariah-compliant risk-pooling products intended for the low-income market, offering affordable costs, terms, coverage, and delivery systems. Despite this, many low-income individuals still resort to alternative, mostly reactive risk management methods, such as out-of-pocket payments, borrowing, or asset selling. These methods severely impact asset ownership and future income streams, pushing people below the poverty line when faced with losses or damages (Cohen and Sebstad, 2006). Research by LoBiondo-Wood & Haber, J (1998) stated that low-income individuals lack the means to invest in their livelihood and healthcare.

Loster and Reinhard (2010) explained that low-income individuals may afford small premium payments but might not commit to them, proving that income level impacts a person's awareness of microtakaful products. The general public's understanding of microtakaful and microinsurance programs is rapidly expanding. In 2006, 78 million low-income individuals in the 100 poorest nations had some form of coverage (Roth et al., 2007). According to Khan (2006), microtakaful offers Shariah-compliant protection to the lower income bracket at an affordable price. The government has also played a significant role in educating and providing extra knowledge to consumers, as Bank Negara Malaysia introduced 'Perlindungan Tenang,' integrating Takaful with features of voluntary almsgiving (sadaqah), endowment (waqf), and almsgiving tax placed on Muslims (zakat) to fund the supply of Takaful coverage to the needy. Lastly, low-income individuals face exposure to losses. As explained by Hubbard (2010), risk represents a state of vulnerability where potential outcomes include loss, catastrophe, or other undesirable results.

Income Level: Income level is critical in the growth of microtakaful. According to Ahmad et al. (1991), both urban and rural informal employment is poor, vulnerable, and less educated. They cannot afford and do not have complete access to essential services such as healthcare, pensions, paid sick leave, insurance, and various perks as a result of their poor income. Hubbard (2010) defines risk as a state of vulnerability where potential outcomes include loss, catastrophe, or other unwanted results. The process of understanding insurance can be complex for people, but they may be prepared to pay if offered a product that meets their needs and provides significant value. However, not all vulnerable people are able to effectively advocate for themselves (LoBiondo-Wood & Haber, 1998). According to Matul (2005), twenty percent of rural households have no fixed source of income and hardly save income due to urgent necessities like groceries, education expenses, and utility bills taking priority. Limited resources hinder effective financial planning for them. Poor households frequently struggle to create consistent and significant income and are more vulnerable to political, financial, and health issues (Brown and McCord 2000), leading to constraints in their purchasing behavior and their ability to contribute to microinsurance schemes. Furthermore, Nyanjom (2006) explained that low income and inability to get out of poverty resulted in disparities in health status as well as health vulnerabilities. This is supported by (Noor & Abdul Rahman, 2012), who noted that impoverished people's health diminishes when they seek poor-quality medical treatment owing to a lack of funds.

H1: There is a relationship between income level and awareness of microtakaful.

Knowledge: Alba and Hutchinson (1987) define knowledge as "information that is learned, organized, represented, and stored in the mind." In this context, financial knowledge can be defined as financial information that a human learns and then cognitively organizes, represents, and remembers. In addition, increasing knowledge leads to higher levels of perception, attitude, and behavior. According to Olejnik and Biaows (2015), insurance knowledge is a set of scientifically informed messages aimed at comprehending the essence and principles of the insurance company and establishing the conditions for its continuing development. Furthermore, insurance knowledge is a subset of financial knowledge that includes all of the information needed to understand all facets of the insurance market's proper operation. To define insurance knowledge correctly, one must consider education, including schooling and training, because it improves the understanding of people who make key life decisions regularly. Education includes both learning and teaching, and it can be studied in a number of settings and at different levels. Insurance education's goal is not only to teach knowledge and illustrate how to use it but also to inspire and raise awareness among those participating in the educational process, so assisting society in becoming more financially literate (Przybytniowski, 2017). Insurance expertise, according to Piekowska-Kamieniecka and Walczak (2016), has a significant influence on the expansion of understanding in this subject, which leads to proper insurance coverage that fulfills customer needs. Many people are still unaware of microtakaful, particularly in the low-income group, where the bulk of people have poor education and financial literacy. According to Haryadi (2007), micro takaful items are comparable to ordinary takaful products but have been tailored to address the requirements of the impoverished while being Shariah-compliant. The most commonly used model by microtakaful operators is the hybrid model or Wakalah Bil Ujrah (Erlbeck et al., 2011). These products are complex for a layman to understand especially to the target market of lower income groups. As per Brown (2001), many insured individuals do not fully understand the coverage they have purchased and struggle to make claims. This is consistent with the findings of the Banking with the Poor Network (2008), which say that the poor are unaware of insurance and believe rates are higher than the real cost. Furthermore, Banthia et al. (2009) discovered that low-income groups are hesitant about microinsurance programs due to their lack of

awareness about the benefits and coverage that may not meet their needs.

H2: There is a relationship between knowledge and awareness of microtakaful.

Loss Exposure: Monetary risk is the possibility of losing financial stability as a result of unexpected events (Anderson and Brown, 2005). Low-income individuals are vulnerable to various hazards due to living in hazardous conditions. Among them, the poor are even more susceptible to dangers as they have limited capacity to cope when emergencies occur. As supported by Churchill (2006), poverty and vulnerability are interconnected. Low-income and impoverished people, whether in rural or urban poverty, are frequently overlooked when it comes to insurance coverage, leaving them vulnerable to financial emergencies (Bank Negara Malaysia, 2010).

Being impoverished in an urban setting can be more difficult to handle than being poor in a rural setting. The cost of life is lower in rural areas, and basic commodities are more readily available, allowing individuals to supplement their food supply by farming and producing their own vegetables or rearing poultry. This is not possible in high-rise residences in urban areas. According to the Khazanah Research Institute's State of Households II (SOH II) study, the nation's poverty rate has decreased from 1.7% of households in 2012 to 0.6% in 2014. Nonetheless, the ringgit's depreciation and growing inflation have hit Malaysians' pockets, affecting their way of life (Khazanah Research Institute, 2016).

According to Llanto et al. (2006), urban and rural workers frequently face poor working conditions, filthy settings, rapid climate changes, disasters, bug infestations, chemical poisoning, and other environmental risks. Cohen and Sebstad (2006) highlight the challenge for the impoverished in overcoming poverty when confronted with even mild shocks. Cheaply constructed buildings in slum areas are especially susceptible to damage from fires and natural calamities, leading occupants to even harsher living conditions (Morduch, 1999). In their daily life, every impoverished person suffers some level of vulnerability. The ability to deal with threats has been classified as individual and family vulnerability. Poverty is a cause as much as a symptom (Cohen and Sebstad, 2006). When income is lost due to a shock, many people withdraw their savings, borrow money, sell items, or even pull their children out of school. Low-income neighborhoods frequently lack access to high-quality food, with establishments offering energy-dense, nutrient-deficient items at low prices. Due to financial constraints, they can only afford cheaper food, compromising on its quality. Consuming low-quality food is connected with a high-calorie, low-nutrient diet, which may result in weight gain (Larson et al., 2009). Furthermore, low-income children are less likely to participate in organized sports, which contribute to the low-income group's higher loss exposure.

H3: There is a relationship between loss exposure and awareness of microtakaful.

3. Research Methodology

The estimated Malaysian population in 2023 is around 33.2 million people, consisting of 30.4 million citizens and 2.8 million non-citizens. However, this study only focuses on 40% of the lower-income group in Malaysia, known as B40, which amounts to 13.28 million people (DOSM, 2023). According to the Ministry of Housing and Local Government (2022), there are a total of 99,196 PPR units occupied by individuals categorized in the B40 income group. The population of interest for this study was 1896 PPR units of occupants of 6 block projects under Projek Perumahan Rakyat (PPR) at Kerinchi Lembah Pantai. The study will utilize a convenient sampling technique, where only individuals from the lower-income group will be selected to participate and answer the questionnaire. Individuals living in (PPR) Kerinchi Lembah Pantai would be the unit of analysis in this study. The purpose of this research is to determine the level of awareness of microtakaful development among low-income earners in (PPR) Kerinchi Lembah Pantai. According to Krejcie and Morgan (1970), for a population size of 1896, a commonly used rule of thumb suggests selecting a sample size of at least 320 for a 95% confidence level and 5%. Therefore, a sample size of 662 was collected from the 1896 occupants of PPR units to achieve a 99% confidence level and a 5% margin of error. The respondent was handed questionnaires with a five-point Likert scale measuring ranging from "strongly disagree (1)" to "strongly agree (7)". The convenience sampling technique, often known as non-probability sampling, was applied. The inquiries are all the same. Data is collected all at once.

4. Results and Discussion

Profile of Respondents: Table 1 summarizes the characteristics of the complete sample of respondents who took part in the study. The table shows the gender of the respondent are almost equal for female and male respondent with 48% and 52% respectively. The majority of responders (33.88%) are between the ages of 30 and 39. As for income level, the income range RM3,001 to RM3,860 contributed the most with 32.3% of the respondents belonging to this income level. The second highest income level is RM1500 and below representing 35.2% of the respondents. The rest of the respondents have an income ranging from RM1501 – RM2000 and RM2001 – RM3000 with 24.1% and 14.1% respectively. Most of the respondents do not have any insurance coverage with 237 respondents saying no to the question ‘Do you have life insurance?’

Table 1: Demographic Table

VARIABLE	FREQUENCY	PERCENTAGE
GENDER		
Male	154	48%
Female	166	52%
Total	320	100%
AGE		
20-29	62	19.4%
30-39	108	33.8%
40-49	102	31.9%
>50	48	15%
Total	320	100%
INCOME LEVEL		
RM1500 and below	94	35.2%
RM1501 – RM2000	77	24.1%
RM2001 – RM3000	45	14.1%
RM3001 – RM3,860	104	32.3%
Total	320	100%
DO YOU HAVE LIFE INSURANCE?		
Yes	83	26%
No	237	74%
Total	320	100%

Correlation Analysis: Pearson correlation is used to test the significance level of the hypothesis for the variable and measures the strength of the relationship between two variables. The correlation results are displayed in Table 2, Table 3, and Table 4.

Table 2: Independent Variable (Income Level)

Independent Variable 1	Income Level	Awareness of micro takaful
Income Level	Pearson Correlation	1
	Sig. (2-tailed)	.779**
	N	320

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

Table 2 shows that the level of awareness of microtakaful and income level have a very strong and positive correlation relationship. According to Guttman's Rules of Thumb, the result of Pearson's Correlation Value is exceptionally solid at 0.779, indicating that the quality of the relationships between each measurement is very strong, and the positive correlation relationship (p-value = 0.000) is significant at the 0.01 between each measurement is very strong, and a positive correlation relationship (p-value = 0.000) is significant at the 0.01 levels (2 – tailed).

Table 3: Independent Variable (Knowledge)

Independent Variable 1		Knowledge	Awareness of micro takaful	
Knowledge	Pearson Correlation	1	.745**	**. Correlation is significant at the 0.01 level (2-tailed).
	Sig. (2-tailed)	320	.000	
	N		320	

According to the findings in Table 3, knowledge and level of awareness of microtakaful have a positive correlation and extremely strong relationship. The outcome of Pearson's Correlation Value is particularly strong with 0.745, demonstrating the nature of the relationship among every measurement is strong, and the positive connection relationship is huge at the 0.01 levels (2-tailed).

Table 4: Independent Variable (Loss Exposures)

Independent Variable 1		Loss Exposures	Awareness of micro takaful	
Loss Exposures	Pearson Correlation	1	.753**	**. Correlation is significant at the 0.01 level (2-tailed).
	Sig. (2-tailed)	320	.000	
	N		320	

Table 4 shows that loss exposures and level of awareness of microtakaful have a very solid and positive correlation relationship. The result of Pearson's Correlation Value is especially solid with 0.753 which shows the idea that the relationship between each prediction is very strong, and the positive association relationship (p-value = 0.000) is huge at the 0.01 levels (2-tailed).

Regression Analysis: Regression analysis refers to a set of statistical methods for estimating relationships between the dependent variable and one or more independent variables.

Table 5: Regression Analysis

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.817	.667	.448	.350834		Predictors: (Constant), Income Level, Knowledge, Loss Exposure

According to Table 5, the coefficient of determination for R Square is 0.667. This means that the three independent variables, income level, knowledge, and loss exposures, explain 66.7% of the variation in the level of awareness of microtakaful. The remainder of the 33.3% variation in microtakaful awareness cannot be explained by the three variables but can be explained by other variables.

Coefficient of Multiple Regression Model: For the value to be significant, the three variables of income, knowledge, and loss exposure must be less than 0.05. While the variable with the highest Beta value suggests that it is the most powerful variable.

Table 6: Coefficient of Multiple Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std Error	Beta		
Constant	.665	.231		2.882	.05
Income Level	.324	.115	.349	2.818	.006
Knowledge	.283	.095	.295	2.978	.004
Loss Exposure	.217	.109	.283	1.998	.0049

Based on Table 6 above, the result for income level is 0.000, which is less than the significant level of 0.05. As a result, the variable is significant. Income level and awareness of microtakaful have a positive relationship. It can be stated that every one-unit increase in income level will increase awareness by 34.9%. The significant value for the following variable, knowledge, is 0.04, which is greater than the significant level of 0.05. The variable is significant. This shows that knowledge influences awareness of microtakaful. It is possible to illustrate that every one-unit increase in knowledge increases awareness by 29.5%. Finally, the significant value for variable loss exposure is 0.049, which is less than the 0.05 criterion of significance. It may be explained that for every unit increase in loss exposure, demand rises by 28.3%. Therefore, the variable is significant. There is a relationship between loss exposure and awareness. This finding is similar to previous findings by Hassan et al. (2018), which show that understanding takaful items is necessary for market penetration. Only 378 of their 503 respondents are aware of takaful products, and only 38.8% are knowledgeable about takaful products. Overall, it can be concluded that income level has the greatest impact on microtakaful awareness.

Discussion

Figure 2

Hypothesis	Relationship	Finding	Result
H0: There is no relationship between income level and awareness of microtakaful.	0.006 (Significant)	Reject H0 Accept H1	The null hypothesis (H0) was rejected and the alternative hypothesis (H1) was accepted because the p-value is less than 0.05. This suggests that there is a significant statistical connection between income level and knowledge of microtakaful.
H1: There is a relationship between income level and awareness of microtakaful.			
H0: There is no relationship between knowledge and awareness of microtakaful.	0.004 (Significant)	Reject H0 Accept H2	The p-value is 0.004, which is less than 0.05. As a result, the null hypothesis (H0) was rejected and the alternative hypothesis (H1) was accepted. This indicates that there is a statistically significant relationship between knowledge and awareness of microtakaful.
H2: There is a relationship between knowledge and awareness of microtakaful.			
H0: There is no relationship between loss exposure and awareness of microtakaful.	0.049 (Significant)	Reject H0 Accept H3	The p-value is 0.049, which is as well less than 0.05. Hence, the null hypothesis (H0) was rejected and the alternative hypothesis (H1) was accepted. This suggests that there is a statistically significant link between loss exposure and microtakaful awareness.
H3: There is a relationship between loss exposure and awareness of microtakaful.			

5. Managerial Implications and Recommendations

Government Perspectives: To begin, the government should implement financial literacy programs in schools and communities, with an emphasis on raising understanding and awareness of microtakaful. Encouraging financial planning among low-income individuals at a young age by introducing basic insurance concepts like takaful can be advantageous. To provide a greater impact, these efforts might be integrated into school curricula and community programs. In addition to educational initiatives, the government can run targeted awareness campaigns in low-income neighborhoods, as well as government low-cost housing programs such as the PPR (People's Housing Project), squatter houses, and the PR1MA (1Malaysia People's Housing Program). This strategy would involve the low-income population directly and raise awareness about the benefits of microtakaful. To reach a wider audience, the government can utilize various media channels, including social media, radio, and television, to communicate the advantages of microtakaful in a simple and engaging manner. Using these platforms will increase the visibility and accessibility of

information about microtakaful to the target market. Furthermore, the government can provide incentives to takaful operators that actively participate in offering micro takaful products to the low-income market. This can include tax exemptions, reduced regulatory barriers, or financial support for product development and marketing. These incentives can encourage insurance companies to develop innovative and affordable microtakaful products, increasing the options available to low-income earners. The government can play a vital role in boosting knowledge and comprehension of microtakaful among the low-income population, supporting financial inclusion and empowerment, by implementing these ideas.

Takaful Operator Perspectives: Takaful providers can provide microtakaful solutions that are customized to low-income consumers, providing flexibility in coverage options, affordability, and simple policies. Furthermore, takaful operators should use digital technology to reach a larger audience. Creating mobile applications or online platforms that allow easy access to information on microtakaful and promote simple insurance buying and claims processes can help the target market gain access. Understanding the tastes of different age groups is critical for attracting them. Because millennials value simplicity, newness, and comfort, social media is a powerful technique for gaining their attention. Older age groups, on the other hand, value thorough, emotive, and exact information. Using TV commercials, magazines, newspapers, or radio to promote microtakaful products to this demographic can be more effective. Furthermore, takaful operators might participate in social responsibility projects to help low-income earners' financial inclusion and empowerment. Sponsoring financial literacy courses, community events, and other efforts to raise awareness of microtakaful can reflect a company's dedication to serving the low-income market. Insurance firms and takaful operators may play a significant role in improving knowledge and accessibility of micro takaful among low-income workers, ultimately providing them with much-needed financial safety and security, by applying these techniques.

Future Researcher Perspectives: The study was conducted only in (PPR) Kerinchi Lembah Pantai, which involved 1896 units out of 99,196 PPR units. To increase the generalizability of the research, future researchers are recommended to include all PPR units across Peninsular Malaysia and those in Sabah and Sarawak. Additionally, other government low-cost housing plans available in Malaysia can be included in the study. Furthermore, the focus should not be limited to only three independent variables: income level, knowledge, and loss exposures. It would be beneficial to include more variables to identify factors affecting awareness of microtakaful comprehensively. For instance, future researchers can consider variables such as education level, demographic factors, and exposure to financial education. Moreover, future researchers can collaborate with *Jabatan Kebajikan Masyarakat (JKM)* and other relevant bodies that deal with the lower-income group to obtain a comprehensive list of participants. This would allow for a more representative and diverse sample of the target population. Expanding the scope of the study to encompass a broader range of participants and variables would enhance the overall robustness and applicability of the findings, providing valuable insights into the awareness of microtakaful among various low-income groups in Malaysia.

Conclusion: The first objective is to investigate the relationship between income level and awareness of MicroTakaful. The correlation for income level is 0.779, indicating a strong correlation between level of awareness and income level. The following step is to calculate the correlation between awareness and income level. The value of significance must be below 0.05 for the variable to be significant. Since the variable income level is 0.006, it is therefore significant.

The second objective is to ascertain the relationship between knowledge and awareness of MicroTakaful. The correlation for the variable, knowledge, is 0.745, indicating a strong correlation. Moving on, the significant value must be less than 0.05 for the variable to be significant. Because the knowledge variable is 0.004, it is significant.

The third objective is to investigate the relationship between loss exposures and MicroTakaful awareness. The correlation for variable loss exposures is 0.753, demonstrating a strong correlation once again. Next, the significant value must be less than 0.05 for the variable to be significant. Since the variable of loss exposures is 0.049, it is significant.

In conclusion, all three variables in this study were statistically significant in explaining the awareness of

microtakaful among the low-income group in Malaysia. However, the total awareness of microtakaful remains low. Therefore, the government, takaful operators and other related bodies should take measures seriously to combat these issues such as implementing financial literacy programs in schools and communities, using digital technology and numerous media outlets to reach a larger audience. The government also has to give incentives such as tax breaks that can encourage takaful operators to create low-cost micro takaful products. Raising awareness of micro takaful would enable low-income earners group to protect their financial futures while also promoting inclusive economic growth, especially in the takaful sector.

References

- Ab Rahman, A., Mohamad, S., Wan Ahmad, W. & M. (2011). Development of the Islamic Insurance Business in Malaysia. Retrieved July 9, 2018, from <http://eprints.um.edu.my/12767/1/v77-241.pdf>.
- Abdullah, I. & Rashid, Y. (2014). Poverty, Conventional Insurance and Takaful: A Journalistic Review. *Research Journal of Recent Sciences*, 3(10), 108-112.
- Abdullah, I. N. (2021). Impactful and Collective Microtakaful in Addressing the Impact of the COVID-19 Pandemic. *Journal of Islamic Finance*, 10(1), 117-126.
- Ahmed, M. (2016). Micro Takaful Insurance as a Tool to Guaranteeing Financing and Protecting Micro Enterprises. *Journal of Business & Financial Affairs*, 05(04). <https://doi.org/10.4172/2167-0234.1000228>
- Alba, J. W. & Hutchinson, J. W. (1987) Dimensions of Consumer Expertise. *Journal of Consumer Research*, 13, 411-454. <http://dx.doi.org/10.1086/209080>
- Abdul Rahman, Z. (2008). The Role of Islamic Financial Institutions in Wealth Accumulation, Ownership and Protection by the Ummah: Conceptual and Implementation Challenges. Shah Alam: Universiti Teknologi MARA.
- Anderson, J. F. & Brown, R. (2005). Risk and Insurance. Retrieved from <https://www.soa.org/files/pdf/P-21-05.pdf>
- Bank Negara Malaysia. (2010). Development of the financial sector. <https://www.bnm.gov.my/files/publication/fsp/en/2010/cp02.pdf>
- Bank Negara Malaysia. (2016). Microinsurance and Microtakaful Discussion Paper. Retrieved from http://www.bnm.gov.my/guidelines/50_others/dp_microinsuranceandmicrotakaful_Apr2016.pdf
- Brown, W. (2001). Micro-insurance-the risks, perils and opportunities. *Small Enterprise Development*, 12(1), 11-24(14).
- Brown, W. & McCord, M. J. (2000). 'Virtual Conference on Microinsurance, Oct 9th – Oct 27th, 2000'. USAID Microenterprise Best Practices (MBP) Project, Development Alternatives / USAID 2000.
- Banking with the Poor Network. (2008). Microfinance Industry Report-Vietnam. Available at http://www.bwtp.org/files/MF_Industry_Report_Vietnam
- Banthia, A., Johnson, S., McCord, M. J. & Mathews, B. (2009). Microinsurance that works for women: Making gender-sensitive microinsurance programs. Microinsurance Paper No. 3. International Labor Organization
- Cohen, M. & Sebstad, J. (2005). Reducing vulnerability: The demand for microinsurance. *Journal of International Development*, 17(3), 397-474.
- Churchill, C. (2006). What is insurance for the poor? Protecting the Poor: A Microinsurance Compendium. International Labor Organisation, 12-22.
- DOSM (2023, February 9). Demographic Statistics Fourth Quarter 2022, Malaysia. Department of Statistic Malaysia Official Portal. Retrieved February 28, 2023, from https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=430&bul_id=VndFcmkvVTZ_oVTNYOTN2MzRtNy9zQT09&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09
- Erlbeck, A., Altuntas, M. & Berry-Stölzle, T.R. (2011). Microtakaful: Field Study Evidence and Conceptual Issues. Department of Risk Management and Insurance, University of Cologne.
- Hassan, R., Salman, S. A., Kassim, S. & Majdi, H. (2018). Awareness and Knowledge of Takaful in Malaysia: A Survey of Malaysian Consumers. *International Journal of Business and Social Science*, 9(11). <https://doi.org/10.30845/ijbss.v9n11p6>
- Haryadi, A. (2007). Reaching out to the Poor with Microtakaful. *Middle East Insurance Review*, 62-63.

- Hubbard, T. L., Hutchison, J. L. & Courtney, J. R. (2010). Boundary extension: Findings and theories. *Quarterly Journal of Experimental Psychology*, 63(8), 1467-1494. <https://doi.org/10.1080/17470210903511236>
- Ingram, M. & McCord, M. (2011). Defining "Microinsurance": Thoughts for a journey towards a common understanding. Appleton, WI: Micro Insurance Centre.
- Kementerian Pembangunan dan Kerajaan Tempatan. (2022). Program Perumahan Rakyat (PPR). <https://www.kpkt.gov.my/index.php/pages/view/256>
- Khan, M. J. A. (2006). Micro-takaful, the way forward. Academy for International Modern Studies. Available at www.LearnIslamicFinance.com
- Khazanah Research Institute. (2016, August 1). The State of Household II. *Khazanah Research Institute*.
- Krejcie, R. V. & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.
- Lo, A. S., Cheung, C. & Law, R. (2011). Hong Kong residents' adoption of risk reduction strategies in leisure travel. *Journal of Travel & Tourism Marketing*, 28, 240-260.
- Loster, T. & Reinhard, D. (2010). Micro-insurance and Climate Change, in Morelli E., Onnis G.A., Ammann W.J., Sutter C. (Eds.) (2010), *Micro-insurance - an Innovative Tool for Risk and Disaster Management*. Global Risk Forum GRF Davos, Switzerland, 39-42.
- Llanto, G. M., Almario, J. & Llanto-Gamboa, M. G. (2006). Microinsurance: Issues, Challenges and Policy Reforms. Discussion Paper Series No. 2006-25. Philippine Institute for Development Studies. Available at <http://www.pids.gov.ph>
- Larson, N. I., Story, M. T. & Nelson, M. C. (2009). Disparities in Access to Healthy Foods in the U. S. *American Journal of Preventive Medicine*, 36(1). doi:10.1016/j.amepre.2008.09.025
- LoBiondo-Wood, G. & Haber, J. (1998). *Nursing research: Methods and critical appraisal for evidence-based practice*. Elsevier Health Sciences.
- Md Razak, M., Idris, R., Md Yusof, M. & Jaapar, W. E. (2013). Acceptance determinants towards takaful products in Malaysia. *International Journal of Humanities and Social Science*, 3(17), 243-252.
- Matul, M. & Pawlak, K. (2005). Evaluation of pilot financial literacy workshops in Poland. MFC Research Paper
- Mohd Fauzi, P. N. F. N. & Laldin, M. A. (2022). Micro-takaful scheme for the protection of houses belonging to low-income groups in Malaysia, *ISRA International Journal of Islamic Finance*, 14(3), 303-314. <https://doi.org/10.1108/IJIF-05-2021-0090>
- Mohamad Puad, N. A. (2017). Issues and Challenges in Developing Microtakaful in Muslim Country. 4th International Conference on Management and Muamalah 2017, (e-ISBN: 9978-967-2122-15-9).
- Noor, M. & Abdul Rahman, Z. (2012). Financial Protection for the Poor in Malaysia: Role of Zakah and Micro-takaful. *Journal of King Abdulaziz University: Islamic Economics*, 25(1).
- Mokhtar, M., Sulaiman, R. & Ismail, A. (2012). Towards developing a sustainable microtakaful program in Malaysia. *Islamic Finance in a Challenging Economy: Moving Forward*, (November), 1-32.
- Morduch, J. (1999). Between the State and the Market: Can Informal Insurance Patch the Safety Net? *The World Bank Research Observer*, 14(2), 187-207.
- Nyanjom, E. (2006). Inequality in Kenya's Health Sector. Readings on Inequality in Kenya: Sectoral Dynamics and Perspectives. Available at <http://www.hennet.or.ke/downloads/humanrights/InequalityKenya.pdf>
- Olejniki, I. & Białowas, S. (2015). Pension Literacy and Consumers' Decisions in the Context of Pension System Reforms. *Problemy Polityki Społecznej*, (2), 13-33.
- Pieńkowska-Kamieniecka, S. & Walczak, D. (2016). Willingness of Polish households to save for retirement. *European Financial Systems 2016. Proceedings of the 13th International Scientific Conferences*, Brno, June 27-28, 588-595.
- Przybytniowski, J. W. (2017). Issues and Challenges in Developing Microtakaful in Muslim Country. *Jagiellonian Journal of Management*, 3(2), 107-121. <https://doi.org/10.4467/2450114XJJM.17.008.7738>
- Rapi, M. Z. H., Salaudeen, A. O., Muhammad Rawi Ravi, M. I., Wongsangiam, R. & Redzuan, N. H. (2022). Micro Takaful Programs for the Poor: The Malaysian Experience. *International Journal of Accounting, Finance and Business (IJAFB)*, 7(45), 65 - 81.
- Ringgitplus. (2023, February 22). MTA: Digital Insurers, Takaful Operators Can Boost Takaful Penetration Rate To 30%. Retrieved July 5, 2023, from <https://ringgitplus.com/en/blog/insurance/mta-digital-insurers-takaful-operators-can-boost-takaful-penetration-rate-to-30.html>

- Rom, N. A. M. & Rahman, Z. A. (2012). Financial protection for the poor in Malaysia: Role of zakah and micro-takaful. *Journal of King Abdulaziz University, Islamic Economics*, 25(1), 119-140. <https://doi.org/10.4197/Islec.25-1.5>
- Roth, J., Mccord, M. J. & Liber, D. (2007). 100 poorest nations had some form of coverage. Microinsurance Centre.
- Sukmana, R. & Hidayat, S. E. (2015). Challenges and Opportunities in Developing Microtakaful in Muslim Majority Country: A Case Study of Indonesia. Retrieved from https://www.researchgate.net/publication/270284881_Challenges_and_Opportunities_in_Developin_g_Microtakaful_in_Muslim_Majority_Country_A_Case_Study_of_Indonesia.
- Sharifuddin, S. S., Kasmoen, N. A., Mat Taha, N. H., Ahmad Talaat, N. S. M. & Ahmad Talaat, A. Z. M. (2016). The Concept of Takaful (Islamic Insurance) and Its Functions in the Establishment of Syarikat Takaful Malaysia; the First Takaful Operator in Malaysia. *International Journal of Humanities and Social Science Invention*, 5(12), 43-48. [https://doi.org/https://www.ijhssi.org/papers/v5\(12\)/G05124348.pdf](https://doi.org/https://www.ijhssi.org/papers/v5(12)/G05124348.pdf)
- Sheila, N. H., Nur Shazwani, S. & Hanudin, A. (2015). An analysis of the viability of micro health takaful in Malaysia, *Qualitative Research in Financial Markets*, 7(1), 37-71. Poverty, Conventional Insurance and Takaful: A Journalistic Review. *Research Journal of Recent Sciences*. 3(10). 108-112. <https://doi.org/10.1108/QRFM-09-2013-0030>
- Tabachnick, B. G. & Fidell, L. S. (1996). *Using Multivariate Statistics* (3rd ed.). New York: Harper Collins College Publisher
- United Nation Development Program. (2020, November 6). Stories from a Fresh Market: How Digital Access Helped Malaysian B40 Traders Transform During the COVID-19 Pandemic. UNDP. Retrieved July 23, 2023, from <https://www.undp.org/malaysia/blog/stories-fresh-market-how-digital-access-helped-malaysian-b40-traders-transform-during-covid-19-pandemic>