



Unveiling Takaful Subscriptions: Demographic Factors, Awareness and Financial Literacy in Kota Kinabalu City Centre Through Linear Regression Analysis

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ABSTRACT - This paper examines the factors that influence individuals in Kota Kinabalu City Centre, Sabah, to subscribe to Islamic Insurance (Takaful). The focus is on individual characteristics and financial literacy as potential factors. The data was collected from potential Takaful customers through the distribution of questionnaires and a statistical analytical approach was used to examine the relationships between demographic characteristics, awareness, financial literacy and Takaful subscription rates. The findings of this study challenged common assumptions, revealing that awareness and financial literacy significantly influence Takaful subscriptions. In contrast, demographic factors appear to have a limited influence. The results indicate that higher levels of awareness and financial literacy are associated with increased subscription rates. This highlights the importance of educational efforts and awareness campaigns for Takaful products. Moreover, this study has practical implications for the Takaful sector and suggests the need for targeted strategies to boost awareness and financial literacy among potential customers. In addition, this study contributes to a broader scope of Islamic finance and insurance study by shedding light on consumer behaviour in ethical and Shariah-compliant financial services. In conclusion, this research contributes to a better understanding of the determinants influencing the subscription to Takaful products among individuals in Kota Kinabalu City Centre, Sabah. It also provides new insights into industry practices and policy development. Furthermore, the findings pave the way for further research on the evolving landscape of ethical and Shariah-compliant financial services, as well as the dynamics of subscription behaviour.

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INTRODUCTION

The Takaful sector has emerged as a significant player in the vibrant landscape of the financial services industry because it offers an ethical and Shariah-compliant alternative to traditional insurance (Bank Negara Malaysia, 2020; Bank Negara Malaysia, 2012; HTT Network, 2023; Rehman et al., 2023; Visser, 2012). This is because the demand for Takaful products continues to grow within Kota Kinabalu City Centre, Sabah and the understanding of the involved factors that influence individuals' decisions to subscribe to Takaful offerings becomes paramount (Maduku & Mbeya, 2024). Therefore, this study undertakes a comprehensive and distinctive exploration of the key factors influencing Takaful subscriptions, with particular emphasis on consumer preferences and financial literacy as potential determinants (Dinc et al., 2021; Goyal & Kumar, 2021; Mahdzan

& Tabiani, 2013; Noor et al., 2020). This paper also aims to contribute to the existing literature and to provide a foundation for the future expansion of the study's scope.

The research problem that motivates this study centres on the complex nature of Takaful subscription decisions and the persistently low participation rates. While adherence to Shariah principles is undoubtedly a critical factor, we recognise that a range of additional variables may interact and influence individuals' decisions to subscribe to Takaful products. Consequently, this complexity gives rise to significant uncertainty, necessitating the formulation of several pertinent research questions that, in turn, guide the development of the study's research objectives. The primary aim of our paper is to empirically examine the determinants of Takaful subscriptions within the distinctive context of Kota Kinabalu City Centre, Sabah. Specifically, the aims:

1. To understand the relationship between individual demographic factors, such as age, income and education and the subscription rates of Takaful products (Damit & Mohammed, 2024; Mansor et al., 2013; Yakob et al., 2019). By investigating these demographic variables, the research seeks to clarify the outlines and motivations underlying Takaful subscriptions among different population segments.
2. To examine the impact of awareness of the principles and benefits of Takaful on subscription rates (Hassan et al., 2018; Kazaure, 2019; Rehman et al., 2023). Understanding the level of awareness and its influence on consumer behaviour is crucial for devising effective strategies to enhance Takaful penetration.
3. The extent to which financial literacy influences Takaful subscription decisions (Adil et al., 2022; Anshika et al., 2021; Dinc et al., 2021; Goyal & Kumar, 2021; Hassan et al., 2018; Ingale & Paluri, 2022; Kazaure, 2019; Lusardi & Messy, 2023; Mahdzan & Tabiani, 2013; Rehman et al., 2023; Sekita et al., 2022). Financial literacy is a vital component in decision-making processes and its impact on Takaful subscriptions could provide valuable insights into consumer behaviour and preferences.

In addition to the aims above, a central issue in current Takaful subscription lies in the sector's underperformance and its failure to meet the targets set by Bank Negara Malaysia (BNM) in the Malaysian Financial Blueprint 2011-2020. Specifically, the Takaful sector has not achieved the expected market penetration target of 75%, highlighting a significant gap between its potential and actual performance. This underperformance is further underscored by the persistently low penetration rate of group family Takaful, which remains below 25% (Table 1). Such a low penetration rate underscores the need to examine the factors influencing Takaful subscription decisions and to develop effective strategies to address these challenges. Furthermore, a new target has been set for Insurance Companies and Takaful Operators (ICTO) to achieve a market penetration rate of 4.8% to 5.0% of GDP by 2026 (Bank Negara Malaysia, 2022). This ambitious goal reflects the urgency and importance of strengthening Takaful penetration in alignment with broader financial inclusion objectives.

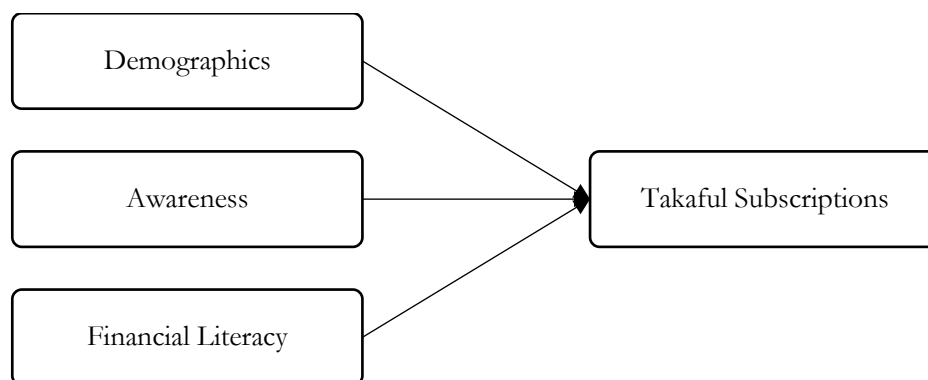
Table 1: Takaful Subscription Statistic 1986-2022

Description	1986	1990	1995	2000	2004	2010	2014	2018	2019	2020	2022
Total Population	16,329.4	18,102.4	20,681.8	23,494.9	25,541.5	28,588.6	30,708.5	32,382.3	32,523.0	32,584.0	32,698.1
No. of Certificates	N/A	N/A	N/A	N/A	N/A	3.15mil	4.39mil	4.96mil	5.17mil	5.75mil	6.63mil
Assets	1.4	38.2	183.3	1,872.9	5,028.7	14,720.5	22,746.0	31,373.8	36,517.7	41,329.2	63,973.1
- <i>Family</i>	0.6	15.5	94.2	1,542.4	4,305.1	12,461.2	19,619.0	27,616.9	32,283.8	36,485.4	57,023.5
- <i>General</i>	0.8	22.7	89.1	330.5	723.5	2,259.2	3,127.0	3,756.9	4,233.9	4,843.8	6,494.6
Market Share (%)	N/A	0.4	0.7	3.7	5.6	8.1	9.1	10.5	11.2	11.8	13.3
Market Penetration	N/A	0.1%	0.3%	2.5%	5.1%	11.03%	14.30%	15.30%	15.90%	16.9%	20.1%

Source: Department of Statistics Malaysia (2020) and Malaysia Takaful Association (2022).

Despite the growing awareness and potential benefits of Takaful, its penetration remains relatively low compared to conventional insurance, highlighting the necessity to understand and address the barriers to Takaful subscription in the Malaysian context (Yusoh et al., 2022). This comparison suggests that there are distinct challenges and factors specific to Takaful that must be addressed to enhance its uptake. In the vibrant and diverse urban setting of Kota Kinabalu City Centre—the capital of Sabah, Malaysia—the Takaful industry holds significant potential, driven by a high Muslim population and increasing awareness of Shariah-compliant financial products (Yusoh et al., 2022). The unique blend of cultures and rapid economic growth in this region provide fertile ground for the expansion of Takaful services; however, the current penetration levels indicate that more targeted efforts are necessary to fully realise this potential.

In addressing these objectives, our study employs a rigorous linear regression analysis as a primary methodology to examine the relationships between the variables (Demographics, Awareness and Financial Literacy) and Takaful Subscriptions. Hence, using this robust statistical approach, this paper aims not only to discover the existence of these relationships but also to assess their strength and direction (Aris et al., 2009; Damit & Mohammed, 2024; Goyal & Kumar, 2021; Harnett, 2019; Hastings et al., 2013; Lin et al., 2017; Lin et al., 2019; Nawi et al., 2018; Stolper & Walter, 2017; Taft et al., 2013; Yakob et al., 2019) as illustrated in Figure 1. These findings are expected to contribute to the literature by informing future research and enhancing prominent theoretical frameworks such as the Theory of Planned Behaviour, Social Cognitive Theory, or Theory of Behavioural Finance.

**Figure 1:** Conceptual Framework

This study aims to make a substantial contribution to the field of Takaful research by addressing the outlined research objectives. The findings are expected to clarify the factors that

potentially enhance Takaful subscription rates within Kota Kinabalu City Centre, Sabah. These insights hold significant practical implications for industry practitioners, enabling them to refine their marketing strategies and product offerings to better align with the needs and preferences of their target market, particularly in Sabah (Yusoh et al., 2022). Furthermore, we intend to contribute to the broader field of Islamic finance and insurance research by fostering a deeper understanding of consumer behaviour in the context of ethical and Shariah-compliant financial services. Ultimately, this paper endeavours to bridge the gap between theory and practice, thereby facilitating the growth and sustainability of the Takaful sector both regionally and beyond.

LITERATURE REVIEW

The Takaful sector, which is rooted in the principles of Islamic finance and ethical risk-sharing, has experienced remarkable global growth in recent years (Bank Negara Malaysia, 2022; Bank Negara Malaysia, 2023; Dean, 2004; Department of Statistics Malaysia, 2023; Flanagan et al., 2007; HTT Network, 2023; Maysami & Kwon, 1999). This expansion reflects the growing recognition and acceptance of Shariah-compliant financial alternatives (Abu Kasim, 2012; Syed Mohamad et al., 2018), particularly in regions with substantial Muslim populations like Kota Kinabalu City Centre, Sabah and Malaysia as a whole. This is because Islamic Insurance (Takaful) is characterised by its adherence to Islamic principles, prohibits interest-based transactions and promotes risk-sharing among policyholders. This ethical framework has garnered attention from individuals seeking financial products that relate to their religious beliefs and ethical values (Abdullah, 2012; Abdullah & Furqani, 2012; Ahmad et al., 2017; Kasim, 2012; Mohamad et al., 2018). Although the growth of the Takaful sector is evident and continuing, understanding the factors that influence individuals' decisions to subscribe to Takaful products remains a complex research challenge. Therefore, research on Takaful continues to be both relevant and essential.

Demographics

This research has identified some of the factors in the literature which influence Takaful demand that include (i) demographic characteristics that consist of age, income, education and marital status, (ii) religious factors, such as religiosity, (iii) awareness and understanding of Takaful, (iv) economic factors, such as income stability, inflation and interest rates; and (v) psychological factors, such as risk aversion, trust and satisfaction (Al Mahi et al., 2017; Arifin et al., 2013, 2014; Damit & Mohammed, 2024; Gustina & Abdullah, 2019; Ishak, 2020; Rahman, 2009; Redzuan, 2014; Remli et al., 2018; Shah & Sohail, 2015; Shaifuddin, 2020; Sherif & Azlina Shaa'iri, 2013; Yakob et al., 2019; Yar et al., 2014; Yazid et al., 2012). These factors may vary across different regions and segments of the population, depending on the level of development, cultural diversity and regulatory environment. The theoretical gap here is the lack of a comprehensive framework that integrates these diverse factors and examines their relative importance in influencing Takaful subscription across different contexts. Therefore, Takaful providers need to conduct ongoing market research and tailor their products and services to meet the needs and preferences of their potential customers.

One of the prominent factors in the exploration of Takaful subscriptions is the role of demographic factors (Hashim & Halim, 2018; Damit & Mohammed, 2024; Qadri et al., 2024; Salleh & Afthanorhan, 2018). Extensive research has suggested that these variables play a significant role in shaping individuals' insurance preferences. Age, income, education and family size are among the demographic characteristics that have been closely examined (Damit & Mohammed, 2024; Qadri et al., 2024). For instance, younger individuals may be more willing to explore innovative financial products like Takaful. At the same time, those with higher income levels and education may have a more nuanced understanding of the benefits of ethical finance and insurance.

According to a study by Md Hashim and Abd Halim (2017), demographic factors such as gender, awareness, knowledge and performance of Takaful operators influence the tendency to subscribe to Takaful. They proposed a conceptual framework to explain the relationship between these factors and the demand for Takaful in Malaysia. Another study by Yakob et al. (2019) found that female government workers and those who have 1 to 3 children have a higher level of understanding of the education Takaful plan than their counterparts (Jusoh & Noreffendi, 2022; Yakob et al., 2019). However, Othman (2022) and Yakob et al. (2019) found that age, income and education level do not have a significant effect on the understanding of the education Takaful plan. This conflicting evidence highlights a theoretical gap: demographic factors are not homogenous in their impact on Takaful subscriptions. Different types of Takaful products may appeal to different population segments, necessitating tailored marketing strategies and product development (Hakim & Munir, 2023; Saharuddin et al., 2023). Our study aims to test the demographics, awareness and financial literacy in different focus groups and areas, providing new novelty in the literature.

Awareness

Awareness also stands as a critical determinant in the subscription choices of individuals within the Takaful market (Juhari et al., 2022; Jusoh & Noreffendi, 2022; Mehboob Shaikh & Amin, 2024; Musa et al., 2022). Although Takaful may be well-established in regions with a long history of Islamic finance, it may remain relatively unknown or misunderstood in others. In previous studies, it was identified that individuals with a heightened level of awareness regarding Takaful principles and products are more likely to consider and ultimately subscribe to them (Hassan et al., 2018; Ismail et al., 2013; Juhari et al., 2022; Seman, 2021). The theoretical gap addressed in this study concerns understanding the mechanism through which awareness influences Takaful subscription decisions, particularly in regions where Takaful is less established. This study aims to evaluate the significant relationship between awareness and Takaful subscriptions, with a focus on areas like Kota Kinabalu, where awareness campaigns and educational activities—such as those launched by the Malaysian Takaful Association (MTA) in 2023—have been implemented (Bernama, 2023; Kuan, 2023; Morden, 2023).

Financial Literacy

In addition to demographics and awareness, financial literacy is another pivotal factor influencing individuals' decisions regarding Takaful subscriptions. This confirms a trend observed in insurance decision-making across various contexts (Bateman et al., 2020; Dalkilic & Kirkbesoglu, 2015; Harnett, 2019; Kubitz et al., 2019; Lin et al., 2017; Lin et al., 2019; Lusardi & Mitchell, 2014; Lusardi & Mitchell, 2007; Mahdzan & Victorian, 2013; Murugesan & Manohar, 2020; O'Connor & Kabadayi, 2020; Tennyson, 2011) and countries (Bauhoff et al., 2019; Ćurak et al., 2020; Zhao et al., 2019). This is because enhanced financial literacy equips individuals with the knowledge and skills necessary to understand the intricacies of financial products, including Takaful contributions. It enables the consumer to make informed decisions about their insurance needs and to assess the potential advantages of subscribing to Takaful (Hashim & Halim, 2018; HTT Network, 2023; Kassim, 2005; Masud, 2011; Nasir & Rahman, 2022; Odierno, 2012; Othman, 2015; Rahman et al., 2008; Swartz & Coetzer, 2010). Thus, financial literacy promotes responsible financial behaviour and rational decision-making among consumers—principles that underpin the Malaysia National Strategy for Financial Literacy 2019-2023, formulated by the Financial Education Network (FEN). The theoretical gap lies in understanding how financial literacy specifically influences Takaful subscription decisions, as most existing studies have focused on broader financial decision-making contexts. This research seeks to bridge that gap by examining the role of financial literacy in Takaful subscriptions, particularly within Malaysia's dynamic financial landscape. Enhancing financial literacy can empower individuals to better understand and engage with Takaful products, making it a critical focus for increasing subscription rates.

Family Takaful Subscriptions

Despite the valuable insights provided by the existing body of literature on the determinants of Takaful subscriptions, there is a notable scarcity of empirical studies that specifically examine the interaction between those factors and Takaful subscriptions within the unique context of Kota Kinabalu City Centre, Sabah. The gap in the literature lies in the absence of comprehensive empirical investigations exploring this relationship in a regional setting. This gap forms the foundation of the present study, which aims to examine the significant relationship between various determinants and their effects on Takaful subscription decisions. Ultimately, our study seeks to deepen understanding of these relationships and offer insights with practical implications for the Takaful industry and related policy development.

In pursuit of this objective, this study is guided by several key questions. Firstly, we seek to comprehensively understand the relationship between individual demographic factors, including age, income, education and family size and the Takaful products' subscription rates within Kota Kinabalu City Centre, Sabah. These demographic characteristics are fundamental in the research of consumer behaviour and their impact on Takaful subscriptions within this context deserves meticulous assessment (Jetawat & Mistry, 2017; Josiassen et al., 2011; Shrivastava & Singh, 2017; Yakob et al., 2019). Secondly, this research turns attention to the awareness among potential customers regarding Takaful principles and products. This study aims to uncover whether individuals with higher awareness levels are likelier to engage with and subscribe to Takaful offerings. Lastly, we investigated the role of financial literacy in shaping individuals' decisions regarding Takaful subscriptions. Financial literacy is a concept that encompasses an individual's understanding of financial principles, products and practices (Hung et al., 2009; Senchenkov & Tsygankova, 2021; Sukumaran, 2015). In this research, we aimed to clarify whether higher levels of financial literacy correspond to a greater inclination to subscribe to Takaful and whether financial literacy mediates the relationship between awareness and subscription rates (Juhari et al., 2022; Mehboob Shaikh & Amin, 2024; Qian & Darman, 2023; Wahab & Bunyamin, 2023).

With these research questions and objectives firmly established, the central aim of this research is to empirically examine the determinants of Takaful subscriptions within Kota Kinabalu City Centre, Sabah. This study employs rigorous linear regression analysis as the primary methodology, based on the belief that this statistical approach will enable us to unravel the intricate relationships between these variables and Takaful subscriptions, thereby providing a comprehensive understanding of the contributing factors.

According to Konak and Demir (2023) and Saharuddin et al. (2023), Takaful is a form of Islamic insurance based on mutual cooperation and risk-sharing principles. Takaful subscribers contribute to a common pool of funds used to compensate each other in case of misfortune or loss. Takaful has grown in popularity and demand in Malaysia, especially among Muslims (Kamaruddin et al., 2023). However, there is a lack of empirical studies on the factors that influence the decision to subscribe to Takaful in Kota Kinabalu, the capital city of Sabah state (Yusoh et al., 2022).

This paper aimed to fill this gap by investigating the determinants of Takaful subscriptions in Kota Kinabalu City Centre, Sabah. We hypothesised that Takaful subscriptions are influenced by socio-demographic factors (such as age, gender, income, education, marital status and occupation), religious factors (such as religiosity, Islamic awareness and trust in Islamic institutions) and economic factors (such as perceived benefits, affordability and availability of Takaful products and services). This study also explores the role of social influence (such as family, friends, peers and agents) in shaping the Takaful subscription behaviour (Kamaruddin et al., 2023; Kaunain & Akhtar, 2016; Maduku & Mbeya, 2024; Sulaiman et al., 2020; Yar et al., 2014).

In conclusion, this study aims to address the existing research gap by elucidating the comprehensive determinants of Takaful subscriptions in Kota Kinabalu City Centre, Sabah. The findings are anticipated to have pragmatic implications for the local Takaful sector, guiding marketing strategies, product development and educational campaigns tailored to the specific

needs and preferences of the population. Furthermore, our study contributes to the broader field of Islamic finance and insurance studies by offering insights into consumer behaviour within ethical and Shariah-compliant financial services. Ultimately, it seeks to bridge the gap between theory and practice, facilitating the growth and sustainability of the Takaful sector in this region and potentially informing industry practices and policies beyond Kota Kinabalu City Centre, Sabah (Arshad et al., 2020; Kamaruddin et al., 2023; Yusoh et al., 2022).

METHODOLOGY

This study employed a quantitative research approach to investigate the factors influencing Takaful subscriptions in Kota Kinabalu City Centre, Sabah. The research design was cross-sectional and data were collected from a sample of respondents. The sample size was determined using G*Power software, which indicated that a minimum of 85 respondents was necessary for adequate statistical power. However, this study aimed to gather data from a larger and more representative sample to ensure data robustness. Ultimately, data were collected from 102 respondents to enhance the statistical reliability and generalisability of the findings.

The participants in this research were residents and individuals residing in Kota Kinabalu City Centre, Sabah, who are existing and potential customers of Takaful products. Kota Kinabalu City Centre was chosen due to its vibrant and diverse population, which includes a high proportion of Muslims, making it a suitable location for studying determinants of Takaful subscriptions. The urban setting and rapid economic growth in this area provide a relevant backdrop for examining takaful adoption, as these factors could influence individuals' financial behaviours and decisions.

Respondents were selected using a random sampling method and collaboration with local community organisations and online surveys were employed to ensure diversity and representativeness. Data was collected through a structured questionnaire that captures information related to demographic factors, awareness, financial literacy and Takaful subscription behaviour. The questionnaire was meticulously designed based on insights from relevant literature and aligned with the research objectives. It comprised 22 items across four key constructs.

The descriptive analysis of the samples disclosed a diverse demographic distribution. For instance, the gender distribution was evenly split with 50% male and 50% female respondents. The age distribution revealed that the majority of respondents (70%) were between the ages of 25 and 44, with a mean age of 3.33 (on a coded scale). The educational background varied, with 50% holding undergraduate degrees, 30% holding postgraduate degrees and 20% having high school education. Income level was distributed with 50% earning between RM2,000 and RM4,000 per month, 25% earning above RM4,000 and 25% earning less than RM2,000.

The demographics section included six items on gender, age, religion, education, occupation and income. These variables help to understand the respondents' backgrounds and how they might influence Takaful subscription decisions. The awareness section consisted of 6 items to assess respondents' knowledge of Takaful principles and benefits. Understanding awareness levels can provide insights into the effectiveness of awareness campaigns in promoting Takaful.

Financial literacy includes six items designed to evaluate respondents' understanding of financial concepts relevant to Takaful. Financial literacy plays a significant role in shaping individuals' ability to assess the benefits and suitability of Takaful products. The Takaful subscriptions section includes four items that measure respondents' subscription levels and preferences regarding Takaful products. This section directly links to the study's objective of understanding the determinants of Takaful subscriptions.

All items were extracted from existing literature, ensuring the questions are grounded in established research and validated through prior studies. This approach enhances the reliability and relevance of the questionnaire findings. Surveys were administered face-to-face and online to accommodate respondent preferences and convenience.

We focus on the dependent variable “Takaful Subscriptions”, which measures individuals’ engagement with Takaful products. Respondents provide information about their current Takaful subscriptions and the factors influencing their subscription decisions. The independent variables include demographic factors that reflect key elements of individuals’ profiles. Awareness, another independent variable, assesses respondents’ familiarity with Takaful principles and products. Financial literacy was measured using a validated scale or questions to evaluate participants’ knowledge and comprehension of financial concepts.

The data collected from the survey was analysed using the Statistical Package for the Social Sciences (SPSS) program, primarily employing linear regression analysis because it facilitated the identification of significant predictors and the strength of their relationships with Takaful subscriptions. This analytical approach quantitatively explores relationships between demographic factors, awareness, financial literacy and Takaful Subscriptions. Regression analysis was conducted to gain a comprehensive understanding of the data and evaluate the goodness-of-fit of the regression model (Pierce, 2003; Tripepi et al., 2008).

Ethical approval was obtained from the institution’s research ethics committee (REC). In addition, informed consent was obtained from all participants, ensuring their anonymity and the confidentiality of their responses. Furthermore, participants received sufficient information about the research objectives and permission to withdraw from the study without facing repercussions.

This study aimed to provide valuable insights into the factors influencing Takaful Subscriptions in Kota Kinabalu City Centre, Sabah, with potential implications for the growth of the local Takaful sector and contributions to Islamic finance and insurance research. However, it is essential to acknowledge certain limitations, such as the possibility of response bias and the cross-sectional nature of this research, which restricts causal inferences. Additionally, the findings may be specific to the context and not entirely applicable to other regions or populations.

RESULT

We present the findings of a linear regression analysis to examine the factors affecting Takaful Subscriptions in Kota Kinabalu City Centre, Sabah. The Statistical Package for the Social Sciences (SPSS) version 29 was used for the analysis. To perform this, the variable selection and inclusion process in the linear regression analysis was determined by including three key independent variables: Financial Literacy, Awareness and Demographics, which were chosen based on their relevance to the research questions and objectives. Financial Literacy and Awareness represent individuals’ financial knowledge and awareness of Takaful, while Demographics include age, income and education. Based on this process, no variables were excluded from the analysis, meaning all relevant variables were included in the linear regression model.

These variables were selected based on the research objectives, which aimed to explore the influence of demographic factors, awareness and financial literacy on Takaful subscriptions in Kota Kinabalu City Centre, Sabah. This paper comprehensively examines these variables’ collective impact on an individual’s Takaful subscription behaviour by including these variables in the model.

Table 2 presents the developed linear regression model exploring the variables’ relationships. This analysis aimed to uncover the connections between these variables and gain insights into how they influence individuals’ decisions to engage with Takaful products in Kota Kinabalu City Centre, Sabah.

Table 2: Linear regression model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.613 ^a	.376	.357	3.06032

a. Predictors: (Constant), Financial Literacy, Awareness, Demographics

The performance of this regression model was assessed using various statistical metrics, each providing information on its overall fit and effectiveness in explaining subscription behaviour in the Takaful sector. The model produced an R-value of 0.613, signifying a moderate positive relationship between the independent variables and Takaful subscriptions. In simpler terms, there is a clear connection between the factors being studied and individuals' decisions to subscribe to Takaful products. Together, the independent variables significantly impact subscription patterns.

Looking deeper into the model's explanatory power, the R-squared value of 0.376 is significant. This tells us that approximately 37.6% of the variability in Takaful subscriptions can be explained by the independent variables used in the model. This suggests that while other factors may be at play, the ones examined in this research account for a significant portion of the observed variance in subscription behaviour. The adjusted R-squared value of 0.357, which considers the number of predictors in the model, further supports this finding. Although slightly lower, it emphasises the model's ability to explain subscription patterns while considering its complexity.

Lastly, the standard error of the estimate, which measures the average error in predicting Takaful subscriptions within the model, is approximately 3.06032. This indicates the accuracy and precision expected when using the model to predict subscription behaviour. It provides a valuable measure of the model's reliability in estimating Takaful subscriptions based on the chosen independent variables.

In summary, Table 2 presents a comprehensive view of the relationships between the variables investigated in the linear regression model. It shows that the chosen independent variables collectively explain why individuals in Kota Kinabalu City Centre, Sabah, subscribe to Takaful products. While other factors may also influence subscription patterns, the model offers valuable insights into the relative importance of demographic characteristics, awareness and financial literacy within the Takaful sector.

Table 3 presents the analysis of variance (ANOVA) results. This test plays a critical role in evaluating the overall statistical significance of the regression model. This statistical tool helps determine whether the independent variables – demographic factors, Awareness and financial literacy – collectively contribute to explaining the observed variance in Takaful subscriptions within Kota Kinabalu City Centre, Sabah. The results of the ANOVA test (Table 3) were highly significant. The F-statistic, an important indicator of model significance, was impressive at 19.684. Additionally, the p-value was less than 0.001, indicating a very high level of statistical significance. This unequivocally suggests that the independent variables included in the regression model have a significant collective impact on explaining the variations in Takaful subscriptions.

Table 3: ANOVA result

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	553.047	3	184.349	19.684	<.001 ^b
Residual	917.825	98	9.366		
Total	1470.873	101			

a. Dependent Variable: Dependent Variable

b. Predictors: (Constant), Financial Literacy, Awareness, Demographics

These results confirm the strength of the regression model and highlight its relevance and reliability in understanding subscription behaviour in the Takaful sector. The ANOVA findings further support the idea that demographic factors, awareness and financial literacy, as represented in the model, are important factors in explaining why individuals choose to engage with Takaful products in Kota Kinabalu City Centre, Sabah.

Table 4: Coefficient result

Model	Coefficients ^a				
	Unstandardised Coefficients		Standardised Coefficients		t
	B	Std. Error	Beta		
(Constant)	2.548	2.574	.990		.325
Demographics	-.015	.037	-.032	-.398	.692
Awareness	.633	.181	.280	3.494	<.001
Financial Literacy	.232	.034	.546	6.839	<.001

a. Dependent Variable: Dependent Variable

The coefficients table (Table 4) in the analysis plays a pivotal role in unravelling the individual contributions of the independent variables to the area of Takaful subscriptions within Kota Kinabalu City Centre, Sabah. These coefficients are key to understanding how specific factors affect individuals' engagement decisions with Takaful products. The unstandardised coefficients, for instance, shed light on the precise change in the dependent variable, Takaful subscriptions, which can be attributed to a one-unit alteration in each independent variable.

In the coefficient result above, the intercept or constant term is assigned an unstandardised coefficient of 2.548. This is paired with a standard error of 2.574, which yielded a t-statistic of 0.990. Subsequently, this results in a p-value of 0.325. The constant term serves as a critical element of the regression framework, providing a baseline from which the influence of independent variables can be measured. However, the relatively elevated p-value associated with the constant term suggests that its impact may not reach the statistical significance threshold within Takaful subscriptions. This interpretation implies that while the constant term is integral to the model's structure, caution should be exercised when attributing explanatory power to the dependent variable, as the evidence does not robustly support its significance.

Moving on to the independent variables, Demographics exhibit an unstandardised coefficient of -0.015, a standard error of 0.037 and a Beta value of -0.032. The t-statistic associated with Demographics is -0.398 and the corresponding p-value is 0.692. Notably, these statistics suggest that demographic factors, including age, income, education and family size, do not significantly influence Takaful subscriptions within the context under study.

In contrast, Awareness emerges as a formidable determinant of Takaful subscriptions. It boasts an unstandardised coefficient of 0.633, complemented by a standard error of 0.181 and an impressive Beta value of 0.280. The t-statistic, a measure of its significance, stands at 3.494 and the p-value is highly significant at less than 0.001. This signifies that individuals with higher levels of awareness regarding Takaful principles and products are significantly more likely to subscribe to them, highlighting the critical role of awareness campaigns and educational initiatives in promoting Takaful subscriptions.

Similarly, Financial Literacy emerges as another robust predictor, sporting an unstandardised coefficient of 0.232, a standard error of 0.034 and a Beta value of 0.546. The t-statistic, a striking 6.839, accompanied by a highly significant p-value of less than 0.001, underscores the profound influence of financial literacy on Takaful subscriptions. This suggests that individuals with a higher degree of financial literacy are more inclined to engage with Takaful offerings, emphasising the need for financial education to foster the Takaful sector's growth.

The analysis reveals that demographic factors do not correlate statistically with Takaful subscriptions in Kota Kinabalu City Centre, Sabah. However, Awareness and Financial Literacy stand out as formidable determinants with statistically significant positive relationships. These findings provide crucial insights for industry practitioners and policymakers, pointing towards the pivotal role of knowledge and awareness in driving Takaful subscriptions and challenging conventional assumptions regarding the significance of demographic factors in this context.

DISCUSSION

The Takaful sector has experienced significant global growth due to the increasing acceptance of Shariah-compliant financial alternatives (Bank Negara Malaysia, 2020; Bank Negara Malaysia, 2012; HTT Network, 2023; Rehman et al., 2023; Visser, 2012). However, understanding the factors influencing individuals' decisions to subscribe to Takaful products remains complex. Existing literature has identified demographic characteristics, religious factors, economic factors and psychological factors as influencing Takaful demand. Factors such as age, income, education and family size significantly shape insurance preferences. Awareness and financial literacy also influence Takaful subscriptions (Goyal & Kumar, 2021; Harnett, 2019; Hassan et al., 2018; Hastings et al., 2013; Ismail et al., 2013; Juhari et al., 2022; Jusoh & Noreffendi, 2022; Kamaruddin et al., 2023; Kaunain & Akhtar, 2016; Kubitza et al., 2019; Lin et al., 2017; Lin et al., 2019; Maduku & Mbeya, 2024; Masud, 2011; Damit & Mohammed, 2024; Musa et al., 2022; Nawi et al., 2018; Rahman et al., 2008; Rehman et al., 2023; Salleh & Afthanorhan, 2018; Seman, 2021; Soualhi & Shammari, 2015; Stolper & Walter, 2017; Sulaiman et al., 2020; Tennyson, 2011; Yakob et al., 2019; Yar et al., 2014). However, there is a lack of empirical studies investigating the interplay between demographic factors, awareness, financial literacy and Takaful subscriptions in Kota Kinabalu City Centre, Sabah (Yusoh et al., 2022). Therefore, this research aims to address this gap and provide an understanding of these complex relationships.

The quantitative analysis utilised for this research is linear regression to explore these relationships. The results challenge conventional beliefs by demonstrating that awareness and financial literacy significantly influence Takaful subscriptions, while demographic factors have limited significance. These findings fill important research gaps by providing empirical evidence of the factors driving Takaful subscriptions in Kota Kinabalu City Centre, Sabah.

The significance of awareness and financial literacy cannot be understated. Our findings reveal that individuals with a higher level of awareness regarding takaful principles and products are more likely to subscribe to Takaful. This underscores the importance of educational initiatives and awareness campaigns in promoting Takaful subscriptions. Financial literacy also plays a crucial role, as individuals who are more financially literate are better equipped to understand the benefits of Takaful and make more informed decisions.

Moreover, the finding that demographic factors have limited significance suggests that Takaful products appeal to a broad audience, transcending age, income and education levels. This broad appeal indicates that Takaful providers should focus on creating inclusive marketing strategies that target a diverse population. The emphasis should be on educating potential customers about the unique features and benefits of Takaful, rather than segmenting the market based on demographic characteristics.

The findings contribute to the Takaful sector by highlighting the importance of targeted educational initiatives and awareness campaigns to promote subscriptions, especially in regions with limited awareness. Furthermore, recognising the broad appeal of Takaful products across demographic boundaries is crucial for market expansion efforts. By doing so, this paper addresses the research objectives of understanding the determinants of Takaful subscriptions in Kota Kinabalu City Centre, Sabah and provides valuable insights for industry growth.

Additionally, the study emphasises the need for collaboration between Takaful providers, educational institutions and community organisations to enhance awareness and financial literacy.

By working together, these stakeholders can create comprehensive educational programmes and outreach activities that inform and engage potential customers. Such initiatives will not only drive Takaful subscriptions but also contribute to the overall financial well-being of the community.

This study successfully addresses research gaps by providing empirical evidence of the factors influencing Takaful subscriptions in Kota Kinabalu City Centre, Sabah. The results challenge conventional assumptions about the significance of demographic characteristics and emphasise the importance of awareness and financial literacy. This research has practical implications for the Takaful sector. It contributes to the broader field of Islamic finance and insurance research, supporting the growth and sustainability of the Takaful sector in this region and potentially informing practices and policies beyond Kota Kinabalu City Centre, Sabah.

The findings from the regression analysis indicate a moderate positive relationship between the independent variables (demographics, awareness and financial literacy) and Takaful subscriptions ($R = 0.613$), with financial literacy and awareness showing significant influence ($p < 0.001$). Approximately 37.6% of the variability in Takaful subscriptions can be explained by these independent variables ($R^2 = 0.376$), underscoring the importance of enhancing financial literacy and awareness to boost Takaful subscriptions.

The ANOVA results support the statistical significance of the model ($F = 19.684$, $p < 0.001$), confirming that the independent variables collectively impact Takaful subscriptions. The coefficient analysis further highlights that while demographic factors do not significantly affect Takaful subscriptions ($p = 0.692$), both awareness ($\beta = 0.280$, $p < 0.001$) and financial literacy ($\beta = 0.546$, $p < 0.001$) are significant predictors. These insights stress the need for targeted awareness campaigns and financial literacy programmes to increase Takaful uptake.

In a nutshell, our paper highlights the critical role of awareness and financial literacy in driving Takaful subscriptions, suggesting that efforts to enhance these factors can significantly boost the uptake of Takaful products. As Takaful continues to grow, it is essential for stakeholders to understand and address the factors that influence subscription decisions to ensure the sector's sustained success and contribution to financial inclusion.

CONCLUSION

This paper conducted a comprehensive analysis to explore the determinants of Takaful subscriptions in Kota Kinabalu City Centre, Sabah. It shed light on critical factors influencing subscription behaviour in this specific geographic context, making valuable contributions to Takaful research. We offer significant insights with practical implications for industry practitioners and future research.

The research sought to understand the relationship between individual demographic factors, such as age, income and education and the subscription rates of Takaful products. By investigating these demographic variables, the research aims to clarify the outlines and motivations underlying Takaful subscriptions among different population segments. However, the findings revealed that demographic factors did not significantly influence takaful subscriptions within Kota Kinabalu City Centre, Sabah. This challenges traditional assumptions about the role of demographic characteristics in driving subscription behaviour and implies that Takaful products may appeal to a broad demographic spectrum.

Furthermore, we aim to examine the impact of awareness of the principles and benefits of Takaful on subscription rates. Understanding the level of awareness and its influence on consumer behaviour is crucial for devising effective strategies to enhance Takaful penetration. The findings highlighted a statistically significant positive relationship between awareness and Takaful subscriptions, emphasising the need to educate potential customers about the principles and benefits of Takaful. Individuals with a higher level of awareness were more likely to subscribe to Takaful products, indicating the potential impact of awareness campaigns and education initiatives in promoting subscriptions.

Additionally, the study examines the extent to which financial literacy influences Takaful subscription decisions. Financial literacy is a vital component in decision-making processes and its impact on Takaful subscriptions could provide valuable insights into consumer behaviour and preferences. The study found a statistically significant positive association between financial literacy and Takaful subscriptions, suggesting that individuals with greater financial literacy are more inclined to engage with Takaful offerings. This underscores the importance of financial education programmes that empower individuals to make informed decisions about Takaful products and other financial services.

Practically, the findings of this research provide important insights and significant implications for industry practitioners in the Takaful sector. This implication can shape and improve business strategies in meaningful ways. First, to emphasise awareness. Takaful providers should prioritise and invest in comprehensive awareness campaigns to take advantage of this. These campaigns should educate potential customers about the existence of Takaful products and their ethical and Shariah-compliant nature. By emphasising the social responsibility associated with Takaful, these campaigns can enhance understanding of its principles and benefits among the target audience. Initiatives such as seminars, workshops, online content and collaborations with local religious organisations can be utilised to promote the ethical aspects of Takaful.

Second, financial literacy plays a significant role in determining Takaful subscriptions. Therefore, Takaful providers should develop financial literacy programmes and innovative financial education using a gamification approach. These programmes can enhance individuals' understanding of financial concepts and principles and enable them to evaluate the suitability of Takaful products. Collaborations with educational institutions, community organisations, or online platforms can efficiently deliver these programmes. Additionally, these initiatives can extend beyond potential customers to the wider community, promoting financial literacy and ethical financial decision-making.

Third, although demographic factors do not significantly influence Takaful subscriptions in This research, Takaful providers should not be discouraged. Instead, they should shift their marketing strategies. Recognising that awareness and financial literacy are key drivers, Takaful providers can tailor their marketing efforts accordingly. Messages should focus on raising awareness and promoting financial literacy, appealing to a diverse demographic audience. Customised messaging and educational content can resonate with potential customers from various backgrounds, cultures and ages, making them feel empowered and informed when considering Takaful. Inclusive strategies ensure engagement with individuals from diverse backgrounds.

To gain further insights into evolving preferences and market dynamics, longitudinal studies tracking changes in subscription behaviour over time would be beneficial. Additionally, comparative studies across different regions and populations would enhance the generalisability of findings. These future research endeavours would refine and expand the understanding of the Takaful sector, contributing to its sustainable growth and development.

By incorporating these managerial implications into Takaful providers' strategies and operations, they can better navigate the complex landscape of ethical and Shariah-compliant financial services. Prioritising awareness, financial literacy and tailored marketing would attract more subscribers and fulfil the ethical mission of providing responsible and Shariah-compliant financial solutions to an informed and diverse customer base.

In conclusion, this research offers practical insights to industry practitioners in the Takaful sector, contributing to the evolving landscape of ethical and Shariah-compliant financial services. It highlights the significance of awareness and financial literacy while challenging traditional assumptions about the role of demographic factors. By aligning with the principles of Islamic finance, promoting ethical awareness and investing in financial education, Takaful providers can foster sustainable growth and meet the diverse needs of their target market, not only in Kota Kinabalu City Centre, Sabah but also in broader regions embracing Islamic finance principles.

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