



Consumers' Acceptance Intentions Towards Family Takaful in Malaysia: A Focus on the Extended Unified Theory of Acceptance and Use of Technology (UTAUT2)

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Abstract. Takaful is a significant and growing sector of the financial services sector. For the family takaful market segment to grow faster, it is essential to comprehend the elements that affect consumers' purchase decisions. Consumers' accepting intention toward family takaful is one element that research has not yet sufficiently addressed. By extending a model from the Unified Theory of Acceptance and Use of Technology (UTAUT2), this study suggested and evaluated a model of the elements influencing family takaful purchase behavior. The results demonstrate that performance expectations, effort expectations, hedonic motivation, and pricing value are all influenced by customers' conduct and their intention to engage in family takaful. On the other hand, social influence has no impact on a person's decision to take part in family takaful. Understanding the characteristics that affect customers' acceptance of family takaful, takaful operators, takaful agents, and the government, as well as other financial services platform developers, can benefit from the study's findings.

Keywords: family takaful · UTAUT2 theory · behavioral intention

1 Introduction

The term "Takaful" originates from the Arabic language, stemming from the word "Kafal" which means "to take care of one's needs". Takaful refers to an Islamic insurance product that serves as an alternative to conventional insurance (Ansari, 2021; Mukhtar et al., 2023). In essence, takaful is an insurance plan that follows the rules and laws of Islam.

In Malaysia, Islamic banking was introduced simultaneously with the contemporary takaful system. The first takaful operator was established in 1979 in the African nation of Sudan. The pioneering takaful operator in Malaysia was Takaful Malaysia, which commenced operations in 1984 (Takaful Malaysia, 2024).

The assets of the Takaful industry witnessed a significant 10% surge, reaching US\$51 billion in 2019, in contrast to a modest 1% increase in the previous year (IFD, 2020). Despite the significant decline in the main Islamic financial markets and the COVID-19 pandemic's rise in unemployment, the Takaful market is projected to experience growth at a rate of 5%-10% (S&P Global Ratings, 2024). On a global scale, the Takaful business is experiencing rapid expansion across international markets. Takaful assets are growing to US\$73bn in 2021 compared to US\$62bn in 2020 (IFDI, 2024). Malaysia become the third largest market share by US\$12 billion in the takaful market behind Iran and Saudi Arabia.

There are two main categories of takaful: general takaful and family takaful. Family takaful addresses investment requirements by offering coverage for risks related to human life, including death, illness, and disability, while general takaful handles losses stemming from events such as fire, burglary, accidents, and floods. The surge in demand for takaful within Muslim communities has attracted numerous stakeholders' attention to the obstacles confronting insurance products in Muslim economies (Ali et al., 2019; Mukhtar et al., 2023). However, takaful's penetration rate remains very low compared to conventional insurance (MTA, 2024). Furthermore, an untapped market exists, particularly in countries with a Muslim majority population like Malaysia. According to Mohd Radzuan Mohamed, the chief executive of MTA, approximately 46% of Malaysians had no personal financial protection in 2024 (the Edge, 2024).

Moreover, there is a noticeable absence of prior research investigating customers' acceptance of family takaful in Malaysia. Therefore, to close this knowledge gap, research on this topic must be done. Finding the variables that affect Malaysian families' adoption of family takaful is the aim of this study. Due to its demonstrated better explanatory power over other theories and models in the field of technology acceptance, the model developed by UTAUT2 was selected as the theoretical basis to achieve this objective (Venkatesh et al., 2012). Additionally, to solve the practical issue and theoretical research gap, this study used a modified version of the UTAUT2 research framework.

2 Literature Review

2.1 Unified Theory of Acceptance and Use of Technology (UTAUT2)

A prominent theory in the realm of technological acceptance is the Unified Theory of Acceptance and Use of Technology (UTAUT), crafted by Venkatesh et al. (2012) following a thorough examination of eight significant theories about technology adoption. Originally, the model centered on an organizational viewpoint. However, a subsequent iteration by Venkatesh et al. (2012) shifted its emphasis towards individual customer perspectives. Effort expectancy, enabling conditions, performance expectancy, social influence, price, habit, and hedonic motivation are the seven independent variables included in the theory, all contributing to shaping customers' behavioral intentions towards new technologies. Numerous studies have utilized the UTAUT2 model to evaluate technology adoption or acceptance (Khan et al., 2022; S. Ratnawati et al., 2022). Moreover, it was used in a study to look into what influences Malaysian clients' adoption of Internet banking (Mohd Thas Thaker et al., 2021). Even though the UTAUT2 model incorporates the

predictive power of hedonic motivation of behavioral intention and serves as the foundation for numerous investigations, it falls short of providing a sufficient explanation of the factors that contribute to enjoyment (Choi, 2016). Additionally, several studies overlook the integration of UTAUT2's moderating variables in their analysis of Fintech adoption (Lin et al., 2020; Rabaai, 2021; Mohd Thas Thaker et al., 2021). On the other hand, this study did not incorporate the moderating variables or the actual usage behavior from the UTAUT2 model. Instead, its focus was on identifying the factors influencing the adoption of the family takaful scheme in Malaysia.

2.2 Performance Expectancy (PE)

Before using a new system, a person's perception of how much their work performance is projected to improve is known as performance expectancy, or PE (Venkatesh et al., 2012). From the customer's perspective, PE assesses the utility of the technology and its impact on efficiency and productivity (Seethamraju et al., 2017). Research indicates that PE plays a crucial role in shaping behavioral intention concerning mobile payment adoption (Hussain et al., 2019; Al-Saedi et al., 2020; Shin and Lee, 2021). Similarly, the PE has a significant impact on Jordan's uptake of Internet banking (Abu Shanab and Pearson, 2007). In this study, PE pertains to the policyholders' or customers' apparent perception of the efficacy and advantages of the family takaful product they have acquired. It is one of the main elements that affect their choice to get and keep their takaful coverage. In other words, it refers to how strongly people feel that using the family takaful product will enable them to meet their financial and protection objectives.

The study's hypothesis is as follows, based on the literature reviewed:

H1: Performance expectancy (PE) significantly influences consumers' intention to implement family takaful.

2.3 Effort Expectancy (EE)

It has been established that effort expectancy (EE), which is described as the level of simplicity associated with using technology, influences behavioral intention (Venkatesh et al., 2012). Previous studies have highlighted EE as a vital factor in predicting intentions for e-commerce adoption (Pavlou and Fygenson, 2006; Widodo et al., 2019; Chresenta and Suharto, 2020). Additionally, Owusu Kwateng et al. (2019) recognized EE as a significant antecedent to Ghana's behavioral inclination to use mobile banking services. In the context of this research, EE is regarded as a vital predictor influencing consumers' adoption of family takaful in Malaysia. EE is positively influenced when consumers perceive the details of family takaful plans to be clear, concise, and easy to comprehend.

The study's hypothesis is as follows, in light of the evaluated literature:

H2: The behavioral intention of consumers to adopt family takaful is favorably and significantly influenced by their effort expectancy (EE).

2.4 Social Influence (SI)

The term “social influence” (SI) describes how people change their beliefs and actions to fit the standards of a social group, which could consist of relatives and friends (Venkatesh et al., 2012). Merhi et al. (2019) characterized SI as comprising influential factors on an individual’s perceptions, spanning relationships with family, friends, colleagues, media exposure, and interactions on social media platforms. Additionally, several studies highlight the role that SI plays in influencing consumers’ behavioral intentions to use mobile banking services (Chen et al., 2021; Penney et al., 2021; Mohd Thas Thaker et al., 2021). In this study, SI suggests that positive referrals from friends, family members, or co-workers who are already participating in family takaful can have a significant societal influence. Personal accounts and recommendations from others can effectively foster adoption and build confidence. Considering the aforementioned perspective, this research puts forth the following theory:

H3: Social influence (SI) is an effective and favourable predictor of behavioural intention to embrace a family takaful scheme.

2.5 Hedonic Motivation (HM)

Hedonic motivation (HM) is the enjoyment of using or displaying a certain technology (Venkatesh et al., 2012). It signifies the perceived enjoyment within technology acceptance models, such as TAM, and has been observed to impact technology usage (Thong et al., 2006; Tella and Olasina, 2014). Customer analysis clarifies that a large number of consumers participate in hedonistic consumption, which comprises looking for and using goods that provide entertainment and pleasure while consuming them (Slade et al., 2015; Negm, 2023). In this study, consumers may adopt the family takaful scheme to enhance their lifestyle and security. Hedonistic shoppers might be attracted to the idea that by opting for takaful, they are ensuring a better and more secure future for their loved ones, contributing to their overall happiness and peace of mind. In light of the discussion, the following theory is feasible:

H4: A major factor influencing customers’ behavioral intention to adopt family takaful is hedonic motivation (HM).

2.6 Price Value (PV)

Price value (PV) represents a person’s evaluation of their cognitive abilities of how to weigh the perceived advantages of new technology against the costs of adopting it (Venkatesh et al., 2012). PV is anticipated to positively impact the specific behavioral intentions of each consumer. The concept of “price” encompasses the mental calculation users engage in to weigh the benefits they receive from the application against the monetary cost associated with its utilization (Afrin et al., 2023). Numerous research has demonstrated PV’s significant influence on behavioural intentions within the realm of mobile banking (Merhi et al., 2019). In the context of this study, consumers must consider the price aspect when making decisions about family takaful plans. Consumers are more likely to explore and adopt a family takaful plan if participation costs align with

their budget and financial capacity. Based on the preceding discussion, The following hypothesis is proposed:

H5: Price value (PV) significantly affects consumers' behavioral intention to adopt family takaful.

3 Methodology

3.1 Sampling Methods and Data Collection Procedures

Convenience sampling was employed to collect data from the Malaysian populace for this project. Considering the sampling technique, the study distributed more than 500 questionnaires to respondents through social media platforms like Instagram, Twitter, and WhatsApp within the same timeframe to minimize sampling bias (Nielsen et al., 2017). 500 questionnaires were distributed, and 410 fully completed questionnaires were obtained from participants, representing an 82% response rate. Out of the 410 responses, 384 responses were found valid, indicating 33% male and 67% female respondents (with an 82% valid response rate), meeting the criteria for further analysis (Krejcie and Morgan, 1970).

4 Results and Discussion

Six elements comprised the questionnaires used in the study: demographic data and predictor factors (performance expectancy, hedonic motivation, price value, effort expectancy, and social influence). A pilot test involving 30 respondents confirmed the instruments' reliability and the questions' clarity. All items were evaluated using a five-point Likert-type scale, with "1" representing "strongly disagree" and "5" indicating "strongly agree."

Data analysis was performed utilizing the (SPSS).The respondents were Malaysian individuals with family takaful from the Klang Valley area, comprising 33% males and 67% females. They represented various educational levels, with the majority (56.3%) holding degrees, 23.9% being high school graduates, and 19.8% holding postgraduate degrees. Related to marital status, 49.1% were single, 48.07% were married, and 2.83% were divorced.

The validity analysis involved examining factor loadings to determine the correlation between each item and its respective factor. Results from the study indicated that factor loadings surpassed 0.7, as illustrated in Table 1. Previous research suggests that a factor loading exceeding 0.30 indicates a moderate association between the component and its factor (Bryman, 2007).

Another validity study was carried out using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's sphericity test. Bartlett's test of sphericity assesses whether the variables in the population correlation matrix exhibit correlation, whereas the KMO measure evaluates the suitability of applying factor analysis on the dataset (Bryman, 2007).

Table 1. Reliability and validity analysis

Variable	Scale item	Factor loading	AVE	Cronbach's alpha
Performance expectancy	PE1	0.579	0.631	0.818
	PE2	0.857		
	PE3	0.878		
	PE4	0.882		
	PE5	0.853		
	PE6	0.645		
Effort Expectancy	EE1	0.773	0.87	0.963
	EE2	0.878		
	EE3	0.86		
	EE4	0.885		
	EE5	0.876		
Social influence	SI1	0.832	0.88	0.955
	SI2	0.893		
	SI3	0.832		
	SI4	0.896		
Hedonic Motivation	HM1	0.41	0.666	0.796
	HM2	0.788		
	HM3	0.835		
	HM4	0.825		
Price Value	PV1	0.839	0.844	0.908
	PV2	0.815		
	PV3	0.835		
Intention	INT1	0.804	0.892	0.939
	INT 2	0.876		
	INT 3	0.894		
	INT 4	0.866		

Source: From the current research analysis

The analysis showed that the KMO value surpassed 0.8, indicating good suitability and implying that the scale components would be advantageous for assessing the variables. The results of Bartlett's test of sphericity were statistically significant (below 0.5), suggesting that the identity matrix was not the correlation matrix (rejecting the null hypothesis), as shown in Table 2.

Table 2. Kaiser-Meyer-Olkin and Bartlett's test of sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.838
Bartlett's Test of Sphericity	Approx. Chi -Square	1380.514
	df	21
	Sig	0

Source: From the current research analysis

The multiple regression analyses performed in this research reveal a strong link between performance expectancy and individuals' intention to accept family takaful, with a significance value below 0.05 ($\beta = 0.258$, $p < 0.05$). Similarly, there is a notable association between effort consumers and expectancy's inclination towards family takaful, supported by a significance value below 0.05 ($\beta = 0.274$, $p < 0.05$). Furthermore, a meaningful link exists between hedonic motivation and consumers' acceptance of family takaful, as evidenced by a significance value below 0.05 ($\beta = 0.219$, $p < 0.05$). Likewise, the relationship between price value and consumers' acceptance of family takaful is statistically significant, with a significance value below 0.05 ($\beta = 0.161$, $p < 0.05$). The standardized Beta weight regression coefficients indicate that the sequence of variables influencing consumers' acceptance of family takaful, when all independent variables are considered, is as follows: price value, hedonic motivation, performance expectancy, and effort expectancy.

Furthermore, the multiple regression analyses indicate an insignificant correlation between consumers and social influence ' acceptance intention towards family takaful, as indicated by a significance value exceeding 0.05 ($\beta = 0.059$, $p > 0.05$). The R-square value of the multiple regression indicates that the independent variables in the study account for 61.4% of the variances, demonstrating a significant association between these variables and the formation of consumers' acceptance intention towards family takaful. Consequently, hypotheses H1, H2, H4, and H5 are supported, while H3 is not.

5 Conclusion

This study underscores the significance of variables linked to UTAUT (effort expectancy, hedonic motivation, performance expectancy, and price value) in influencing consumers' intention to adopt family takaful. However, social influence does not emerge as significant in this context. Theoretical contributions of this study lie in elucidating individual behavioral intention and technology adoption inside the family takaful domain (Venkatesh et al., 2012). UTAUT has proven its broad applicability over time, enhancing strategies for promoting technology adoption across various domains (Dwivedi et al., 2019; Zainordin et al., 2022). This study reaffirms its continued relevance beyond UTAUT in diverse technology adoption contexts.

Furthermore, the study finds social influence to be inconsequential in consumers' acceptance of family takaful. These results are reliable with earlier studies by Negm et al. (2023), indicating that social impact becomes substantial when technology use is mandated, and individuals may comply without personal preference. While offering

valuable insights, it is critical to recognize the limitations of this study, which should be considered in future research.

Specifically, it concentrates on constructs from UTAUT2 to elucidate consumers' acceptance of family takaful, overlooking additional factors like religiosity or technology. Therefore, future studies could integrate additional variables to assess the ease of technology application when purchasing family takaful.

References

- Abu Shanab, E., Pearson, J.M.: Internet banking in Jordan: the unified theory of acceptance and use of technology (UTAUT) perspective. *J. Syst. Inf. Technol.* **9**(1), 78–97 (2007)
- Afrin, S., et al.: Investigating the determinants of employee performance for sustainability: a study on the Bangladesh insurance industry. *Sustainability* **15**(7), 5674 (2023)
- Ali, M., Raza, S.A., Puah, C.H., Amin, H.: Consumer acceptance toward Takaful in Pakistan: an application of diffusion of innovation theory. *Int. J. Emerg. Mark.* **14**(4), 620–638 (2019)
- Al-Saedi, K., Al-Emran, M., Ramayah, T., Abusham, E.: Developing a general extended UTAUT model for M-payment adoption. *Technol. Soc.* **62**, 101293 (2020)
- Ansari, Z.: A review of 20 years of Takaful literature using a systematic method. *Asian J. Econ. Banking* **6**(1), 2615–9821 (2021)
- Bryman, A.: Barriers to integrating quantitative and qualitative research. *J. Mixed Methods Res.* **1**(1), 8–22 (2007)
- Chen, S.C., Li, S.H., Liu, S.C., Yen, D.C., Ruangkanjanases, A.: Assessing determinants of continuance intention towards personal cloud services: extending utaut2 with technology readiness. *Symmetry* **13**(3), 467 (2021)
- Choi, S.: The flipside of ubiquitous connectivity enabled by smartphone-based social networking service: social presence and privacy concern. *Comput. Hum. Behav.* **65**, 325–333 (2016)
- Dwivedi, Y.K., Rana, N.P., Jeyaraj, A.: Re-examining the unified theory of acceptance and use of technology (UTAUT): towards a revised theoretical model. *Inf. Syst. Front.* **21**, 719–734 (2019)
- Hussain, M., Mollik, A.T., Johns, R., Rahman, M.S.: M-payment adoption for bottom of pyramid segment: an empirical investigation. *Int. J. Bank Market.* **37**(1), 362–381 (2019)
- IFD. Islamic Finance Development Report 2020: progressing through Development. Islamic Finance Development Report, pp. 1–54 (2020)
- IFDI. <https://icd-ps.org>. Accessed 26 Feb 2024
- Khan, M.S., Rabbani, M.R., Hawaldar, I.T., Bashar, A.: Determinants of behavioral intentions to use Islamic financial technology: an empirical assessment. *Risks* **10**, 114 (2022)
- Krejcie, R.V., Morgan, D.W.: Determining sample size for research activities. *Educ. Psychol. Measur.* **30**(3), 607–610 (1970)
- Lin, W.R., Lin, C.Y., Ding, Y.H.: Factors affecting the behavioral intention to adopt mobile payment: an empirical study in Taiwan. *Mathematics* **8**(10), 1851 (2020). <https://doi.org/10.3390/math8101851>
- Mukhtar, Y.A., Barre, G.M.: Determinants of customer perception on the adoption of takaful in Somalia. *J. Islamic Account. Bus. Res.* (2023). <https://doi.org/10.1108/JIABR-03-2022-0093>
- Mohd Thas Thaker, H., Mohd Thas Thaker, M.A., Khaliq, A., Allah Pitchay, A., Iqbal Hussain, H.: Behavioral intention and adoption of Internet banking among clients' of Islamic banks in Malaysia: an analysis using UTAUT2. *J. Islamic Market.* **13**(5), 1171–1197 (2021)
- Merhi, M., Hone, K., Tarhini, A.: A cross-cultural study of the intention to use mobile banking between Lebanese and British consumers: extending UTAUT2 with security, privacy and trust. *Technol. Soc.* **59**, 101151 (2019)

- Negm, E. M. (2023). Consumers' acceptance intentions regarding e-payments: a focus on the extended unified theory of acceptance and use of technology (UTAUT2). In: *Management Sustainability: An Arab Review*
- Penney, E.K., Agyei, J., Boadi, E.K., Abrokwah, E., Ofori-Boafo, R.: Understanding factors that influence consumer intention to use mobile money services: an application of UTAUT2 with perceived risk and trust. *SAGE Open* **11**(3), 215824402110231 (2021)
- Rabaai, A.: An Investigation into the acceptance of mobile wallets in the Fintech era: an empirical study from Kuwait. *Int. J. Bus. Inf. Syst.* **1**(1), 1 (2021)
- S&P Global Ratings. <https://www.spglobal.com/ratings/en/research/articles/210503-islamic-finance-2021-2022-toward-sustainable-growth-11933944>. Accessed 26 Apr 2024
- Ratnawati, S., Durachman, Y., Saputra, A.: Analyzing factors influencing intention to use and actual use of mobile fintech applications free interbank money transfer flip using UTAUT 2 model with trust and perceived security. In: *2022 10th International Conference on Cyber and IT Service Management (CITSM)*, Yogyakarta, pp. 1–8 (2022)
- Seethamraju, R., Diatha, K.S., Garg, S.: Intention to use a mobile-based information technology solution for tuberculosis treatment monitoring – applying a UTAUT model. *Inf. Syst. Front.* **20**(1), 163–181 (2017)
- Shin, S., Lee, W.J.: Factors affecting user acceptance for NFC mobile wallets in the U.S. and Korea. *Innov. Manag. Rev.* **18**(4), 417–433 (2021)
- Slade, E.L., Dwivedi, Y.K., Piercy, N.C., Williams, M.D.: Modeling consumers' adoption intentions of remote mobile payments in the United Kingdom: extending UTAUT with innovativeness, risk, and trust. *Psychol. Mark.* **32**(8), 860–873 (2015)
- The Edge. <http://theedgemaalaysia.com>. Accessed 20 Feb 2024
- Thong, J.Y., Hong, S.J., Tam, K.Y.: The effects of post-adoption beliefs on the expectation confirmation model for information technology continuance. *Int. J. Hum Comput Stud.* **64**(9), 799–810 (2006)
- Tella, A., Olasina, G.: Predicting users' continuance intention toward e-payment system: an extension of the technology acceptance model. *Int. J. Inf. Syst. Soc. Change (IJSSC)* **5**(1), 47–67 (2014)
- Takaful. <https://www.businessstoday.com.my/2023/04/12/takaful-industry-registers-18-growth-and-23-market-share-of-net-contributors/>. Accessed 26 Feb 2024
- MTA Takaful. <http://annualreport2022.takaful4all.org>. Accessed 26 Feb 2024
- Widodo, M., Irawan, M.I., Sukmono, R.A.: Extending UTAUT2 to explore digital wallet adoption in Indonesia. In: *2019 International Conference on Information and Communications Technology (ICOIACT)*, pp. 878–883 (2019)
- Venkatesh, V., Thong, J.Y., Xu, X.: Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Q.* **36**(1), 157–178 (2012). <https://doi.org/10.2307/41410412>
- Zainordin, N.A., Engku Ali, E.R.A., Haron, R.: Factors influencing behavioral intention to participate in family takaful in Malaysia: an extension of UTAUT2 theory. *J. Islamic Finance* **11**(2), 68–83 (2022). <https://doi.org/10.31436/jif.v11i2.691>