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Integration of Takaful Insurance in the Tunisian Market: Analysis of consumers' perceptions

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Abstract

The study examines the impact of situational factors, subjective criteria, and information quality on Islamic insurance applications. Drawing inspiration from the theory of logical action, this research introduces a model to analyze key factors within the Islamic insurance application context. The model undergoes testing with data obtained from a survey involving 100 participants. The findings emphasize the significance of attitude, subjective considerations, and the quality of available information in shaping the demand for Islamic insurance. Additionally, the study sheds light on the level of acceptance of Islamic insurance among Tunisian consumers, offering valuable insights for operators to enhance the effective management of Islamic Takaful Insurance Services. By elucidating the intricate interplay between individual perceptions and contextual factors, this research contributes to a deeper understanding of consumer behavior within the Islamic insurance domain. These insights serve as invaluable guideposts for operators seeking to navigate the complex terrain of Islamic Takaful Insurance Services, empowering them to devise tailored strategies that resonate with consumer preferences and foster greater engagement with Islamic financial solutions.

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1. Introduction:

Islamic finance, characterized by its adherence to Sharia principles, has experienced remarkable growth and global recognition in recent decades (Ariff, 2012). One of the significant components of Islamic finance is Takaful insurance, which operates on the principles of mutual cooperation, shared responsibility, and risk-sharing among participants (Kahf, 2000). Takaful insurance, often referred to as Islamic insurance, has gained significant attention for its unique ethical framework and operational mechanisms, which distinguish it from conventional insurance systems. The emergence of Takaful insurance can be traced back to the principles of Islamic jurisprudence (Fiqh al-Muamalat), which emphasize fairness, justice, and risk mitigation while prohibiting elements such as uncertainty (gharar), speculation (maisir), and interest (riba) (Iqbal & Mirakhor, 2011). These principles underpin the Takaful model, shaping its operational framework and guiding its ethical considerations. In recent years, research interest in Takaful insurance has surged, driven by the growing prominence of Islamic finance and the increasing demand for Sharia-compliant financial products worldwide (Hassan & Lewis, 2007). This surge in research reflects the need to understand the dynamics, challenges, and potential of Takaful insurance within the broader landscape of Islamic finance and the global insurance industry. This comprehensive review aims to provide an overview of prior studies related to various aspects of Takaful insurance, encompassing governance mechanisms, efficiency analysis, demand drivers, profitability determinants, acceptance levels, and comparative analyses with conventional insurance. By synthesizing and analyzing existing literature, this review seeks to identify key findings, methodologies, and contributions to the literature, while also highlighting gaps and avenues for future research.

The review begins by examining studies that investigate the impact of governance mechanisms on Takaful insurance performance. Effective governance structures are essential for ensuring transparency, accountability, and sound risk management practices within Takaful operators (Zainuddin et al., 2010). Studies in this domain explore the influence of board composition, Sharia compliance, and leadership dynamics on Takaful insurers' performance metrics, shedding light on the mechanisms through which governance practices affect operational efficiency and financial sustainability. Subsequently, the review delves into research focusing on efficiency analysis within the Takaful industry. Efficiency is a critical determinant of organizational performance, and assessing the efficiency levels of Takaful operators provides insights into their resource allocation, cost management, and competitiveness (Ariff, 2008). Studies employing methodologies such as data envelopment analysis (DEA) and panel regression analysis examine the technical, pure technical, and allocative efficiency of Takaful firms, offering valuable benchmarks and performance metrics for industry stakeholders. Furthermore, the review explores studies investigating the demand drivers of Takaful insurance, particularly in emerging markets and Muslim-majority countries. Understanding the factors influencing consumers' uptake of Takaful products is essential for market segmentation, product development, and distribution strategies (Ahmed & Akhter, 2012). These studies employ theoretical frameworks such as the theory of planned behavior (TPB) and reasoned action theory to identify socio-economic, cultural, and psychological determinants of Takaful adoption, providing actionable insights for market practitioners and policymakers. Moreover, the review examines research on profitability determinants within the Takaful sector, focusing on internal factors affecting financial performance. Profitability is a key indicator of business viability and sustainability, and analyzing its determinants helps Takaful operators enhance their underwriting practices, investment strategies, and risk management frameworks (Omar & Beekun, 2006). Studies in this domain investigate the impact of firm-specific variables such as size, age, loss ratio, and premium growth rate on Takaful insurers' profitability, offering empirical evidence and managerial implications for enhancing financial performance. Additionally, the review addresses studies exploring non-Muslims' acceptance levels of Takaful insurance products in predominantly Muslim markets. While Takaful insurance is rooted in Islamic principles, its appeal extends beyond Muslim communities, prompting research into the factors influencing non-Muslims' willingness to adopt Sharia-compliant insurance solutions (Hamid & Masood, 2015). By examining factors such as awareness, attitude, service quality, and perceived advantages, these studies contribute to understanding consumer behavior and market dynamics in culturally diverse settings. Furthermore, the review encompasses comparative analyses between Takaful and conventional insurance companies, particularly in emerging markets with significant Muslim populations. Comparative studies provide insights into the relative performance, efficiency, and market positioning of Takaful operators vis-à-vis their conventional counterparts (Naughton & Naughton, 2017).

The motivation and significance of this study lie in addressing the growing importance of Takaful insurance within the context of Islamic finance and the global insurance industry. As Islamic finance continues to gain prominence worldwide, Takaful insurance represents a key component of this sector, embodying principles of mutual cooperation, ethical business practices, and risk-sharing in accordance with Sharia principles. Understanding the dynamics and implications of Takaful insurance is crucial for various stakeholders, including policymakers, industry practitioners, scholars, and consumers. By conducting a comprehensive review of existing literature on Takaful insurance, this study aims to shed light on key aspects such as governance mechanisms, efficiency analysis, demand drivers, profitability determinants, acceptance levels, and comparative analyses with conventional insurance. Through synthesizing and analyzing prior research findings, this study seeks to provide insights into the operational mechanisms, challenges, and potential of Takaful insurance, thus contributing to the broader understanding of Islamic finance and the insurance industry. The significance of this study also lies in its potential implications for industry practitioners and policymakers. By identifying gaps and areas for further research, this study can inform decision-making processes within Takaful operators, regulatory bodies, and government agencies. Additionally, by highlighting best practices, challenges, and opportunities within the Takaful sector, this study can guide strategic planning, product development, and regulatory reforms aimed at fostering sustainable growth and innovation within Islamic insurance markets. Overall, the motivation behind this study is to deepen our understanding of Takaful insurance and its role in Islamic finance, while the significance lies in its potential to inform industry practices, academic research agendas, and policy initiatives aimed at promoting the development and resilience of Takaful markets globally.

2. Literature Review

Several interesting studies have delved into various aspects of Takaful, including the determinants of demand for Islamic insurance companies and the effectiveness of Islamic insurance industry institutions. Taking Malaysia as a case study, which operates within a dual financial system environment where Takaful operators coexist with traditional counterparts, Massad et al. (2007) conducted a study to analyze the sources of efficiency and technical changes within all life insurance companies. They compared these results with the performance of Takaful operators in Malaysia. Utilizing a sample of 13 insurance companies in Malaysia from 2002 to 2005, they employed a D1 non-boundary approach in conjunction with the Malmquist index to dissect the contributions of technical change, efficiency change, Pure Change, and total scale factor productivity growth of various life Takaful operators and insurance companies. Massad et al. (2007) found that, on average, the overall productivity growth factor of the insurance industry in Malaysia is primarily driven by technical change, with changes in efficiency contributing to an adverse shift. They noted that the symbiosis rate is lower than the overall factor productivity but slightly higher than the average technical change. However, the results regarding the Takaful industry remain inconclusive as only one Takaful company was included in the study. Hamid et al. (2009) examined the determinants of demand for Takaful companies. Using the GLS method, they identified the main factors influencing the market for Islamic insurance companies. Their study concluded that debt, growth opportunities, expected bankruptcy costs, company size, management ownership, tax considerations, and influencing effects govern the commercial demand for Islamic insurance in Malaysia. Additionally, Hamid et al. (2009) explored Takaful from the perspective of literacy among Takaful customers in Kuala Lumpur, Malaysia's capital. Their study revealed that most respondents required assistance in understanding specific terms related to Takaful. For instance, only 32 percent of respondents were familiar with terms like gharar (uncertainty) and maisir (gambling). These findings are crucial for guiding Takaful operators in formulating effective marketing strategies, as information is a pivotal element in fostering greater engagement (Hamid et al., 2009).

Islamic finance, including Takaful insurance, has attracted significant attention in recent years due to its distinctive principles and practices. This section offers a comprehensive review of prior studies related to various aspects of Takaful insurance, highlighting key findings, methodologies, and contributions to the literature. Sallemi, Zouari Hadiji, and Zouari (2021) investigated the impact of governance mechanisms on the performance of Takaful insurance providers, with a specific focus on the moderating role of leaders' seniority. The study revealed that factors such as board size, board independence, Sharia board size, and ownership concentration significantly influence Takaful insurance performance, with the leader's seniority moderating these relationships. Their findings underscore the importance of effective governance structures in enhancing Takaful insurance performance. Al-Amri (2015) conducted a study on Takaful insurance efficiency in Gulf Cooperation Council (GCC) countries, employing data envelopment analysis (DEA) methodology. The research revealed varying levels of technical, pure technical, cost, and allocative efficiency among GCC Takaful firms, with significant opportunities for improvement in cost efficiency. This study contributes to understanding the efficiency landscape of Takaful insurance in the GCC region. Hamzeh and Ghanbarzadeh (2023) focused on analyzing the demand for Takaful insurance in Iran, aiming to identify and rank factors influencing demand. Through a combination of library studies and field surveys, the study identified economic, social, demographic, marketing, and product-related factors affecting Takaful insurance demand. This research provides valuable insights for policymakers and Takaful providers to formulate strategies for increasing Takaful insurance uptake in Iran. Lee et al. (2019) explored the efficiency and corporate governance factors influencing the Malaysian Takaful industry, employing a two-stage DEA and panel regression analysis. The study revealed insights into the cost efficiency of family and general Takaful operators, highlighting the influence of corporate governance factors on Takaful efficiency. Their findings offer valuable implications for policymakers and Takaful operators in Malaysia. Kader et al. (2014) investigated the link between cost efficiency and board composition in non-life Takaful insurance firms across Islamic countries. Utilizing panel data and DEA methodology, the study found that board composition, alongside other firm-specific characteristics, significantly impacts cost efficiency in Takaful insurers. This research contributes to understanding the interplay between corporate governance and cost efficiency in the Takaful industry. Ahmed (2016) examined Micro Takaful insurance as a tool for financing and protecting micro-enterprises and low-income families. The study highlighted the importance of Micro Takaful insurance in supporting micro-enterprises and alleviating poverty in developing countries. By providing financial protection and facilitating access to financing, Micro Takaful insurance serves as a vital component of economic development and social security networks. Hersh (2021) explored the distinguishing characteristics of Takaful insurance compared to conventional insurance, aiming to clarify misconceptions and highlight the unique features of Takaful. The study identified key differences in contract types, relationship structures, adherence to Sharia principles, and technical aspects between Takaful and conventional insurance. By elucidating these distinctions, the research contributes to enhancing understanding and awareness of Takaful insurance practices. Mroueh and de Waal (2018) investigated the applicability of the high-performance organization (HPO) framework to Takaful insurance companies, aiming to assess the potential for improving performance through HPO principles. The study matched HPO characteristics with Takaful industry attributes, highlighting areas where Takaful organizations may benefit from implementing HPO principles. By bridging the gap between management literature and Takaful industry practices, the research offers insights into performance enhancement strategies for Takaful insurers. Guendouz and Ouassaf (2018) examined the determinants of profitability in Saudi Takaful insurance companies, focusing on internal factors affecting financial performance. The study utilized panel data techniques to analyze the relationship between profitability and company-specific variables such as age, size, loss ratio, and premium growth rate. By identifying factors influencing profitability in a fully Shariah-compliant insurance sector, the research contributes to filling a gap in the literature on Takaful insurance profitability determinants.

Additionally, Qian and Darman (2023) investigated the acceptance level of Takaful insurance products among non-Muslims in Malaysia, aiming to understand factors influencing non-Muslim participation in Takaful insurance. The study utilized multiple linear regression analysis to examine the effects of awareness, attitude, service quality, and relative advantage on non-Muslim acceptance levels. By identifying significant factors influencing non-Muslims' willingness to adopt Takaful insurance, the research provides insights for Takaful insurers to enhance market penetration among non-Muslim populations. Furqan et al. (2023) conducted a comparative analysis of efficiency between Takaful and conventional insurance companies in emerging markets, focusing on Pakistan. The study employed data envelopment analysis to assess technical, allocative, and cost efficiencies of Takaful and conventional insurers. By comparing the efficiency levels and identifying determinants of efficiency, the research offers insights into performance improvement strategies for both Takaful and conventional insurers in emerging markets. Ahmed's (2016) study on Micro Takaful insurance as a tool for financing and protecting micro-enterprises and low-income families was inadvertently omitted from the previous review. However, it is now included, enriching the literature review with insights into the role of Micro Takaful in supporting economic development and social security networks.

These studies collectively contribute to advancing the understanding of various aspects of Takaful insurance, including governance mechanisms, efficiency, demand drivers, profitability determinants, acceptance levels, and comparative analysis with conventional insurance. By addressing these areas, researchers aim to provide insights for policymakers, regulators, and Takaful operators to enhance the performance, uptake, and sustainability of Takaful insurance in Islamic financial markets. The study by Echchabi, Ayinde Olorogun, and Azouzi (2014) investigates the propensity of Tunisian customers to adopt Islamic insurance services (Takaful) and the factors influencing their decisions. Employing a survey methodology, the researchers randomly distributed one hundred questionnaires to Tunisian customers and analyzed the data using Structural Equation Modeling (SEM) and one-sample t-test. The findings suggest a willingness among Tunisian customers to embrace Islamic insurance services, with the compatibility of these services identified as a significant determinant factor influencing their decision-making process. This study contributes to the literature by offering insights into customer behavior towards Islamic insurance services, particularly in the context of Tunisia, which has received limited attention in previous research endeavors. Furthermore, AfDB's (2011) report on Islamic banking and finance in North Africa sheds light on the current state and future prospects of Islamic finance in the region. The report provides a comprehensive assessment of Islamic banking across North African countries, including Egypt, Libya, Tunisia, Algeria, Morocco, and Mauritania. Despite the presence of Islamic banks in these countries, their contribution to total bank deposits and assets remains minimal. However, there is potential for Islamic finance to support economic development by diversifying funding sources, improving financial intermediation effectiveness, and facilitating project financing, particularly in infrastructure development. The report underscores the need for further development of Islamic financial instruments such as Sukuk and mutual funds to attract investment funds from the Gulf Cooperation Council (GCC) and enhance private sector development in North Africa. Additionally, it highlights the role of Islamic private equity investment and venture capital finance in supporting small-scale industries and family enterprises, offering Sharia-compliant alternatives to conventional financing mechanisms.

3. Research Methodology

This study utilizes preliminary data gathered through a survey employing two structured questionnaires: one tailored for general individuals and the other designed for Zaytuna Takaful specialists. The survey incorporates a scale comprising 12 variables, categorized into 3 groups. The respondents consist of students and professionals residing in Tunis, the capital of Tunisia. Singhapakdi (1996) advocated for the inclusion of students in exploratory studies, asserting their validity as a sample when questionnaire items are relevant to them. Similarly, in a more recent study by Abdur Rahman (2008), it was argued that students are suitable for exploratory studies. Following Hatcher's (1994) recommendation, which suggests that the sample size for research should be five times the number of variables, a sample of 100 respondents was deemed appropriate, considering the 12 variables involved in this study.
Out of 150 questionnaires printed and distributed, 50 were excluded due to incomplete data, resulting in a final response rate of 66 percent. Prior to questionnaire distribution, all respondents were informed about the voluntary nature of their participation, with assurances of confidentiality and exclusive use of responses for this study. Among the 100 respondents, 41 percent were male and 59 percent were female, while all respondents identified as Muslims (100 percent).

The survey further employs 2 scales comprising 7 variables each, targeting professionals within Zaitouna Takaful, Tunisia's sole Islamic insurance enterprise. Given that the sample size represents a novel segment of the insurance market, it is imperative to garner sufficient responses to formulate a model. Consequently, this study confines itself to descriptive statistics concerning this questionnaire.

Model

In our study, we employed the multiple regression analysis method proposed by Hanudin Amin (2012) to investigate the participation of Islamic insurance in Malaysia. This approach enabled us to explore the relationship between a single dependent variable and three independent variables. Similarly, Ramia et al. (2009) utilized multiple regression analysis to examine the intention to engage in online stock trading among Malaysian investors. Additionally, Gopi and Ramya (2007) employed this method to analyze the relationship between intention for online trading and attitude, subjective norms, and perceived behavioral control. For our research, multiple regression analysis was chosen as it allows for the assessment of the relationship between variables in a systematic manner.

The analysis can be written as follows:
PII = φ + + ψ1A1 δ2SA2 φ3A3 + + ζ
In the equation where IPI estimates the demand for the Tunisian Islamic insurance market based on respondents' perceptions, a1, a2, and a3 denote the independent variables representing the situation, subjective norm, and amount of information (partially assumed), respectively. ε signifies the error term. Meanwhile, θ and β represent the coefficients assigned to each group of explanatory variables, respectively.

Field Study Procedures

Table 1: Arithmetic Means and Standard Deviations for The Variables

Variables		**Arithmetic averages**	**Standard deviations**
Independent variable	Tankful insurance	3.8729	0.35727
	Takaful insurance Awareness level	3.8796	0.35727
	The customer reluctance to purchase insurance	3.9696	0.37433
	Tankful insurance Characteristics	3.7093	0.51001
Dependent variable	Development of the Tunisian insurance market	3.7450	.45968

Source: Prepared by the researcher according to the results of the descriptive analysis of the study sample (n=100)

The computational means of the first independent variable, the development of Takaful insurance, is 3.8729 (out of 5). This indicates a good agreement among the respondents on this variable. The arithmetic means of the second independent variable, the level of awareness of Takaful insurance, is 3.8796 (out of 5), which indicates a good agreement among the respondents. The computational means of the third independent sub-variable, the client's reluctance to purchase insurance, is 3.9696 (out of 5), which indicates a good agreement among the respondents. The computational means of the fourth independent variable, the characteristics of Takaful insurance, is 3.7093 (out of 5), which indicates a good agreement among the respondents. The computational means of the dependent variable, the dependent variable, the performance of the Tunisian insurance market, is 3.1167 (out of 5), which indicates a good agreement among the respondents. The standard deviation of the first independent variable, Takaful insurance, is 0.35727 (out of 5), which indicates a good agreement among the respondents. The second independent variable's standard deviation, the awareness level of Takaful insurance, is 3.8796 (out of 5), which indicates a good agreement among the respondents. The standard deviation of the third independent variable, the client's reluctance to purchase insurance, is 0.37433 (out of 5), which indicates a good agreement among the respondents. The standard deviation of the fourth independent variable, the characteristics of Takaful insurance, is 0.51001 (out of 5), which indicates a good agreement among the respondents. The standard deviation of the dependent variable, Dependent Variable: Performance of the Insurance Market in Tunisia, is 0.33966 (out of 5), indicating good agreement among the sample individuals. The researcher considers that the percentage of the impact of independent variables on the dependent variable is significant and acceptable. However, there is a set of criteria that need improvement, either by increasing societal awareness of their importance or by companies not ignoring the use of these criteria related to the impact of Takaful insurance on the insurance market in Tunisia, especially the variable of reliance on Takaful insurance and its role in developing insurance services. It is essential to clarify the differences between Takaful insurance and commercial insurance and the distinctive characteristics of each for customers. Awareness of cooperative insurance is one of the variables that give the impression of approval from customers regarding the need to promote awareness of Takaful insurance as an alternative to commercial insurance.

4. Result and Discussion

Table 2: Results of Simple Linear Regression Analysis on The Impact of Takaful Insurance on Enhancing the Performance of The Tunisian Insurance Market

General independent variable	R	R2	Adjusted R2	F	Sig. F
Takaful insurance	.666	.443	.441	237.335	.000
	β	**Beta**	**T, value**	**Sig. T**	**Constant**
	.714	.666	15.406	.000	.353

The source was prepared by the researcher based on the results of the statistical analysis of the study sample, n = 102 individuals

Table 3: Results of Simple Linear Regression Analysis of the Takaful insurance awareness level on Enhancing the Performance of The Tunisian Insurance Market

	R	R2	Adjusted R2		Sig. F
Takaful insurance awareness level	.155	.024	.021	7.346	.007
	β	**Beta**	**T, value**	**Sig. T**	**Constant**
	. .141	.155	2.710	.007	2.558

The source was prepared by the researcher based on the results of the statistical analysis of the study sample, n = 102 individuals

Table 4: Results of simple linear regression analysis of Customer reluctance to purchase insurance in developing insurance services on enhancing the performance of the Tunisian insurance market

	R	R2	Adjusted R2	F, value	Sig. F
Customer reluctance to purchase insurance	.429	.184	.181	67.136	.000
	β	**Beta**	**T, value**	**Sig. T**	**Constant**
	.408	.429	8.194	.000	.1.535

The source was prepared by the researcher based on the results of the statistical analysis of the study sample, n = 102 individuals

Table 5 Results of Simple Linear Regression Analysis of Characteristics of Takaful Insurance Enhancing the Performance of The Tunisian Insurance Market

	R	R2	Adjusted R2	F, value	Sig. F
Characteristics of Takaful insurance	.461	.212	.210	80.384	.000
	β	Beta	T, value	Sig. T	Constant
	.307	.461	8.966	.000	1.978

The source was prepared by the researcher based on the results of the statistical analysis of the study sample, n = 102 individuals

There is a statistically significant correlation at the level of "0.05 USD" between adopting Takaful insurance and developing the insurance market in Tunisia. To test this hypothesis, we will use the Pearson correlation coefficient, a simple regression analysis will be used to verify the impact of Takaful Insurance characteristics on the performance of the insurance market in Tunisia and the Pearson correlation coefficient between the level of the Takaful Insurance variable and the performance of the insurance market in Tunisia will be examined. Statistical analysis shows a strong correlation between Takaful insurance development and the insurance market's performance in Tunisia. The correlation coefficient is 0.666 (P), and the determination coefficient (2 p) is 0.443. Therefore, the development of Takaful insurance can explain 44.30% of the performance of the insurance market in Tunisia. The calculated value is 237.335, statistically significant at the significance level of 0.05. Since the significance level (Sig) of and is less than 0.05, the model is considered statistically significant and suitable for study.

There is a statistically significant correlation at a significance level of 0.05 between the awareness of Takaful insurance and the performance of the insurance market in Tunisia. To test this hypothesis, we will use the Pearson correlation coefficient, and a simple linear regression analysis will be used to determine the impact of the level of awareness of Takaful insurance on the performance of the insurance market in Tunisia and the Pearson correlation coefficient between the variable of the level of awareness of Takaful insurance and the performance of the insurance market in Tunisia will be examined. Statistical analysis indicates no correlation between the level of awareness of Takaful insurance and the performance of the insurance market in Tunisia. The correlation coefficient is 0.155 (P), and the determination coefficient (2 p) is 0.024. Thus, only 2.04% of the performance of the insurance market in Tunisia can be explained by the level of awareness of Takaful Insurance. The calculated value is 7.346, which is not statistically significant at the significance level of 0.05 (Sig > 0.05), which makes the model not statistically significant and, therefore, unsuitable for the study.

There is a statistically significant correlation at the significance level of 0.05 between the client's reluctance to purchase insurance and the performance of the insurance market in Tunisia. To test this hypothesis, we will use the Pearson correlation coefficient and simple linear regression analysis to determine the impact of the client's level of reluctance to purchase insurance on the performance of the insurance market in Tunisia. The Pearson correlation coefficient will be examined between the client's level of reluctance to buy the insurance level variable and the performance of the insurance market in Tunisia. Statistical analysis shows a correlation between the unwillingness of customers to purchase insurance and the performance of the insurance market in Tunisia. The correlation coefficient is 0.429 (P), and the determination coefficient (2 p) is 0.184. Therefore, 18.04% of the performance of the insurance market in Tunisia can be explained by the reluctance of customers to purchase insurance. The calculated value is 0.000, statistically significant at the significance level of 0.05. Since the significance level (Sig) of and is less than 0.05, the model is considered statistically significant and suitable for study.

There is a statistically significant correlation at the level of" AUD 0.05 " between Takaful insurance characteristics and the insurance market's performance in Tunisia. To test this hypothesis, we will use the Pearson correlation coefficient and the simple regression analysis test to verify the presence of the influence of Takaful Insurance characteristics on the performance of the insurance market in Tunisia and the Pearson correlation coefficient between the changing attributes of Takaful insurance and the performance of the insurance market in Tunisia. Statistical analysis shows a correlation between the characteristics of Takaful insurance and the performance of the insurance market in Tunisia. The correlation coefficient was P=0.461, and the coefficient of determination 2 p was 0.212. Therefore, the characteristics of Takaful insurance can explain 21.20% of the performance of the insurance market in Tunisia. The arithmetic value was equal to 80.384, statistically significant at the significance level "a 0.05". Since the significance level (SIG) value is less than 0.05, the model is considered essential and valid for study.

5. Applications

5.1 Practical Applications:

The current study has some practical applications that can benefit various stakeholders involved in the Tunisian insurance market and the broader Islamic finance industry. Firstly, the findings of this research offer valuable insights for policymakers and regulatory authorities in Tunisia. Understanding the impact of Takaful insurance on the development of the insurance market provides policymakers with evidence-based guidance for formulating regulatory frameworks and policies that promote the growth of Islamic insurance. By incorporating the unique characteristics and requirements of Takaful insurance into regulatory frameworks, policymakers can create an enabling environment for its expansion, thus fostering competition and innovation within the insurance sector. Secondly, Takaful operators and practitioners can leverage the insights from this study to enhance their strategic decision-making processes. By recognizing the significant correlation between the development of Takaful insurance and the performance of the insurance market, Takaful operators can tailor their product offerings and marketing strategies to better meet the needs and preferences of Tunisian consumers. Moreover, understanding the factors influencing customer reluctance to purchase insurance and the characteristics of Takaful insurance allows operators to address potential barriers to adoption and differentiate their services in the market. Thirdly, the findings of this study can inform consumer education and awareness initiatives aimed at promoting Takaful insurance in Tunisia. Increasing awareness among consumers about the benefits and principles of Islamic insurance can contribute to higher adoption rates and market penetration. By collaborating with industry associations, religious institutions, and educational institutions, Takaful operators can design targeted campaigns and educational programs to raise awareness about Takaful insurance and dispel misconceptions surrounding it. Lastly, investors and financial institutions interested in the Islamic finance sector can use the insights from this study to assess investment opportunities in the Tunisian insurance market. The demonstrated correlation between the development of Takaful insurance and the performance of the insurance market highlights the potential for growth and profitability within the Islamic insurance segment. Investors can conduct market assessments and due diligence to identify promising investment avenues within the Takaful sector, thus contributing to the expansion and diversification of Islamic finance in Tunisia.

5.2 Theoretical Applications:

The current study also holds significance in terms of theoretical contributions to the fields of Islamic finance and insurance economics. Firstly, the study extends existing literature by providing empirical evidence on the relationship between Takaful insurance and the development of the insurance market in Tunisia. By employing multiple regression analysis, the study offers a quantitative understanding of the factors influencing market dynamics and performance within the context of Islamic insurance. The findings contribute to theoretical frameworks in insurance economics by elucidating the mechanisms through which Takaful insurance impacts market development and competitiveness. Secondly, the study adds to the body of knowledge on consumer behavior and decision-making in Islamic finance markets. By analyzing the factors influencing consumer reluctance to purchase insurance and the awareness level of Takaful insurance, the study enhances our understanding of consumer preferences and perceptions regarding Islamic insurance products. The theoretical insights derived from this research can inform future studies on consumer behavior in Islamic finance markets and contribute to the development of behavioral economics theories within the context of Sharia-compliant financial services. Lastly, the study underscores the importance of incorporating Sharia principles and ethical considerations into insurance economics research. By examining the characteristics of Takaful insurance and their impact on market performance, the study highlights the relevance of ethical frameworks and risk-sharing principles in shaping the behavior of market participants. Theoretical models and frameworks derived from this study can inform future research on the integration of Islamic finance principles into mainstream economics and finance theories, thus fostering interdisciplinary scholarship and collaboration in the field.

5.3 Policy Applications:

The findings of this study hold significant implications for policymakers and regulatory authorities in Tunisia, particularly in shaping policies that promote the growth and development of the Islamic insurance (Takaful) market. The following policy applications are recommended based on the empirical evidence and insights derived from the research:

i. **Regulatory Framework Enhancement:** Policymakers should consider revising and updating the regulatory framework governing the insurance sector to accommodate the unique features and requirements of Takaful insurance. This includes establishing clear guidelines and standards for Takaful operators regarding capital adequacy, risk management, and Sharia compliance. By providing a conducive regulatory environment, policymakers can instill investor confidence and encourage further investment in the Takaful industry.

ii. **Consumer Protection and Education:** There is a need for comprehensive consumer protection measures and educational initiatives to enhance awareness and understanding of Takaful insurance among Tunisian consumers. Policymakers should collaborate with industry stakeholders to develop educational campaigns and materials that clarify the principles, benefits, and mechanics of Takaful insurance. Additionally, measures should be implemented to ensure transparency, fairness, and accessibility in Takaful product offerings to safeguard the interests of consumers.

iii. **Promotion of Islamic Finance Education:** Policymakers should prioritize the integration of Islamic finance education and training programs into the curriculum of academic institutions and professional training centers. By fostering a better understanding of Islamic finance principles and practices among students, professionals, and the general public, policymakers can cultivate a supportive ecosystem for the growth of the Takaful industry and Islamic finance sector as a whole.

iv. **Encouragement of Innovation and Research:** To stimulate innovation and product development in the Takaful market, policymakers should incentivize research and development initiatives within the industry. Grants, subsidies, and tax incentives can be provided to Takaful operators and research institutions engaged in developing innovative Takaful products, risk management techniques, and technological solutions. Furthermore, policymakers should facilitate collaboration between academia, industry, and government agencies to foster knowledge exchange and applied research in Islamic insurance.

v. **Market Access and Expansion:** Policymakers should explore measures to facilitate market access and expansion for Takaful operators, including streamlining licensing processes, reducing regulatory barriers, and promoting cross-border cooperation. By enhancing market competitiveness and encouraging foreign investment in the Takaful sector, policymakers can create opportunities for market growth, diversification, and integration with global Islamic finance networks.

vi. **Monitoring and Evaluation Mechanisms:** Policymakers should establish robust monitoring and evaluation mechanisms to assess the effectiveness of policies aimed at promoting the development of the Takaful market. Regular assessments of market performance, consumer satisfaction, regulatory compliance, and financial stability should be conducted to identify areas for improvement and adjustment in policy implementation.

By adopting these policy applications, policymakers can play a proactive role in fostering the sustainable growth and resilience of the Takaful industry, thereby contributing to financial inclusion, economic development, and social welfare in Tunisia.

Conclusion

The statistical analysis results showed the impact of Takaful insurance on the performance of the insurance market in Tunisia. The correlation coefficient (R) was 0.666, and the determination coefficient (2 R) was 0.443, which indicates that the development of Takaful insurance affects 44.30% of the performance of the insurance market in Tunisia. The calculated value was 237.335, statistically significant at significance (α) 0.05. Since the significance level (Sig) of the value of and is less than (0.05 ≥ α), We reject the null hypothesis and accept the alternative hypothesis, which states that there is a statistically significant relationship at the significance level (0.05 ≥ α) between the development of Takaful insurance and the performance of the insurance market in Tunisia.

The statistical analysis results revealed no impact of awareness of Takaful insurance on the performance of the insurance market in Tunisia. The correlation coefficient (R) was 0.155, and the determination coefficient (R2) was 0.024. This means that 2.40% of the performance of the insurance market in Tunisia is influenced by awareness of Takaful Insurance. Moreover, the calculated value was 7.346, which is a statistical function at a significant level (0.07 ≥ α). Since the significance level is greater than the value (0.05 ≥ α), We accept the null hypothesis and reject the alternative hypothesis, which suggests a statistically significant correlation at the significance level (0.05 ≥ α) between awareness of Takaful insurance and the performance of the insurance market in Tunisia.

The statistical analysis results revealed customers' reluctance to purchase insurance based on the performance of the insurance market in Tunisia. The correlation coefficient (R) was 0.653, and the determination coefficient (R2) was 0.426. This means that 42.60% of the performance of the insurance market in Tunisia is influenced by the reluctance of customers to purchase insurance. Moreover, the calculated value was a statistical function at the significance level (0.07 ≥ α). Since the significance level is greater than the value (0.05 ≥ α), we accept the null hypothesis and reject the alternative hypothesis, which indicates a statistically significant correlation at the significance level (0.05 ≥ α) between the clients ' reluctance to purchase insurance and the performance of the insurance market in Tunisia.

The results of the statistical analysis showed the impact of Takaful insurance characteristics on the insurance market's performance in Tunisia, where the correlation coefficient was 0.461 (R). The coefficient of determination (2 R) was 0.212, which means that 21.20% of the performance of the insurance market in Tunisia is affected by the level of characteristics of Takaful Insurance. The arithmetic value of and has reached 80.384, which is statistically significant at the significance level (0.05 F). Since the significance level (SIG) is less than the value of (0.05 F), we reject the null hypothesis and accept the alternative hypothesis that says there is a meaningful relationship. Statistics on the significant level ($0.05 \geq \alpha$) between Takaful insurance characteristics and the insurance market's performance in Tunisia.

Limitations and Future Research Directions

While this study provides valuable insights into the factors influencing the development of the Tunisian insurance market and the role of Takaful insurance within it, there are several limitations that should be acknowledged. Firstly, the study's sample size was relatively small, consisting of 100 respondents from Tunis, which may limit the generalizability of the findings to the broader Tunisian population. Future research could benefit from larger and more diverse samples to ensure the robustness and representativeness of the results. Secondly, the study relied on self-reported data from survey respondents, which may be subject to biases such as social desirability and recall errors. Employing mixed-method approaches or qualitative research methods could provide deeper insights into the underlying motivations and perceptions driving consumer behavior towards Takaful insurance in Tunisia.

Additionally, this study focused primarily on individual consumers' perceptions and attitudes towards Takaful insurance, overlooking the perspectives of other key stakeholders such as insurance providers, regulators, and religious authorities. Future research could adopt a multi-stakeholder approach to gain a more comprehensive understanding of the challenges and opportunities facing the Takaful industry in Tunisia. Moreover, the study primarily examined the impact of situational factors, subjective criteria, and information quality on Islamic insurance applications, neglecting other potential determinants such as cultural factors, religious beliefs, and socio-economic variables. Exploring these additional factors could enrich our understanding of the drivers shaping demand for Takaful insurance in Tunisia.

Furthermore, this study employed a cross-sectional research design, which limits its ability to establish causal relationships between variables. Future research could adopt longitudinal or experimental designs to investigate the causal mechanisms underlying the relationship between Takaful insurance and the development of the Tunisian insurance market. Lastly, the study focused solely on the Tunisian context, neglecting potential insights that could be gained from comparative analyses with other countries or regions with similar socio-economic characteristics and insurance market dynamics. Future research could explore cross-country comparisons to identify best practices and lessons learned that could inform policy interventions and industry strategies aimed at promoting Takaful insurance development in Tunisia and beyond.

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