“The determinants of non-life insurance spending: Evidence from Arab economies”

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THE DETERMINANTS OF NON-LIFE INSURANCE SPENDING: EVIDENCE FROM ARAB ECONOMIES

Abstract

Non-life insurance has grown in developing countries over the past decade, despite challenges and large differences in premiums across Arab countries. This study investigates the effect of cultural factors on non-life insurance spending in Arab countries using panel data covering the period from 2010 to 2023. Eight independent variables were employed. They are uncertainty avoidance, individualism, power distance, masculinity, long-term orientation, indulgence, income per capita and interest rate. The results of the study prove that uncertainty avoidance positively influences spending on non-life insurance. The results also show that Arab societies with pragmatic and masculine traits prefer to spend a lot of money on purchasing non-life insurance. However, the results confirm that cultural factors incorporating individualism, power distance, and indulgence negatively impact non-life insurance. Further, the interest rate also negatively affects non-life insurance. In contrast, income per capita has an insignificant impact. These results indicate that insurance companies working in Arab countries should consider those significant factors to improve the quality of insurance services that encompass non-life insurance contracts.

Keywords non-life insurance, indulgence, uncertainty avoidance, individualism, power distance, cultural dimensions, masculinity

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INTRODUCTION

The non-life insurance market has evolved over the last decade in Arab nations, despite the political and economic instability. In this regard, the non-life insurance gross written premiums in Arab regions amounted to USD 57.9 billion in 2023 and are expected to grow by 3.06% in 2024 (World Bank, 2023). Indeed, this industry has potential valuable benefits for the economy and society at large. The growth of this market creates real opportunities for households, individuals' income, and companies' revenues. This sector can accelerate economic growth and ultimately achieve sustainability.

Despite this substantial growth, the Arab insurance market is immature, and cultural factors still affect people's behavior toward non-life insurance. Indeed, there is a lack of knowledge and confidence in non-life insurance services. The insurance sectors in these economies are still underdeveloped and face challenges in selling and underwriting insurance policies. In addition, these countries face a large disparity of premiums and relatively low penetration rates compared to developed countries. Thus, this study is conducted to understand the impact of culture dimensions developed by Hofstede et al. (2010) on the behavior of insured people toward spending money on non-life insurance to minimize the cultural difference between societies and companies.

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1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Several previous studies (e.g., Bashar et al., 2024; Czarnecka et al., 2020) argued that culture can play a significant role in consumer or buying behavior over time and across economies. Cakanlar and Nguyen (2019) mentioned that cultural differences are of enormous importance for understanding consumer behavior and significantly influence responses toward products and services. On the theoretical front, cultural behavior becomes important for promoting insurance markets on a global scale (Sihem, 2024). Consequently, Trinh et al. (2023a) argued that cultural factors significantly affect non-life insurance in advanced and emerging countries. Cultural attributes such as uncertainty avoidance, individualism, power distance, masculinity, long-term orientation, and indulgence proposed by Minkov and Hofstede (2011) have been studied by scholars to understand the demand for non-life insurance (Zinyoro & Aziakpono, 2024; Trinh et al., 2016; Zhong et al., 2015; Park & Lemaire, 2012).

Uncertainty avoidance refers to the extent to which the people of a society try to cope with anxiety by minimizing ambiguity (Hofstede et al., 2010). Cultural differences with high uncertainty avoidance prefer rules and dictate risk-taking preferences (Bate, 2022). Thus, Trinh et al. (2023b) argued that uncertainty avoidance is critical for augmenting the demand for non-life insurance in middle-income countries and high-income countries. They revealed that a high level of uncertainty avoidance is willing to engage in non-life insurance.

Individualism is defined as people caring only about themselves and their immediate family, and it encompasses moral stance, ideology, and political and social outlook (Hofstede, 1991). Previous studies pointed out the impact of individualism on the demand for non-life insurance Gaganis et al. (2019) indicated that individualism can help control insurance risk-taking and motivate people to spend money on purchasing non-life insurance in some European countries. Park and Lemaire (2012) mentioned that individualism positively influences non-life insurance. Conversely, Trinh et al. (2023b) argued that individualism adversely affects non-life insurance consumption.

Power distance describes the degree to which people in society accept the hierarchy of power (Hofstede et al., 2010). This cultural factor attempts to quantify cultural differences and attitudes between societies. Zhong et al. (2015) mentioned that a higher degree of power distance adversely affects the attention of people in purchasing non-life insurance. Trinh et al. (2023b) argued that the hierarchy structure of power motivates people to spend more money on non-life insurance. However, Park and Lemaire (2012) implied that power distance adversely impacts non-life insurance consumption.

Masculinity refers to the socially constructed gender ascribed to male bodies (Kimmel & Messner, 2004). According to Hofstede et al. (2010), masculine societies are much more openly gendered than feminine societies. Trinh et al. (2023b) provided evidence that masculine societies are less likely to engage in non-life insurance. Treerattanapun (2011) mentioned that masculine societies may purchase more insurance services to control the future. However, Chui and Kwok (2008) argued that feminine societies are very sensitive to the needs of their families and willing to purchase non-life insurance to protect themselves against ambiguity. Nevertheless, Outreville (2018) argued that masculinity negatively affects non-life insurance consumption. People in masculine societies may spend less money on non-life insurance in high-income countries.

Hofstede (2001) defined Long-Term Orientation (LTO) as a natural culture value that fosters the virtues oriented toward future rewards. Moreover, LTO encompasses persistence and personal adaptability (Minkov & Hofstede, 2011). Thus, Park and Lemaire (2012) provided ample evidence of the importance of LTO for life insurance consumption. They validated that the high LTO index leads to the life insurance spending is bound to increase rapidly in Asia. Trinh et al. (2023a) affirmed that modest and thriftier people are willing to buy more non-life insurance contracts.

Indulgence refers to a national culture that expresses welfare and good things in life (Hofstede et al., 2010). Akamatsu and Fukuda (2022) argued

that indulgence positively impacts consumer buying decisions. Higher interest in leisure-oriented consumption would increase consumer behavior towards more spending. Thus, the intense level of indulgence would affect individuals to prioritize their list of desires of buying (Minkov & Hofstede, 2011). Moreover, Trinh et al. (2023a) confirmed that non-life insurance consumption is positively sensitive to the indulgence culture value.

The income per capita is considered an influential factor of non-life insurance spending (Dragotă et al., 2023). Thus, Upadhyaya et al. (2024) provided a significant relationship between non-life insurance and the GDP growth rate in Nepal. A notable study by Cheteni et al. (2024) argued that income per capita negatively affects non-life insurance penetration in the Sub-Saharan region. However, Cavalcante et al. (2018) affirmed that GDP growth positively impacts non-life insurance spending. Furthermore, the findings by Outreville (2018), Kjosevski, and Petkovski, (2014), Park and Lemaire (2012) have demonstrated a consistently positive association between income per capita and life insurance consumption.

Albrecht (2003) argued that interest rate changes can have a significant effect on the value of non-life insurance companies. Thus, Finucane et al. (2023) have provided a conceptual framework that can be studied to gain insights into the relationship between interest rates and non-life insurance. They assert that interest rate positively influences non-life insurance premiums. Flores et al. (2021) revealed that the penetration of the life insurance market was low with high interest rates. However, Cheteni et al. (2024) argued that interest does not have a significant effect on non-life insurance consumption.

Exploring the previous studies shows that the association between cultural attributes and non-life insurance spending is considered a novel topic that needs further investigation to extend earlier studies, particularly in the Arab context. This study can assist in a deep understanding of national cultural behavior in Arab countries and its role in developing the non-life insurance market. Hence, this study aims to examine the impact of cultural dimensions on non-life insurance spending in some Arab countries. Accordingly, this study formulates the following hypotheses:

H_1: *Uncertainty avoidance positively affects non-life insurance spending in the Arab region.*

H_2: *Individualism positively affects non-life insurance spending in the Arab region.*

H_3 *Power distance positively affects non-life insurance spending in the Arab region.*

H_4: *Masculinity negatively affects non-life insurance spending in the Arab region.*

H_5: *Long-term orientation negatively affects non-life insurance spending in the Arab region.*

H_6: *Indulgence positively affects non-life insurance spending in the Arab region.*

H_7: *Income per capita positively affects non-life insurance spending in the Arab region.*

$H_{8:}$ *interest rate positively affects non-life insurance spending in the Arab region.*

2. METHODOLOGY

This study covers a sample of 12 Arab countries (United Emirates, Saudi Arabia, Oman, Qatar, Kuwait, Bahrain, Yemen, Jordan, Palestine, Syria, Lebanon, and Iraq). Data were collected from economic development reports published by the World Bank covering the period from 2010 to 2023, utilizing panel data with a total observation value of 168 observations. Moreover, dynamic GMM and 2SLS models were used to analyze the data and test the research hypotheses. These approaches were chosen due to their ability to detect endogeneity issues and consider behavior variations of research variables over time, in addition to providing highly accurate and consistent results. The selection of these insurance markets was based on the availability of data variables for the entire period of study.

In panel data estimates, Non-Life Insurance Penetration (NLIP) was used as a dependent variable. This variable is measured by insurance premiums divided by the gross domestic product for each country per year (Sihem, 2024). Furthermore, the researchers use six cultural attributes de-

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veloped by Hofstede (2010) and Minkov and Hofstede (2011) as independent variables including uncertainty avoidance, individualism, power distance, masculinity, long-term orientation, and indulgence. Economic variables include income per capita and interest along with cultural factors effect.

Uncertainty avoidance explains how people can cope with risk and ambiguity (Hofstede et al., 2010). This indicates that a high score of uncertainty avoidance makes life unpredictable and uncontrollable. The individualism factor describes the strengthening of the ties that people take care of others within their society (Hofstede, 1983). Masculinity represents the distribution of responsibilities between men and women. In masculine communities, the roles of men and women overlap less, and men are expected to behave assertively (Hofstede, 1983). Indulgence factor refers to people that have free social norms and emotions (Minkov & Hofstede, 2011) Behind that, some economic variables were used in modeling NLIP such as income per capita and interest (Hodula et al., 2021; Cavalcante et al., 2018). Thus, Table 1 depicts the notations and description of research variables.

The estimated model of this study is developed based on the seminal empirical work of Trinh et al. (2023b) and Sihem (2024). Moreover, the research model incorporates the cultural factors that came up from Hofstede (2010) that have been neglected in these earlier studies. Thus, it provides a strong contribution to the empirical data analysis.

This study employs Generalized Method of Moments (GMM) developed by Arellano and Bond (1991) and Blundell and Bond (1998) to conduct a relationship between culture dimensions and non-life insurance consumption. The reason behind using such a panel data model is to resolve multicollinearity issues and to detect endogeneity problems Therefore, the dynamic panel data model is specified based on the following function:

$$\begin{aligned} NLIP_{it} &= \beta_0 + \beta_1 (UAI_{it}) - \beta_2 (IND_{it}) \\ &+ \beta_3 (PDI_{it}) + \beta_4 (MAS_{it}) + \beta_5 (LTO_{it}) \\ &+ \beta_6 (INDG_{it}) + \beta_7 (IPC_{it}) + \beta_8 (I_{it}) \\ &+ \varphi D_t + e_{it}, \end{aligned} \tag{1}$$

where *NLIP* represents the annual change in non-life insurance penetration in percentage. *UAI* stands for uncertainty avoidance index. *i* refers to the number of countries and *t* indicates the time series data (13 years). *UAI* refers to the uncertainty avoidance index, *IND* is individualism, *PDI* is the power distance index, *MAS* denotes Masculinity, *LTO* stands for long-term orientation, *IINDG* represents indulgence, and *IPC* denotes the annual percentage change in income per capita. *I* refers to the annual lending rate on the U.S. dollar. e_{it} stands for the residual error term. φ represents the vector of coefficient, and D_t refers to the array of time that is used to control the effect of time on NLIP; β_0 is the intercept. β_1, β_2, β_3, β_4, β_5, β_6, β_7 and β_8 are beta coefficients. This estimated model assumes that residual errors are unrelated to one another and there are no autocorrelation cross-section units (Hansen, 1982).

Table 1. Independent variable's description

Source: Developed by authors.

No.	Variables	Notation	Description
1	Uncertainty Avoidance	UAI	Measures how different nations interpret the future or unpredictability
2	Individualism	IND	Implies that people in a country prefer to act individually instead of as members of a group
3	Power Distance Index	PDI	It measures power distribution between men and women in a particular society. This index ranges between 0 and 100. A high PDI score indicates more inequality and power distance
4	Masculinity	MAS	It stands for a masculine society in which men are expected to behave assertively. MAS with high value indicates that society has masculine traits
5	Long Term Orientation	LTO	It represents the time horizon people in a society display. A high score of LTO implies that people are modest and thriftier
6	Indulgence	INDG	It measures people's drives and emotions. High INDG indicates people enjoying life and having fun
7	Income Per Capita	IPC	Measures the country's national income/total population and is used as a proxy of individual standard living
8	Interest rate	I	The annual percentage rate charged by lenders or banks in each country

This study also applied Two-Stage Least Square (2SLS) to overcome the shortcomings of panel data estimates in dealing with endogeneity issues such as collinearity, two-way causality, autocorrelation, and heteroscedasticity (Vaona, 2008). Therefore, this study performed the GMM estimator using STATA 16 software to come up with the validity of instrumental variables and display second-order autocorrelation. Moreover, this study runs a panel unit root test developed by Hadri (2000) to detect spurious correlations between the variables that are usually associated with non-stationary data.

3. RESULTS

Table 2 provides a summary of descriptive statistics of research variables. Non-life insurance penetration has a mean value of 1.3%, which is almost the midpoint between maximum and minimum values and slightly deviated over the last decade. Uncertainty avoidance has a mean score of 73.7 out of 100. This indicates Arab people cannot control their own lives and put their fate in the hands of God. Their life is complicated and unpredictable. The average number of individuals who prefer to engage in purchasing non-life insurance depending less on the group is 34.7 people. This implies that Arab people take less responsibility for one another welfare. The average power distance between men and women is a high score of 80.9. This indicates that Arab societies accept an equal distribution of power and understand their place in the system. Masculinity has a mean score of 47.7 which relatively is an equal distribution of roles between men and women and understanding their roles in life. Long-term orientation has a mean value of 25.6, which is a relatively low score. This denotes that Arab people are typically religious and nationalistic. It is also noted that social norms and standards are strong in these countries. Indulgence has a lower average score of 20.9. This implies that Arabic people are more restrained, pessimistic, and behave rigidly. This study tested the Variance Inflation Factor (VIF) to detect the multicollinearity problem among explanatory variables. The results indicate that the values of VIF for uncertainty avoidance and power distance are higher than the standard value of 10 (Gujarati and Porter, 2003). This result tends to inflate the standard errors in the estimated model, concluding that data variables suffer from a series of collinearity problems.

Figure 1 displays the average non-life insurance premiums in some Arab nations over the last decade. The evaluation of this sector from 2010 to 2023 promises great attention to purchasing non-life insurance across these countries. Lebanon maintained its position as a leading non-life insurance market, growing at an average rate of non-life insurance penetration of 2.9% between 2010 and 2023. In Bahrain, the percentage of premiums reached 2.09%, driven by the rise in non-life insurance amid rising demand for cover employees in the private and public sectors. In UAE, the average premiums have been recorded at 1.89% over the last decade, indicating that UAE has great awareness of non-life insurance due to the diversity in population base. In Jordan and Palestine, the average premiums are 1.78% and 1.39% over the last decade, respectively. However, other countries such as KSA, Qatar, Oman, and Kuwait have annualized rates ranging from 1.18% to 0.6%, suggesting that these countries emphasize on life in-

Table 2. Descriptive statistics and correlation matrix

Variable	UAI	IND	PDI	MAS	LTO	INDG	IPC	I	NLIP
UAI	1	–	–	–	–	–	–	–	–
IND	−0.591	1	–	–	–	–	–	–	–
PDI	0.897	−0.696	1	–	–	–	–	–	–
MAS	0.168	−0.172	0.269	1	–	–	–	–	–
LTO	−0.399	0.213	−0.087	−0.199	1	–	–	–	–
INDG	−0.005	−0.389	−0.037	0.025	−0.436	1	–	–	–
IPC	0.202	−0.357	0.336	0.177	0.216	−0.271	1	–	–
I	−0.082	0.099	−0.127	0.053	0.027	−0.140	−0.391	1	–
NLIP	−0.514	0.345	−0.652	−0.112	0.056	−0.134	0.128	−0.161	1
Mean	73.7	34.7	80.9	47.3	25.6	20.9	19504	0.054	0.013
Std. dev.	10.60	6.37	9.70	4.08	5.56	7.81	20238	0.053	0.009
VIF	21.0	4.64	23.76	1.80	5.05	2.71	2.32	1.58	–

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Source: Developed by authors based on World Bank data (World Bank, 2023).

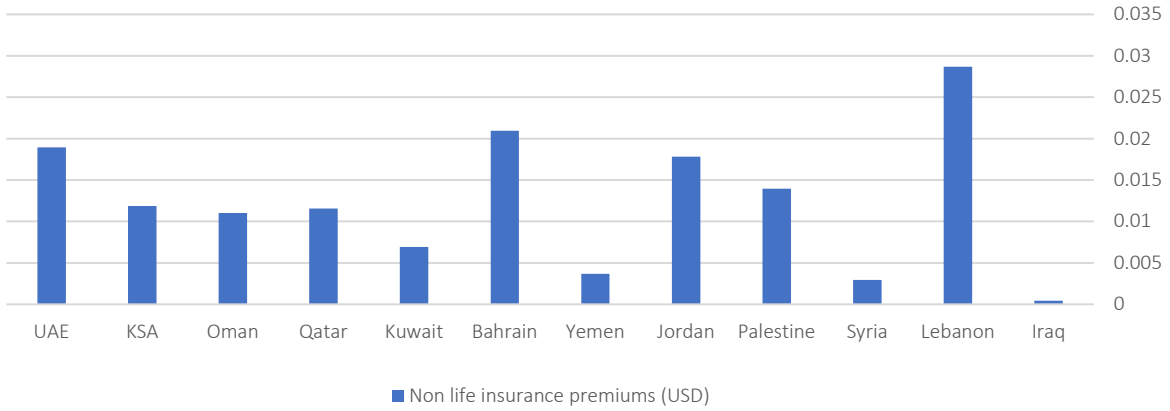

Figure 1. Average non-life insurance penetrations in Arab countries (2010–2023)

surance contracts rather than non-life insurance penetration. However, Yemen, Syria, and Iraq have recorded modest growth of 0.36%, 0.29%, and 0.04% respectively, due to political instability in these countries. As a result, it reveals that there are great differences among these countries regarding the average non-life insurance penetration.

Unit root test was conducted to ensure that no variable was integrated of order 2 or more. The results of Hadri for panel data were statically significant at the level of 0.01, as shown in Table 3. Thus, this study rejects the null hypothesis, indicating that all research variables and time series data were stationary at levels I (0).

Table 3. Unit root test results

Variable	Hadri test	p-value	Order of integration
UAI	8.5205*	0.0000	I(0)
PDI	4.5423*	0.0000	I(0)
IND	8.5483*	0.0000	I(0)
MAS	7.6514*	0.0000	I(0)
LTO	5.7362*	0.0000	I(0)
INDG	6.5218*	0.0000	I(0)
IPC	3.3568*	0.0000	I(0)
I	2.8036*	0.0000	I(0)

Note: * denotes the significance level of 1%.

Table 4 depicts the results of diagnostics tests for model specification fit to obtain credibility of conducted results. First, the Breusch-Godfrey LM test was carried out to check the serial autocorrelation in the estimated model (Breusch & Godfrey, 1978). The result failed to reject the alternative hypothesis of serial correlation in the panel data set ($p > 0.01$), indicating that residuals are highly autocorrelated. The Cook-Weisberg test indicated the absence of heteroscedasticity in the residuals ($p < 0.01$), therefore, this paper accepted the null hypothesis of no heteroskedastic issue, ensuring that the variance of error term remains constant across observations. The Ramsey test for regression specification error was performed. The result provides evidence of a misspecification issue, affirming the inappropriate regression of functional form. Moreover, the Jarque-Bera test provided evidence that the residuals were normally distributed ($p < 0.01$), suggesting that data variables followed normal distributions.

Table 4. Diagnostics tests

Approach	Test	Statistic	Prob.
Autocorrelation	Breusch-Godfrey	42.023	0.0000
Heteroskedastic	Cook-Weisberg	0.4701	0.4943
Regression specification error	Ramsey RESET	3.970	0.0093
Normality	Jarque-Bera	5.924	0.0518

GMM was used to detect the collinearity and endogeneity of serial autocorrelation in the estimated model (Arellano-Bond, 1991). Table 4 depicts the Hansen assumption test for the validity of instrumental variables. This test provided evidence of statical significance at 0.05, indicating that instrumental variables were invalid and overidentifying restrictions. The p-values of first-order (AR1) and second-order autocorrelation (AR2) indicated that errors in different equations do not imply that a dynamic of GMM is critically needed. As a result, the rejection of non-autocorrelation in the 1st and 2nd orders denotes that the GMM estimator is not consistent and does not satisfy the Arellano-Bond model

assumptions. For further proceeding, this study uses a Two-Stage Least Square (2SLS) for talking about the endogeneity issue.

Table 4 shows the impact of cultural and economic factors on non-life insurance spending using the 2SLS estimator. 2SLS estimation results (benchmark model) reveal several important findings of the causal relationship between cultural factors and non-life insurance demand. First, uncertainty avoidance exhibits a significant and positive effect on non-life insurance spending as expected (β = 0.0014, p < 0.01). This result supports H_1, revealing that Arab insured with ambiguous life are more likely to purchase non-life insurance. Second, the noteworthy factor of power distance is significant and adversely affects NLIP (β = −0.0025, p < 0.01). This result supports H_2, indicating that unequal distribution of power between men and women in society tends to decrease the demand for non-life insurance. Third, individualism is significant and negatively impacts NLIP (β = −0.0009, p< 0.01). This result supports H_3, suggesting that people who take care of their families or relatives by providing them with more protection spend less on purchasing non-life insurance. Fourth, masculinity is significant and positively impacts non-life insurance (β = 0.001, p0.01 <). This result supports H_4, concluding that masculinities societies are willing to spend more on non-life insurance services. Fifth, long-term orientation is significant and positively affects NLIP (β = 0.008, p0.01 <). This finding supports H_5, implying that people in pragmatic societies or modest people are likely to spend more on non-life insurance. Sixth, indulgence has a statically significant and negative effect on NLIP (β = −0.0003, p0.01 <). This result supports H_6, suggesting that pessimistic people with rigid behavior are less likely to engage in non-life insurance. Seventh, income per capita is positive but has a statistically significant effect on NLIP. This result does not support H_7, revealing that income per capita will not lead to an increase in the demand for non-life insurance. Eighth, the annual interest rate is significant and negatively affects NLIP (β = −0.0582, p0.01 <). This result supports H_8, indicating that a higher interest rate makes insured individuals less likely to purchase non-life insurance.

Table 5. 2SLS and GMM estimator results

Model	2SLS		System GMM	
	β Coef.	t-value	β Coef.	z-value
UAI	0.0014** (0.0000)	11.08	0.0006** (0.0000)	5.17
PDI	−0.0025** (0.0000)	−16.92	−0.0009** (0.0000)	−5.59
IND	−0.0009** (0.0000)	−9.86	−0.0003** (0.0000)	−3.93
MAS	0.0010** (0.0000)	8.06	0.0003** (0.0000)	3.95
LTO	0.0008** (0.0000)	7.87	0.0004** (0.0000)	4.80
INDG	−0.0003** (0.0000)	−5.20	−0.0001* (0.026)	−2.22
IPC	1.93E−08 (0.3927)	0.857	1.18E−08 (0.4490)	0.76
I	−0.0582** (0.0000)	−8.32	−0.01802** (0.001)	−3.46
Constant	0.0951** (0.0000)	10.60	0.0264** (0.001)	3.32
R-squared	0.8058	–	–	–
F-statistic	82.512	–	–	–
Prob(F-statistic)	0.0000	–	–	–
Sargan test	–	–	196.75** (0.0004)	–
AR (L1)	–	–	0.7814 (0.0000)	–
AR(L2)	–	–	−0.1132 (0.103)	–

4. DISCUSSION

This paper offers new important insights regarding the relationship between cultural factors and non-life insurance consumption in the Arab context. The findings provide strong evidence for the significant relationship between cultural dimensions and non-life insurance demand, which is supported by theoretical foundations presented by previous studies (Trinh et al., 2023b, Trinh et al., 2016). This finding supports the notion that cultural attributes significantly contribute to non-life insurance services in Arab countries.

Notably, the results indicate that uncertainty avoidance positively contributes to non-life insurance spending. This result conflicts with findings by Trinh et al. (2023b), and Gaganis et al. (2019) who believed that people in Arab countries are more likely to spend a lot of money purchasing non-life insurance against uncertain conditions. A possible explanation for this result is that peo-

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ple in Arab countries prefer to cover the risk by purchasing non-life insurance rather than self-insured plans. The noteworthy factor of power distance negatively contributes to non-life insurance. Higher power distance tends to decrease non-life insurance demand. This finding is consistent with Park and Lemaire (2012) who argued that the widely spread power leads to spending less on purchasing non-life insurance. Individualism is negatively related to non-life insurance demand. This suggests people in Arab countries who prefer to act individually are less likely to purchase non-life insurance contracts. This finding is contrary to the result of Trinh et al. (2023b) who argued that individualism is positively related to NLIP. Thus, a possible explanation of this result is due to the heterogeneity of these countries, especially in the level of income and cultural values. The result also finds that masculinity positively affects non-life insurance. This finding is in line with the findings of Park and Lemaire (2012) who argued that masculine societies are willing to spend more on non-life insurance services. Thus, a considerable explanation for this result is that people in highly masculine countries may spend more on non-life insurance due to their limited living standards due to the distinct roles between men and women. Regarding long-term orientation, the result provides a significant and positive effect on NLIP, suggesting that a higher degree of LTO tends to increase spending on non-life insurance services. This argument conflicts with the findings by Trinh et al. (2023b) and Park and Lemaire (2012) who stated that long-term orientation has a negative effect on non-life insurance spending. The results provide evidence that indulgence negatively contributes to non-life insurance spending. This implies that pessimistic people with rigid behavior are less likely to engage in non-life insurance services. This result is supported by Trinh et al. (2023a) who argued that indulgence is negatively related to non-life insurance demand.

As for economic factors, income per capita has an insignificant effect on NLIP. This finding conflicts with different previous studies such as those by Hodula et al. (2021), Cavalcante et al. (2018), and Dragos (2014) that validated the positive effect of income per capita on non-life insurance spending. Conversely, the result finds that the annual interest negatively affects NLIP. This argument overlaps with Finucane et al. (2023) who stated that the banking interest rate is positively related to demand for non-life insurance.

CONCLUSION

This study investigates the influence of cultural factors on non-life insurance spending in Arab countries by using 2SLS and a dynamic GMM estimator. A negative impact on non-life insurance spending was confirmed for power distance, individualism, indulgence, and interest rate. This study also concludes a positive influence of uncertainty avoidance, masculinity, and long-term orientation on non-life insurance consumption. Consequently, there is a critical need to adopt insurance policies and regulations in these countries consistent with cultural attributes in the Arab context to reinforce the awareness of the importance of insurance services for protecting people's properties and their lives. Insurance companies should embrace a holistic model that includes the cultural behavior of Arabs to increase the expected benefits from insurance products and enhance competitive advantage in Arab insurance markets. Consequently, future research is motivated to incorporate additional variables such as education and religious value and examine its impact on non-life insurance spending compared to cooperative Islamic insurance in the Arab context.

AUTHOR CONTRIBUTIONS

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