The Impact of Religion on Insurance Purchasing Behavior: A Dual Perspective with Economic Factors

Aybike Tuba ÖZDEN[1], Güray KÜÇÜKKOCAOĞLU[2] and Hajar FARNOUDKIA[3]

Abstract

Rising income levels and increased consumer awareness have led to a more positive attitude towards insurance, resulting in market expansion and heightened competition. However, businesses must consider factors that could negatively impact insurance demand. One significant factor identified in this study is religion. While some religious texts and teachings advocate for collective mutual assistance, certain religious beliefs view insurance negatively for various reasons. Consequently, this research seeks to explore two critical questions: "How do religious beliefs influence the insurance demands and purchasing behaviors of individuals and societies?" and "What are the potential impacts of economic indices on insurance policy purchases?" Answering these questions requires navigating a complex interplay of economic and cultural factors. To address these objectives, the study utilized data such as per capita insurance expenditures, 66 market totals, and national insurance market shares. The analysis also considered the percentage of the total population covered by national health services, as this coverage might reduce the likelihood of acquiring insurance policies. Statistical analyses were employed to assess the influence of religious beliefs on insurance purchasing behavior and to evaluate the effects of economic indices on insurance policy purchases. The research results revealed that individuals who did not adhere to any specific religious doctrine exhibited the highest rate of insurance purchases. Additionally, the influence of economic indices on insurance purchasing behaviors produced significant and undeniable results. In conclusion, this study highlights the considerable impact of religious beliefs on insurance policy purchasing behavior. The findings contribute valuable insights to the existing literature and offer a contemporary perspective for future research in this field.

Keywords: *Insurance Demand, Religious, Insurance Sector, Consumer Behavior*

INTRODUCTION

The concept of insurance can be defined as security, and this financial phenomenon that provides a sense of security has a deep-rooted history dating back to ancient times. The fundamental hope is to avoid encountering risky life experiences, but feeling secure in such situations is an essential service offered by insurance. Indeed, insurance has emerged fundamentally from this need. Insurance is a precautionary measure developed to avoid being affected by the potential consequences of encountered risks (Kaffash et al., 2020), and it is observed that various factors influence the demand for insurance. For instance, insurance consumption is influenced by demographic characteristics (Abu Bakar et al., 2012). Religion is a significant factor that affects lifestyle, consumption habits, and provides information about consumers' demographic characteristics. Regardless of the religion, religious beliefs influence consumers' behaviors (Kim et al., 2004).

It is observed that some religious beliefs are more prevalent worldwide. One of these is Judaism, with roots dating back to the 2nd millennium BCE. Christianity emerged based on Judaism, not rejecting the teachings of Moses but transforming them to a new level (Ramazanova et al., 2022). Islam, appearing later than all, originated in the 6th century. It is believed that the teachings of these religions were conveyed to humanity through prophets. Hinduism is a polytheistic religion, prevalent, especially in the Indian region, with a dominant belief in reincarnation and philosophical teachings about being a good person. Buddhism, on the other hand, emerged in the 6th century BCE, with Siddhartha, known as Buddha, being the founder and a person considered to have achieved detachment from worldly pleasures.

[1] Ondokuz Mayıs University, Samsun Vocational School, E-mail: aybike.ozden@omu.edu.tr, Samsun, Türkiye 0000-0002-3133-3620

[2] Baskent University, Faculty of Economics and Administrative Sciences, E-mail: gurayk@baskent.edu.tr, Ankara, Türkiye 0000-0001-6170-3269

[3] Başkent University, Faculty of Economics and Administrative Sciences, E-mail: hajerfarnoudkia@baskent.edu.tr, Ankara, Türkiye 0000-0001-9201-663X

It is possible to categorize closely related religions into two groups (Tiwari et al., 2018): monotheistic religions, such as Christianity, Islam, and Judaism, have institutional regulations related to insurance and higher levels of religiousness; Eastern religions like Hinduism, Buddhism, Sikhism, and Jainism share significant commonalities in their teachings, emphasizing mutual aid and generosity.

Religious beliefs are influential in various aspects of life, including interpersonal relationships, work life, dietary habits, and consumption patterns (Khraim, 2010). Religions like Judaism, Christianity (Catholicism, Episcopalianism, Amish), and Hinduism have rituals aimed at establishing collective social order (Cohen and Hill, 2007). Cooperative behaviors similar to modern insurance are observed in collective social orders. The attitudes of these religions, which have their own protective systems, towards modern insurance services can be negative. Insurance, associated with usury, gambling, or ill-gotten gains, has been prohibited by various religious teachings. For example, until the 19th century, European countries banned life insurance for religious reasons (Yusuf et al., 2009). Due to changing socio-cultural structures and reinterpretations of religious teachings or shifts in consumer religious affiliations, the perception of insurance consumption can be said to have changed. However, religion has a dogmatic structure, and adapting to change takes much longer periods. Therefore, consumers who refuse to obtain insurance for religious reasons are still a significant majority in today's world (Beck and Webb, 2003).

The increase in insurance activities is crucial for advancing the industry, preventing disruptions in economic activities (as a setback in the insurance sector adversely affects all industries), providing employment, and enabling consumers to lead secure lives. Insurance activities contribute to building trust in society, stimulating the economy as entrepreneurs feel secure to invest, controlling price increases by reducing risks, encouraging users to be cautious, and protecting them from high-risk ventures (Yayla, 2019). The growing number of informed consumers and the expansion of the financial share of insurance businesses in recent years have intensified competition in the sector. Therefore, there is a need for an increase in research within this industry. Indeed, understanding the target audience requires considering every factor that influences insurance demand.

This study takes an international perspective to understand the impact of religious beliefs on insurance purchasing behavior. With this goal in mind, it seeks answers to the question, "How can religious beliefs influence individuals' and societies' insurance demands and purchasing tendencies?" The answer to this question is a part of a complex equation that encompasses both economic and cultural factors.

In the subsequent sections, a literature review on the relationship between insurance and religion is presented. Following this, the research methodology outlines the findings obtained through content analysis, and in the discussion section, these findings are critically examined. Finally, theoretical and practical implications of the research are discussed, and recommendations are formulated for businesses and researchers.

INSURANCE AND RELIGION

Religion possesses a system that provides various protections to believers (Tiwari et al., 2018). While religions offer various principles and teachings related to aiding those in need within societal order, some teachings criticize or prohibit the contemporary understanding of insurance due to its financial nature. Among the reasons for this is the belief that religion carries qualities that mitigate the impact of adverse life events (such as unemployment, divorce, etc.) through practices like prayer and the acceptance of fate (Clark and Lelkes, 2005). In this context, religious consumers tend to prefer insurance less (Scheve and Stasavage, 2006). Another reason could be the belief among religious individuals that God will reward them, making them less inclined to believe they need products like life insurance. Additionally, products such as life insurance might be perceived as a lack of trust in God's protection (Chui and Kwok, 2009; Yusuf, 2006). It can be argued that religious consumers may not feel the need to purchase insurance due to their belief in achieving economic success through hard work (Scheve and Stasavage, 2006).

Chui and Kwok (2009) emphasize that life insurance consumption is associated with cultural values and that this result remains unchanged even when religion is considered. Browne and Kim (1993), in their comparative study of 45 countries, found a negative correlation between life insurance consumption and religion. Other studies comparing different countries have also observed that religion is the most consistent factor in life insurance consumption (Beck and Webb, 2003; Outreville, 1996).

According to the World Values Survey (2023), participants who consider religion the most important thing in life, based on countries, are citizens of Indonesia, Libya, Egypt, Maldives, Jordan, Bangladesh, Nigeria, Ethiopia, Tunisia, and Pakistan. In all of these countries except Ethiopia, the majority of consumers are Muslim. In Ethiopia, the largest portion of the population is Orthodox Christians, with Muslims in the second position. The same survey indicates that participants who consider religion the most important thing in life are predominantly Muslim and Catholic consumers (World Values Survey, 2023). Muslim countries such as the United Arab Emirates, Qatar, and Kuwait have lower rates of purchasing insurance policies, resulting in insurance purchase rates below the global average (Hussels et al., 2005). In many developing and less developed countries, Muslim consumers are predominant (Segal, 1996), and insurance consumption is lower in these countries (Beck and Webb, 2003; Outreville, 1996).

According to a research conducted by the Swiss Re Institute (2011), the life insurance market share is 79.1% in Japan, 69% in the United Kingdom and France, and 43% in the United States. However, Turkey represents less than 20% of the total insurance market with 15.6%, Tunisia with 13.2%, and Algeria with 7.5%. Demand for life insurance in Muslim countries in the Middle East and North Africa regions is lower compared to other countries (Zerriaa and Noubbigh, 2016). Bayatrizi (2023) states that Islam has explicit prohibitions regarding usury, gambling, and dealing with uncertainties, perceiving insurance as a form of gambling due to its uncertain nature. Paid premiums are considered equivalent to engaging in usury, as they are invested in interest-paying businesses. Islamic teachings advise that people should view misfortunes as God's will (Maysami and Williams, 2006). For these reasons, Islamic life insurances have been developed targeting Muslim consumers. In the Takaful system, which is part of Islamic finance, profit-making is prevented in accordance with Islamic principles, and it guarantees the coverage of one person's losses by other participants (Karayazgan, 2008). Not all Muslims interpret Islamic sanctions in the same way. Some Islamic scholars view insurance in its traditional form as part of modern Islamic understanding, asserting that Islam allows the use of the resources of the universe, and insurance is permissible (Maysami and Williams, 2006). Souiden and Jabeur (2015) conducted a study by individually examining the religion variable and found that individuals with higher Islamic beliefs had more negative attitudes towards traditional life insurance. They also determined that Islamic beliefs shape the relationships between attitudes towards life insurance and purchase intentions. Erlbeck (2017) similarly conducted research using the example of Sri Lanka and found that Muslims are reluctant to purchase traditional insurance because they consider it contradictory to their beliefs. Indeed, research indicates that religion is the most important factor influencing attitudes and behaviors in Muslim countries (Al-Ajmi et al., 2009). Fofie (2016) stated in his research conducted in Ghana that, apart from religion, other socio-demographic characteristics are influential in insurance consumption.

Similar to Islam, Christianity, particularly in its various denominations, also exhibits a negative perspective towards contemporary insurance practices in its religious texts. Christianity has three main denominations: Catholicism, Orthodoxy, and Protestantism. These denominational distinctions are reflected in consumers' insurance purchasing behaviors. For example, the interplay between risk-taking behavior and religion influences consumer behavior towards insurance (Berry-Stölzle and Xu, 2022). Noussair et al. (2013) state that more religious consumers tend to avoid financial risks, Protestants are more risk-averse compared to Catholics, and there is a relationship between risk aversion and religion. Similarly, Catholics are observed to have a higher inclination for risk-taking (gambling) (Schneider and Spalt, 2016). This is attributed to the clear condemnation of gambling in Protestant teachings (Kumar et al., 2011). Consequently, the likelihood of selling insurance is higher in regions with a high concentration of Catholics and a low concentration of Protestants (Berry-Stölzle and Xu, 2022). Another perspective suggests that, in contemporary times, Catholics are not inherently opposed

to insurance, and Protestants view insurance as an economic mechanism devoid of religious connotations (Daniel, 2003).

When examining Judaism, it is observed that there is limited research on insurance-related matters within the Jewish faith. In Jewish belief, the protection of one's interests is restricted, and the charging of interest on loans is prohibited. However, a collective system focusing on mutual assistance is encouraged (Schoon and Nuri, 2012). Nevertheless, Jews developed a system during the Middle Ages that allowed them to become the most famous bankers by proposing a theory that demonstrated the prohibition of usury applied only within the community, according to Daniel (2003). Calder (2016) suggests that the prohibitions imposed by religion on usury are contingent on the fate of religious jurists and argues that a systematic prohibition of interest did not develop when there were no religious jurists.

Hinduism and Buddhism are two closely related religions with similar teachings (Crawford, 1972). In Buddhism, compassion and interest in others are crucial for collective survival, while in Hinduism, temples are utilized in various ways, such as almsgiving, donations, and charitable activities. Both religions bear resemblance to the functions of modern insurance institutions, and both prohibit usury and interest (Tiwari et al., 2018). Hinduism is a widespread religion in India, Nepal, and Bangladesh. It is the third most followed religion globally, following Christianity and Islam. India, hosting citizens of various religions, ranks 20th in the insurance market, with the insurance market steadily growing in the country (Salman et al., 2017). The insurance enrollment rate in India increased from 1% to 15% between 2014 and 2018 (Aashima and Sharma, 2023). Bhusal and Sapkota (2021) noted that Hindu consumers were more likely to purchase health insurance compared to other ethnic groups, a trend also observed among advantaged ethnic groups. Similar studies have confirmed these findings (Ghimire et al., 2019; Paudel, 2019). Madhukumar et al. (2012) found in their study, where the majority of participants were Hindu consumers, that 22% had health insurance. Similarly, Hindu consumers tend to demand insurance at higher rates (Aashima and Sharma, 2023). Bansal et al. (2015) determined in their study that awareness of insurance was highest among Hindus compared to other religious groups. The perspective of Hinduism on insurance may vary due to the complexity of Hindu beliefs and philosophy. Hinduism is recognized as a complex religion involving numerous gods and goddesses, rituals, and religious teachings. Consequently, there is no single view or attitude among all followers of Hinduism. Generally, Hinduism acknowledges the variability and uncertainty of life and emphasizes personal responsibilities. Hinduism teaches individuals to create their own karma (the consequences of good and bad actions), which implies personal responsibility. Therefore, some Hindu individuals may exhibit a positive attitude toward insurance based on their personal responsibilities, viewing insurance as a tool that can be used to protect personal property and the family's future. However, Hinduism also believes in the influence of fate and cosmic order. Hence, some Hindu individuals may limit their trust in insurance because they believe that everything is determined by their destinies. Since insurance cannot change fate, it may seem unnecessary or meaningless to some.

When examining the insurance demands of Buddhist consumers, it has been observed that the likelihood of Buddhist consumers being insured is higher (Hu, 2010). However, in comparison with Christian consumers, it has been found that the demand for insurance is lower among Buddhists (Arun et al., 2012). In another study, it was observed that consumers who use complementary-alternative medicine services without insurance predominantly consist of believers in traditional religions and Buddhist consumers compared to other religious groups (Shih et al., 2008).

Finally, consumers without any religious beliefs are thought not to have a negative approach to insurance due to religious reasons. However, these consumers should be considered to be influenced by other factors such as ethics or price, which can differentiate insurance demand (Outreville, 1996; Yi et al., 2012). Indeed, consumers who do not identify with any religion or denomination have lower percentages in defining religion as the most important thing in life compared to other groups (World Values Survey, 2023). Considering theories suggesting that secularism reduces personal disaster scenarios (Norris and Inglehart, 2004) and analytical thinking reduces religiosity scores (Gervais and Norenzayan, 2012), it can be argued that insurance demand increases in these

societies (Willard and Cingl, 2017). Spicka (2020) found that in the Czech Republic, defined as atheist, emotions related to religion were not significantly associated with risk-taking tendencies. Therefore, from another perspective, atheism may not affect insurance demand.

3. APPLICATIONS

3.1. Research Objective

This research examines the dominant religious belief or non-belief in a given country as a percentage, and the ratio of the amount of insurance policies held by citizens with different religious beliefs or non-beliefs to the gross domestic product (GDP).

Significance of Research

It is believed that religious beliefs and rituals can influence consumers' attitudes toward insurance in various ways. Differences between religions and even sects can alter the perspective of believers on insurance and being insured. Additionally, individuals or societies that do not solely prefer a life centered around religion and do not identify with any specific religious beliefs may also exhibit differences in their views on insurance or being insured. For instance, in situations where there is a religious tradition asserting that worldly success is attributed to individual achievement, observers might notice a preference among believers for a lower level of social insurance, but this may not be applicable to those adhering to other religious traditions (Scheve and Stasavage, 2006). Therefore, insurance companies should focus on the relationship between the religious beliefs of their target audience and their insurance purchasing behavior, shaping their strategies accordingly. Moreover, considering the returns of insurance in individual, societal, and economic terms, the analysis of consumer behavior in the insurance market is crucial. This study, taking into account the Organisation for Economic Co-operation and Development (OECD) iLibrary data from 2010 to 2021, expands the relevant literature and provides a contemporary perspective for future research in this field.

Research Question

This research aims to address two key questions: "In what ways do religious beliefs affect the insurance demands and purchasing tendencies of individuals and societies?" and "What potential effects do economic indices have on insurance policy purchases?" The answers to these questions are part of a complex equation that encompasses both economic and cultural factors.

Regulatory frameworks wield significant influence over the insurance industry, with alterations in regulations, enactment of new legislation, or legal proceedings posing compliance challenges and augmenting operational expenditures (Talesh, 2015). Non-compliance may precipitate fines, penalties, reputational harm, or even suspension of licensure. For instance, regulatory frameworks endeavor to mitigate bias and discrimination employed by insurers, thereby impacting claims management and underwriting practices (Filabi and Duffy, 2021).

Gross Domestic Product (GDP) serves as a barometer of a nation's economic productivity, with elevated GDP levels typically correlating with heightened insurance demand. As economies burgeon, both individuals and enterprises tend to seek expanded insurance coverage to safeguard their assets and revenue streams. The GDP based on purchasing power parity (GDP PPP) delineates the proportion of a nation's GDP adjusted to reflect disparities in purchasing power, thereby offering insights into the relative economic robustness of a country. Elevated GDP PPP ratios may signify augmented insurance demand stemming from enhanced wealth accumulation and heightened economic activities (Lee, 2011). The relationship between GDP and insurance demand is intricate, with income elasticity changing as economies evolve (Enz, 2000). Although certain studies classify insurance as a luxury good, cross-country analyses indicate that the income elasticity of insurance demand exceeds unity, whereas the wealth elasticity remains below unity for upper-middle and high-wealth countries (Nakata and Sawada, 2007).

The Gini Index serves as a yardstick for quantifying income inequality within a populace. Heightened Gini Index values denote exacerbated income disparities, potentially influencing insurance demand, particularly among vulnerable population segments endeavoring to mitigate financial shocks (Francisco and El-Sayed, 2017).

Consumer Price Inflation undermines purchasing power, prompting individuals to seek insurance coverage as a hedge against inflation-induced erosion of assets, income, and living standards (Hofflander and Duvall, 1967)

The Human Capital Index gauges a nation's investment in education, healthcare, and skill development. Augmented Human Capital Index scores signify enhanced human capital, which in turn catalyzes long-term economic expansion and potentially augments insurance demand. The Human Development Index amalgamates indicators pertaining to health, education, and income, with nations boasting higher HDI scores often exhibiting more stable economies and heightened insurance awareness (Emamgholipour et al., 2017)

Emamgholipour, Sara et al. "Life insurance demand: Middle East and North Africa." International Journal of Social Economics 44 (2017): 521-529.

Fragile State Index metrics encapsulate indicators of political instability, conflict, and institutional fragility. In such tumultuous environments, insurance demand may be curtailed owing to constrained access, trust deficits, and economic unpredictability (Erbaş and Sayers, 2006).

The Rule of Law Index delineates the strength of legal systems within countries, with nations boasting robust legal frameworks typically witnessing heightened insurance demand owing to enhanced public confidence and stability (Dragoş et al., 2017).

The shadow economy encompasses unreported economic transactions, which may depress formal insurance penetration in countries where such informal risk management practices predominate (Mobarak and Rosenzweig, 2012).

In summary, these indices collectively wield a substantive influence on insurance demand by shaping economic conditions, income distribution patterns, trust dynamics, and regulatory milieus. Researchers should heed these factors when examining the impact of religious beliefs on insurance purchasing behavior.

Research Sample

In our study, the religious beliefs of a total of 66 countries were examined, and the rates of insurance policy acquisition in these countries were determined. Simultaneously, the percentage of health services provided to citizens in the same countries was also identified. When conducting such research, respect for religious beliefs and adherence to ethical principles were prioritized.

Data Set

In this study, the religious beliefs of 66 countries are examined, utilizing indicators such as the inclination of people in these countries to purchase insurance policies and the percentage of citizens in these countries who are offered health insurance. The data used in the research are sourced from several resources however the insurance date received from OECD iLibrary data and World Health Organization. The OECD iLibrary serves as the central information base for the OECD. OECD insurance statistics present official insurance statistics for all OECD countries and some other nations, including data on premiums collected, claims, and commissions by type of insurance. In this study, data from 2000 to 2021 on per capita insurance expenditures and the country's market share in national insurance relative to the total 66 countries and national health insurance coverage of population from World Health Organization included.

Data Analysis

The study, while questioning how belief systems influence the acquisition of insurance policies, also takes into consideration the percentage of the total population that a country's citizens are covered by the health services provided by their respective countries. There is a possibility that this coverage may negatively impact the rate of acquiring insurance policies. Statistical analyses are primarily employed to measure the influence of religious beliefs or lack thereof on the purchasing behavior of insurance policies. The diminishing effect on the amount of insurance policy acquisition is based on a comparative evaluation of the percentage of the population covered by the health services provided by countries and these two rates.

FINDINGS

The obtained data is related to insurance expenditures and health insurance coverage per Gross Domestic Product (GDP) for different religious groups (Table 1). The ratio of insurance expenditures to GDP and the comparison of health insurance coverage and per capita GDP results are presented in Table 2.

Table 1: The distribution of major religions across different countries

Religion	Countries	#Countries
Buddhist and Hindu	India, Singapore, Sri Lanka, Thailand	4
Christian	Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Denmark, Dominican Republic, Ecuador, El Salvador, Finland, France, Germany, Greece, Guatemala, Honduras, Hungary, Iceland, Italy, Latvia, Lithuania, Mexico, Montenegro, Nicaragua, Norway, Panama, Paraguay, Peru, Poland, Portuga, Russia, Slovak, Slovenia, South, Spain, Sweden, Switzerland, United Kingdom, United States, Uruguay.	49
Irreligion	China, Czech Republic, Estonia, Hong Kong, Japan, Korea, Netherlands, New Zealand.	8
Jewish	Israel.	1
Muslim	Egypt, Indonesia, Malaysia, Morocco, Tunisia, Turkey.	6

Table 2 reveals the mean Insurance Policy Purchases (IPP) as a percentage of GDP for countries categorized by religion. The data indicates that irreligious countries have the highest mean IPP at 7.036%, suggesting that a significant portion of their GDP is allocated to insurance purchases. Following this, Buddhist-majority countries and Christian-majority countries exhibit mean IPP levels of 5.45% and 5.08% respectively. Conversely, Jewish-majority and Muslim-majority countries display lower mean IPP levels at 4.84% and 2.23% respectively.

Table 2: Insurance Policy Purchases (IPP) as a percentage of GDP for countries categorized by religion

RELIGION	N	N*	Mean	StDev	Minimum	Median	Maximum
Buddhist	26	0	5.454	2.831	0.919	5.260	10.765
Christian	638	0	5.088	3.275	0.895	4.640	19.688
Irreligion	129	0	7.036	4.362	0.741	6.698	22.146
Jewish	15	0	4.8409	0.1131	4.6200	4.8290	5.0320
Muslim	52	0	2.234	1.439	0.628	1.647	4.963

The following bar chart (Figure 1) helps us to compare the IPP of the countries with a common religion. It also reveals the higher IPP for the United Kingdom among Christian countries and Hong Kong and China in some years among irreligion countries.
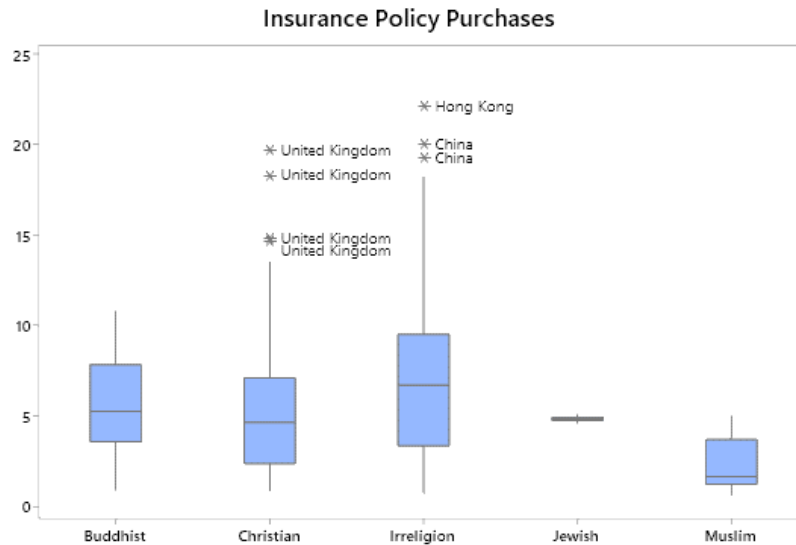
Figure 1.Insurance Policy Purchases

The presented time series plot depicts the mean, median, maximum, and minimum Insurance Policy Purchases (IPP) over time without considering religion. Before 2005, it is evident that the median surpasses the mean value, suggesting a left-skewed distribution of IPP. This indicates the presence of countries with significantly lower IPP values than the mean during this period. After 2005, the mean surpasses the median, and the disparity between these two measures progressively widens. This indicates a right-skewed distribution of IPP, implying a small number of countries exhibit considerably higher IPP values than the majority.

Furthermore, the visualization of the maximum IPP provides insights into the pronounced right-skewness observed in the distribution of IPP. The overarching interpretation of this time series plot underscores the uneven distribution of IPP across countries. This analysis reveals the non-uniform distribution of IPP among countries over time.

Figure 2 reveals several notable trends across the different religious groups. In 2000 and 2001, Buddhist countries exhibited the maximum IPP values, primarily driven by Singapore. Overall, the irreligion countries had higher IPP values than the other religious groups, except in 2004 and 2011. The IPP of irreligion countries displayed an increasing trend over the years, whereas the Christian countries experienced an inverse trend. Regarding the Buddhist countries, the variance of IPP was more significant compared to other religious groups, indicating substantial fluctuations over the years. For Buddhist countries, there was a sharp decrease in IPP in 2018, followed by an immediate increase in 2019. For Muslim countries, the data was unavailable in 2008, and prior to 2007, only Turkey represented this religious category. The IPP of Muslim countries was the lowest across the years, except in 2018, when it exceeded the IPP of Buddhist countries.
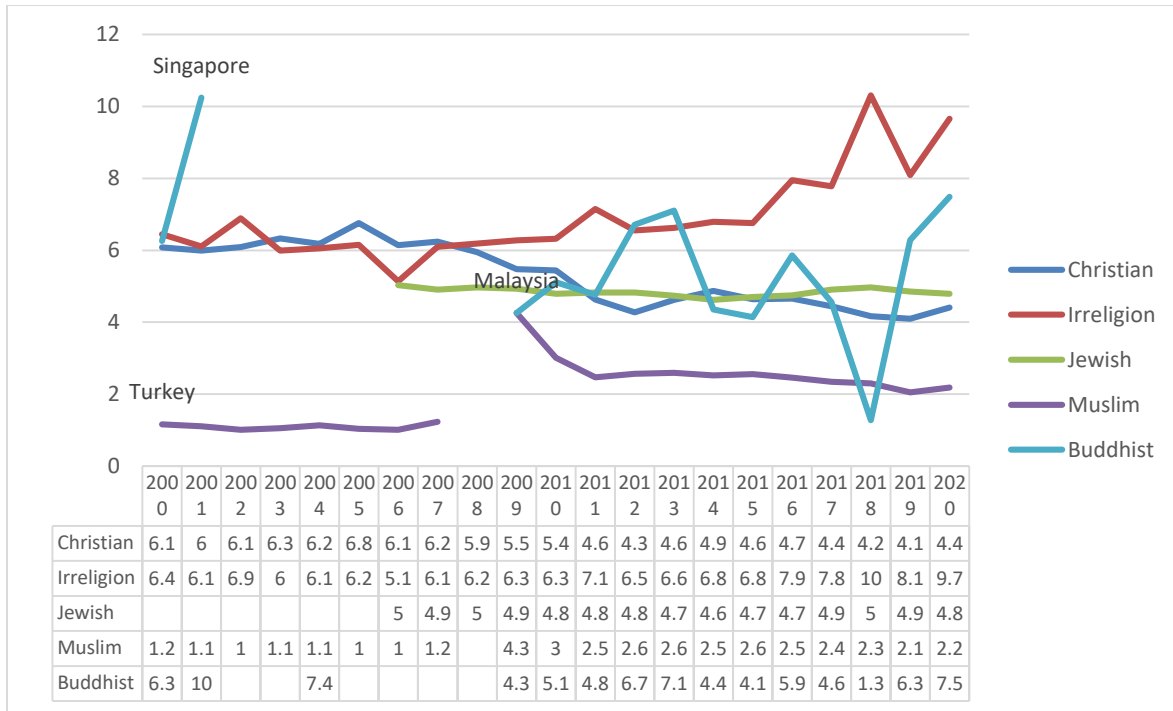
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Christian	6.1	6	6.1	6.3	6.2	6.8	6.1	6.2	5.9	5.5	5.4	4.6	4.3	4.6	4.9	4.6	4.7	4.4	4.2	4.1	4.4
Irreligion	6.4	6.1	6.9	6	6.1	6.2	5.1	6.1	6.2	6.3	6.3	7.1	6.5	6.6	6.8	6.8	7.9	7.8	10	8.1	9.7
Jewish							5	4.9	5	4.9	4.8	4.8	4.8	4.7	4.6	4.7	4.7	4.9	5	4.9	4.8
Muslim	1.2	1.1	1	1.1	1.1	1	1	1.2		4.3	3	2.5	2.6	2.6	2.5	2.6	2.5	2.4	2.3	2.1	2.2
Buddhist	6.3	10			7.4					4.3	5.1	4.8	6.7	7.1	4.4	4.1	5.9	4.6	1.3	6.3	7.5

Figure 2: Trends across the different religious groups

Buddhist and Hindu (By country)

The descriptive statistics represented in Table 3, reveal distinct differences in the IPP as a percentage of GDP among the four Buddhist-Hindu majority countries. Singapore exhibits the highest mean IPP at 7.63% of GDP, followed by Thailand at 4.0%, India at 3.7%, and Sri Lanka with the lowest mean of 1.14%. The standard deviation, a measure of dispersion, is also the highest for Singapore at 1.70, indicating a greater degree of variability in its IPP values over the observed period. Thailand has the second-highest standard deviation at 0.17, while India and Sri Lanka have lower standard deviations of 0.28 and 0.16, respectively

The boxplot of Figure 3 also highlights any potential outliers or extreme values within the data. In this case, the plot does not indicate the presence of any such outliers, suggesting that the IPP values for these four Buddhist-Hindu majority countries are generally well-behaved and follow a relatively consistent distribution over the observed period.

Table 3: Buddhist- Hindu majority countries

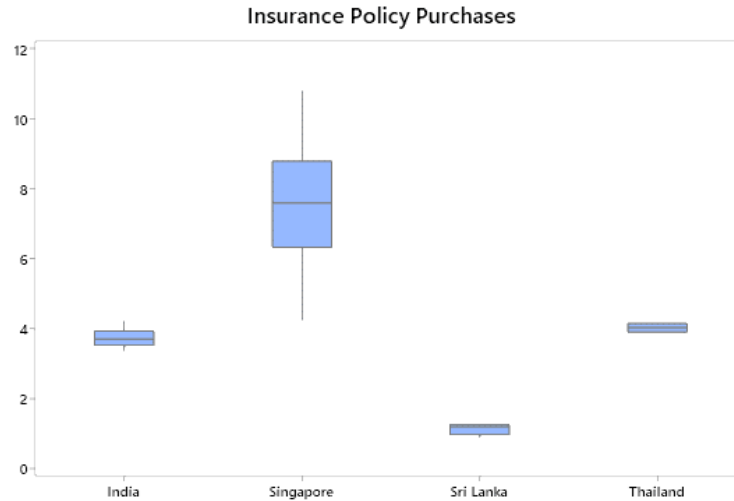| Countries	N	Mean	StDev	Minimum	Median	Maximum
India	6	3.731	0.283	3.386	3.696	4.196
Singapore	14	7.627	1.702	4.261	7.583	10.765
Sri Lanka	4	1.1478	0.1646	0.9190	1.1980	1.2760
Thailand	2	4.024	0.177	3.898	4.024	4.149

Figure 3: Trends across Buddhist- Hindu groups

The Spearman correlation analysis in Table 4 conducted at a significance level of 0.05, reveals several noteworthy relationships between IPP and the selected economic indicators for the Buddhist-majority countries. The analysis indicates a statistically significant negative correlation between IPP and consumer price inflation, fragile state index, and the shadow economy. This suggests that as the IPP increases, the levels of consumer price inflation, fragile state conditions, and the size of the shadow economy tend to decrease in these countries.

Conversely, the analysis shows a statistically significant positive correlation between IPP and regulation, Gross Domestic Product (GDP), Human Capital Index, rule of law, and political stability index. This implies that higher IPP levels are associated with stronger regulatory frameworks, higher GDP, improved human capital development, more robust rule of law, and greater political stability in the Buddhist-majority countries.

The observed correlations provide insights into the interdependent nature of industrial production and various economic, social, and institutional factors within the context of the countries where Buddhism is the predominant religion. These findings can inform policymakers and researchers in understanding the complex relationships between industrial output and the broader economic landscape in these nations.

Table 4: Relationships between IPP and the selected Economic Indicators

Economic Indicators	Insurance Policy Purchases / GDP	N	Correlation	95% CI for ϱ
REGULATION	Insurance Policy Purchases / GDP	24	0.796	(0.535, 0.918)
GDP(PPP) CURRENT DOLAR	Insurance Policy Purchases / GDP	26	0.820	(0.595, 0.926)
CONSUMER PRICE INFLATION	Insurance Policy Purchases / GDP	26	-0.692	(-0.863, -0.377)
HUMAN CAPITAL INDEX	Insurance Policy Purchases / GDP	24	0.601	(0.226, 0.821)
HUMAN DEVELOPMENT INDEX	Insurance Policy Purchases / GDP	24	0.774	(0.494, 0.908)
FRAGILE STATE INDEX	Insurance Policy Purchases / GDP	23	-0.942	(-0.979, -0.842)
RULE OF LAW INDEX	Insurance Policy Purchases / GDP	25	0.829	(0.604, 0.931)
SHADOW ECONOMY	Insurance Policy Purchases / GDP	16	-0.743	(-0.917, -0.331)
POLITICAL STABILITY INDEX	Insurance Policy Purchases / GDP	25	0.773	(0.502, 0.906)

Christian (By country)

The descriptive statistics represented in Table 5, reveal distinct differences in the IPP as a percentage of GDP amongst the Christian majority countries

Table 5: Christian majority countries

Countries	N	Mean	StDev	Minimum	Median	Maximum
Argentina	9	2.4024	0.1795	2.0560	2.4080	2.5750
Australia	21	5.631	1.187	3.479	5.702	7.953
Austria	21	5.1927	0.4054	4.4180	5.3270	5.6760
Belgium	21	7.668	1.301	5.991	7.630	10.784
Bolivia	6	1.3557	0.1486	1.1610	1.3430	1.6070
Brazil	10	3.016	0.332	2.399	3.143	3.362
Bulgaria	3	2.3307	0.0676	2.2530	2.3630	2.3760
Canada	19	5.829	1.315	4.249	5.009	7.633
Chile	13	4.185	0.518	3.082	4.209	4.919
Colombia	12	2.6099	0.2641	2.2540	2.6550	3.0560
Costa Rica	11	2.0609	0.1556	1.8530	2.0520	2.3060
Denmark	19	9.116	1.712	6.157	9.811	11.330
Dominican Republic	1	1.4290	*	1.4290	1.4290	1.4290
Ecuador	5	1.840	0.329	1.579	1.652	2.285
El Salvador	3	2.5297	0.1725	2.3980	2.4660	2.7250
Finland	21	3.710	0.911	1.696	3.677	5.068
France	21	9.696	1.028	8.242	9.368	12.128
Germany	18	6.5954	0.2615	6.1750	6.5540	7.1140
Greece	20	2.0830	0.2154	1.7270	2.1095	2.4660
Guatemala	10	1.2633	0.0315	1.1890	1.2650	1.3080
Honduras	7	2.118	0.303	1.895	1.991	2.620
Hungary	21	2.7834	0.3538	2.3200	2.8270	3.6000
Iceland	20	2.5885	0.2359	2.0880	2.5970	3.1440
Italy	21	7.216	0.892	5.551	7.346	8.864
Latvia	12	2.2279	0.3212	1.8000	2.1295	2.7950
Lithuania	11	1.7456	0.1563	1.5470	1.7270	1.9360
Mexico	21	1.8903	0.3267	1.4470	1.8830	2.5430
Montenegro	2	2.071	0.223	1.913	2.071	2.229
Nicaragua	10	1.5057	0.1408	1.2610	1.5170	1.7190
Norway	21	5.1795	0.3930	4.3560	5.2260	5.8890
Panama	5	2.704	0.235	2.341	2.708	2.981
Paraguay	8	1.0266	0.0845	0.8950	1.0360	1.1520
Peru	10	1.7307	0.1442	1.5340	1.7270	1.9540
Poland	21	3.208	0.500	2.586	3.032	4.575
Portugal	21	6.650	1.168	4.490	6.358	8.603
Russia	12	1.3037	0.1011	1.1120	1.3030	1.4340
Slovak Rep	17	2.863	0.701	2.046	2.688	5.280
Slovenia	14	5.0441	0.2583	4.6690	5.0885	5.4000
South Africa	7	12.747	0.513	12.045	12.749	13.278
Spain	21	5.3810	0.4029	4.8910	5.2690	6.4120
Sweden	20	6.879	1.619	4.110	7.351	9.796
Switzerland	21	9.251	1.248	7.604	8.775	12.028
United Kingdom	21	12.989	2.419	9.522	12.973	19.688
United States	21	10.856	0.567	10.059	10.833	12.527
Uruguay	9	2.214	0.324	1.753	2.207	2.731

The boxplot of Figure 4 analysis reveals distinct differences in the IPP among the Christian-majority countries during the 2000-2020 period. The United Kingdom stands out as the country with the maximum IPP, exhibiting a median value that is roughly equivalent to South Africa's. However, the United Kingdom's IPP displays a higher degree of variance, as evident from the wider interquartile range (IQR) of the boxplot.

Furthermore, the boxplot for the United Kingdom indicates the presence of outliers, suggesting the occurrence of exceptionally high IPP values at certain points during the observed timeframe. This observation is consistent with the country's mean IPP of 12.99%, which is the highest among the Christian-majority countries in the study. In contrast, the United States has a lower mean IPP of 10.85%, with a standard deviation that is approximately 4.5 times smaller than the United Kingdom's. This indicates a more consistent and stable IPP performance in the United States compared to the higher variability observed in the United Kingdom.

At the lower end of the IPP spectrum, the analysis identifies Guatemala, Russia, and Bolivia as the countries with the lowest mean IPP values, ranging from 1.26% to 1.35%. These findings suggest significant disparities in industrial production output among the Christian-majority countries. Additionally, the data reveals that Australia has a mean IPP of 5.63%, while the European countries included in the study have a mean IPP of around 6%. In general, the comprehensive analysis of the boxplot and the descriptive statistics highlights the heterogeneity in IPP performance across the 49 Christian-majority countries, with the United Kingdom and the United States representing the upper echelon, while countries like Guatemala, Russia, and Bolivia occupy the lower end of the spectrum.

The boxplot of Figure 4 analysis reveals distinct differences in the IPP among the Christian-majority countries during the 2000-2020 period. The United Kingdom stands out as the country with the maximum IPP, exhibiting a median value that is roughly equivalent to South Africa's. However, the United Kingdom's IPP displays a higher degree of variance, as evident from the wider interquartile range (IQR) of the boxplot.

Furthermore, the boxplot for the United Kingdom indicates the presence of outliers, suggesting the occurrence of exceptionally high IPP values at certain points during the observed timeframe. This observation is consistent with the country's mean IPP of 12.99%, which is the highest among the Christian-majority countries in the study. In contrast, the United States has a lower mean IPP of 10.85%, with a standard deviation that is approximately 4.5 times smaller than the United Kingdom's. This indicates a more consistent and stable IPP performance in the United States compared to the higher variability observed in the United Kingdom.

At the lower end of the IPP spectrum, the analysis identifies Guatemala, Russia, and Bolivia as the countries with the lowest mean IPP values, ranging from 1.26% to 1.35%. These findings suggest significant disparities in industrial production output among the Christian-majority countries. Additionally, the data reveals that Australia has a mean IPP of 5.63%, while the European countries included in the study have a mean IPP of around 6%. In general, the comprehensive analysis of the boxplot and the descriptive statistics highlights the heterogeneity in IPP performance across the 49 Christian-majority countries, with the United Kingdom and the United States representing the upper echelon, while countries like Guatemala, Russia, and Bolivia occupy the lower end of the spectrum.
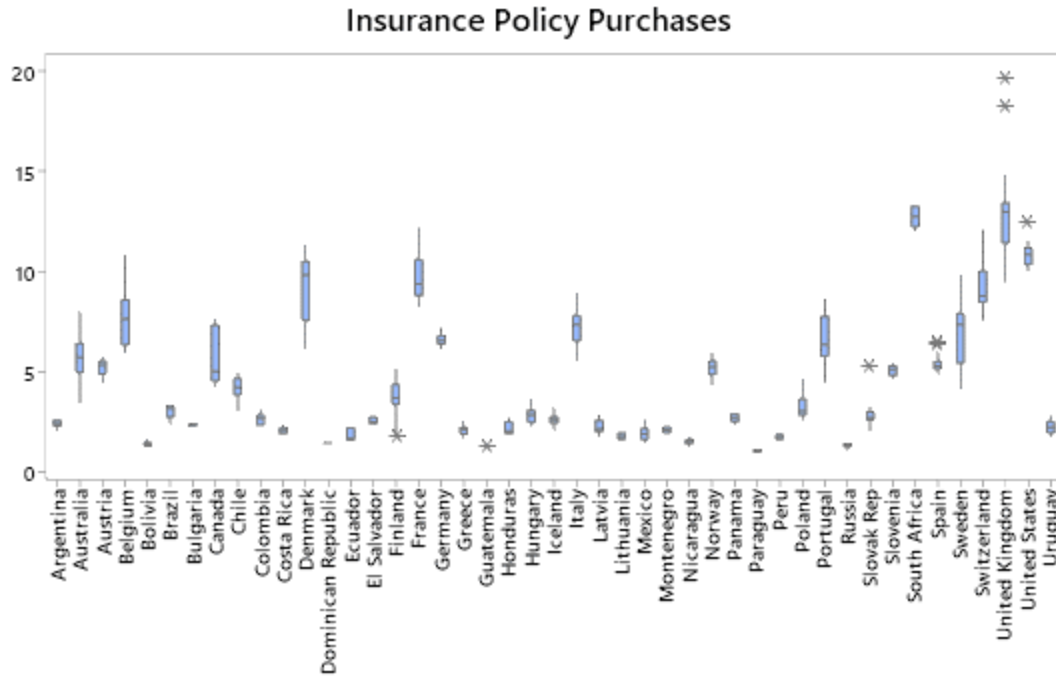
Insurance Policy Purchases

Figure 4: Trends across Christian groups

We applied the Copula Gaussian Graphical Modeling to investigate the conditional relationship between IPP and other variables and also the first lag of the other variables. Note that in this study, conditional dependence is the coefficient of the regression model when IPP is the dependent variable and there is only one independent variable which is conditioned on the rest of the variables. The regression coefficients are estimated by the inverse of the covariance matrix which is called the precision matrix. In this method, the data are transformed to Gaussian data by a copula and then the Birth-Death MCMC method is applied to estimate the precision matrix. The non-zero elements of the precision matrix indicated that the corresponding variables are conditionally dependent.

For this data subset, we found the following graph with the central node IPP. The network graph presented consists of directed edges, where the edge color and direction convey specific information about the relationships among the variables. The red edges in the graph represent negative conditional dependence between the connected variables. This implies that, after controlling for the effects of other variables in the model, an increase in one variable is associated with a decrease in the connected variable, and vice versa. Conversely, the black edges denote positive conditional dependence, indicating that an increase in one variable is associated with an increase in the connected variable, again after accounting for the influence of other variables in the model.

The directed edges in the graph signify the relationships between the variables and their first lags. The direction of the edge indicates the temporal precedence, where the arrow points from the first lag of a variable to the current value of IPP. This directionality suggests that the first lag of the variable at the tail of the arrow has a predictive influence on the current value of IPP.

By integrating the information conveyed by the edge colors and directionality, the network graph provides a comprehensive visualization of the complex conditional dependencies and temporal relationships between

IPP and other economic indices. This representation allows for the identification of the specific variables that are negatively or positively associated with IPP, both contemporaneously and with a one-period lag. Based on Figure 5, it can be seen that IPP is connected with GDPP (-0.16), Gini index (-0.44), CPI (-0.93), HDI (-0.1), FSI (0.18), Shadow (0.27) and PSI (0.36) and with the first lag of Regulation (-0.37), the first lag of GDPP (0.06), the first lag of CPI (0.78), the first lag of HCI (0.16), the first lag of FSI (0.24), the first lag of shadow (-0.43) and the first lag of PSI (0.05).
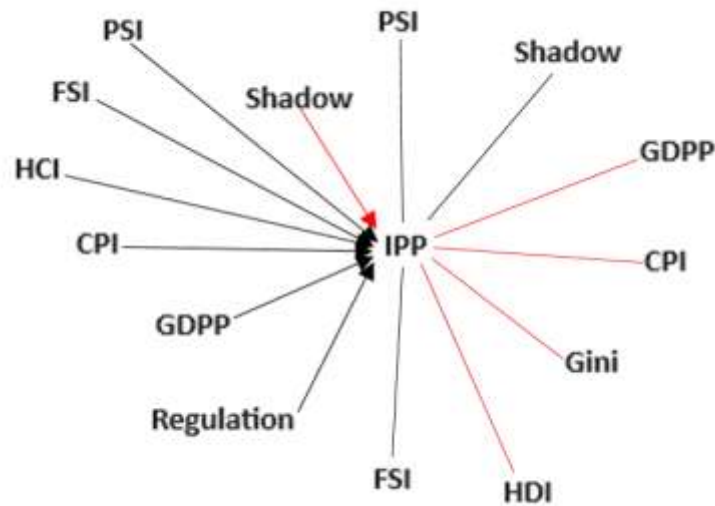
Figure 5: The Network Graph between IPP and other Economic Indices – Christian Groups

Irreligion (By Country)

The descriptive statistics represented in Table 6, reveal distinct differences in the IPP as a percentage of GDP among the Irrelegious majority countries

Table 6: Irreligious majority countries

Countries	N	Mean	StDev	Minimum	Median	Maximum
China	3	18.753	1.627	16.931	19.269	20.060
Czech Rep.	21	3.3491	0.3550	2.7740	3.4380	3.8510
Estonia	13	2.884	0.832	0.741	3.149	3.583
Hong Kong	11	14.84	3.68	10.84	14.08	22.15
Japan	21	7.204	0.683	6.276	7.128	8.675
Korea, South	21	10.355	1.193	8.411	10.408	12.135
Netherlands	21	7.860	1.593	4.804	8.676	9.815
New Zealand	18	2.5874	0.3616	2.1140	2.5320	3.5280

Among the irreligion-majority countries, China and Hong Kong stand out with significantly higher mean IPP values compared to the other countries in this category. China exhibits the highest mean IPP at 18.75%, followed by Hong Kong with a mean of 14.84%. These two countries demonstrate a considerably stronger

industrial production performance relative to the rest of the irreligion-majority nations. In contrast, Estonia has the lowest mean IPP at 2.88% among the irreligion-majority countries. The standard deviation analysis further highlights the differences in the variability of IPP among the irreligion-majority countries. Hong Kong displays a standard deviation of 3.68, indicating a higher degree of fluctuation in its IPP values over the observed period. In comparison, China's standard deviation is 1.63, less than half of Hong Kong's, suggesting a more stable and consistent IPP performance. The stark contrast between China and Hong Kong's mean IPP, as well as the difference in their standard deviations, underscores the heterogeneity in IPP among the irreligion-majority countries.
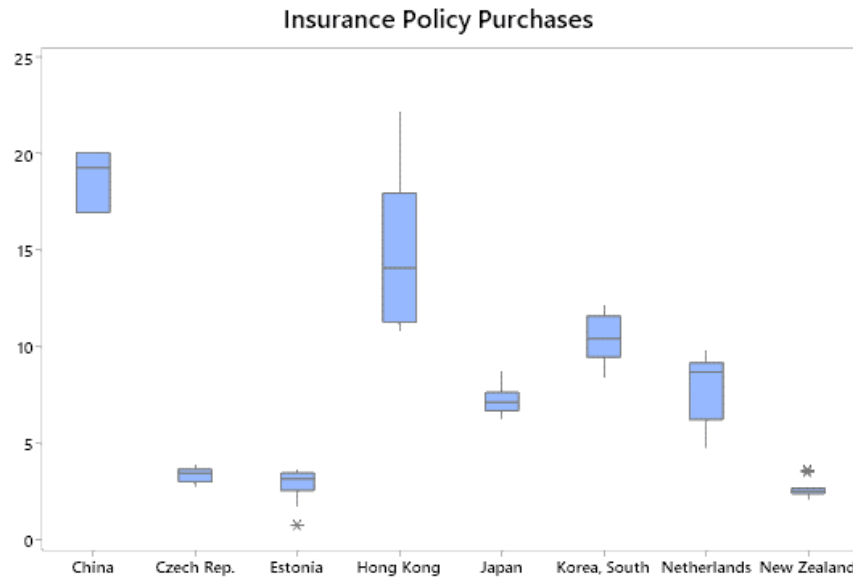
Figure 6: Trends across Irreligious groups

The network plot of Figure 7 for the irreligion-majority countries is notably more sparse in comparison to the plot for the Christian-majority countries (Figure 5). This suggests a relatively simpler set of conditional dependencies among the variables within the irreligion-majority context. The network plot reveals that IPP is directly connected to three key economic indices: Human Development Index (HDI) (1.4), Regulation Index (0.35), and Rule of Law Index (1.86). These connections indicate that IPP shares a conditional dependence relationship with these variables, meaning that changes in one variable are associated with changes in the others, after accounting for the effects of the remaining variables in the model.

Importantly, the network also shows that the first lag of the Gini Index (a measure of income inequality) has a directed edge pointing towards IPP with negative sign (-0.84).. This implies that the previous period's Gini Index value exerts a predictive influence on the current IPP value, suggesting a temporal precedence in their relationship in negative direction.

This formal analysis of the network plot highlights the distinct conditional dependence structure observed for the irreligion-majority countries, which differs from the more complex relationships seen in the Christian-majority countries. These insights can inform policymakers and researchers in understanding the unique drivers of industrial production in nations where irreligion is the predominant belief system.
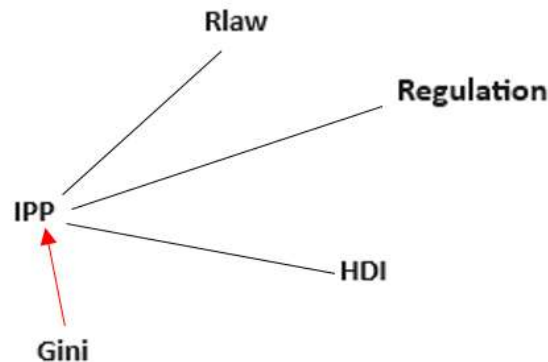
Figure 7: The Network Graph between IPP and other Economic Indices – Irreligious Groups

Jewish (By Country)

Given that Israel is the sole country representing the Jewish-majority category in the dataset, the insights gained from this analysis are specific to the unique characteristics and economic conditions of this country. Caution should be exercised in generalizing these findings to other Jewish-majority contexts without additional evidence.

The Spearman correlation analysis, conducted at a significant level of 0.05, reveals two statistically significant relationships between IPP and other economic indicators in the Jewish-majority country, Israel.

Firstly, the analysis shows a significant negative correlation between IPP and the Rule of Law index. This finding suggests that as IPP increases, the Rule of Law index tends to decrease in Israel during the observed time period. This relationship implies that higher levels of industrial output are associated with a weaker rule of law environment in the country. Secondly, the Spearman correlation analysis also indicates a significant negative correlation between IPP and the Shadow Economy index. This negative relationship suggests that as the IPP rises, the size of the shadow economy in Israel tends to decrease. This finding implies that increased IPP is linked to a reduction in the informal, unregulated economic activities that constitute the shadow economy.

Table 7: Jewish-majority country

Economic Indicators	Insurance Policy Purchases / GDP	N	Correlation	95% CI for ϱ
REGULATION	Insurance Policy Purchases / GD	14	-0.462	(-0.808, 0.121)
GDP(PPP) CURRENT DOLAR	Insurance Policy Purchases / GD	15	-0.379	(-0.755, 0.185)
GINI İNDEX	Insurance Policy Purchases / GD	5	0.500	(-0.726, 0.965)
CONSUMER PRICE INFLATION	Insurance Policy Purchases / GD	15	0.464	(-0.092, 0.800)
HUMAN CAPITAL INDEX	Insurance Policy Purchases / GD	14	-0.389	(-0.771, 0.200)
HUMAN DEVELOPMENT INDEX	Insurance Policy Purchases / GD	14	-0.479	(-0.816, 0.102)
FRAGILE STATE INDEX	Insurance Policy Purchases / GD	15	-0.025	(-0.531, 0.494)
RULE OF LAW INDEX	Insurance Policy Purchases / GD	15	**-0.654**	(-0.886, -0.157)
SHADOW ECONOMY	Insurance Policy Purchases / GD	10	**0.709**	(0.057, 0.937)
POLITICAL STABILITY INDEX	Insurance Policy Purchases / GD	15	-0.325	(-0.725, 0.239)

Muslim (By Country)

The descriptive statistics represented in Table 8, reveal distinct differences in the IPP as a percentage of GDP amongs the Christian majority countries

Table 8: Muslim majority countries

Countries	Total Count	N*	Mean	StDev	Minimum	Median	Maximum
Egypt	4	0	0.6615	0.0259	0.6280	0.6635	0.6910
Indonesia	10	0	1.7063	0.0973	1.5680	1.6790	1.8830
Malaysia	12	0	4.6260	0.2088	4.2560	4.6645	4.9630
Morocco	2	0	3.6780	0.0481	3.6440	3.6780	3.7120
Tunisia	5	0	2.0084	0.0806	1.9260	1.9720	2.1320
Turkiye	19	0	1.2382	0.1598	1.0080	1.2320	1.5200

The dataset for the Muslim-majority countries, which comprises 6 countries, is characterized by a significant amount of missing data during the 2000-2020 time period. This data sparsity poses challenges in conducting a comprehensive analysis of the industrial production performance across these nations. Despite the data limitations, the available information provides some insights into the IPP trends in Muslim-majority countries. Among the countries with the most complete data, Turkiye emerges as the country with the lowest mean IPP at 1.23%. This suggests a relatively lower level of industrial production output in Turkiye compared to the other Muslim-majority nations included in the analysis.

In contrast, Malaysia exhibits the highest mean IPP at 4.6%, followed by Morocco with a mean of 3.67%. These findings indicate that Malaysia and Morocco have comparatively stronger industrial production performance among the Muslim-majority countries represented in the dataset. It is important to note that the data availability varies significantly across Muslim-majority countries. While Turkiye has IPP data available for 19 out of the 20 years, other countries, such as Morocco and Egypt, have data for only 2 and 4 years, respectively. This uneven data coverage limits the reliability and generalizability of the observed trends, as the available data may not be fully representative of the industrial production dynamics in these countries over the entire period.

Despite these challenges, the available information provides a partial glimpse into the variability in IPP among Muslim-majority countries, with Turkey, Malaysia, and Morocco emerging as the focal points of the limited data. Addressing the data gaps and improving the quality of economic statistics for these nations would be crucial in gaining a more comprehensive understanding of the industrial production landscape in the Muslim-majority world.
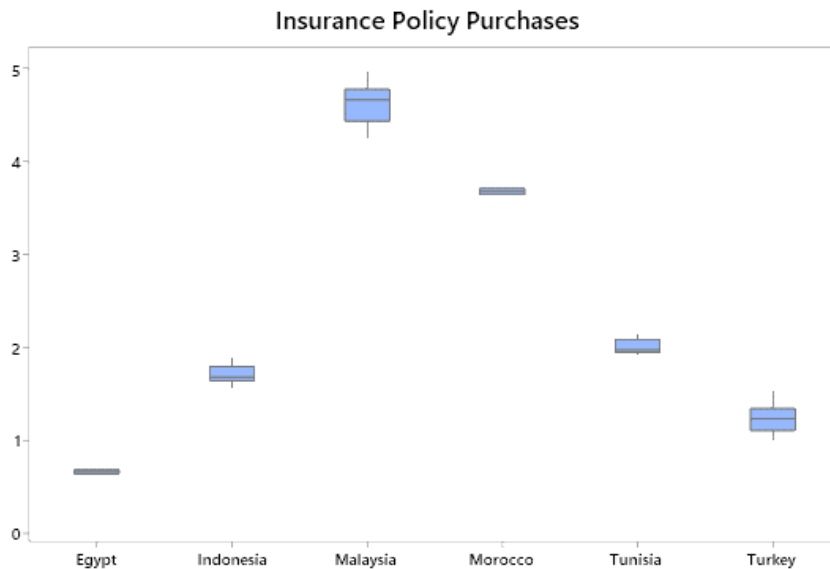

Figure 8: Trends across Muslim groups

The network plot for the Muslim-majority countries in Figure 9 is the most sparse among the three religious categories (Christian, Irreligion, and Muslim), with only three edges connecting the variables. The network analysis reveals that IPP is directly connected to two economic indices: CPI (3.41) and the first lags of both the Regulation Index (-0.94)and the CPI (-1.06). The positive edge between IPP and CPI suggests a conditional dependence relationship, where higher levels of the CPI are associated with higher levels of the IPP, after accounting for the effects of the other variables in the model. This implies that lower levels of perceived corruption in these Muslim-majority countries tend to be linked with stronger industrial production performance. In contrast, the network plot shows negative edges between IPP and the first lags of both the Regulation Index and the CPI. This indicates that the previous period's values of these two indices have a conditional negative influence on the current IPP. Specifically, higher levels of regulation and perceived corruption in the previous period are associated with lower levels of industrial production in the current period, holding the other variables constant.

The sparse nature of the network plot for the Muslim-majority countries suggests a relatively simpler conditional dependence structure compared to the more complex relationships observed in the Christian-majority and Irreligion-majority country networks. This may reflect the unique socioeconomic and institutional factors that shape the IPP in the Muslim-majority
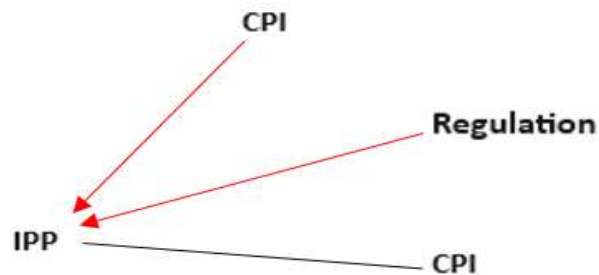

Figure 9: The Network Graph between IPP and other Economic Indices – Muslim Groups

GENERAL EVALUATION AND CONCLUSIONS

Insurance has become an increasingly growing market with the changing consumer profile. However, the inherent structure of insurance does not align with religious teachings, creating various challenges in this sector. Consumers tend to be prejudiced against insurance due to their religious beliefs, and these biases are reflected in their purchasing behavior. This study reveals that despite religious teachings criticizing insurance, consumers belonging to the Jewish and Christian religions show a higher tendency to purchase insurance compared to those of other religions. Additionally, it is observed that the highest insurance purchase rate is among those who do not associate themselves with any religious doctrine. Indeed, in countries where dominant religious beliefs prevail, insurance expenditures also tend to be higher in line with this trend. For example, in Israel where

Judaism is dominant or in countries where Christianity is prevalent such as France, Luxembourg, or Belgium, higher insurance expenditures are observed. In countries that can be identified as Muslim, such as Turkey, Egypt, or Indonesia, these rates are lower. This situation is related to the more lenient approach of various denominations of Christianity and Judaism towards insurance (Daniel, 2003; Erlbeck, 2017; Schneider and Spalt 2016). The obtained ratios in this study may be influenced by the cultural, geographical, and economic conditions of countries. For instance, research in the insurance and macroeconomics literature, such as Weber's (2002) study, discusses the relationship between culture and, more specifically, religion with economic growth. However, many experimental studies in this field face challenges in addressing endogeneity issues. Often, it is necessary to consider other factors explaining the level of religious belief in a society and the economic growth it experiences, affecting this relationship. In a study by McCleary and Barro (2006), using an instrumental variable model, a decrease in the average level of religious belief per capita income was associated with high income per capita GDP. At the same time, it was found that the relationship between economic development and religious belief varies depending on the specific dimension of development.

Insurance is a concept not well understood by many people, especially in less developed and developing countries worldwide. Some may have heard this term in academic, business, and professional environments and may have some understanding, while others may have no idea what insurance is, how it works, and the benefits people can obtain by purchasing relevant insurance policies.

Regardless of the general lack of knowledge about insurance highlighted above, many religious individuals are indifferent to insurance. Some religious fanatics believe that everything that happens to them – whether good or bad – is God's will, and therefore, they do not need any form of financial protection provided by insurance. These individuals might think that only those who do not have faith in God would attempt to seek protection through insurance. Zelizer (1979) explains the reluctance of consumers to purchase insurance as an attempt to avoid thinking about the possibilities of harm to themselves and their loved ones, effectively defying fate. Indeed, the widely held belief today suggests that positive or negative thoughts, according to the law of attraction, lead individuals to experience positive or negative outcomes.

However, it should be noted that insurance does not prevent the occurrence of any "bad things." Insurance means compensating individuals, their families, businesses, or others in case of a loss, allowing them to remain financially stable. Therefore, insurance businesses need to market their products from a more positive perspective with a constructive emphasis (Chan, 2012).

Perhaps governments aware of such thoughts mandate certain insurances to protect individuals from damages that others might cause with their actions. Among these mandatory insurances, one can mention compulsory traffic insurance and third-party insurance for vehicle owners. Moreover, in many countries worldwide, individuals and businesses are required to have relevant insurance policies to protect the interests of their employees, customers, and third parties. Such laws and regulations imply that we are obligated to comply with them as long as they do not violate the laws of God.

In conclusion, this study demonstrates a significant impact of religious beliefs on the purchase behavior of insurance policies. The insurance sector can adapt its products and marketing strategies by considering these differences. Additionally, the study emphasizes that religious beliefs are an important factor to be taken into account in insurance and financial regulations. The findings obtained within the scope of the research parallel the relevant literature (Badru et al., 2013; Beck and Webb, 2003; Browne and Kim, 1993). Pritchett et al. (1996) emphasize that insurance is sold rather than bought. Therefore, with a good and accurate strategy, insurance operators can more easily persuade consumers.

Like any scientific research, this study has some limitations. Due to data constraints, the OECD and World Health Organization database was used in the study, and data for all countries worldwide were not included. Future studies could conduct more comprehensive research on the topic using a database that covers all countries globally. Additionally, research focusing on topics such as the correlation between insurance purchasing and lifestyle, demographic data, or levels of religiosity could be carried out to assess the consumer profile in this sector more specifically.

REFERENCES

Aashima, & Sharma, R. (2023). Inequality and disparities in health insurance enrolment in India. Journal of Medicine Surgery and Public Health, 1. https://doi.org/10.1016/j.glmedi.2023.100009

Abu Bakar, A., Regupathi, A., Aljunid, S. M., Omar, M. A. (2012). Factors affecting demand for individual health insurance in Malaysia. BMC Public Health 12(2). https://doi.org/10.1186/1471-2458-12-S2-A10.

Al-Ajmi, J., Abo Hussain, H., & Al-Saleh, N. (2009), Clients of conventional and Islamic banks in Bahrain: How they choose which bank to patronize. International Journal of Social Economics, 36(11), 1086-1112. https://doi.org/10.1108/03068290910992642

Arun, T., Bendig, M., & Arun, S. (2012). Bequest motives and determinants of micro life insurance in Sri Lanka. World Development, 40(8), 1700-1711. https://doi.org/10.1016/j.worlddev.2012.04.010

Azid, T., Rawashdeh, O. A., & Qureshi, M. A. (2018). Interest, markets, charity and efficiency: An Islamic approach [Faiz, piyasa, hayırseverlik ve verimlilik: İslami bir yaklaşım]. In T. Eğri & Z. H. Orhan (Eds.) İslam iktisadi perspektifinden faiz. (pp. 251–277). Nobel Publishing.

Badru, F. A., Yusuf, T. O., & Isola, W. (2013). Socio-cultural factors affecting insurance patronage in Lagos State, Nigeria: An exploratory study. Hemispheres, (28), 43-55.

Bansal, A., Goel, S., Singh, A., Singh, A. A., Goel, A. K., Naik, S. M., Chhoker, V. K., & Goel, S. A. (2015). Community-based study to assess the awareness of health insurance among rural Northern Indian population. International Journal of Health System & Disaster Management,3(1),41-43. https://www.ijhsdm.org/text.asp ?2015/3/1/41/147203

Bayatrizi, Z. (2023). Risk, religion, and reified camels: The past and the future of insurance in Iran. Journal of Risk Research, 26(4), 380-392. https://doi.org/10.1080/13669877.2023.2187434

Beck, T., & Webb, I. (2002). Economic, demographic, and institutional determinants of life insurance consumption across countries, World Bank Economic Review, 17(1), 51-88. https://doi.org/10.1093/wber/lhg011

Beck, T., & Webb, I. (2003). Economic, demographic, and institutional determinants of life insurance consumption across countries. The World Bank Economic Review, 17(1), 51-88. https://doi.org/10.1093/wber/lhg011

Berry-Stölzle, T. R., & Xu, J. (2022). Local religious beliefs and insurance companies' risk-taking behaviour. The Geneva Papers on Risk and Insurance - Issues and Practice, 47, 242–278. https://doi.org/10.1057/s41288-021-00211-z

Bhusal, U. P., & Sapkota, V. P. (2021). Predictors of health insurance enrolment and wealth-related inequality in Nepal: Evidence from Multiple Indicator Cluster Survey (MICS) 2019. BMJ Open, 11(11). https://doi.org/10.1136/bmjopen-2021-050922

Browne, M., & Kim, K. (1993). An international analysis of life insurance demand. The Journal of Risk and Insurance, 60(4), 616-634. https://doi.org/10.2307/253382

Chan, C. S. C. (2012). Marketing death: Culture and the making of a life insurance market in China, OUP USA.

Chui, A. C., & Kwok, C. C. (2008). National culture and life insurance consumption. Journal of International Business Studies,39,88-101. https://doi.org/10.1057/palgrave.jibs. 8400316

Chui, A. C., & Kwok, C. C. (2009). Cultural practices and life insurance consumption: An international analysis using GLOBE scores. Journal of Multinational Financial Management, 19(4), 273-290. https://doi.org/10.1016/j.mulfin.2009.02.001

Clark, A. E., & Lelkes, O. (2005). Deliver us from evil: Religion as insurance. HAL SHS. Article halshs-00590570.

Cohen, A. B., & Hill, P. C. (2007). Religion as culture: Religious individualism and collectivism among American Catholics, Jews, and Protestants. Journal of Personality, 75(4), 709-742. https://doi.org/10.1111/j.1467-6494.2007.00454.x

Crawford, S. C. (1972). Reviewed Work: Brahmanism, Buddhism and Hinduism. Philosophy East and West, 22(1), 114–116. https://doi.org/10.2307/1397971

Daniel, J. P. (2003). The broader cultural context of insurance: Insurance and religions. The Geneva Papers on Risk and Insurance, 28(1), 102-110. https://doi.org/10.1111/1468-0440.00212

Douglas, M., & Wildavsky, A. (1983). Risk and culture: An essay on the selection of technological and environmental dangers. Univ of California Press. https://doi.org/10.1525/9780520907393

Dragoş, S. L. et al. (2017). "The nexus between the demand for life insurance and institutional factors in Europe: new evidence from a panel data approach." Economic Research- Ekonomska Istraživanja 30: 1477 - 1496.

Enz, R. (2000). The S-Curve Relation Between Per-Capita Income and Insurance Penetration. Geneva Pap Risk Insur Issues Pract 25, 396–406 (2000). https://doi.org/10.1111/1468- 0440.00072

Erbaş, S. N. and Sayers, C.L. (2006) "Institutional Quality, Knightian Uncertainty, and Insurability: A Cross-Country Analysis." Banking & Insurance: n. pag.

Erlbeck, A. (2017). Demand for micro life insurance in Sri Lanka: Impact of social capital and religion [Unpublished doctoral dissertation]. Universität zu Köln.

EVS/WVS (2022). European Values Study and World Values Survey: Joint EVS/WVS 2017-2022 Dataset (Joint EVS/WVS). JD Systems Institute & WVSA. Dataset Version 4.0.0, Retrieved October 25, 2023. from https://www.worldvaluessurvey.org/WVSOnline.jsp

Filabi, A. and Duffy, S. (2021). "AI-Enabled Underwriting Brings New Challenges for Life Insurance: Policy and Regulatory Considerations." Journal of Insurance Regulation .

Fofie, G. A. (2016). What influence customer patronage of ınsurance policies: an empirical assessment of socio-economic and demographic determinants of ınsurance patronage in Ghana. International Review of Management and Marketing, 6(1), 81-88.

Francisco, N. A., El-Sayed, A.M. (2017). National income inequality and ineffective health insurance in 35 low- and middle-income countries, Health Policy and Planning, Volume 32, Issue 4, Pages 487–492, https://doi.org/10.1093/heapol/czw156

Gervais, W. M., & Norenzayan, A. (2012). Analytic thinking promotes religious disbelief. Science, 336 (6080), 493-496. http://dx.doi.org/10.1126/science.1215647.

Ghimire, P., Sapkota, V. P., & Poudyal, A. K. (2019). Factors associated with enrolment of households in Nepal's national health insurance program. International Journal of Health Policy and Management, 8, 636–645. https://doi.org/10.15171/ijhpm.2019.54

Hofflander, A. E. and Duvall. R. M. (1967). "Inflation and Sales of Life Insurance." Journal of Risk and Insurance 34: 355.

Hu, J. (2010). The role of health insurance in improving health services use by Thais and ethnic minority migrants. Asia Pacific Journal of Public Health, 22(1), 42-50. https://doi.org/10.1177/1010539509351183

Hussels, S., Ward, D., & Zurbruegg, R. (2005). Stimulating the demand for insurance. Risk Management and Insurance Review, 8(2), 257-278. https://doi.org/10.1111/j.1540-6296.2005.00059.x

Inglehart, R., & Welzel, C. (2005). Modernization, cultural change and democracy: the human development sequence, Cambridge University Press.

Kaffash, S., Azizi, R., Huang, Y., & Zhu, J. (2020). A survey of data envelopment analysis applications in the insurance industry 1993–2018. European Journal of Operational Research, 284(3), 801-813. https://doi.org/10.1016/j.ejor.2019.07.034

Karayazgan, A. (2008). Takaful (İslâmî sigorta). Sigorta Araştırmaları Dergisi, 4,109-122.

Khraim, H. (2010). Measuring religiosity in consumer research from Islamic perspective, International Journal of Marketing Studies, 2(2), 166-179. https://doi.org/10.5539/ijms.v2n2p166

Kim, S. F., Waller, D. S., & Erdoğan, B. Z. (2004), The influence of religion on attitudes towards the advertising of controversial products. European Journal of Marketing, 38(5/6), 537-555. https://doi.org/10.1108/03090560410529204

Kumar, A., Page, J. & Spalt, O. (2011). Religious beliefs, gambling attitudes, and financial market outcomes. Journal of Financial Economics, 102, 671–708. https://doi.org/10.1016/j.jfineco.2011.07.001

Lee, C.C.. (2011). "Does Insurance Matter for Growth: Empirical Evidence from OECD Countries" The B.E. Journal of Macroeconomics, vol. 11, no. 1, https://doi.org/10.2202/1935-1690.2080

Madhukumar, S., Sudeepa, D., & Gaikwad, V. (2012). Awareness and perception regarding health insurance in Bangalore rural population. International Journal of Medicine and Public Health, 2(2). https://doi.org/10.5530/ijmedph.2.2.5

Maysami, R. C., & Williams, J. J. (2006). Evidence on the relationship between Takaful insurance and fundamental perception of Islamic principles. Applied Financial Economics Letters, 2(4), 229-232. https://doi.org/10.1080/17446540500461778

Mobarak, A.M. and Rosenzweig, M.R. (2012). "Selling Formal Insurance to the Informally Insured." Yale Economics Department Research Papers.

Morduch, J. (1994). Poverty and vulnerability. The American Economic Review, 84(May), 221-225.

Nakata, H. and Sawada, Y. (2007). "Demand for non-life insurance: A cross-country analysis." CIRJE F-Series

Norris, P., and Inglehart, R. (2004). Sacred and secular: Religion and politics worldwide. Cambridge, Cambridge University Press.

Noussair, C. N., Trautmann, S. T., Gijs, van de K., & Vellekoop, N. (2013). Risk aversion and religion. Journal of Risk and Uncertainty 47, 165–183. https://doi.org/10.1007/s11166-013-9174-8

OECD (2023), Insurance spending (indicator) [Data set]. https://doi.org/10.1787/adb73055-en

Outreville, J. F. (1996). Life insurance markets in developing countries. Journal of risk and insurance, 63(2), 263-278. https://doi.org/10.2307/253745

Outreville, J. F. (2013). The relationship between insurance and economic development: 85 empirical papers for a review of the literature. Risk Management and Insurance Review, 16(1), 71-122. https://doi.org/10.1111/j.1540-6296.2012.01219.x

Paudel, D. R. (2019). Factors affecting enrollment in government health insurance program in Kailali district. Journal of Nepal Health Research Council, 17(3), 388-393. https://doi.org/10.33314/jnhrc.v17i3.2026

Ramazanova, A., Sabitova, A., Orsayeva, R., Bairkenova, G., & Smailova, I. (2022). Financial sector components in a religious context: Judaism, Christianity, and Islam. Journal of Behavioral and Experimental Finance, 34. https://doi.org/10.1016/j.jbef.2022.100656

Salman, S. A., Rashid, H. M. A., & Hassan, R. (2017). Awareness and knowledge of insurance and takaful In India a survey on Indian insurance policy holders. Man In India, 97(11), 127-140.

Scheve, K., & Stasavage, D. (2006). Religion and preferences for social insurance. Quarterly Journal of Political Science, 1(3), 255-286. https://doi.org/10.1561/100.00005052

Schneider, C., & Spalt, O. (2016). Conglomerate investment, skewness, and the CEO long shot bias. Journal of Finance, 71, 635–671. https://doi.org/10.1111/jofi.12379

Schoon, N., & Julinda, N. (2012). Comparative financial systems in Judaism, Christianity and Islam: The case of interest, SSRN, (June 1, 2012). http://dx.doi.org/10.2139/ssrn.2126503

Segal, A. (1996). Why does the Muslim world lag in science?, Middle East Quarterly, III (2), 61-70.

Shih, S. F., Lew-Ting, C. Y., Chang, H. Y., & Kuo, K. N. (2008). Insurance covered and non-covered complementary and alternative medicine utilisation among adults in Taiwan. Social Science & Medicine, 67(7), 1183-1189. https://doi.org/10.1016/j.socscimed.2008.06.011

Souiden, N., & Jabeur, Y. (2015). The impact of Islamic beliefs on consumers' attitudes and purchase intentions of life insurance. International Journal of Bank Marketing, 33(4), 423-441. https://doi.org/10.1108/IJBM-01-2014-0016

Spicka, J. (2020). Socio-demographic drivers of the risk-taking propensity of micro farmers: Evidence from the Czech Republic. Journal of Entrepreneurship in Emerging Economies, 12(4), 569-590.

Swiss Re Institute (2011). sigma 02/2011 "World insurance in 2010" reveals growth in global premium volume and capital. Retrieved October 10, 2023, from https://www.swissre.com/institute/research/sigma-research/sigma-2011-02.html

Talesh, S.A. (2015). "A New Institutional Theory of Insurance." LSN: Legislation &   Statutory Interpretation (Topic)

Tiwari, A., Shaikh, I., & Patro, A. (2018). Insurance and risk practices: An exploration of religious texts to reveal the evolutionary development of insurance institutions. Journal of Social and Economic Development. 20, 274–292. https://doi.org/10.1007/s40847-018-0070-6

Willard, A. K., & Cingl, L. (2017). Testing theories of secularization and religious belief in the Czech Republic and Slovakia. Evolution and Human Behavior, 38(5), 604-615.

World Values Survey (2023, October 21). World Values Survey Wave 7: 2017-2022 https://www.worldvaluessurvey.org/WVSContents.jsp

Yayla, Ş. O. (2019). Insurance and Overview of Insurance Sector in Turkey [Sigortacılık ve Türkiye'de sigorta sektörünün durumu]. Liberal Düşünce Dergisi, 24(94), 107-125.

Yi, H. T. , Dubinsky, A. J., & Lim, C. U. (2012), Determinants of telemarketer misselling in life insurance services, Journal of Services Marketing, 26(6), 403-418. https://doi.org/10.1108/08876041211257891

Yusuf, T. O. (2006). Insurance in Muslim countries: Nigeria's Takaful scheme in focus. Journal of Islamic Banking and Insurance, 6(2), (2006), 15-33

Yusuf, T. O., Gbadamosi, A., & Hamadu, D. (2009). Attitudes of Nigerians towards insurance services: An empirical study. African Journal of Accounting, Economics, Finance and Banking Research, 4(4), 34-46.

Zelizer, V. A. R. (1979). Morals and markets. Columbia University Press

Zerriaa, M., & Noubbigh, H. (2016). Determinants of Life ınsurance demand in the MENA region. The Geneva Papers on Risk and Insurance - Issues and Practice, 41, 491–511. https://doi.org/10.1057/gpp.2016.1