

Islam, Islamic Banking and Entrepreneurship: Evidence from OIC Member Countries

Abstract

There is a view that Islam hinders entrepreneurship in Muslim societies in general. Unfortunately, there is little empirical work testing the negative effect of Islam as a religion on entrepreneurship. In an attempt to fill this gap, this study aims to reassess this effect in OIC member countries. Specifically, the aim is to assess whether Islam is an impediment to entrepreneurship in these countries and whether the presence of Islamic banking institutions in these countries strengthens or moderates such a relationship. Using multivariate regression analysis, the results indicate that there is indeed a negative relationship between Islam and entrepreneurship in OIC countries where Islamic banking is absent. But, this relationship does not hold where Islamic banking exists. Indeed, the presence of Islamic banks in countries where Islam is the state religion cancels out any negative effect of Islam and has a positive effect on entrepreneurship in the country concerned. The results of this study thus reopen the debate on whether Islam as a religion discourages competition, innovation, entrepreneurship and economic development compared to other religions.

Keywords: Entrepreneurship, Business Creation, Islam, Islamic Banking, OIC.

1. Introduction

Religious composition is now a fundamental feature of the social and economic landscape of any nation. Indeed, religion influences or even defines individual beliefs and characteristics, cultural norms and values, social groups and organisations, and political and military power (Becker et al., 2021), which in turn affects various domestic affairs such as political stability (Ayooob and Lussier, 2020), economic growth (Barro and McCleary, 2003), and entrepreneurship (Audretsch et al., 2013; Ayob and Saiyed, 2020; Henley 2017; Parboteeah et al. 2015; Zelekha et al., 2014). Although religion has been introduced in entrepreneurship research, its influence as a measure of social context has been relatively less studied than other variables such as national culture (Henley, 2017; Parboteeah et al., 2015). This is thought to be because religion as a research topic is often seen as isolated from business activities or is simply too sensitive a topic for broader communities to talk about (Tracey, 2012).

In challenging this standard, this study focuses on a single religion, Islam, for a number of reasons. Firstly, with over 1.6 billion adherents worldwide, Islam is the second largest religion in the world after Christianity (Ayob and Saiyed, 2020). Furthermore, unlike Christianity, Islam is the most homogeneous religion, with 90% of believers representing the Sunni sect (Henley, 2017). This suggests that Islamic teachings on entrepreneurship are consistent across almost all Muslim communities around the world. Second, existing work on religion has largely examined Western Christianity (Parboteeah et al., 2015), while studies on other religions or parts of the world are more limited; this provides a rather distinctive avenue for research (Tracey, 2012). Third, it is well documented that Islam would encourage or discourage certain types of entrepreneurial behaviour (Audretsch et al., 2013; Farzanegan and Badreldin 2022; Lewis, 2002; Landes, 1999; Kayed and Hassan, 2010; Kuran, 2012; Zelekha et al., 2014).

On the other hand, special attention is paid to the member countries of the Organisation of Islamic Cooperation (OIC) and the role that Islamic banks in particular can play, for the following reasons. First, among alternative forms of finance, Islamic banking has grown by about 9% in the last four years (IFSB, 2021). One of the key differences between Islamic banks and conventional banks is the prohibition of interest-based lending, instead offering financing products that share risk and profit between the entrepreneur and the financier (Ali et al., 2014; Iqbal, 1997; Kammer et al., 2015; Ratten et al., 2017). Secondly, the OIC, which

is the second largest intergovernmental organisation after the United Nations, represents Muslims worldwide well and aims to safeguard and protect their interests. Third, compared to non-OIC developing countries, OIC member countries as a whole have faced high and rising unemployment since 2010, especially among young people aged 15-24 (SESRIC, 2020). Moreover, according to World Bank data on entrepreneurship, OIC countries recorded a rate of entrepreneurial activity well below the world average (3.76) over the period 2006-2020, with a business creation density of around 1.6 (WBES, 2023). However, entrepreneurial activity is known to have a significant economic impact in terms of job creation and economic growth (Stoica et al., 2020; Urbano et al., 2020).

The lower level of entrepreneurial activity in these predominantly Islamic countries has attracted some attention from both policy makers and entrepreneurship scholars. A number of studies suggest that the main reason for the low rate of new private business formation is that Islam discourages entrepreneurship (Lewis, 2002; Landes, 1999; Kuran, 2012). As Muslim countries are particularly characterised by low risk tolerance in business, this is a relevant factor in explaining lower levels of entrepreneurship in these countries, according to Bartke and Schwarze (2008) and Younis et al. (2022). Distrust of science, conservatism and traditionalism, also associated with Islamic communities (Huntington, 1996), also tend to discourage innovation and entrepreneurship (Farzanegan and Badreldin, 2022). Sayigh (1958) points out that the conformism and immobility of Arab societies, by affecting minorities and foreigners through their social acclimatisation, limit their involvement in entrepreneurial activities. In addition, different interpretations of Islamic law (Sharia), particularly in relation to prohibitions, are cited as another possible obstacle to the promotion of Islamic entrepreneurship (Ghoul, 2010). Consequently, 'there is no doubt that Islam is an economic obstacle and a barrier to prosperity and the realisation of human aspirations, potential and well-being' (Perkins, 2003). However, there is still a lack of empirical evidence to support the above claims, with the exception of Farzanegan and Badreldin (2022) and Zelekha et al. (2014), who confirm that there is indeed a negative effect of Islam on entrepreneurship. Moreover, the low level and heterogeneity of entrepreneurship observed in OIC countries (WBES, 2023) warrants further investigation to assess whether Islam hinders entrepreneurship in these countries and whether the presence of Islamic banking institutions in these countries strengthens or weakens such a link. Thus, by focusing on OIC member countries, this study aims to re-examine the hypothesis that there is a negative relationship between Islam and entrepreneurship.

After this introductory section, the rest of the article is structured as follows. Section 2 discusses the literature review and section 3 analyses the methodology. Section 4 discusses the empirical results, while section 5 concludes the article.

2. Literature review

To date, theoretical perspectives and empirical evidence directly addressing the impact of religion on entrepreneurship are still in their infancy (Farzanegan and Badreldin, 20-22; Zelekha et al, 2014). In particular, there is a paucity of empirical literature testing the effect of Islam as a religion on entrepreneurship (Zelekha et al., 2014), with qualitative discussions on whether it discourages (Lewis, 2002) or has a negative effect on entrepreneurship and economic development (Landes, 1999). However, these hypothetical arguments that Islam is an impediment to business, competition and economic development are at odds with sources such as Iqbal (1997) and Ali et al (2014). Zelekha et al (2014) attempt to test this hypothesis empirically and find evidence that Islam as a religion (measured by the presence of a majority Muslim population) has the least positive contribution to entrepreneurship (measured by the number of entrepreneurs as a proportion of the population). Similarly, Farzanegan and Badreldin (2022) find that Islam has a negative effect on entrepreneurship in Muslim countries. However, these authors argue that the negative effect of Islam is conditional on the existence of Sharia-compliant financial products provided by Islamic banks. This is a limitation of the work of Zelekha et al. (2014), who do not consider the existence of dedicated religious banking services in their analysis. Nevertheless, it is well known that access to finance is one of the main factors affecting the density of new business creation (Motta, 2020; Ndeffo et al., 2024; Nabisaalu and Bylund, 2021).

In a study of European Union countries, Calabrese et al. (2021) point out that bank financing instruments are the most relevant form of financing for firms. Cusmano (2015) also confirms this result for a larger sample of entrepreneurs, arguing that entrepreneurs prefer equity financing to avoid mandatory interest payments in the early stages of development. Despite entrepreneurs' preference for equity investment, bank products remain the main source of financing for new formal businesses. Given this entrepreneurial preference for equity financing, Ratten et al (2017) argue that a focus on forms of financing such as mudharabah and musharakah should encourage entrepreneurship in countries with Islamic banking. In addition, Patel (2014) suggests the use of other forms of Islamic finance, such as Sukuk, to promote entrepreneurship and finance new private businesses. These contracts are very

similar to venture capital investments and focus on real and tangible economic activities. Therefore, their impact on entrepreneurship in economies where Islamic banks are active could be considered significant (Kayed & Hassan, 2014).

Furthermore, in one of the major works on Islamic finance, Iqbal (1997) explains that the (Islamic financial) system encourages risk sharing, promotes entrepreneurship, discourages speculative behaviour and emphasises the sanctity of contracts. Ali et al (2014) also argue that it is plausible to assume that entrepreneurial effort will increase if the financial risk is not borne exclusively by the entrepreneur but is shared with the financier. These arguments are further highlighted in an IMF discussion paper that the Islamic financial system could support small and medium-sized enterprises (SMEs) due to its focus on asset-backed finance and its risk-sharing function (Kammer et al, 2015). However, the empirical literature on the impact of Islamic banking on entrepreneurship and private business creation is still limited. The few relevant studies mainly focus on Malaysia and address the issue qualitatively (Farzanegan and Badreldin, 2022).

Barajas et al. (2015) show empirically that for Muslim countries, financial inclusion improves when Islamic banks are present, but the effect is not robust. Similarly, a study of the Malaysian development experience finds that Malaysian government policies have supported Islamic finance to increase financial inclusion and provide finance to SMEs (World Bank, 2020). Awang et al. (2016) distribute questionnaires to 200 SMEs operating in Malaysia to determine the level of acceptance of Islamic finance, and highlight that Islamic finance not only encourages business creation due to its risk-sharing nature, but also allows financing to those who would only engage in Shariah-compliant forms of finance. This finding is also supported by Kayed and Hassan (2014), who point out that the majority of potential Muslim entrepreneurs do not deal with conventional commercial banks on a religious basis, as they view them as unethical institutions. Instead, another study shows that Islamic banks offer more expensive contracts than conventional banks due to Sharia compliance requirements (Di Mauro et al, 2013).

Thaker et al. (2020) conduct a survey of available Islamic finance products and suggest which might be best used by SMEs in Indonesia and Malaysia. They find that SMEs in Indonesia rarely use Islamic forms of financing, while those in Malaysia are increasingly aware of them and use them more frequently. Karlan et al. (2021) use a randomised marketing experiment to estimate the effect of Sharia-compliant loan features on credit

demand in a Muslim-majority country (Jordan). They find that Sharia compliance increases the demand for credit from 18% to 22%, an increase in demand equivalent to a 10% reduction in interest rates. However, Ledhem and Moussaoui (2021) is one of the few studies that uses Malaysian macroeconomic data to examine the effect of Islamic financing of entrepreneurship on economic growth. Unfortunately, these authors are actually interested in the effect of entrepreneurship on economic growth, not whether Islamic finance affects entrepreneurship itself.

Given the theoretical arguments in the above literature as well as the available empirical evidence, it is appropriate to formulate and empirically test the following hypotheses:

Hypothesis 1: Islam as a religion - in the absence of an Islamic banking system - reduces entrepreneurial activities in OIC member countries.

Hypothesis 2: Islam as a religion - in the presence of an Islamic banking system - increases entrepreneurial activities in OIC member countries.

3. Methodology and data

In order to achieve its objective, this study uses several data sources to build the estimation model. These are World Bank Entrepreneurship Survey (WBES) and World Bank Indicators (WDI) data, Islamic Financial Services Board (IFSB) annual reports and world data¹. Although the World data covers all 57 OIC countries, it cannot be used for all countries because the WBES entrepreneurship data and the IFSB annual report data do not cover all OIC countries for all years. Therefore, in order to have a fairly reasonable sample size, we follow a common practice in previous studies (Farzanegan and Badreldin, 2022; Zelekha et al., 2014) and aggregate the data using averages over the period 2006-2020. Long-term averages are used here because there is little variation within countries in terms of new business creation and the share of the Islamic banking sector, and there is no variation within countries in the approximation of Islam (as the state religion). Furthermore, the effect of Islam and Islamic banking is expected to be longer term, as reflected in the mean of the data. Finally, using the long-term average of the data not only increases the number of countries included, which may have data for a limited number of years, but also reduces the effect of outliers. After merging data from all sources, the final dataset for analysis comprises 25 countries.

¹ Voir le lien suivant : <https://www.worlddata.info/alliances/oic-islamic-cooperation.php>

To examine the hypotheses formulated in the previous section, the empirical model of this study, which follows on from the Farzanegan and Badreldin (2022) study, is specified below:

Business creation_i

$$= \alpha_0 + \alpha_1 Islam_i + \alpha_2 Islamic\ banking_i + \alpha_3 Islam \times Islamic\ banking_i + \alpha' Controls_i + \varepsilon_i$$

The interaction term in the above equation captures the moderating role of the Islamic banking system in stimulating business creation by increasing financial inclusion of the Muslim religious population.

Dependent variable

The dependent variable in this study is entrepreneurship. Defined as "the process of starting and continuing a new business or organisation" (Hart, 2003), entrepreneurship is measured in this study by the number of newly registered businesses per 1,000 people of working age (15-64). These data are taken from the WBES, which provides a single source of comparable cross-national data on the density of new business creation. The units of measurement are private limited companies.

However, based on the characteristics of this database described in the work of Elitcha (2021) and Munemo (2022), these data are relevant to our study for several reasons. First, the WBES approach essentially focuses on new registrations by excluding re-registrations, which avoids overestimating the entrepreneurship rate observed with the Global Entrepreneurship Monitor (GEM) indicators. In addition, this approach makes it possible to capture 'real' entrepreneurship (as opposed to 'potential' entrepreneurship). Second, the WBES uses data from the official business register, rather than from surveys. This suggests that these are objective measures rather than subjective indicators of entrepreneurship as used by GEM. For the present study on the impact of Islamic banks on business creation, it is necessary to examine the impact on actual business registrations rather than on potential intentions to start a business, including nascent or budding entrepreneurs, which are covered by the GEM data. Finally, the World Bank measure focuses on incorporated firms, which are on average larger than unincorporated firms and may therefore require more finance. In addition, it is well established that smaller and newer firms are less able to obtain finance from banks due to credit rationing theory (Bonnet et al., 2016). As a result, the WBES measure, which focuses

on larger firms, is more appropriate for this study of the impact of the Islamic banking system on business creation.

However, with an average of 1.533, the values of business creation in this study range from a low of 0.057 (Pakistan) to a high of 7.94 (South Africa). The standard deviation of 1.687 (higher than the mean) indicates that there is considerable dispersion between countries in terms of new business creation.

Independent Variable of interest

The first main independent variable in this study is Islam, measured by a binary variable that takes the value 1 if Islam is the state religion and 0 otherwise². It reflects the influence of Islam in the social and institutional landscape. In the selected sample, 75% of the countries are considered Islamic states, i.e. Islam is the state religion. An alternative measure is the share of the Muslim population in the total population instead of the Islam as state religion dummy variable. This alternative variable reflects the potential demand for Sharia-compliant finance in the majority of society. With the exception of South Africa, whose share is 1.46, all other countries in the sample have a share greater than or equal to 50%, with a very high concentration between 70% and 100%.

The second main independent variable in this study is Islamic banking, which highlights the importance of Islamic finance for entrepreneurial activity. Indeed, Islamic finance provided to entrepreneurs would theoretically be measured as the amount of finance specifically provided to new businesses. However, these data are not always available for some works, such as this study. Therefore, proxies have to be used. Thus, available indicators to capture the extent of Islamic finance may include the market share of Islamic banks in the country, the amount of Islamic bank assets, the number of Islamic bank branches and, finally, the amount of finance provided by Islamic banks. Given the availability of data and country coverage, this study measures Islamic finance as the share of the Islamic banking sector in the total banking assets of the country concerned. The data source for this indicator is the IFSB Annual Report. In the selected sample, the share of the Islamic banking sector in total banking assets ranges from a low of 0.1 (South Africa) to a high of 77.2 (Saudi Arabia). With an average of 17.16, 48% of countries have a share well above 10%, 36% of countries have a share well above 20% and 16% of countries have a share well above 30%.

²Les données sont obtenues de :

https://securitypolicy.law.syr.edu/wp-content/uploads/2014/08/OIC_Member_States.pdf

Independent control variables

In addition to the main dependent and independent variables listed above, a number of other factors related to the density of new business creation that are mentioned in the literature are retained as control variables. The first is (log of) GDP per capita, which is an indicator of economic output that captures the market size of the national economy. This variable is relevant to this study in that countries with higher economic output offer greater intensity of economic activity and facilitate the circulation of ideas and knowledge, thus providing more entrepreneurial opportunities (Audretsch and Keilbach, 2008). Second, domestic credit granted by banks to the private sector (as a % of GDP) is another important control variable for this study, as access to finance is one of the main factors affecting the density of new business creation (Motta, 2020; Ndeffo et al., 2024; Nabisaalu and Bylund, 2021). A positive sign is expected for this variable. Finally, the share of oil rents in GDP is used in this study. The use of this variable is consistent with the work of Awoa et al. (2023) and Farzanegan (2014), who argue that oil rents are an important determinant of entrepreneurial activity. Summary statistics for the data used are presented in Table 1.

Table 1: Summary Statistics

Variables	Observation	Mean	Standard Deviation	Minimum	Maximum
New business density rate	25	1.533	1.688	0.057	7.94
Islam as state religion	25	0.72	0.458	0	1
IslamicBanking	25	17.18	19.54	0.1	77.2
Domestic credit	25	46.339	25.596	5.406	114.638
GDPpercapita (Log)	25	8.747	1.272	6.257	11.077
Oil rents	25	10.627	12.807	0	45.208

Source : Author's compilation

4. Results and discussion

To test the hypotheses formulated in section 2, we use ordinary least squares (OLS) regression using Stata version 17 software. The OLS technique is applicable to cross-sectional questions. However, the explanatory power of the estimated models is moderate, with the full model 4 yielding an adjusted R² of 0.4972. A hierarchical multiple regression is run where model 1 tests only the control variables, model 2 includes the main effect and

models 3 and 4 run the interactions without and with control variables respectively. All of these models examine the robustness of the effect of the interaction term to the inclusion of other entrepreneurship variables, but also to the control variables used. The regression results are shown in Table 2.

First, domestic bank credit to the private sector shows no relationship with entrepreneurship. On the other hand, GDP per capita shows a strong negative association with entrepreneurship, while oil revenues show the opposite effect. These two results are quite consistent with most of the existing literature. Indeed, the higher the wealth per capita, the more entrepreneurial activity develops in the country. This means that countries with higher economic output offer greater intensity of economic activity and facilitate the circulation of ideas and knowledge, thus providing more entrepreneurial opportunities (Audretsch and Keilbach, 2008). The increase in wealth in the economy therefore enables individuals (entrepreneurs) to take advantage of the new entrepreneurial opportunities offered by the economic environment for business creation. However, oil rents have a negative impact on business creation in the OIC countries. This confirms the idea that natural resource boom increases the number of rent-seekers, reducing the returns to productive entrepreneurship and rent-seeking, and thereby inducing a decline in entrepreneurship (Farzanegan, 2014; Chambers and Munemo, 2019a). Thus, oil rents hinder entrepreneurial prospects while reducing participation in productive enterprises.

Table 2: Results of analysis

Variables	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Islam		-1.360*	-2.342**	-2.500***
		(0.707)	(1.110)	(0.824)
Islamic banking			-0.523*	-0.582**
			(0.287)	(0.216)
Islam x Islamic banking			0.532*	0.573**
			(0.288)	(0.218)
Domestic credit	0.00930	0.0144		0.0163
	(0.0153)	(0.0146)		(0.0133)
GDPper capita (Log)	0.936**	0.904**		0.961***
	(0.386)	(0.363)		(0.319)
Oils rents	-0.0662*	-0.0517		-0.0568*
	(0.0335)	(0.0323)		(0.0317)
Constant	-6.330**	-5.412*	3.429***	-4.606*
	(2.836)	(2.705)	(0.938)	(2.396)
Observations	24	24	24	24

R ²	0.353	0.459	0.200	0.628
Ajusted R ²	0.2561	0.3446	0.0804	0.4972
F value	3.64**	4.02**	1.67*	4.79***

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Second, the coefficients of Islam on entrepreneurship are negative and significant. Islam as a state religion has a negative effect on the creation of new businesses in OIC countries, which confirms Hypothesis 1. In other words, in countries where Islam constitutes the state religion, but where Islamic banking share has little or no presence, entrepreneurship will be adversely affected. According to Model 4, in countries where Islamic banking is completely absent, Islam as the state religion is associated with a 2.5 decrease in new business registrations per 1,000 working-age population. This supports the empirical findings of Ayob and Saiyed (2020), Farzanegan and Badreldin (2022) and Zelekha et al. (2014) on the negative effect of Islam on entrepreneurship. Indeed, in countries where Islam plays an important role and where a significant part of the population adheres to Islamic laws that prohibit borrowing and lending at interest, and in the absence of a Shari'ah-compliant financing alternative (i.e. Islamic banks), entrepreneurship is stifled, as most entrepreneurs need external financing to start their business and do not have access to it at such an early stage. Thus, if entrepreneurial activities conflict with religious beliefs, a religious individual will prioritise their religious beliefs and abandon their entrepreneurial activities (Rietveld and Hoogendoorn, 2022). This is supported by several authors (Hassan and Hippler, 2014; Kumru and Sarntisart, 2016; Martzanis, 2016).

Third, the coefficients on the share of Islamic banking in total banking sector assets are negatively and significantly associated with entrepreneurship. Islamic banking sector assets have a negative impact on entrepreneurship in OIC countries. This implies that in countries where the share of the Islamic banking sector is high, but where Islam is not the state religion or even the majority religion, there is indeed a negative effect on entrepreneurship. This can be explained by the fact that Islamic banks, because they follow Islamic law, have to carefully select projects and investments in accordance with Sharia law before disbursing the required amount according to the recommended method of financing. This results in higher costs and therefore requires a higher return on capital (Beck et al., 2000). This is supported by the findings of Di Mauro et al. (2013) that Islamic banks offer more expensive contracts than conventional banks due to Sharia compliance requirements. Kammer et al. (2015) find a similar result, as they find that Islamic financial products are more expensive in the absence

of a policy and fiscal framework that supports the Islamic banking system. This result suggests that the profit, loss and risk sharing benefits of Islamic banking are not sufficient to offset the higher costs for entrepreneurs who do not comply with Shariah rules (Farzanegan and Badreldin, 2022). Furthermore, this means that funds saved in Islamic banks, particularly in countries where Islam is not the state or majority religion, are often neither used to lend to entrepreneurs nor made available to conventional banks, thus reducing the impact of investing these savings on entrepreneurial activity. Instead, these Islamic banks prefer to use contracts based on mark-ups rather than profit and loss sharing, as the former are less risky (Khan, 1995; Siddiqui, 2008; Miah and Suzuki, 2020; Liu and Chang, 2021). As a result, these alternative Islamic contracts do not directly contribute to the creation of new businesses.

Fourth, the results show that the interaction term between Islam as the state religion and the Islamic banking system is robust, with a positive and statistically significant effect in models 3 and 4, without and with control variables. This implies that in countries where Islam is the state religion and where the share of the Islamic banking sector is high, there is a significant positive effect on new business creation. This fully confirms Hypothesis 2. This result is on the one hand consistent with the findings of Farzanegan and Badreldin (20-22), and on the other hand indicates that the findings of Zelekha et al. (2014) lack control for Islamic banks (i.e. banking institutions that deal with religious Sharia-compliant financing). This is particularly important in the case of Islam, as it remains one of the few religions that still enforce prohibitions on interest-bearing transactions, although these may also exist in other religions; it is therefore highly relevant to control for the presence of Islamic banks when analysing the impact of Islam on entrepreneurship (Farzanegan and Badreldin, 2022). Indeed, when Islam is the state religion, a small share of the Islamic banking sector hinders the creation of new businesses, while the effect becomes positive at higher levels of Islamic banking in the overall financial system. In other words, the use of Islamic banks puts Shariah entrepreneurs on an equal footing with conventional entrepreneurs, thereby negating any negative effect of Shariah restrictions on new business creation. This result is quite interesting because it shows that the negative effect of Islam as a state religion on entrepreneurship (confirmed above) disappears (and even becomes positive) as the share of the Islamic banking sector increases. This suggests that the previously highlighted disadvantages of Islamic banking products, in particular their higher operating costs, are no longer sufficient to deter entrepreneurs from seeking and obtaining finance.

Robustness checks

In order to confirm the robustness of all the models presented in Table 2, several measurements were carried out. Following the estimations, potential problems of multicollinearity were checked using variance inflation factors (VIF). The VIF values for all variables are between 1.28 and 2.62, so there is no multi-collinearity in the models as the largest VIF is well below 10 (see Chatterjee and Hadi, 2012). Second, another post-estimation test performed found heteroskedasticity-consistent standard errors in the estimates made using Breusch-Pagan/Cook-Weisberg test, which assumes that the regression disturbances are normally distributed (Breusch and Pagan 1979; Cook and Weisberg 1983).

5. Conclusion

A number of writers and academics argue that Islam hinders business, competition and economic development in Muslim societies in general. Not far from this is the view that Islam discourages entrepreneurship. There is little empirical literature testing the negative impact of Islam as a religion on entrepreneurship. In an attempt to fill this gap, this study aims to re-evaluate the hypothesis that Islam hinders the development of entrepreneurial activities for OIC member countries. Specifically, the aim is to assess whether Islam is an impediment to entrepreneurship in these countries and whether the presence of Islamic banking institutions in these countries strengthens or moderates such a link. To achieve this objective, the following hypotheses have been formulated: Hypothesis 1: Islam as a religion - in the absence of an Islamic banking system - reduces entrepreneurial activities in OIC member countries; Hypothesis 2: Islam as a religion - in the presence of an Islamic banking system - increases entrepreneurial activities in OIC member countries.

The results show that there is indeed a negative relationship between Islam and entrepreneurship in OIC countries where Islamic banking is not present. However, this relationship does not hold when the Islamic banking system is present. In fact, the presence of Islamic banks in countries where Islam is the state religion cancels out any negative effect of Islam and has a positive effect on entrepreneurship in the country. The use of Islamic banks puts Shariah-compliant entrepreneurs on an equal footing with conventional entrepreneurs, thereby negating any negative effect on new business creation resulting from Shariah restrictions. Thus, it is not Islam as a religion that hinders entrepreneurship, as its proponents claim, but rather the lack of Shariah-compliant financial products. The results of this study thus reopen the debate on whether Islam as a religion is a barrier to competition,

innovation, entrepreneurship and economic development compared to other religions. However, future studies could assess the relationship between Islam and entrepreneurship from a longitudinal perspective in order to better understand the role of Islam in the economic history of the religion.

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Références

- Ali, S. N., Oseni, S. N. & Nisar, S. (2014). *Islamic Finance and Development*. Harvard Law School – Islamic Finance Project, Cambridge, MA.
- Audretsch, D. B. & Keilbach, M.(2008). Resolving the knowledge paradox: knowledge-spillover entrepreneurship and economic growth. *Res. Policy* 37 (10), 1697–1705. <https://doi.org/10.1016/j.respol.2008.08.008>.
- Audretsch, D.B., Boente, W. & Tamvada, J.P. (2013). Religion, social class, and entrepreneurial choice. *Journal of Business Venturing*, 28 (6), 774-789.
- Awang, M. D., Noor, M. N. A. M., Muhammad, J., Abdullah, A., Rahman, S. & Yahya, M. H. (2016). Acceptance and application of Islamic financial planning among small and medium enterprises halal operator in peninsular of Malaysia. *International E-Journal of Advances in Social Sciences*, 2, 747-752.
- Awoa, P. A., Efogo, F. O., & Ondo, H. A. (2023). Oil dependence and entrepreneurship: Non-linear evidence. *Economic Systems*, 47(1), 101059.
- Ayob, A. H., & Saiyed, A. A. (2020). Islam, institutions and entrepreneurship: evidence from Muslim populations across nations. *International journal of Islamic and Middle Eastern finance and management*, 13(4), 635-653.
- Ayoob, M., & Lussier, D. N. (2020). *The Many faces of political Islam: Religion and politics in Muslim societies*. University of Michigan Press.
- Barajas, A., S. Ben Naceur, and A. Massara. (2015). Is Islamic banking a possible avenue for increasing financial inclusion? *IMF Working Paper No. 15/31*, International Monetary Fund, Washington, DC.
- Barro, R. & McCleary, R. (2003). Religion and economic growth. *NBER Working Paper* 9682.
- Bartke, S., & Schwarze, R. (2008). Risk-Averse by Nation or by Religion? Some Insights on the Determinants of Individual Risk Attitudes. *SOEPpapers on Multidisciplinary Panel Data Research*, 131(16).
- Beck, T., Levine, R.&Loyaza, N. (2000). Finance and the sources of growth. *Journal of Financial Economics*, 58, 261-300.
- Becker, S. O., Rubin, J., & Woessmann, L. (2021). Religion in economic history: A survey. *The handbook of historical economics*, 585-639.
- Bonnet, J., Cieply, S., & Dejardin, M. (2016). Credit rationing or overlending? An exploration into financing imperfection. *Applied Economics*, 48(57), pp. 5563-5580.
- Breusch, T. S.& Pagan., A. R. (1979). A simple test for heteroscedasticity and random coefficient variation. *Econometrica* 47, 1287–1294.
- Calabrese, R.; Girardone, C. & Scip, A. (2021). Financial fragmentation and SMEs' access to finance. *Small Business Economics*, 57, 2041-2065.

- Center for Economic and Social Statistical Research and Training for Islamic Countries (SESRIC) (2020). *OIC labor market report: Progress towards the implementation of the OIC Labor Market Strategy 2025*. SESRIC, OIC. Available at: <https://www.sesric.org/files/article/750.pdf>.
- Chambers, D. & Munemo, J. (2019). Regulations, institutional quality and entrepreneurship. *Journal of Regulatory Economics*, 55, 46-66.
- Chatterjee, S. & Hadi, A. S. (1986). Influential observations, high leverage points, and outliers in linear regression. *Statistical Science* 1, 379–393.
- Cook, R. D. & Weisberg, S. (1982). *Residuals and Influence in Regression*. New York: Chapman & Hall/CRC.
- Cusmano, L. (2015). OECD - New Approaches to SME and Entrepreneurship Financing: Broadening the range of Instruments. Available at: <https://www.oecd.org/cfe/smes/New-Approaches-SME-full-report.pdf>
- Di Mauro, F. Caristi, P., Couderc, S. et al. (2013). Islamic Finance in Europe. *ECB Occasional Paper No. 146*, Available at SSRN: <https://ssrn.com/abstract=2251204>.
- Elitcha, K. (2021). The moderating role of stock markets in the bank competition-entrepreneurship relationship. *Small Business Economics*, 56, 1333-1360.
- Farzanegan, M. R. & Badreldin, A. M. (2022). Islam and entrepreneurship: The role of Islamic banking, *MAGKS Joint Discussion Paper Series in Economics*, No. 42-2022, Philipps-University Marburg, School of Business and Economics, Marburg.
- Farzanegan, M.R. (2014). Can oil-rich countries encourage entrepreneurship? *Entrepreneurship & Regional Development*, 26, pp. 706-725.
- Ghoul, W. A. (2010). Islam and entrepreneurship. In D. Leo-Poul (Ed.), Edward Elgar: Cheltenham, UK and Northampton, MA, USA.
- Hassan, M. K. & Hippler, W. J. (2014). Entrepreneurship and Islam: An overview. *Econ Journal Watch*, 11, 170-178.
- Henley, A. (2017). Does religion influence entrepreneurial behavior?. *International Small Business Journal*, 35(5), 597-617.
- Huntington, S. P. (1996). *The clash of civilizations and the remaking of world order*. New York: SimonSchuster.
- Iqbal, Z. (1997). Islamic Financial Systems. *Finance & Development*, June 1997, 42-45, Available at: <https://www.imf.org/external/pubs/ft/fandd/1997/06/pdf/iqbal.pdf>
- Islamic Financial Services Board (IFSB) (2021). Islamic Financial Services Industry Stability Report 2021. Available at: <https://www.ifsb.org/download.php?id=6106&lang=English&pg=/sec03.php>
- Kammer, A., Norat, M., Piñón, M., Prasad, A., Towe, C. & Zeidane, Z. (2015). Islamic finance: Opportunities, challenges, and policy options. *IMF Staff Discussion Note 15/05*.

- Karlan, D., Osman, A., & Shammout, N. (2021). Increasing financial inclusion in the Muslim world: Evidence from an Islamic finance marketing experiment. *The World Bank Economic Review*, 35, 376–397.
- Kayed, R. N. & Hassan, M. K. (2014). Finance, entrepreneurship, and economic development in Islam. *Islamic Finance and Development* by Ali et al. (Eds.), pp. 69-88.
- Khan, T. (1995). Demand for and Supply of Mark-Up and PLS Funds in Islamic Banking: Some Alternative Explanations. *Islamic Economic Studies*, 3(1), 1-46.
- Kumru, C. S. & Sarntisart, S. (2016). Banking for those unwilling to bank: Implications of Islamic banking systems. *Economic Modelling*, 54, 1-12.
- Kuran, T. (2012). *The long divergence: How Islamic law held back the Middle East*. Princeton, New Jersey: Princeton University Press.
- Landes, D. S. (1999). *The wealth and poverty of nations: Why some are so rich and some so poor*. New York: Norton.
- Ledhem, M. A. & Moussaoui, W. (2021). Islamic finance for entrepreneurship activities and economic growth: A parametric and non-parametric analysis from Malaysia. *PSU Research Review*, In-Press, <https://doi.org/10.1108/PRR-02-2021-0012>.
- Lewis, B. (2002). *What went wrong? Western impact and Middle Eastern response*. New York: Oxford University Press.
- Liu, W. & Chang, J. (2021). Revisiting and refining the comparison of conventional and Islamic markets' performance. *Applied Economics*, 53(38), 4371-4385.
- Martzanis, C. (2016). The absorption of financial services in an Islamic environment. *Journal of Economic Behavior & Organization*, 132, Supplement, 39-49.
- Miah, M. D. & Suzuki, Y. (2020). Murabaha syndrome of Islamic banks: a paradox or product of the system? *Journal of Islamic Accounting and Business Research*, 11(7), 1363-1378.
- Motta, V. (2020). Lack of access to external finance and SME labor productivity: Does project quality matter? *Small Business Economics*, 54, 119-134.
- Munemo, J. (2022). Do African resource rents promote rent-seeking at the expense of entrepreneurship? *Small Business Economics*, 58, 1647-1660.
- Nabisaalu, J. K. & Bylund, P. L. (2021). Knight, financial institutions and entrepreneurship in developing economies. *Journal of Institutional Economics*, 17, 989-1003.
- Ndeffo, N. L., Mvogo II, O. D. F. & Tchoffo, T. G. (2024). Does financial development and improved institutions really advance formal entrepreneurship in developing countries? *South Asian Journal of Social Studies and Economics*, 21(4), 74-94.
- Parboteeah, K., Walter, S.G. & Block, J.H. (2015). When does Christian religion matter for entrepreneurial activity? The contingent effect of a country's investments into knowledge. *Journal of Business Ethics*, 130(2), 447-465.

- Patel, A. (2014). Hybrid Sukuk for SMEs: financing the real economy. In *Islamic Finance and Development* by Ali et al. (Eds.), 169-196.
- Perkins, J. L. (2003). Islam and economic development. Available at: <http://www.iefpedia.com/english/wp-content/uploads/2009/09/Islam-and-economic-development.doc>.
- Ratten, V., Rammal, H. & Ramadani, V. (2017). Islamic finance: An entrepreneurial management perspective. In: V. Ramadani et al. (eds.) *Entrepreneurship and Management in an Islamic Context*. Springer International Publishing, Switzerland, 2017.
- Sayigh, Y. (1958). Toward a Theory of Entrepreneurship for the Arab East. *Explorations in Entrepreneurial History*, 10: 123-27.
- Siddiqui, A. (2008). Financial contracts, risk and performance of Islamic banking. *Managerial Finance*, 34(10), 680-694.
- Stoica, O., Roman, A., & Rusu, V. D. (2020). The nexus between entrepreneurship and economic growth: A comparative analysis on groups of countries. *Sustainability*, 12(3), 1186.
- Thaker, M., Thaker, H., Pitchay, A., Amin, M. & Khaliq, A. (2020). Leveraging Islamic banking and finance for small businesses: exploring the conceptual and practical dimensions. *Asian Development Bank Institute (ADB) Working Paper Series No. 1156*.
- Tracey, P. (2012). Religion and organization: a critical review of current trends and future directions. *Academy of Management Annals*, 6(1), 87-134.
- Urbano, D., Audretsch, D., Aparicio, S., & Noguera, M. (2020). Does entrepreneurial activity matter for economic growth in developing countries? The role of the institutional environment. *International Entrepreneurship and Management Journal*, 16(3), 1065-1099.
- World Bank (2020). Malaysia Islamic Finance & Financial Inclusion. The Malaysia Development Experience Series. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/34519/Malaysia-Islamic-Finance-and-Financial-Inclusion.pdf?sequence=1&isAllowed=y>.
- World Bank Entrepreneurship survey (WBS) (2023). Entrepreneurship database. Washington, D. C. available at: <https://www.worldbank.org/en/programs/entrepreneurship>.
- Younis, H., Dimitratos, P., & Elbanna, S. (2022). International entrepreneurial SMEs in the muslim world: The role of religion in the GCC countries. *International Business Review*, 31(5), 102023.
- Zelekha, Y., Avnimelech, G. & Sharabi, E. (2014). Religious institutions and entrepreneurship. *Small Business Economics*, 42(4), 747-767.

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