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A Double-Edged Sword: Diversity within Religion and Market Emergence

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ABSTRACT

Although societies are becoming increasingly secularized, religion continues to play an important role worldwide. However, few studies have focused on how religion affects the entrepreneurial emergence of novel markets. To address this gap, I examine the impact of Islam, as a decentralized belief system, on entrepreneurship in the context of developing Islamic investment fund markets across countries. I focus on religious diversity within Islam as an instance of intra-institutional complexity and analyze a country-level panel dataset of Islamic investment funds in addition to complementary qualitative data. Intriguingly, I find that religious diversity within Islam plays a paradoxical role: it promotes the entrepreneurial supply of Islamic investment funds in a country, but it also reduces the investor demand for these funds. This complex effect is moderated by inter-institutional forces: the market logic positively moderates the effect on supply dynamics, whereas the state logic negatively moderates the effect on supply and positively that on demand. This study contributes to the research on religion and market emergence, institutional complexity, and Islamic finance.

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Keywords:

Religion and entrepreneurship, Islamic investment fund, institutional complexity

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INTRODUCTION

Religion plays an important role in shaping organizations and markets worldwide. Weber's (1930) influential theory is that religion, specifically Protestant ethics, can facilitate the development of capitalism, but since its formulation, the growth of studies on religion and organizations has been limited (Tracey 2012). Islamic investment funds, which incorporate religious principles of Islam into investment practices, have gained considerable tractions in the financial sector and present a promising opportunity to enrich this research. Islamic investment funds emerged in the mid-1990s out of the broader Islamic finance developments that began in the 1960s and achieved an annualized growth rate of 25 percent at the initial stage (Kamso and Ng 2013). The rising importance of Islamic investing in both Muslim-majority countries and Western societies (Hoepner et al. 2011) has made major financial hubs, such as London, Luxembourg, Dublin, Hong Kong, and Singapore, eager to become centers for Islamic asset management. Islam had 1.8 billion adherents in 2015, or 24% of the world population, and it is the “only major religion that has captured an increasingly larger share of the world’s population over time” (Maoz and Henderson 2013, p. 289). Over 50 countries worldwide have a Muslim majority, and some (e.g., Saudi Arabia and Qatar) are among the richest in terms of GDP per capita, providing a huge amount of capital to the global market.

How does Islam as a religion affect the entrepreneurial emergence of these investment funds in a country? The literature on the relationship between religion and entrepreneurship is limited and inconsistent. Some studies suggest that a culture of individualism and seeking for achievement is essential for entrepreneurial activities (Thomas and Mueller 2000) and that Islamic societies therefore do not appear to be compatible. According to Weber, “Islam did not generate capitalist industrialization because for centuries the Muslim homelands had been dominated by a system of patrimonial bureaucracy...which explains the absence of a capitalist spirit, of rational law and of independent cities” (Turner 1974, p. 237). However, more recent studies have questioned this received wisdom (Gümüşay 2015). For example, Arslan (2001) finds that contrary to common belief, Muslim managers may display higher levels of the

“Protestant work ethic” than Protestant Christian managers under certain conditions. Essers and Benschop (2009) demonstrate that in the Netherlands the Muslim identities of women entrepreneurs help make space for greater individualism and inventive activities. An in-depth field study in Malaysia also reveals that a deep understanding of Islam helped many entrepreneurs seeking market opportunities (Sloane 1999). Increasingly, scholars argue that Islam can be an entrepreneurial religion (Gümüşay 2015). These mixed findings suggest that when Islam is treated as a monolithic entity, the complex issues it involves may not be distinguished, leading to inconsistent predictions. Islam may also benefit some entrepreneurial outcomes but not others. Recognizing the complexity of religious entrepreneurship may thus help us better understand the phenomenon.

I focus on a key characteristic of Islam, its internal diversity, to explore how religion can affect entrepreneurship and analyze its impact on the development of an Islamic investment fund market. Like Christianity and Judaism, Islam is a monotheistic religion, but what is less known in the non-Muslim world is that it is also a diverse and decentralized belief system. It includes multiple denominations, such as Sunni and Shia, and each has a distinct set of organizing principles. To conceptualize this diversity, I draw on the perspective of institutional complexity (Greenwood et al. 2011, Kraatz and Block 2008), which describes incompatible prescriptions that arise from competing institutional logics, i.e., the organizing principles of institutional orders that shape cognitions and structure activities (Ocasio et al. 2017). Although prior research tends to focus on an inter-institutional approach, which “would be especially interesting...for Islam and business” (Peifer. 2015, p. 386), intra-institutional complexity, which involves competing effects within an institutional order (Luo et al. 2017, Meyer and Hollerer 2016, Yan et al. 2019), has also been examined by several authors. A financial logic (Almandoz 2012, 2014, Yan et al. 2019), for example, can be decomposed into multiple interdependent dimensions that have different effects on organizations, and they can interact in different ways with other societal logics in the context of socially responsible investing (Arjalies and Durand 2019, Ferraro and Beunza 2018). Thus, I examine both intra-institutional and inter-institutional complexities in this study.

I analyze a panel dataset of Islamic investment fund markets across 22 countries from 1995 to 2010 and find that religious diversity within Islam simultaneously affects two important entrepreneurial outcomes. It increases the entrepreneurial supply of Islamic investment funds, as measured by the founding rates of new funds, but it reduces the investor demand for funds in these nascent markets, as measured by the assets managed by those funds. I also explore how market and state logics, which are critical inter-institutional forces, moderate these effects. While the market logic positively moderates the supply dynamics, the state logic differentially moderates supply and demand effects. In addition, by analyzing complementary qualitative data from 220 pages of news articles from 1995 to 2010 on Islamic investing, I provide anecdotal evidence and develop a contextually deep understanding of the mechanisms involved (Small, 2011; Kaplan, 2015).

BACKGROUND

Religious Entrepreneurship and Islamic Investment Funds

Religion is an important driving force for entrepreneurial organizations and markets that can assist in solving new and diverse social problems (Hiatt and Carlos 2018, Rao 1998, Sine et al. 2005). Since Weber (1930)'s initial insights on the Protestant ethics and capitalism, few published papers have linked religion and market emergence (Tracey 2012), but this does not lead to the conclusion that religion has no significance. On the contrary, research continues to show its relevance (Hiatt et al. 2009, Weber et al. 2009, Yue et al. 2019, Zhao and Lounsbury 2016). Zhao and Lounsbury (2016), for example, found that the composition of religions in society affects the funding practice of micro-finance organizations, and Zhao and Wry (2016) showed that patriarchal religions affect women's opportunities in microfinance. Hiatt, Sine, and Tolbert 2009 found that the Woman's Christian Temperance Union was instrumental in altering beliefs and consequently helped entrepreneurs develop a soft drink production business. However, we still do not have a clear understanding of how religion affects the development of novel markets (Tracey et al. 2014).

The rise of Islamic investment fund markets provides an opportunity to study the relationship between religion and entrepreneurship. Before the emergence of Islamic investing, Muslim investors put their savings in conventional funds but had to “purify” the investments by donating any interest income to charity or by keeping the money as cash. However, it was suggested that “[a] lot of people are not investing [in conventional funds] because they think they will make some money in this life but lose the life hereafter” (Baum 2002). In the mid-1990s, leading Shariah scholars agreed that Muslims should be allowed to invest in equities with Shariah constraints (Hayat and Kraeusl 2011), providing a much-needed investment opportunity for Muslim investors to align financial interests with their religious beliefs. Since then, Islamic investment fund markets have spread rapidly across the Muslim world and even to secular countries (e.g., Peifer 2014), and now constitute a significant proportion of the global financial market (Hussain et al. 2016, Kamsu and Ng 2013). The sector boomed in the late 1990s and has achieved an annualized growth rate of 25 percent across countries during its early stage of development (Kamsu and Ng 2013).

The religious logic of Islam, which provides an explanation for the origin of the world and gives meaning to every human activity based on Islamic faith, is central to Islamic investing (see Table 1 for a comparison between Islamic and conventional funds). Islamic investment funds adhere to five core religious principles (Kamsu and Ng 2013): (1) equal value exchange and hence prohibiting interest (*riba*); (2) fair value exchange (and hence prohibiting uncertainty), incomplete contracts (*gharar*), and speculation (*maysir*); (3) prohibiting non-permissible (*haram*) activities, such as partaking in alcohol, adultery, gambling, tobacco, conventional finance, and pork; (4) risk sharing; and (5) backing any transaction with real or tangible assets. Deviations from any of these principles are considered serious violations.

-insert Table 1 about here-

The impact of the religious logic is material and reflected in concrete investment practices. For example, in terms of the prohibition of interest (*riba*), current Islam scholarship views interest as rent-

seeking, which increases inequity among members of society. Thus, most conventional banks are not considered investible by Islamic investment funds as banks profit from interest, which is inconsistent with the Islamic idea of “equal value exchange.” This prohibition covers all investment operations. For example, if an Islamic investment fund invests in an originally Shariah-compliant firm, but then the firm acquires a large bank and as a result changes its principal business activity, the investment may no longer be considered Shariah-compliant. The Islamic fund must then divest from this stock by following certain procedures. Furthermore, if profits are made from the divestment of these non-compliant opportunities, the fund will have to “purify” itself by making charitable donations.

The Intra-Institutional Complexity of Islam

Islam is a complex system with a considerable degree of internal diversity. Islam literally means “submission to God,” and hence “whom to submit to,” “what to submit to,” and “to what extent to submit to” are essential questions. The divisions within Islam begin with the first and foundational question of “whom to submit to.” The difference is significant and has escalated into major differences in other spheres of religious understanding. Political, military, and religious dimensions are not distinguished from each other in Islam, and the Western notion of separating religion, state, and law is alien to Muslims. Hence, diversity within Islam often leads to intense conflicts and sometimes extreme violence. For example, the Sunni-Shia divide can be traced back to the year 661. The Sunnis argued that the prophet Muhammad’s first four successors were the rightful leaders of the Muslims, while the Shias contended that only heirs of the fourth caliph, Ali (Muhammad’s son-in-law), were legitimate successors. Many other religious understandings and interpretations then follow from this fundamental division. Other denominations of Islam also hold divergent views, although their presence is much less significant than those of Sunni and Shia. For example, Ibadhi Islam asserts that any faithful and theologically well-versed Muslim can be an imam, a religious leadership position with governmental power in an Islamic system, which is a distinct belief in Muslim groups.

Religion, laws, and politics are closely linked in Islam, and Islamic finance is also significantly affected by the diversity of beliefs within the Muslim faith. Islamic scholars from different denominations can draw on selected scriptures and precedents to serve their own views, and thus many different and inconsistent Shariah standards have been developed. For example, product innovations in Islamic finance are significantly influenced by interpretations of Shariah law (Gintzburger 2011, Weiss 1978). Shias and Sunnis can reach drastically different conclusions in terms of Islamic investing, because interpreting key Shariah laws must be based on textual evidence for Sunnis while Shias can rely on intuition. Situations may also arise where a legal opinion or *fatwa* is sought from an Islamic scholar to determine whether a particular investment practice is permissible. The *fatwa* is not necessarily binding in Sunni Islam, but it is for those who request it in Shia Islam (Visser 2009). Thus, it is unsurprising that Muslim scholars from different groups have debated a wide range of technical financial questions without reaching a consensus, such as whether derivatives are permissible and whether it is Shariah to earn interest from non-Muslim groups. “There is no Vatican-like Church that imposes rules and proclaims dogmas...beyond a few basics, it is difficult authoritatively to assess religious rectitude. All this leaves significant room to accommodate many interpretations, each claiming authenticity” (Warde 2000, p. 230).

I use intra-institutional complexity to conceptualize the religious diversity within Islam. Research on institutional complexity typically focuses on competing logics to understand heterogeneity (Greenwood et al. 2011, Kraatz and Block 2008), but more recently, researchers have attempted to decompose a particular institutional logic into multiple dimensions and examine how these dimensions can link back to alternative societal logics (Yan et al. 2019). I develop hypotheses about how diversity within Islam, as a form of intra-institutional complexity, affects the emergence of Islamic investment fund markets and examine its relationships with other societal logics.

HYPOTHESES

A Double-edged Sword: Religious Diversity within Islam

Islamic fund markets include investors who want to buy shares of Islamic funds that invest in a Shariah way, investment firms which provide Islamic fund products as investment solutions, and Shariah scholars who generate Shariah interpretations. The investors rely on Shariah scholars to interpret the laws and to certify Shariah-compliant investment practices. Different investment firms supply Islamic funds, including local banks, specialist firms, regional banks, and the Islamic banking divisions of multinationals (e.g., the global banks HSBC or UBS). They possess different entrepreneurial capabilities (Alvarez and Busenitz 2001): whereas local banks and specialist firms often have strong *entrepreneurial capabilities in religion*, which means a deep knowledge of the diverse religious interpretations and close connections with Shariah scholars, regional banks and multinationals have strong *entrepreneurial capabilities in market development*, which allow them to develop fund products quickly and expand the scale of operations efficiently.

The religious diversity within Islam increases the supply of new Islamic funds in a country, because firms with entrepreneurial capabilities in religion are motivated to create new funds to serve diverse Islamic groups. The different Muslim groups constantly compete for their exclusive claim over Shariah identity. For example, surveys investigating Islam often report that many Sunnis do not accept Shia as fellow Muslims and that some Shia practices are not considered legitimate in Islamic tradition (Abdo 2017). As the composition of an Islamic society becomes more diverse, it is more likely that order of the field is unsettled (Fligstein and McAdam 2012), that multiple groups have similar statuses, and that diverse Shariah interpretations are contested. When fund suppliers design and start an Islamic investment fund suitable for one group and call it “Shariah-compliant,” Shariah scholars from competing groups may feel uncomfortable or even offended. In this religious competition, “each side will claim to represent ‘true’ Islam, and bolster its position through the familiar game of quoting and counter-quoting [from canonical text]” (Warde 2000, p. 20). Thus, other fund suppliers with entrepreneurial capabilities in religion are motivated to work with other scholars and investors to create new funds that better reflect

alternative Islamic views. In a less diverse Islamic society, the religious competition among different groups will be less intense, because the composition of the Islamic population is concentrated so specific groups may dominate economically and politically. In such a society minority groups are more likely to accept the existing order, although unwillingly (Fligstein and McAdam 2012) and less likely to overtly counter what they view as a “religious invasion” by supporting the creation of a new and competing Islamic fund (Marquis and Lounsbury 2007).

The religious diversity within Islam increases the supply of new Islamic funds in a country, also because firms with entrepreneurial capabilities in market development intensively replicate existing funds. Despite being “Islamic” in name, the Islamic investment banking provided by multinationals often has limited entrepreneurial capabilities in religion. It is not uncommon for an investment manager from a conventional background to take charge of an Islamic investment fund, who has limited training in Shariah principles and Islamic views on finance (Rehman 2010). When an Islamic society becomes more diverse, it is even harder for these firms to assess the specific Shariah standards to follow. They will be compelled to simply replicate existing products in the market, which appear more proven. Their entrepreneurial capabilities in market capabilities also lead them to prioritize growth (Rehman 2010), because in a competitive environment such as the Islamic investment fund market, high profit margins quickly decline as a new product becomes commoditized (Warde 2000). Multinationals can then rush in with new fund products to take advantage of the rapid growth in the sector, whereas firms with strong entrepreneurial capabilities in religion must proceed with more caution to preserve their reputation in the religious community. Thus, I propose the following hypothesis.

Hypothesis 1 (H1): A higher degree of religious diversity within Islam is positively associated with the founding rates of Islamic investment funds in a country.

Although religious diversity within Islam can increase the supply of new Islamic investment funds, paradoxically it may decrease the overall investor demand for the funds in a country. As one industry participant stated: “...it is easy to launch equity funds,” but much harder to really “understand

your clients' [religious needs]" (Global Investor 2003). The total assets managed by a fund are critical, not only because they determine the main revenues received by fund managers, but they also reflect the investors' demand for the fund.

Unlike Shariah scholars, the average Islamic investor has limited expertise in Shariah laws and faces difficulties in finding a religiously compatible fund from the wide range of options. Firms with entrepreneurial capabilities in religion may be competent at introducing funds that are well-suited to the needs of some investors, but the generally opportunistic and imperfect replication of various Islamic funds, particularly from firms with entrepreneurial capabilities in market development, may generate enough noise for the market. Thus, in countries with a high degree of religious diversity, financial advisers often caution that investors should "carefully read the prospectus to determine if the fund's policies and interpretations of Islamic principles are in accordance with their own views of Islamic principles" (National Post 2000).

The market noise of funds with varying degrees of religious suitability is particularly problematic for established investors who have quietly invested in conventional funds before Islamic investment funds were established (Wilson 2004), because transferring funds can incur financial costs. Potential first-time investors do not need to transfer funds, but they may still find it difficult to identify the most suitable fund amongst a set of fuzzy options and may withhold their full commitment to the Islamic fund sector. The CFA Institute, which is an influential global investment association, remarked that this situation "restricts the [Islamic investing] industry from reaching its potential" (Shanmugam and Zahari 2016, p. 93).

Islamic investment funds can hire Shariah scholars who are well versed in finance to certify the funds and confer religious legitimacy, but this will also incur costs, which is confounded by the religious diversity within Islam. Experienced, reputable Shariah scholars do indeed enhance the value of Islamic financial products (Godlewski et al. 2016), but they are hard to find. An industry participant quoted in a prior study said: "it's a bit difficult, because we need someone well educated first as a scholar in Islam, and you need someone well educated and versed in the Western financial system. Having someone with

both; not easy” (Peifer 2014, p. 358). When religious diversity within Islam increases, the complexity and uncertainty of Shariah interpretations also increase, and so will the cost of hiring competent Shariah scholars. The rising costs of legitimizing an Islamic fund will inevitably increase its management fee and lower its financial appeal. Thus, I propose the following hypothesis.

Hypothesis 2 (H2): A higher degree of religious diversity within Islam is negatively associated with the total assets managed by Islamic investment funds in a country.

Market and State as Inter-institutional Complexity

Although Islamic principles play a major role in Islamic investment funds, religion is not the only form of institutional order in society (Friedland and Alford 1991, Thornton and Ocasio 2008). Market institutions and nation states are two of the most relevant and fundamental sources of institutional logics in the context of Islamic investment fund (see Table 1b). Market logic is rooted in global neo-liberalism (Fourcade-Gourinchas and Babb 2002) and it serves to maximize individual liberty in the pursuit of economic wealth (Almandoz 2012), and advocates free-market approaches to the economy (Friedman 1962). State logic emphasize stability and development (Greenwood et al. 2010) through laws and regulations. State agendas play an important role in the financial sector (Pahnke et al. 2015), as shown in case studies on China (Yan and Ferraro 2016), Russia (Spicer 2002), and Sweden (Jonsson and Lounsbury 2016). The ability of the state to effectively enforce policies is also associated with the development of novel financial sector (Guillen and Capron 2016).

--Insert Table 1b about here -

Despite being shaped by religion, Islamic investing is still a variation of the rational financial market, which is dominated by a market logic. It also has a political agenda, aimed at strengthening the Shariah governance of Muslims in the financial space (Visser 2009, Wilson 2004), and hence has gained considerable attention from the regulatory bodies steeped in a state logic, both in Muslim-majority countries and secular societies. Previous studies on the novel financial sectors have also studied both market and state (Fligstein 1996, Vasudeva 2013, Yan and Ferraro 2016), and thus the Islamic investment

fund sector is likely to be influenced by these societal logics. Inter-institutional complexity, which involves the presence of alternative logics in society (Goodrick and Reay 2011, Reay and Hinings 2009), can moderate the effects of the intra-institutional complexity of religious logic.

Market. When the level of market logic is higher, religious diversity within Islam is more likely to encourage the entrepreneurial supply of Islamic investment funds, because product suppliers will face a lower entry barrier. In championing free enterprise and entrepreneurialism, market logic places fewer constraints on start-ups and market entries. Thus, this logic is associated with less stringent regulatory approval and lower costs when setting up a fund (Khorana et al. 2005), enhancing entrepreneurial capabilities in market development for all product suppliers. For example, Malaysia has outperformed many Arab countries in terms of offering of Islamic fund products within Muslim-majority countries (Kamso and Ng 2013) due to its higher level of liberalization, which reduces “the costs of doing business and the barriers to entry” (DeLorenzo 2011, p. 221). Similarly, Bahrain, despite being one of the smallest countries in the gulf region, strategically developed its levels of economic freedom, and has consequently attracted many fund suppliers to settle there (Kamso and Ng 2013).

When the level of market logic is higher, religious diversity within Islam is more likely to encourage the entrepreneurial supply of Islamic investment funds, also because firms with capabilities in market development can receive more resources. Market logic encourages the free movement of resources, such as financial capital, and thus enables product suppliers to achieve market growth. The higher the level of market logic, the greater the integration of the Islamic investment sector in the global financial system, and hence the greater the supply of financial capital for product suppliers. Firms with strong entrepreneurial capabilities in religion often have a strong Muslim identity and are relatively less dependent on the Western global financial system (Wilson 2004). These firms may agree that it is important to “ensure Islamic countries are able to develop economically without having to depend on funds controlled by non-Muslims” (Business Times 1997), and hence benefit less from this integration. In contrast, market logic encourages firms with entrepreneurial capabilities in market development, such as

multinationals, as they can mobilize more resources and can then actively push their Islamic funds into the market.

When the level of market logic is higher, religious diversity within Islam is less likely to impede investor demand, because market logic embraces secular ideals such as individualism and the free market (Friedman 1962), hence reducing the dominance of religious logic. Islamic investors may then be more tolerant of different product options, less concerned about religious compatibility, and more easily justify investments in Islamic investment funds. Firms with strong capabilities in market development will suffer less from the negative impact on investor demand of religious diversity within Islam when the level of market logic is high. For example, Singapore has a highly developed level of market logic, and Singaporean fund managers can more easily convince Shariah scholars that they should invest in well-chosen bank stocks, such as government-owned banks. As one fund manager said, "...if we rule ourselves out of banks, we take ourselves out of a large chunk of the market" (Wall Street Journal 1997), because the banking sector contains a large share of the available investee firms.

Market logic is also oriented toward greater product transparency and investment freedom. The higher the level of market logic, the more investment services are available and the lower the costs of adjusting investment portfolios. Market logic makes Islamic investors less susceptible to the negative effects of religious diversity within Islam, as they have more robust market tools to ensure religious compatibility. For example, Islamic investing has grown steadily in the U.S. and Australia, although these are not Muslim-majority countries (Ahmad and Hassan 2011, Goud and Hassan 2011). A general system of investor protection is essential to encourage growth in their capital markets (La Porta et al. 1998) and this also applies to building Islamic fund markets, as "the same degree of clarity, certainty, and protection" is required (Hassan and Mahlknecht 2011, p. 229). Furthermore, a mature capital market with high levels of investment freedom is often associated with higher trading volume and lower transaction costs, which for Islamic investors concerned with religious incompatibility eases the problem of transferring between different products. Thus, I propose the following hypotheses.

Hypothesis 3a (H3a): *Market logic positively moderates the effects of religious diversity within Islam on the founding rates of Islamic investment funds.*

Hypothesis 3b (H3b): *Market logic positively moderates the effects of religious diversity within Islam on the assets managed by Islamic investment funds.*

State. When the level of state logic is higher, religious diversity within Islam will lead to less entrepreneurial supply in secular countries. In secular countries state logic is geared toward social stability, development, and nation building (Greenwood et al. 2010), and hence prefers coherent and internally consistent markets (Georgallis et al. 2018) and aims to contain religious conflict. Strong state can better control religious schisms, but weakened state control may lead to “a struggle for political and economic power, and over which interpretation of Islam will influence societies and new leaderships” (Abdo 2017, p. 8). For example, the Singapore government is deeply involved in the national economy and regards national identity as more important than ethnic and religious identities. When the state encourages social solidarity, firms with entrepreneurial capabilities in religion are less likely to view religious diversity within Islam as an opportunity, and those with entrepreneurial capabilities in market development are also less likely to replicate existing fund products. Hence,

In Muslim-majority countries, a specific denomination group within Islam may have the support of the state, and thus a high level of state logic will prioritize this group over others. For example, the Malaysian government is generally considered hostile toward the Shias as it has implemented policies discouraging them from disseminating their own understandings of Islam. Thus, minority groups are more likely to accept their disadvantaged positions (Fligstein and McAdam 2012, Marquis and Lounsbury 2007), and thus firms with strong entrepreneurial capabilities in religion may have fewer opportunities to form new funds, as may those with strong capabilities in market development. Thus, religious diversity within Islam will also encourage less entrepreneurial supply in Muslim-majority countries when the level of state logic is stronger.

However, religious diversity within Islam is less likely to reduce investor demand, when the level of state logic is stronger. Standardizing the Shariah rulings in Islamic forms of investing has been suggested as one way to address the problems of different interpretations that can result in a lower market demand (Kamsso and Ng 2013, Warde 2000). International organizations such as the International Islamic Financial Market (IIFM) have been established to standardize Shariah interpretations across countries. Some countries have even set up national-level Shariah supervisory boards to regulate Islamic finance. However, the enforcement of these standards depends on the influence of the state. For example, Indonesia, which has the largest Muslim population, has implemented regulations on Islamic finance, but as the state's control over the economy is not strong, and the development of the Indonesian Islamic capital market has been "below the expectation" (Bisnis Indonesia 2005). Malaysia has similar geo-political and economic conditions but a stronger state logic, and religious diversity within Islam has been less of a problem in the development of a market for Islamic investing. When the state has more control over the economy, it is more capable of enforcing policies to reduce diverse Shariah interpretations (Guillen and Capron 2016), and hence can lessen the negative impact of religious diversity within Islam on investor demand.

State logic is also oriented toward greater investments and expenditure on public infrastructure. The stronger the state logic, the more likely that public resources essential to Islamic investing will be improved, such as human capital in religion and finance. Experts in the field often suggest that "education is vital...to benefit from this growing [Islamic investment] market" (Greene 2000). Malaysia is often cited as the paradigm for Islamic finance development (DeLorenzo 2011) because a relatively high proportion of its economy involves public expenditure. This has helped to build a sophisticated infrastructure for Islamic finance early on, including the establishment of the Chartered Islamic Financial Analyst program, which trains students in Islamic finance. As expertise, resources, and capabilities in Islamic finance increase, religious diversity within Islam is less likely to reduce investor demand. Thus, I propose the following hypotheses.

Hypothesis 4a (H4a): *State logic negatively moderates the effects of religious diversity within Islam on the founding rates of Islamic investment funds.*

Hypothesis 4b (H4b): *State logic positively moderates the effects of religious diversity within Islam on the assets managed by Islamic investment funds.*

METHOD

Data and Sample

I collected data from various sources. Information about all known Islamic investment funds is from Bloomberg (Yan et al. 2019, Zhang 2019) which monitors and collects information on various investment funds globally. Bloomberg's analysts assess fund prospectuses, which are legally-binding documents, to determine and classify funds as Islamic. The data is free of survivorship bias, and I can identify the time when an Islamic fund was founded (only 1.9% missing founding dates) and the amount of assets under its management. The data of the other variables are collected from the World Bank, the Heritage Foundation, the Yearbook of International Organizations, and the World Religion Dataset (Maoz and Henderson 2013). The World Religion Dataset provides cross-national data on religious adherence since 1945 and identifies within Islam the seven branches of Sunni, Shia, Ibadhi, Nation of Islam, Alawite, Ahmadiyya, and other.

I identified the country of a fund by its legal domicile (Khorana et al. 2005) and used the country-year as the unit of analysis. This is appropriate in the context of Islamic investing, because relevant economic institutions and state actors operate at the country level (Guler et al. 2002, Lim and Tsutsui 2012) and currently Islamic funds are primarily domestic (Wilson 2004). I obtained two separate samples for statistical estimations. The first was used to estimate the effects of religious diversity within Islam on founding rates and the second to estimate its effects on assets managed. The data on assets managed is less comprehensive than those on founding rates. Both final samples are from 1995 to 2010, and thus cover the emergence of Islamic investing. This sector emerged in mid 1990s. In late 2010, many of the Gulf countries experienced an "Arab Spring," which transformed Islamic investing due to the collapse of several authoritarian regimes that had constrained Islamic finance. The coverage in this study is

comprehensive. Prior studies on investment funds have used Bloomberg to capture the population of investment funds (Yan et al. 2019). Hoepner and colleagues (2011) used a different data source and studied the largest dataset on Islamic funds which is comparable to this study. They examined 265 funds from 20 countries between 1990 and 2009, whereas this study covered 326 funds from 22 countries between 1995 and 2010.

To obtain anecdotal evidence and develop a contextually deeper understanding of the mechanisms (Small 2011, Kaplan 2015), I consulted other literature on Islamic finance. I also analyzed complementary qualitative data from news articles on Islamic investing. I used “Islamic fund,” “Islamic invest*,” “Halal invest*,” “Sharia* fund,” “Sharia* invest*,” and other similar terms to search for relevant news articles in the Factiva database. After removing redundant and irrelevant articles, I obtained 220 pages of effective text, which provided additional information to support hypothesis building.

Dependent Variable

Product supply of Islamic funds. I used founding rates to measure the entrepreneurial supply of Islamic investment funds in a country, and followed previous studies on new venture creations (Carroll and Hannan 2000) to model the founding of Islamic investment funds as the number of newly started Islamic investment funds per country year.

Investor demand for Islamic funds. I used the logged assets under management as a measure of investor demand in the Islamic investment fund sector. This captures the amount of pooled savings from investors, and as Islamic investing is still highly domestic (Wilson 2004), it proxies for the demand for Islamic investment funds in a given country. The original value of assets under management was highly skewed, so I applied a natural log transformation.

Independent Variable

Religious diversity within Islam was calculated by taking the fractionalization index (Alesina et al. 2003) of the sub-groups within Islam (Hilary and Hui 2009). In other words, it is one minus the

Herfindahl index of religious group shares. The literature has established the status of this index as a robust and valid measure of religious diversity (Hilary and Hui 2009), and it has been widely used (see Zhao and Lounsbury 2016).

Moderating Variable

Market logic. I measured market logic by the strength of the institutional arrangements supporting market freedom and efficiency. Using data from the Heritage Foundation's Index of Economic Freedom, I followed Zhao and Lounsbury (2017) and calculated the average level of business freedom, trade freedom, property rights, and investment freedom. By excluding other economic freedom indicators, such as fiscal freedom and government size, this measure is consistent with other conceptualizations of market logic in the literature (Thornton et al. 2012, Thornton and Ocasio 1999) and avoids being confounded with the state logic measure.

State logic. I measured state logic by the percentage of government expenditure in GDP, obtained from the World Bank. The share of government expenditure in an economy is a measure of the state's influence commonly used in the management literature (Guler et al. 2002, Polillo and Guillen 2005) and in economics (King and Levine 1993, Landau 2012, Levine 1997, Ram 1986). I considered other alternatives, such as the existence of a national Shariah supervisory board, but this measure best serves the purpose of this study, not only because it proxies for a state's general strength and depth of influence in the economy, but also because it reflects its impact on infrastructure building, which is relevant in the context of Islamic investing.

Control Variable

For all the hypotheses, I controlled for basic social and economic conditions relevant to the investment fund sector, such as GDP per capita, financial openness, education, and foreign direct investment as a percentage of GDP. The general wealth of a country is proxied by GDP per capita. Financial openness proxies for the openness of financial transactions and the freedom of capital flows (Marquis et al. 2016). I controlled for the number of years in secondary education, as previous research

has linked this to the size of the investment fund industry (Khorana et al. 2005). I also controlled for foreign direct investment as a percentage of GDP, as multinational corporations influence the fund management sector.

I then controlled for factors that pertain to Islam, such as dependence on the Islamic Development Bank, the location of an Islamic finance association's headquarters, the proportion of the economy from exporting fuel, the real interest rate, the dissemination of Islamic funds via trade relations, and the Islamic population. The Islamic Development Bank is one of the most important institutions in global Islamic finance and has a similar role to the IMF or the World Bank. I controlled for each country's dependence on the Islamic Development Bank by the level of funding it provides over GDP. I also created a dummy variable to indicate whether a country hosts an Islamic finance association (Weber et al. 2009). I controlled for fuel export in the economy because many Muslim countries' economies rely on fuel export as a major source of income (Hussain et al. 2016, Imam and Kpodar 2013). Islamic finance generally prohibits *riba*, so I also controlled for the real interest rate, as this will affect the attractiveness of other financial products. I also controlled for trade diffusion mechanisms by including a control variable that proxies for the contagion effects of trade cohesions between countries (Guler et al. 2002, Yan et al. 2019).

$$\text{Trade cohesion}_{it} = \sum \text{Islamic fund}_{jt-1} * (\text{Trade}_{ijt-1} / \text{Trade}_{it-1})^2$$

For H1, H3a, and H4a, where $\text{Islamic fund}_{jt-1}$ is the number of Islamic funds for country j at time $t-1$, Trade_{ijt-1} is the total trade between country i and country j during year $t-1$, and Trade_{it-1} is country i 's total trade during the same period. For H2, H3b, and H4b, $\text{Islamic fund}_{jt-1}$ is the assets under Islamic fund management. Finally, I controlled for the Islamic population, which is measured as the logged number of adherents to Islam in a country-year observation.

Model Specification

I used a negative binomial model with conditional fixed effects for H1, H3a, and H4a and an ordinary-least-squared model with fixed effects at both country and year levels and robust standard errors for H2, H3b, and H4b. With the fixed effects approach, all cross-sectional variations are absorbed by the

constant term and only longitudinal variation within countries drives the results. To mitigate concerns of reverse causality and simultaneity bias, I lagged the right-hand-side variables (all predictors) by one year.

RESULTS

Main Findings

Table 2 presents the trend of the key variables, such as diversity within Islam, founding rates, and Islamic assets under management, across countries and time, and I find considerable differences in the key variables.

--insert Tables 2 about here--

Table 3a shows the summary statistics and correlation table for hypotheses predicting the founding rates of Islamic investment fund. Table 3b shows the summary statistics and correlations for the hypotheses predicting the assets managed by Islamic investment funds. Following previous work using fixed-effects models (Guillen and Capron 2016), I calculated the correlations using the year-on-year changes in each variable.

--insert Tables 3a and Table 3b about here--

Table 4a shows the results of the models predicting the founding rates of Islamic investment funds from 1995 to 2010, and Table 4b presents the results of those predicting assets managed by Islamic investment funds. To reduce the impact of multicollinearity, I centered all continuous variables and used them for regression analysis, although using non-centered variables also produces consistent results. Model 1 reports the baseline model controlling for classical institutional diffusion effects and other market factors.

--insert Tables 4a about here--

Model 2 includes religious diversity within Islam, which has a positive and significant influence on the founding rates of Islamic investment funds, thus supporting H1. Model 3 includes the interaction term between religious diversity and market logic, which is positive and significant at a 0.1 level, supporting H3a. Model 4 reports the interaction term between diversity within Islam and state logic,

which is negative and significant at the 0.1 level, thus supporting H4a. Model 5 reports fully saturated interactions, supporting H3a and H4a. To illustrate these interaction effects, I show the effects of religious diversity at different levels of market logic in Figure 1 and of state logic in Figure 2.

--insert Figures 1 and 2 about here--

In Table 4b, Model 6 is the baseline model and Model 7 adds religious diversity within Islam, which has a negative and significant effect on the assets managed by Islamic investment funds, lending support to H2. As religious diversity within Islam increases by one standard deviation (0.2102), the assets managed by Islamic funds decrease by approximately 281.2 million U.S. dollars in a country. In Model 8, the interaction term between market logic and diversity within Islam on the assets managed by Islamic investment funds is not statistically significant, but the sign is positive and consistent with H3b. Model 9 includes the interaction term between religious diversity and state logic. It has positive and significant loadings, and thus supports H4b, which I illustrate graphically in Figure 3. Model 10 reports the results on fully saturated models, which are consistent with those in Model 9, lending support to H4b.

--insert Table 4b and Figure 3 about here--

9/11 as an Additional Analysis

To strengthen the credibility of the findings, I analyzed the aftermaths of 9/11 in 2001 as exogenous shocks to mitigate common concerns such as endogeneity. The 9/11 terrorist attacks by al-Qaeda against the U.S. had far-reaching global effects. Evidence suggests that 9/11 created a considerable backlash and led to violence against Muslims (Peek 2011, Warde 2004). Muslims in general came to feel that the Islamic culture and the Muslim population were regarded by some as the enemy. In Muslim-majority states, the Muslim community is likely to be more unified due to a perceived external threat, and any religious schism is less likely to be intense. Thus, religious diversity within Islam is less likely to increase product supply after 9/11 in Muslim-majority countries. In secular countries, Muslim identity building will be constrained and the level of scrutiny over any activities related to Islamic finance also increased after 9/11, for fear of unknowingly funding terrorism (Warde 2004), hence constraining the

practice of Shariah scholarship in all areas including finance. Thus, religious diversity within Islam is more likely to reduce investor demand after 9/11 in secular countries, due to a decreasing availability of Sharia scholarship to ensure religious compatibility.

In Table 5, I report additional analysis of the impact of 9/11 on Islamic investing. In Model 11, I report full sample analysis on founding rates. The interaction term of religious diversity within Islam and the post-9/11 dummy is negative and significant, supporting that religious competition became less intense after 9/11. In Models 12 and 13, I split the sample into secular and Muslim countries using membership in Islamic Development Bank as the indicator. In Model 12, the same interaction term is not significant, suggesting that religious competition did not change much in secular countries before and after 9/11. In Model 13, this term is significant at 0.1 level, suggesting that it is the Muslim-majority countries that experienced a decrease in religious competition. In Model 14, the interaction term is positive but insignificant, suggesting that the effect of religious diversity within Islam on the overall demand for Islamic investing has not changed much before and after 9/11. However, results from Model 15 suggest that religious diversity within Islam was more likely to cause contraction of investor demand in secular countries where scrutiny over any Islamic activity increased after 9/11. In Model 16, the interaction term is not significant, but the sign is positive and consistent with the expectation that religious competition is lessened in Muslim-majority countries. These results provide additional support for the underlying mechanisms.

--insert Table 5 about here--

Other Robustness Checks

I performed a set of other robustness checks to confirm the main findings (see online appendix). First, a different model choice did not affect the findings. I used the fixed-effects Poisson model with robust standard errors and obtained consistent results. Second, the findings are robust to alternative measurements of dependent variables. I used Islamic assets as a percentage of GDP and as a percentage of all equities' values in the market, and the results remained consistent. Third, the findings are robust to the

removal of potential outliers. I winsorized all variables at the 2.5% level (both top and bottom), and the results remained consistent. The findings also hold when I remove Ireland, which is an offshore financial center. Finally, the increased new funds may also raise competition which in turn can reduce market performance, so the effect might be attributed to founding rates rather than religious diversity per se. I added founding rates as an additional control and the results remain consistent.

DISCUSSION AND CONCLUSION

This study suggests that religious entrepreneurship can be effectively examined using the concept of intra-institutional complexity, as religious logic can affect the market emergence of Islamic investment funds in complex ways. I focus on Islamic investment funds, but the insights can be applied to various other settings. The core mechanisms such as cultural competition and replication are likely to be manifested in other religious, or even non-religious markets in which diverse groups contend for a monopolistic claim over a legitimate identity. The use of entrepreneurial capabilities in religion and in market development can also inform other contexts where entrepreneurial firms choose different strategic positions and can help us understand how the dynamics of these firms, with different entrepreneurial capabilities, influence the performance of the entire entrepreneurial market.

This paper has some limitations, which invite future research. First, I use differences in denominations such as Sunni and Shia to examine the diversity within Islam. This is not the only way to characterize the complexity of Islam. Even within Sunni, there are four competing schools of finance interpretations, which are likely to engender religious competition. Future research should explore alternative specifications of intra-institutional complexity in Islam. Second, the hypothesis of market logic moderating religious diversity within Islam on assets under management is not supported. It is likely that a higher degree of market logic may lead Islamic funds to lose their religious appeal, suggesting that further research could examine the impact of market logic in religious settings. Finally, supply and

demand dynamics are often linked, so the analysis should be viewed cautiously, although additional analysis lends support to the hypotheses.

Contribution to Research on Religion and Entrepreneurship

I examine the intricate role of religious diversity on the emergence of the religious financial market. Tracey (2012, p. 121) argues that there is “significant potential to connect scholarship on entrepreneurship with religion.” Using the rise of Islamic investment funds as an example of religious “start-up” in the financial market (Tracey 2012, p. 121), this is the first study to focus on the heterogeneity within Islam and show its effects on different entrepreneurial outcomes, which is a significant omission from previous research (Gümüşay 2017). I also distinguish between two entrepreneurial outcomes to elucidate the impact of religious diversity within Islam: the product supply of Islamic funds and the investor demand for them, providing a more nuanced understanding of developments in a novel entrepreneurial market (Sine and David 2010). The findings on market and state logics also provide novel insights into how institutional arrangements can facilitate religious entrepreneurship, contributing to the research on institutions and entrepreneurship (Eesley 2016, Hiatt et al. 2009, Sine et al. 2005, Sine and David 2010).

Contribution to Research on Institutional Complexity

This study also contributes to research on institutional complexity by showing the effects of religious diversity as a form of intra-institutional complexity, and how it interacts with inter-institutional forces. This study’s novel finding is that state logic differentially moderates the effects of religious diversity within Islam on different entrepreneurial outcomes. In a complex system such as a religious fund market, the prevalence of logics may strike different balances and generates organizational dynamics that cannot be fully explained by prior literature on religious business (Peifer 2015). It contributes to research on institutional complexity by exploring how multiple logics can be competing or complementary with other logics (Lee and Lounsbury 2015, Zhao and Wry 2016), thus focusing how “constellation of institutional logics” (Goodrick and Reay 2011) as a whole can affect organizations.

Contribution to Research on Islamic Finance

This study also contributes to research on Islamic finance as an important phenomenon. “The existing literature focuses overwhelmingly on Western Christianity, and seldom examines other faiths or parts of the world” (Tracey 2012, p. 89, Tracey et al. 2014). But as the global Islamic population increases, organizations and markets under Islamic influence are also growing (Boone and Özcan 2016, Gümüşay et al. 2019), and thus it is more important than ever to understand how the Islamic economic sector works. Research on Islamic investment funds predominantly focuses on their performance (El-Masry et al. 2016, Ghoul and Karam 2007, Hoepner et al. 2011), but few studies have addressed their emergence. While it is practically useful to know whether Islamic investment funds outperform conventional funds, economic rationality may not fully explain nor drive its future growth. This study identifies the complex interrelationships between different societal orders, such as Islam itself, the market, and the state, that underpin the rise of Islamic investment funds and can therefore inform the further development of Islamic finance. Thus, instead of comparing financial returns between Islamic and other types of investment funds, the societal context should be examined to broaden the scope of research on Islamic finance.

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APPENDIX

Figure 1: Effects of Religious Diversity within Islam on Founding Rates at Different Levels of Market Logic

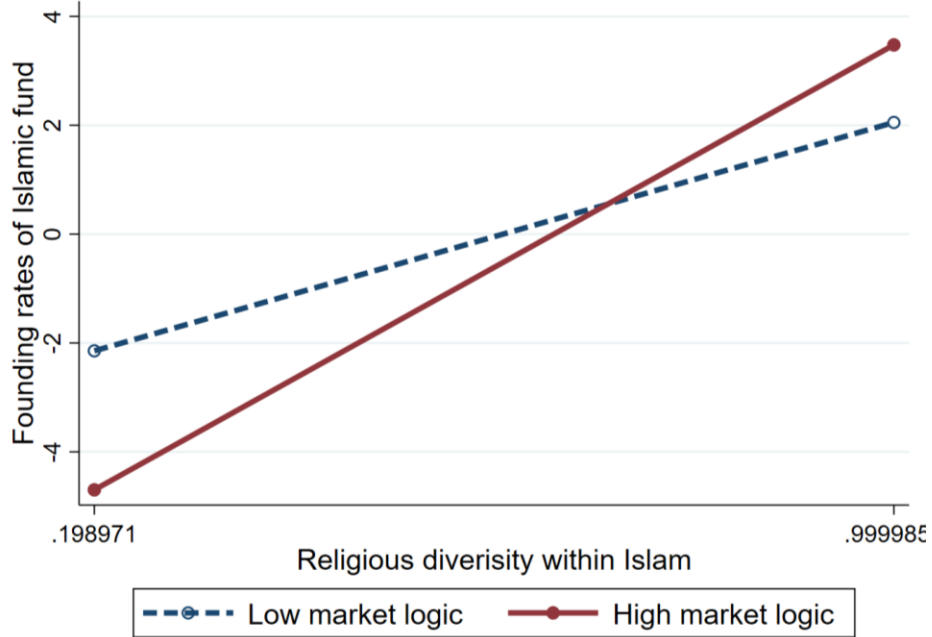


Figure 2: Effects of Religious Diversity on Founding Rates at Different Levels of State Logic

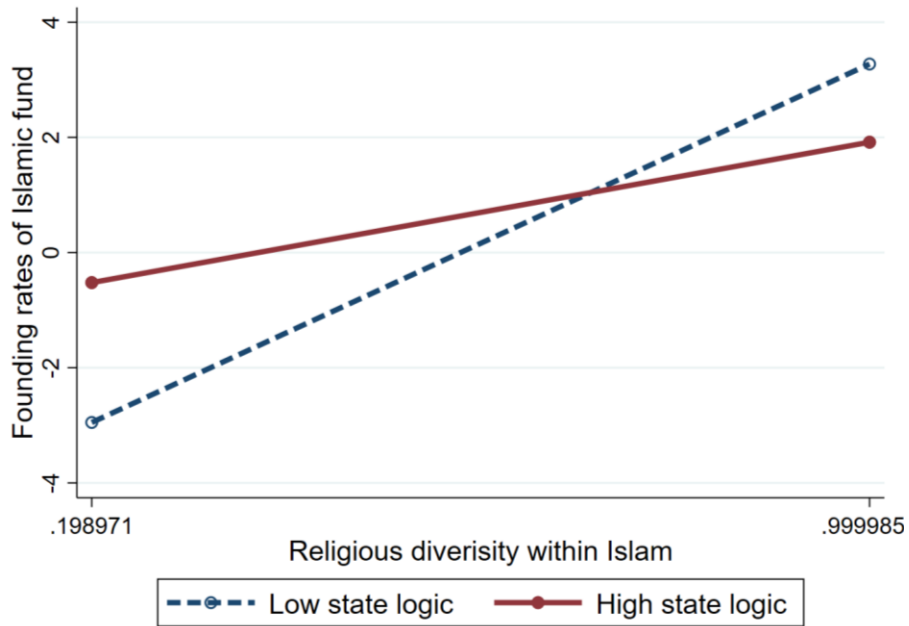


Figure 3: Effects of Religious Diversity on Assets under Management at Different Levels of State Logic

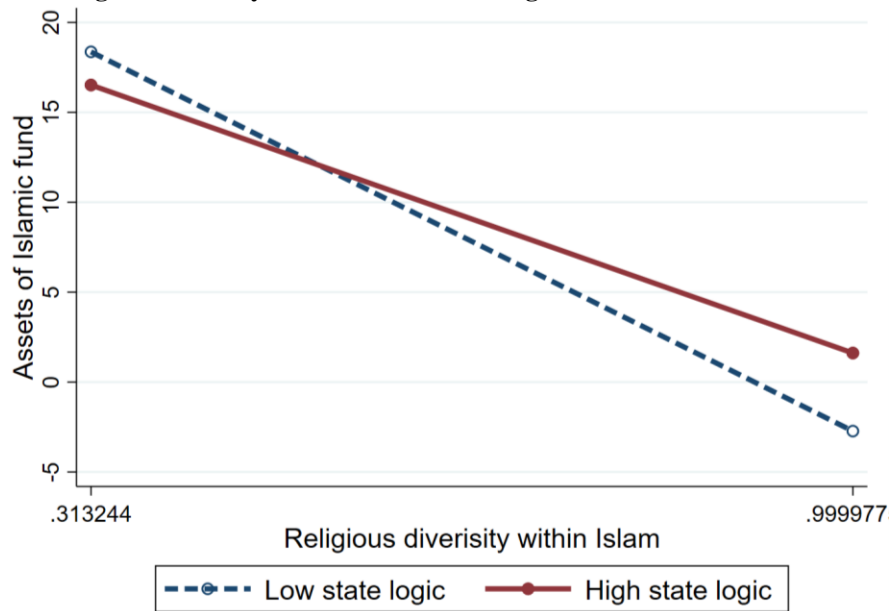


Table 1a: Major Differences between Islamic and Conventional Funds

Religious dimensions	Practical implications	Islamic fund	Regular fund
Interest (<i>riba</i>)	Traditional banks, or any firm with a high debt-to-equity ratio or a significant holding in interest-earning business	Not investible	Accepted
Uncertainty (<i>gharar</i>) and speculation (<i>maysir</i>)	Terms and conditions of the financial products are partially defined	Not investible	Negotiable
Non-permissible activities (<i>haram</i>)	Controversial stocks, such as alcohol, adult entertainment, gambling, tobacco, and pork	Not investible	Accepted
Risk and return sharing	Profits are shared between owners (i.e., principals) and agents; owners but not the agents bear the loss	Necessary	Negotiable
Back all transactions with assets	Futures, options, and other derivative products are largely not permissible	Necessary	Optional
Shariah governance	Shariah adviser at seniors levels and Shariah compliance officer	Desirable	Unnecessary

Table 1b: Characteristics of Market and State Logics in Islamic Investing

Dimensions	Market	State
Source of legitimacy	Free enterprise	Law and regulation
Source of authority	Financial returns	Bureaucratic control
Basis of norms	Self-interest	Member of a nation
Basis of attention	Market position	Status of interest group
Basis of strategy	Increase profit	Increase societal good
Impact on Islamic fund market	Lower entry barrier Provide global capital Increase secularism	Contain religious conflict Support infrastructure building
Representative countries	Malaysia, Singapore Bahrain, U.S., Australia	Malaysia Singapore

Table 2: Summary of Key Variables across Countries and Time

Year	1995-2000			2001-2005			2006-2010		
Country	Religious Diversity within Islam (average)	Founding rates (sum)	Assets (mil\$, sum)	Religious Diversity within Islam (average)	Founding rates (sum)	Assets (mil\$, sum)	Religious Diversity within Islam (average)	Founding rates (sum)	Assets (mil\$, sum)
Australia	0.99978	0	0	0.99972	0	1.70581	0.99959	1	1.8416
Bahrain	0.50590	0	82.4	0.56580	6	287.78601	0.55656	5	46.585
Bangladesh	0.20578	0	0	0.20313	1	N/A	0.20053	0	N/A
Canada	0.99996	1	13.8	0.99979	0	15.04549	0.99968	2	3.370064
Egypt	0.29675	0	0	0.25346	1	N/A	0.26038	4	N/A
France	0.99755	0	0	0.99441	0	8.09558	0.99436	2	25.09384
India	0.98982	0	N/A	0.98668	0	N/A	0.98666	4	N/A
Indonesia	0.32193	2	0	0.31991	17	55.425402	0.31324	58	1.191278
Ireland	0.99998	2	200.8	0.99996	1	1300.9611	0.99996	13	2469.803
Kuwait	0.65501	4	17.5	0.54601	22	436.365337	0.47357	4	100.46
Malaysia	0.71013	22	N/A	0.70693	62	1.61445	0.69886	121	65.59617
Mauritius	0.97977	1	N/A	0.97640	1	0.7983	0.97492	19	25.8698
Netherlands	0.99782	0	0	0.99711	0	0	0.99674	1	N/A
Qatar	0.59519	0	N/A	0.72280	3	N/A	0.85310	0	9.84
Russia	0.98755	0	0	0.98067	0	0	0.98484	1	N/A
Singapore	0.97505	1	12.6	0.97847	2	111.41241	0.97944	2	74.04545
South Africa	0.99980	2	3317.6	0.99979	5	2966.3719	0.99977	6	2514.396
Sri Lanka	0.99469	0	0	0.99495	1	N/A	0.99257	0	N/A
Switzerland	0.99847	0	0	0.99824	0	9.774	0.99829	1	6.872
Thailand	0.99641	0	0	0.99180	1	N/A	0.99180	3	N/A
UK	0.99949	0	0.2	0.99901	1	49.849712	0.99864	2	N/A
USA	0.99993	1	1616.1	0.99993	0	164.54	0.99994	2	226.39

Note: As I describe some key variables from both samples in one table, some variables have missing values.

Table 3a: Summary Statistics and Correlation Table for Models Predicting Founding Rates

	Variables	mean	sd	min	max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Islamic fund founding	3.22	2.07	-1.76	7.31	1														
2	GDP per capita(log)	9.88	1.01	7.11	10.99	-.01	1													
3	Financial openness	1.54	1.27	-1.19	2.39	-.11	.11	1												
4	Education	12.06	0.89	10	13	.01	.17	.00	1											
5	FDI(%GDP)	6.17	6.98	-5.67	26.52	.08	.12	-.03	.08	1										
6	Dependence on IDB	0.0006	0	0	0.01	-.01	-.05	-.03	-.05	.00	1									
7	Islamic finance headquarters	0.01	0.09	0	1	.06	.01	.00	.00	.01	-.12	1								
8	Fuel export (log)	2.05	2.07	-7.42	4.57	.01	.04	.12	.01	-.13	.16	-.01	1							
9	Real interest rate	3.76	6.52	-9.67	41.25	.04	-.07	.09	-.02	-.01	.09	.00	.06	1						
10	Trade cohesion(number)	0.38	0.66	0.005	4.11	.01	.01	-.01	.00	-.01	.06	-.07	.00	.02	1					
11	Islamic population(log)	13.79	2.01	9.77	19.1	.02	-.08	.03	.01	.00	.00	-.02	.07	-.02	-.26	1				
12	Market logic	72.91	13.3	42.2	89.8	-.02	-.06	-.13	.01	-.06	.10	-.02	-.04	.04	-.02	-.01	1			
13	State logic	15.33	4.07	8.11	25.27	.00	-.28	.10	-.07	-.08	.02	.05	-.03	.52	.07	-.05	.00	1		
14	Religious diversity within Islam	0.87	0.21	0.31	1	-.01	.03	-.06	.00	.01	.03	-.03	-.03	.09	.01	.02	.13	-.03	1	

Table 3b: Summary Statistics and Correlation Table for Models Predicting Assets under Islamic Management

Variables	mean	sd	min	max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 Islamic assets	3.39	2	-0.7	7.15	1														
2 GDP per capita(log)	9.88	1.01	7.11	11	.00	1													
3 Financial openness	1.54	1.27	-1.2	2.39	-.02	.04	1												
4 Education	12.06	0.89	10	13	.07	.27	.00	1											
5 FDI(%GDP)	6.17	6.98	-5.7	26.5	.03	.19	.03	.13	1										
6 Dependence on IDB	0.0006	0.002	0	0.01	.07	.04	.01	.00	-.03	1									
7 Islamic finance headquarters	0.01	0.09	0	1	.02	-.06	.00	.00	.02	.04	1								
8 Fuel export (log)	2.05	2.07	-7.4	4.57	-.04	.03	.06	.02	-.03	.00	-.03	1							
9 Real interest rate	3.76	6.52	-9.7	41.3	.13	-.25	-.08	-.03	-.06	.29	.00	-.04	1						
10 Trade cohesion (assets)	6.58	18.93	0	134	-.04	.05	-.01	.00	-.14	.63	-.01	-.02	.28	1					
11 Islamic population(log)	13.79	2.01	9.77	19.1	.08	.06	.01	.08	-.04	-.04	.00	.08	-.04	-.02	1				
12 Market logic	72.91	13.27	42.2	89.8	-.19	.01	-.03	.00	-.19	-.20	-.06	-.05	-.17	-.06	.00	1			
13 State logic	15.33	4.07	8.11	25.3	-.08	-.54	-.05	-.10	-.12	.27	.01	-.04	.61	.37	-.15	-.07	1		
14 Religious diversity within Islam	0.87	0.21	0.31	1	-.17	.07	.00	-.01	-.03	-.12	.00	.04	-.31	-.07	-.05	.33	-.09	1	

Table 4a: Predicting Founding Rates of Islamic Mutual Funds from 1995-2010

Variable	Model 1 Controls	Model 2 H1	Model 3 H3a	Model 4 H4a	Model 5 H3a, 4a
GDP per capita(log)	1.30 (1.34)	1.44* (2.30)	1.58* (2.47)	1.27 (1.61)	1.40+ (1.86)
Financial openness	-0.56** (-2.88)	-0.44* (-2.14)	-0.50* (-2.49)	-0.45* (-2.28)	-0.49* (-2.47)
Education	1.07* (2.33)	0.90 (1.56)	0.93 (1.58)	0.82 (1.37)	0.80 (1.42)
FDI (% GDP)	0.06* (2.03)	0.07** (2.60)	0.06* (2.40)	0.07* (2.42)	0.06* (2.28)
Dependence on IDB	75.33 (0.91)	126.74 (1.39)	143.10 (1.51)	97.42 (1.11)	106.17 (1.13)
Islamic finance headquarters	-0.21 (-0.35)	0.11 (0.19)	0.26 (0.43)	0.06 (0.10)	0.18 (0.32)
Fuel export (log)	-0.11 (-0.89)	-0.08 (-0.64)	-0.11 (-0.82)	-0.07 (-0.55)	-0.07 (-0.58)
Real Interest Rate	0.01 (0.62)	0.01 (0.79)	0.02 (1.00)	0.01 (0.50)	0.01 (0.73)
Trade cohesion (number)	-0.01 (-0.02)	-0.14 (-0.40)	0.03 (0.10)	-0.23 (-0.64)	-0.06 (-0.19)
Islamic population (log)	1.01** (3.14)	1.45*** (3.97)	1.59*** (3.88)	1.46*** (3.62)	1.57*** (3.76)
Market logic	0.01 (0.50)	0.00 (0.07)	0.02 (0.81)	0.02 (0.58)	0.04 (1.28)
State logic	0.07 (1.49)	0.02 (0.30)	-0.00 (-0.06)	-0.07 (-0.95)	-0.10 (-1.25)
Religious diversity within Islam		6.29* (2.30)	7.98* (2.47)	4.87 (1.62)	6.78* (2.10)
Religious diversity within Islam × Market logic			0.15+ (1.88)		0.15+ (1.91)
Religious diversity within Islam × State logic				-0.47+ (-1.78)	-0.52+ (-1.84)
Constant	-2.54* (-2.29)	-2.56* (-2.34)	-2.65* (-2.49)	-2.54* (-2.35)	-2.56* (-2.48)
Log-likelihood	-220.52	-217.43	-215.66	-215.85	-213.99
Chi-squared	118.11	129.22	136.14	130.86	136.49

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. t statistics are in parentheses.

N = 321 in 22 countries; country fixed effects and year dummies are included in all models.

Table 4b: Predicting Assets Managed by Islamic Mutual Funds 1995-2010

Variable	Model 6 Controls	Model 7 H2	Model 8 H3b	Model 9 H4b	Model 10 H3b, 4b
GDP per capita (log)	2.97 (0.65)	6.66 (1.53)	6.62 (1.44)	8.26 ⁺ (2.07)	8.26 ⁺ (1.92)
Financial openness	0.51 (1.63)	0.49 ⁺ (2.06)	0.48 ⁺ (2.03)	0.42* (2.34)	0.42* (2.30)
Education	0.52 (1.38)	0.22 (0.66)	0.21 (0.72)	0.13 (0.38)	0.13 (0.44)
FDI (% of GDP)	0.00 (0.08)	-0.01 (-0.20)	-0.01 (-0.21)	-0.01 (-0.23)	-0.01 (-0.23)
Dependence on IDB	9.82 (0.05)	-38.67 (-0.24)	-44.10 (-0.31)	-44.34 (-0.39)	-44.30 (-0.41)
Islamic finance headquarters	-1.16* (-2.65)	-0.99* (-2.48)	-1.03 (-1.63)	-1.28* (-2.96)	-1.27 (-1.76)
Fuel export (log)	-0.00 (-0.01)	0.06 (0.34)	0.06 (0.28)	0.11 (0.54)	0.11 (0.56)
Real Interest Rate	0.025 (1.49)	0.001 (0.07)	0.002 (0.09)	0.004 (0.18)	0.004 (0.18)
Trade cohesion (assets)	0.01 (0.50)	-0.01 (-0.81)	-0.01 (-0.81)	-0.01 (-0.65)	-0.01 (-0.67)
Islam population (log)	-1.39 (-1.12)	-0.98 (-1.00)	-1.00 (-0.96)	-0.13 (-0.15)	-0.13 (-0.15)
Market logic	0.10 (1.44)	0.12 ⁺ (2.01)	0.11 (1.42)	0.07 (1.11)	0.07 (0.82)
State logic	-0.15 ⁺ (-1.82)	0.18 (1.29)	0.17 (0.83)	0.38* (2.76)	0.38 ⁺ (2.13)
Religious diversity within Islam		-27.59** (-3.28)	-26.57 (-1.36)	-25.24** (-2.99)	-25.25 (-1.44)
Religious diversity within Islam × Market logic			0.05 (0.08)		-0.0003 (-0.00)
Religious diversity within Islam × State logic				1.11** (3.12)	1.11** (3.12)
Constant	-2.46 (-0.77)	-3.62 (-1.33)	-3.67 (-1.37)	-4.43 ⁺ (-2.02)	-4.43 ⁺ (-2.08)
R-square	0.52	0.57	0.57	0.61	0.61

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. t statistics are in parentheses.

N = 111 in 15 countries; country fixed effects and year dummies are included in all models.

Table 5: 9/11 as an Additional Analysis

	Model 11 Supply, Full Sample	Model 12 Supply, Secular Countries	Model 13 Supply, Muslim- majority countries	Model 14 Demand, Full Sample	Model 15 Demand, Secular Countries	Model 16 Demand, Muslim- majority countries
GDP per capita(log)	1.00 ⁺ (1.86)	0.31 (0.25)	-0.78 (-0.63)	6.52 ⁺ (1.90)	9.98 ⁺ (1.92)	2.93 (0.53)
Financial openness	-0.11 (-0.66)	0.26 (0.46)	-0.29 (-1.43)	0.18 (0.87)	0.38 (1.38)	-0.99 (-1.41)
Education	0.16 (0.34)	-0.40 (-0.93)	0.65 (0.62)	-0.16 (-0.68)	-0.28 (-0.53)	0.00 (.)
FDI(%GDP)	0.08 ^{**} (2.93)	0.06 [*] (2.04)	0.09 ⁺ (1.74)	0.00 (0.16)	0.00 (0.26)	0.01 (0.09)
Dependence on IDB	168.29 ⁺ (1.87)	-10737.51 (-0.39)	105.69 (1.15)	45.82 (0.33)	-63934.18 (-1.08)	7.39 (0.05)
Islamic finance headquarters	-0.16 (-0.34)	0.00 (.)	-0.23 (-0.55)	-0.74 (-1.62)	0.00 (.)	1.80 [*] (3.71)
Fuel export (log)	0.01 (0.05)	-0.04 (-0.24)	0.50 (0.76)	0.02 (0.12)	0.04 (0.21)	8.87 (1.88)
Real interest rate	0.01 (0.93)	-0.07 (-1.11)	0.02 (1.31)	0.01 (0.27)	0.00 (0.12)	0.03 (0.76)
Trade cohesion	-0.49 (-1.48)	-1.74 [*] (-2.54)	-0.22 (-0.43)	-0.02 (-1.30)	0.05 [*] (2.55)	-0.00 (-0.03)
Islamic population(log)	1.06 ^{**} (3.13)	-0.42 (-0.89)	-0.08 (-0.10)	-0.91 (-1.20)	-0.42 (-0.62)	5.54 (0.33)
Year trend	0.04 (1.05)	0.30 ^{***} (3.35)	0.06 (0.76)	0.03 (0.38)	-0.13 (-1.18)	-0.31 (-0.44)
Market logic	-0.02 (-0.79)	0.00 (0.00)	-0.05 ⁺ (-1.90)	0.11 (1.60)	0.03 (0.35)	-0.01 (-0.03)
State logic	-0.05 (-0.79)	-0.42 [*] (-2.29)	-0.08 (-0.99)	0.20 (1.35)	0.77 [*] (3.04)	-0.07 (-0.29)
Religious diversity within Islam	8.80 ^{**} (3.00)	120.74 (1.49)	13.67 [*] (2.33)	-28.73 ⁺ (-1.88)	-426.01 (-0.93)	-19.37 (-0.54)
Post-911	2.65 [*] (2.51)	-57.56 (-1.06)	4.40 [*] (2.26)	-1.04 (-0.31)	47.75 ⁺ (1.87)	-1.89 (-0.09)
Religious diversity within Islam × Post-911	-2.43 [*] (-2.10)	58.15 (1.07)	-5.47 ⁺ (-1.96)	0.82 (0.25)	-48.13 ⁺ (-1.86)	2.50 (0.06)
Constant	-120.64 (-1.48)	-701.91 ^{**} (-3.28)	-134.74 (-0.87)	-98.45 (-0.61)	581.71 (0.98)	485.58 (0.40)
Observations	321	224	97	111	77	34
Countries	22	15	7	15	10	5
Log-likelihood	-229.66	-99.64	-117.94	-131.40	-71.71	-38.94
Chi-squared	86.76	31.90	62.63	/	/	/
R-square	/	/	/	0.51	0.64	0.67

⁺ $p < 0.10$, ^{*} $p < 0.05$, ^{**} $p < 0.01$, ^{***} $p < 0.001$. t statistics in parentheses

Country fixed effects are included in all models