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RESEARCH ARTICLE

Value of faith: Religious entrepreneurs and corporate longevity

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Abstract

Using the data on the religious belief of entrepreneurs in Chinese family firms, this study shows that religious entrepreneurs significantly positively affect corporate longevity, echoing the view that religious entrepreneurs can obtain managerial skills and share managerial knowledge about corporate operation through the conduit of religious attendance, and thus firms with religious entrepreneurs are more long-lived. Moreover, the development of factor markets across different provinces in China reinforces this positive relation between religious entrepreneurs and corporate longevity. Furthermore, qualitatively similar results can be found from various robustness tests, and our conclusions still stand after controlling for the potential selection bias in the research sample. Lastly, after differentiating different religious beliefs, the positive relation between religious entrepreneurs and corporate longevity is only valid for Western religious beliefs (but not for Eastern religious beliefs), and the reinforced role of the development of factor markets only stands for Eastern religious beliefs.

Keywords: religious entrepreneurs; corporate longevity; the development of factor markets; the social capital theory; Chinese family firms

Introduction

Extant studies have found that corporate longevity is affected by a variety of external and internal factors, such as institutional environment, governance mechanisms, managerial skills, decision-making processes, leadership style, succession planning, firm scale, and financial performance (Turetsky & McEwen, 2001; Thornhill & Amit, 2003; Fahed-Sreih & Djoundourian, 2006; Piao, 2010; Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; Carney, Gedajlovic, & Strike, 2014). In addition, a thin but growing branch of literature argues that entrepreneur-specific characteristics can also exert remarkable impacts on keeping business running well in the long-run because entrepreneurs are viewed as valuable and crucial resources for contemporary enterprises (Bates, 1990, 1995; Nafziger & Terrell, 1996; Pennings, Lee, & Van Witteloostuijn, 1998; Delmar & Shane, 2006; Williams & Jones, 2010; King & Peng, 2013). Nevertheless, to our knowledge and literature in hand, few studies address whether religious belief as an entrepreneur-specific feature affects corporate continuity. In response, this study examines the relation between religious entrepreneurs and corporate longevity using a sample of Chinese family firms, expanding the knowledge about religious influence on corporate behavior.

Chinese family firms contribute a lot to China's economic growth miracle by creating hundreds of millions of jobs and paying numerous taxes (Huang, 2009; Du, 2015). However, an investigation conducted by Chinese Private Economic Research Association (CPERA) revealed that the average longevity of Chinese family firms is remarkably shorter than that of their Western counterparts[1]

[1]In this study, Western counterparts denote Western family firms, which usually refer to those firms whose controllers are Western citizens and headquarters are located in Western countries or regions. The purposes that we cite CPERA (2011) is to

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(CPERA, 2011). As a result, the issue about how to maintain a family firm's going well in the long-run has become crucial in contemporary China. Against this context, it is urgent for scholars to explore the additional determinants of corporate longevity, in addition to the recognized external or internal factors.

Extant studies (Hilary & Hui, 2009; McGuire, Omer, & Sharp, 2011; Dyreng, Mayew, & Williams, 2012; El Ghoul, Guedhami, Ni, Pittman, & Saadi, 2012; Du, 2013, 2014) have found that religion affects corporate behavior such as the cost of equity, agency costs, tunneling, risk-aversion, earnings quality, and accounting irregularity. However, most of them focus on Western religions (Catholicism, Islamism, etc.) and developed countries (Hilary & Hui, 2009; McGuire, Omer, & Sharp, 2011; Dyreng, Mayew, & Williams, 2012; El Ghoul et al., 2012). Extant studies (Collins, 1999; Roccas, 2005; Smith & Marranca, 2009) argue several differences between Western religions and Eastern religions, such as the number of Gods, birthplaces, and the ways of worship. In addition, previous studies do not notice that more and more entrepreneurs in family firms are actively participating in various religious activities in contemporary China – the largest developing country in the world (Cao, 2007, 2008; Du, 2017), and thus provide little evidence on the relation between religion and corporate longevity. Motivated by the findings in previous literature and inspired by the active religious attendance of entrepreneurs in China, we address whether religious belief as an important entrepreneurial characteristic affects corporate longevity.

The 2008 national survey provided information on religious belief of Chinese entrepreneurs in family firms, which provides researchers with an important opportunity to address the above issue. Using this unique set of data, we examine whether corporate longevity is related with religious entrepreneurs, and further investigate whether the development of factor markets across provinces in China can serve as the moderator in this relation. We find that religious entrepreneurs are significantly positively related with corporate longevity, implying that religious entrepreneurs can acquire managerial skills, raise individual social capital, and get managerial inspiration by engaging into religious activities, echoing the views in Cao (2007, 2008) and Nwankwo, Gbadamosi, and Ojo (2012). Moreover, our findings reveal that the development of factor markets reinforces the positive effect of religious entrepreneurs on corporate longevity. Above findings are also supported by a variety of robustness tests, and our findings are still valid after using the propensity score matching (PSM) method to mitigate the selection bias. Furthermore, after differentiating Western religions from Eastern religions on the basis of differences in headstreams, the number of Gods, and the ways of worship, the positive impacts of religious entrepreneurs on corporate longevity are only valid for Western religions (but not for Eastern religions), implying the asymmetric effects between Western and Eastern religions on corporate longevity.

Our study makes several contributions as below. First, this study is the first to examine whether an entrepreneur's religious belief affects corporate longevity in the context of China. Second, the development of factor markets is significantly positively associated with corporate longevity, echoing the view that external institutional environment affects business continuity (Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; Carney, Gedajlovic, & Strike, 2014). Third, the development of factor markets reinforces the positive association between religious entrepreneurs and corporate longevity, providing important support to the institutional embeddedness of entrepreneurial behavior theory (Schiff, 1992; Martinelli, 2004; Dickson & Weaver, 2008; Welter & Smallbone, 2011). Finally, we document the asymmetric impacts of different religious beliefs (Western and Eastern religious beliefs that can be differentiated by their origin places, the number of Gods, and the ways of worship) on corporate longevity.

The remainders of this paper are organized as follows. The second section introduces institutional background, reviews prior literature, and develops research hypotheses. The third section

show the big gap in corporate longevity between Chinese family firms and their Western counterparts and that it is a crucial issue for Chinese family firms to increase their corporate longevity.

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reports methodology, including sample, data source, and variable definitions. The fourth section provides descriptive statistics, reports main findings, and conducts robustness checks. The fifth section conducts endogeneity tests using different approaches. The sixth section discusses theoretical contributions, managerial implications, and limitations of our study. The final section summarizes conclusions.

Background, Literature, and Hypotheses Development

Religions in China

In China, religious attendance had come to a standstill during the period from 1949 to the reform and opening-up in 1978. After the Cultural Revolution, China's constitution began to endow people with the freedom of worship. As a result, over the past decades, a growing tendency in religious boom (Du, 2013; Leithart, 2014) and the rise of religion in China are mainly reflected in two aspects.

First, the number of religious population has dramatically expanded beyond expectation (Goossaert & Palmer, 2011; Du, 2013). An investigation conducted by the Spirit Life of Contemporary Chinese People showed that about 25% of Chinese people had faith in a religion and the total number of religious population had already exceeded 300 million (Sun, 2007). In addition, according to the Chinese Spirit Life Survey executed by the Centre on Religion and Chinese Society at Purdue University (CRCSPU, 2007), more than 80% of Chinese people had faith in a religion or engaged into some religious activities, and only less than 20% of Chinese people were absolutely unaffiliated with any religions. Overall, the findings in CRCSPU (2007) and Sun (2007) clearly display an obvious and upward trend in the number of religious believers in contemporary China.

Second, a number of religious sites have been restored. According to the State Administration for Religious Affairs (SARA, 2015), the number of religious sites is about 139,000, and the total amount of professional religious staff (e.g., monks, mullahs, and priests, etc.) has already outstripped 360,000. In addition, the SARA (2015) revealed that more than 100 religious schools had been established by religious organizations to be in charge of training religious staff. With regard to the specific number of religious sites, the SARA (2015) disclosed that the number of Buddhist monasteries (Taoist temples) was about 33,000 (9,000). In brief, the dramatically increasing religious sites imply that Chinese people are enjoying more religious freedom and enthusiastically engaging in religious activities.

Overall, both the increasing number of religious population and the flourishing religious sites challenge the traditional view that religious influence is trivial in China. Moreover, as Du (2017) indicates, the relatively positive attitude of Chinese politicians towards religion creates the sound social and religious atmosphere for religious influence in contemporary China. As a result, we can rationally draw the conclusion that in contemporary China, religion may affect individual and corporate behavior.

Chinese family firms

The existing literature (Jefferson & Rawski, 1994; Putterman, 1995; Oi & Walder, 1999) argues that China's miraculous economic achievements with an average annual GDP growth rate over 9% during the past decades should be attributed to the enormous benefits of property rights reform and the rise of the private sector. Actually, the private sector has played a crucial role in China's economic development, contributing more than 60% of GDP (Pistrui, Huang, Oksoy, Jing, & Welsch, 2001; Huang, 2009). Moreover, Chinese family firms not only pay taxes to support a huge amount of public expenses, but also make great contributions towards the employment problem (Pistrui et al., 2001; Huang, 2009; Du, 2015). Nevertheless, the Chinese Private Economic Research Association (CPERA, 2011) showed that the average

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longevity of Chinese family firms was less than 10 years, far shorter than that of their Western counterparts[2]. As a result, in recent years, scholars pay their special attention to the issue about how a family business can run well in the long run (Aronoff & Ward, 1995).

First, in China, most family firms are typically controlled by paternalistic entrepreneurs who have unconditional sovereignty over their firms (Ding, Zhang, & Zhang, 2008; Su & Carney, 2013). As a result, paternalism and nepotism shape the authoritarian culture in Chinese family firms (Li & Matlay, 2006; Du, 2015), decisions made by authoritarian entrepreneurs must be implemented without any reservation (Weidenbaum, 1996), and few subordinates challenge an entrepreneur's authority (Ding, Zhang, & Zhang, 2008). Therefore, entrepreneurial features are bound to impact corporate decisions to a great extent.

Second, most Chinese family firms are headed by their founder entrepreneurs, who are inclined to operate their enterprises on the basis of their intuitions and past experience rather than standard governance mechanisms. Moreover, founder entrepreneurs have relatively less managerial education, compared with their counterparts in developed countries (Li & Matlay, 2006; Su & Carney, 2013)[3]. Furthermore, family members always participate into business operations, and thus parental altruism derived from the Chinese traditional culture endows them with perquisites and privileges, which has been proved to be harmful to their enterprises in the long run (Pistrui et al., 2001; Su & Carney, 2013).

Third, most Chinese family firms are small and medium-sized, and their operations depend closely on cheap labor (Pistrui et al., 2001; Li & Matlay, 2006). Due to the lack of core competencies, Chinese family firms are always concentrated into low value-added industries (Pistrui et al., 2001; Li & Matlay, 2006) and struggle to survive through lowering product price rather than improving quality. As a result, Chinese family firms are inclined to minimize their costs by purchasing cheap materials, simplifying production processes and duplicating Western product designs (Li & Matlay, 2006). Under such a highly competitive environment, some Chinese family firms have to pursue short-term profit by cost minimization for their survival and thereof this strategy may erode their long-term success (Li & Matlay, 2006; Du, 2015)[4], although most of them believe that long-term success is very important.

Finally, the relation-oriented culture plays a vital role in China (Li & Matlay, 2006; Su & Carney, 2013). Most entrepreneurs in Chinese family firms operate their firms by the kinship ties and political connections (Weidenbaum, 1996; Du, 2015), and thus decisions are made based on personal preferences rather than the long-term economic goals (Li & Matlay, 2006; Su & Carney, 2013).

Overall, entrepreneurs play their crucial roles in Chinese family firms, and thus it is necessary to examine the impacts of entrepreneurial characteristics including religious belief on corporate longevity.

Literature review

The theoretical framework of affecting corporate continuity has been discussed in prior studies (Hogarth, Michaud, Doz, & Van der Heyden, 1991; Oliver, 1997; van Driel, Volberda, &

[2]The survey conducted by the CPERA regards Western family firms as those whose founders are Western citizens and core organizations are in Western countries or regions (CPERA, 2011).

[3]Pistrui et al. (2001) and Li and Matlay (2006) argue that most Chinese private entrepreneurs only underwent lower level of education, and thus they are inclined to develop personal ties, resulting in the neglect of corporate governance.

[4]The fierce competition is likely to induce the short-term orientation and ethical issues, which negatively affect corporate longevity. Particularly, this effect may be stronger for firms with little differentiation in low value-added industries. As a matter of fact, the average longevity of Chinese family firms is usually shorter than that of Western peers (CPERA, 2011). Nevertheless, some Chinese family firms still keep relatively longer continuity than others. Against this context, we pay attention to the issues about how these firms maintain relatively longer continuity under such environment and what factors play a positive role in corporate longevity in China.

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Eikelboom, 2004). In addition, prior studies have identified external environment, long-term orientation, top management team, management process, organizational features, and industry sector as major determinants of corporate longevity at the different development stages of firms[5].

First, derived from the institutional theory, the existing literature (Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; Carney, Gedajlovic, & Strike, 2014) sheds the light on the influence of external institutional environment (e.g., inheritance laws, economic development, and regional culture, etc.) on corporate continuity. This stream of literature argues that external institutional environment affects the allocation of social wealth and leads to the transfer of wealth among individuals (generations; Oliver, 1997; Carney, Gedajlovic, & Strike, 2014).

Second, based on the organizational theory, extant literature (Parker, Peters, & Turetsky, 2005; Fahed-Sreih & Djoundourian, 2006; Piao, 2010; Williams & Jones, 2010) has found that organizational characteristics (e. g., leadership, succession planning, decision-making process, the spirit of exploration, and corporate governance, etc.) result in different extents of cohesion and the continuity of enterprises. In brief, organizational patterns affect resource allocation within firms, managerial efficiency, internal power distribution and division of labor, and eventually impact corporate longevity.

Third, derived from resource-based view, extant studies (Turetsky & McEwen, 2001; Thornhill & Amit, 2003; Williams & Jones, 2010) have highlighted that some external and internal resources (e.g., managerial skills, firm scale, financial leverage, and industry sector, etc.) are related with corporate longevity. This viewpoint recognizes firms as a nexus of explicit and implicit contracts among stakeholders (Fama & Jensen, 1983), and thus the efficient utilization of external and internal resources influences the long-term stability of contracts (Thornhill & Amit, 2003; Harrison & Wicks, 2013).

Finally and more importantly, a thin but growing branch of literature (e.g., Bates, 1990, 1995; Nafziger & Terrell, 1996; Pennings, Lee, & Van Witteloostuijn, 1998; Delmar & Shane, 2006; Williams & Jones, 2010; King & Peng, 2013; etc.) has paid special attention to the impacts of entrepreneurial features (human capital) as internal resources on corporate longevity. Bates (1990) and Pennings, Lee, and Van Witteloostuijn (1998) argue that managerial human capital affects corporate performance and corporate continuity, and further find a positive relation between the educational level of entrepreneurs and corporate longevity. Bates (1995) finds that female entrepreneurs and managerial experience can be conducive to raising a firm's survival rate, echoing findings in Delmar and Shane (2006) and King and Peng (2013). Moreover, Nafziger and Terrell (1996) find the positive relation between corporate longevity and entrepreneurs in high castes, verifying the impacts of entrepreneurial ethnic background on corporate longevity in India.

Overall, a large body of prior literature (Bates, 1990, 1995; Pennings, Lee, & Van Witteloostuijn, 1998; Fahed-Sreih & Djoundourian, 2006; Piao, 2010; Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; Carney, Gedajlovic, & Strike, 2014) has addressed the determinants of corporate longevity based on the institutional theory, the organizational theory, the resources-based view, and the entrepreneurial characteristics view. Nevertheless, little is known about whether religious belief as an entrepreneurial characteristic affects corporate longevity. In response, using the data of Chinese entrepreneurs from the 2008 national survey, we examine the influence of religious entrepreneurs on corporate longevity to fill the above gap.

[5]Specifically, Hogarth et al. (1991) partition a firm's development into four stages—the privileged access stage (stage 1), the transformation stage (stage 2), the leverage stage (stage 3), and the regeneration stage (stage 4). As Hogarth et al. (1991) suggest, the privileged access stage refers to the fact that a firm has privileged the access to resource; A firm stays at the transformation stage when it possesses the ability of converting production into numerous returns; A firm is identified to be at the leverage stage when it improves its traditional business model such as quality management system, innovation, and management practices; A firm stands at the regeneration stage when it continuously conducts the activities at the leverage stage (stage 3). In addition, Hogarth et al. (1991) highlight that only the activities at stages 3 and 4 can earn unique returns, and thus entrepreneurs who wish to keep their business running well in the long run should have abilities that can guarantee their business at stage 3 and/or 4.

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Religious influence on corporate longevity (Hypothesis 1)

In China, religion was once considered to contradict the dominant ideology, and thus for a long time, religion has stayed at a weak position and religious influence mainly depends on social networks – especially believers' kinship networks (Potter, 2003; Cao, 2007; Yang, 2011). Moreover, in China, religion imperceptibly interacts with Chinese traditional culture. As a matter of fact, the clan culture and relationship-oriented culture affect the attitude of believers towards social networks and family relationship. According to the social identity theory, the common faith among group members and the perceived differences from other groups increase the in-group identification (Tafel & Turner, 1979). As a result, in China, believers usually pay close attention to the social networks on the basis of religious identity and rely on it to share feelings, exchange information, teach experiences, and obtain the support. Finally, along with the increasing social diversity in China, religious identities are beneficial to the diversity of political systems, and thus can serve as a channel to form a favorable relationship with local government (Eng & Lin, 2002; Potter, 2003; Cao, 2007; Du, 2017).

Prior literature indicates that entrepreneur-specific factors are directly related to corporate stability and continuity (Bates, 1990; Williams & Jones, 2010). Next, we further address how religious belief as an important entrepreneurial characteristic influences corporate longevity.

First, individuals can learn managerial and social skills (e.g., coordination, communication skills, and leadership, etc.) from continuous interactions with others when they participate in voluntary social activities (Hofstede, 1984; Baron & Markman, 2000; Hunt, 2000; Fernando & Jackson, 2006; Nwankwo, Gbadamosi, & Ojo, 2012). Indubitably, religious involvement is one of the typical voluntary social activities in a community, and thus it can serve as an important communication platform in which religious people are inspired to share their knowledge and experience (Greenberg, 2000; King & Furrow, 2004; Du, 2015). As Nwankwo, Gbadamosi, and Ojo (2012: 156) argue, 'some churches regularly arrange seminars on business management skills, investment, employment ability, job creation and debt management skills to encourage members towards entrepreneurship and develop proactive sensitivity to entrepreneurial opportunities in the community'. Similarly, Cao (2007) indicates that some fellowships – which consist of social elites with religious beliefs – have been emerged in China and provide the platform for members to share managerial experience and create a common vision of business activities and faiths.

Moreover, in China, some informal religious groups frequently hold seminars to enrich members' managerial knowledge (Elephant Magazine (EM), 2015; Zhao, 2015). From 1980s, in China, many believers (e.g., Catholics) have involved in courses during religious festivals to teach parish management, communication skills, and catechetical methods (Leung, 2000). Furthermore, Catholics in China have more opportunities to get in touch with Western culture (Leung, 2000), which exerts great effects on corporate management. As shown in Eng and Lin (2002), in Chaozhou (a city located in Guangdong province of China), many overseas Chinese are invited to share their experiences about how to get ahead in the increasingly competitive economic environment in local religious festivities. Above examples suggest that religious attendance can act as an important channel for religious people to acquire managerial knowledge (skills), which mitigate operation uncertainty and are beneficial to corporate core competencies (Huselid, Jackson, & Schuler, 1997; Baron & Markman, 2000; Hunt, 2000; Yamak, Ergur, Ünsal, & Özbilgin, 2015; Uygur, Spence, Simpson, & Karakas, 2017). As such, entrepreneurs' involvement in religious activities may affect corporate longevity to some extent.

Second, according to the social capital theory, believers are often encouraged to share knowledge and the common value in religious organizations, and thus religious affiliation can combine believers together to form a stable community (Greenberg, 2000; King & Furrow, 2004; Du, 2015; Vasconcelos, 2010). These religious communities can be recognized as a nexus of social networks and personal ties, and thus they can serve as appropriate platforms to exchange information and allocate extended resources (Greenberg, 2000; Du, 2015). Specifically, entrepreneurs who attend religious activities (e.g., ceremonies, meetings, discussions, parties, and etc.) can use social capital

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as a channel to gather valuable information such as investment opportunities, credit and financial policies, and economic analysis (Casson & Della Giusta, 2007). As such, the information obtained from religious communities increases the likelihood of success (Honig, 1998; Baron & Markman, 2000; Cao, 2008).

In addition, social capital can facilitate individuals to obtain trust from others, and thus religious individuals are more likely to get financial assistances from others in the same religious community (Baron & Markman, 2000; King & Furrow, 2004; Casson & Della Giusta, 2007). Honig (1998) finds that the trust derived from identical religious belief can multiply sources of clients, loan collateral, and recommendations, and thus affects the financial success of religious entrepreneurs. In a nutshell, through the conduit of religious attendance, entrepreneurs can raise social capital, which is beneficial to corporate longevity. Clearly, an entrepreneur's religious belief positively impacts corporate longevity.

Third, religious identities of entrepreneurs are beneficial to the diversity of Chinese political systems and religious entrepreneurs are more likely to be selected as deputies of the People's Congress or members of the Chinese People's Political Consultative Conference (Potter, 2003; Cao, 2007; Du, 2017). As a result, religious entrepreneurs can obtain more opportunities to build connections with government officials (Du, 2017). As a matter of fact, institutional flaws in China as an emerging economy hinder the development of the private sector, resulting in a huge amount of transaction costs for private enterprises (Wong & Chan, 1999). Due to the crucial role of local governments in the economic development, for family (private) firms, good relationships with government officials can help them reduce transaction costs, which can be viewed as a key to the success in China (Wong & Chan, 1999). As Cao (2007) indicates, in Wenzhou (a city of Zhejiang province in China), religious entrepreneurs always employ good relationship with local government officials – which are partially developed *via* religious identities – to obtain the support from local government. Similarly, Eng and Lin (2002) find that in Chaozhou (a city of Guangdong province in China), many newly rich families and private entrepreneurs have joined into officially authorized religious organizations. By virtue of religious identities, private entrepreneurs can communicate with local officials and mitigate political or policy uncertainties. In this regard, religious entrepreneurs can positively affect corporate longevity.

Fourth, during the period of the Cultural Revolution (1966–1976), believers had to rely on the kinship network to conduct religious rituals or engage into religious activities (Potter, 2003; Yang, 2011). Although the Chinese government recovers the freedom of worship since 1978, believers in China prefer to disseminate religious knowledge to their kinship rather than others (Potter, 2003; Yang, 2011). For example, Cao (2007) indicates that hundreds of unofficial churches operate in the suburban of Wenzhou to meet the demand. As a result, family members of religious entrepreneurs are more likely to have the same religious faith. The common faith among family members is conducive to forming harmonious family relation and long-term family value, which play an important role in the success of family businesses (Bertrand & Schoar, 2006; Dyer, 2006). In this regard, religious influence on entrepreneurs' families is more likely to have positive impacts on the continuity of family firms.

Finally, major religions in the world have lasted for thousands of years, so entrepreneurs can draw special inspiration from long-lived religions. In religious organizations, the common value shaped by faith inspires believers to comply with common ethical norms (Pio & Syed, 2014). Imperceptibly, due to long-term immersion in a religious atmosphere, believers are prone to take lessons from common value or faith and play close attention to its effects on other social activities (Cao, 2008). As a result, religious entrepreneurs are more likely to create common value in their enterprises, which is conducive to the cohesion among stakeholders (Jiménez, Martos, & Jiménez, 2015; Yamak et al., 2015; Uygur et al., 2017). Moreover, most religious organizations survive in the long-run and draw support from long-term oriented behavior to satisfy their stakeholders (Crittenden, Crittenden, & Hunt, 1988). As a response, long-term orientation has become a core managerial guideline in religions and has a positive effect on the continuity of

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religious organizations (Hogarth et al., 1991; Hill, 2007). Previous studies (Hull & Bold, 1995; Hilary & Hui, 2009; Cleveland, Laroche, & Hallab, 2013) have found that religion can exert strong and continuous impacts on individual behavior (e.g., consumer preference, risk aversion, ethical behavior, and etc.). Extending above discussions, religious entrepreneurs are more likely to take inspiration from long-term orientation and thus the firm is inclined to be more long-lived.

Based on the above discussions, we can predict a positive association between religious entrepreneurs and corporate longevity, and then we formulate the first hypothesis as below:

Hypothesis 1: *Ceteris paribus, for Chinese family firms, religious entrepreneurs are positively associated with corporate longevity.*

The moderating effect of the development of factor markets (Hypothesis 2)

Oliver (1997) argues that both economic and institutional contexts can affect entrepreneurial decision-making and long-term competitive advantage. As previous literature (e.g., Williamson, 1979; Hill, 1990; Dickson & Weaver, 2008; Carney, Gedajlovic, & Strike, 2014; etc.) indicates, institutional factors can affect transaction costs and resource allocation, and thus have positive influence on corporate longevity (Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; Carney, Gedajlovic, & Strike, 2014). Actually, factor markets are a set of important institutional systems (e.g., labor and land markets, capital markets, and entrepreneurship markets, etc.). In essence, stakeholders largely rely on factor markets to efficiently allocate resources. Companies can be recognized as a nexus of contracts among stakeholders (Fama & Jensen, 1983), and thus factor markets can remarkably affect the stability and continuity of contracts among stakeholders, which may impact the capacity of corporate sustainable development (Fama, 1980; Leonard, 1990; Lang & Stulz, 1994; Groves, Hong, McMillan, & Naughton, 1995). Moreover, the development of factor markets promotes the coalition of capital and labor and motivates enterprises to reshape business structure (Walker, 1931; Schmitthoff, 1939; Carlos & Nicholas, 1996; Lamoreaux, 1998). Eventually, the development of factor markets positively affects corporate longevity. Extending the above discussions, we further address the moderating effect of the development of factor markets.

The institutional environment creates the rules of the game in the society (North, 1990), and thus it reduces uncertainty (risk) and transaction costs associated with entrepreneurial conducts (North, 1990; Welter & Smallbone, 2011). Entrepreneurial behavior closely depends on the situational configuration of external institutional environment to a great extent, (Martinelli, 2004; Dickson & Weaver, 2008; Welter & Smallbone, 2011). As Dickson and Weaver (2008) note, the institutional environment affects individual and corporate behavior through strategic choice and resource distribution. Thus, the external institutional environment can affect the restraints and opportunities for a firm, as well as entrepreneurial motivations and attitudes (Martinelli, 2004). In this regard, different institutional environment results in asymmetric entrepreneurial responses (Welter & Smallbone, 2011), and better institutional environment provides guarantees for entrepreneurial behavior (Dickson & Weaver, 2008; Welter & Smallbone, 2011). Alternatively, the immature institutional environment constrains the acceptable patterns of resource allocation and weakens the viability of positive actions (Dickson & Weaver, 2008; Welter & Smallbone, 2011). Schiff (1992) argues that the demand for individual social capital also depends on the specific institutional environment and further finds that the mature factor markets increase the requirement for social capital which can improve social trust among strangers.

Based on the institutional embeddedness of entrepreneurial behavior theory, we can infer that the development of factor markets across different provinces in mainland China can reinforce the positive relationship between religious entrepreneurs and corporate longevity because entrepreneurial behavior can be promoted in better institutional contexts. Therefore, we formulate Hypothesis 2 as below:

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Hypothesis 2: *Ceteris paribus, the development of factor markets reinforces the positive association between religious entrepreneurs and corporate longevity.*

Methodology

Sample selection

Our initial sample consists of 4,098 Chinese family firms in the 2008 national survey. Panel A of Table 1 reports the process of sample identification. First, we eliminate firms in the banking, insurance, and other financial industries due to different financial characteristics. Second, we eliminate firms with unavailable data on entrepreneurial characteristics (gender, educational level, political connections, and oversea experience). Finally, we eliminate firms with missing data on firm-specific variables and industry. As a result, the final sample covers 3,325 family firms. Then, we winsorize each continuous variable based on the top and bottom 1% quantiles to alleviate the extreme effect[6].

Panel B of Table 1 displays the sample distribution by province and industry, respectively. Section A shows that family firms evenly distribute in 31 provinces of mainland China. Except for Jiangsu province, the proportion of sample firms in each province is less 10%. Moreover, in Section B, most family firms cluster in the manufacturing industry (43.40%) and wholesale and retail industry (18.59%). Therefore, we calculate all *t*-statistics in regression analysis based on robust standard errors adjusted for clustering at firm level to mitigate the impacts of the clustering problem (Petersen, 2009).

Data source

We obtain the data on entrepreneurial characteristics (e.g., religious belief, gender, educational level, political connections, and overseas experience, etc.) from the 2008 national survey. Prior literature has employed similar survey database (e.g., Su & He, 2010; Zhou, 2013; Du, 2015, 2017; etc.). The executors of the 2008 national survey included: (1) the United Front Work Department of the CPC Central Committee; (2) the All-China Federation of Industry & Commerce; (3) the State Administration for Industry and Commerce of the People's Republic of China; and (4) the Private Economy Research Institute of China. The private entrepreneurs who attended the survey were randomly selected from 31 provinces, autonomous regions, and municipalities in China. Moreover, the 2008 national survey reported governance and firm-specific characteristics such as CEO-chairman duality (*DUAL*), the general meeting of shareholders (*SGM*), the board of directors (*DBOARD*), the board of supervisors (*SBOARD*), firm scale (*SIZE*), financial leverage (*LEV*), and profitability (*ROS*). Moreover, we obtain data on the province-level Development of Factor Markets index from Fan, Wang, & Zhu (2011) and hand-collect religious atmosphere variables (i.e., *BUD*, *DAO*, *CHRST*, *CATH*, and *ISLAM*), then match them to each firm according to the provincial information in the 2008 national survey. Finally, we gather the data on other variables from the 2008 China Statistical Yearbook.

Corporate longevity (dependent variable)

In this study, the dependent variable is corporate longevity, labeled as *LONG*. *LONG* is measured as the number of years from a firm's establishment to the year of 2007 (Smith, Heady, Carson, & Carson, 2001; Piao, 2010; Williams & Jones, 2010; King & Peng, 2013). In addition, we also use the nature logarithm of corporate longevity (*LN* (*LONG*)), industry-median-adjusted corporate longevity (*LONG_IND*), and province-median-adjusted corporate longevity (*LONG_PRO*) as other dependent variables to ensure the robustness of our findings, respectively.

[6]We obtain the similar results when deleting the top/bottom 1% of the sample or doing nothing for extreme values.

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Table 1. Sample identification

Panel A: sample identification					
Initial sample					4,098
Eliminate firms pertaining to the banking, insurance, and other financial industries					(12)
Eliminate firms with unavailable data on entrepreneurial characteristics					(40)
Eliminate firms with unavailable data on firm-specific variables and industry classification					(721)
Final sample					3,325
Panel B:					
Section A			Section B		
Sample distribution by province			Sample distribution by industry		
Province	*N*	%	Industry	*N*	%
Anhui	88	2.65	Agriculture, forestry, husbandry and fishery	235	7.07
Beijing	112	3.37	Mining	74	2.23
Chongqing	157	4.72	Manufacturing	1,443	43.40
Fujian	39	1.17	Production and supply of electricity, steam and tap water	38	1.14
Gansu	38	1.14	Construction	197	5.92
Guangdong	284	8.54	Transportation and warehousing	72	2.17
Guangxi	46	1.38	Information technology	183	5.50
Guizhou	72	2.17	Wholesale and Retail	618	18.59
Hainan	23	0.69	Hotels and Restaurants	143	4.30
Hebei	131	3.94	Real estate	94	2.83
Henan	124	3.73	Rental services	36	1.08
Heilongjiang	105	3.16	Research and technique development	44	1.32
Hubei	154	4.63	Public facilities management	9	0.27
Hunan	62	1.87	Community services	79	2.38
Inner Mongolia	71	2.14	Education	12	0.36
Jilin	66	1.98	Health	18	0.54
Jiangsu	367	11.04	Culture and sports	28	0.84
Jiangxi	56	1.68	Public administration	2	0.06
Liaoning	128	3.85			
Ningxia	29	0.87			
Qinghai	16	0.48			
Shandong	229	6.89			
Shanxi (Taiyuan)	68	2.05			
Shanxi (Xi'an)	64	1.93			
Shanghai	296	8.90			
Sichuan	127	3.82			

(*Continued*)

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Table 1. (*Continued.*)

Panel B:					
Section A			Section B		
Sample distribution by province			Sample distribution by industry		
Province	*N*	%	Industry	*N*	%
Sinkiang	47	1.41			
Tianjin	96	2.89			
Tibet	7	0.21			
Yunnan	36	1.08			
Zhejiang	187	5.62			
Total	3,325	100	Total	3,325	100%

Religious entrepreneurs (independent variable)

In this study, the main independent variable is religious entrepreneurs, labeled as *REL*. *REL* is an indicator variable, equaling 1 if an entrepreneur chooses a religion (e.g., Buddhism, Daoism, Catholicism, and Islamism, etc.) as his/her faith and 0 otherwise. Hypothesis 1 is validated by empirical evidence if the coefficient on *REL* is significantly positive. Moreover, this study also distinguishes Eastern religions (*REL_EAST*) from Western religions (*REL_WEST*) to investigate whether different religions exert asymmetric effects on corporate longevity.

The development of factor markets (moderating variable)

In this study, the moderating variable is the development of factor markets, labeled as *DFM*. *DFM* is measured as the Development of Factor Markets index in the year of 2008, which captures the extent of the development of factor markets across different provinces in China (Fan, Wang, & Zhu, 2011). The Development of Factor Markets index, published by the National Economic Research Institute (Fan, Wang, & Zhu, 2011), 'consists of four components (i.e., the extent of Marketization in financial industries, foreign direct investment, the labor mobility, and commercialization of technological innovation) and various subcomponent. The value of each subcomponent in the year of 1999 serves as the base value and the range of each subcomponent is between 0 and 10. The total Development of Factor Markets index is calculated as the mean value of the subcomponents scores that are normalized by base values.'

If the coefficient on *REL* × *DFM* is positive and significant, Hypothesis 2 is supported by empirical evidence. In addition, drawing on previous studies (Fama, 1980; Leonard, 1990; Lang & Stulz, 1994; Groves et al., 1995), we predict both coefficients on *REL* and *DFM* are positive.

Control variables

To isolate the effects of other determinants on corporate longevity (Bates, 1990; Pennings, Lee, & Van Witteloostuijn, 1998; Smith et al., 2001; Piao, 2010; Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; King & Peng, 2013), we incorporate a set of control variables in regression models. First, we introduce *GENDER*, *EDU*, *POL_CON*, and *FOR_EXP* to isolate the impacts of other entrepreneurial characteristics on corporate longevity (Bates, 1990; Pennings, Lee, & Van Witteloostuijn, 1998; Williams & Jones, 2010; King & Peng, 2013). *GENDER* is a dummy variable, equaling 1 if a family firm has a female entrepreneur and 0 otherwise (Wang & Coffey, 1992; Mersland & Strøm,

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2009; Zhou, 2013). *EDU* is an ordered variable for entrepreneurial educational level, and its value is 6, 5, 4, 3, 2, and 1 when an entrepreneur's diploma is postgraduate degree or above, bachelor degree, college degree, senior middle school degree, middle school degree, and elementary school degree, respectively (Su & He, 2010; Du, 2015). *POL_CON* denotes an entrepreneur's government experience, equaling 1 if an entrepreneur was an official in a governmental institution before he/she founded a family firm and 0 otherwise (Fan, Wong, & Zhang, 2007; Su & He, 2010). *FOR_EXP* is a dummy variable, equaling 1 if an entrepreneur studied or worked in one or more foreign countries and 0 otherwise (Herrmann & Datta, 2006; Magnusson & Boggs, 2006).

Second, we include *DUAL*, *SGM*, *DBOARD*, and *SBOARD* to capture the effects of governance mechanisms on corporate longevity (Parker, Peters, & Turetsky, 2005). *DUAL* is a dichotomous variable, equaling 1 for CEO-chairman duality and 0 otherwise (Du, 2015). *SGM* is a dummy variable, equaling 1 if a family firm has a general meeting of its shareholders (*SGM*) and 0 otherwise (Du, 2015). *DBOARD* (*SBOARD*) is an indicator variable, equaling 1 if a family firm owns a board of directors (a supervisory committee) and 0 otherwise (Du, 2015).

Third, previous studies show that corporate longevity is associated with firm scale, financial leverage, and profitability (Turetsky & McEwen, 2001; Thornhill & Amit, 2003; Williams & Jones, 2010). As a response, we incorporate *SIZE*, *LEV*, and *ROS* to control for the impacts of firm-specific financial characteristics on corporate longevity. *SIZE* represents firm scale, measured as the nature logarithm of total revenue (Zhou, 2013; Du, 2015, 2017). *LEV* denotes financial leverage, measured as bank loans scaled by total revenue (Su & He, 2010; Du, 2015, 2017). *ROS* denotes profitability, measured as net income divided by total revenue (Zhou, 2013; Du, 2015, 2017).

Finally, a set of industry and province dummy variables are included in regression models to capture the industry and province fixed effects.

A statistical remedy to control for the common method biases

The common method biases in behavior research may arise from the respondents' common cognition and affectivity, which yield potential shared methods among measures. In response, we conduct a statistical remedy to control for the common method biases through three ways as below: (1) We use the confirmatory factor analysis to obtain the first unrotated factor, which can mitigate unobserved common method variance to some extent[7]. (2) Using the scores of social, economic, and political status of private entrepreneurs – which are reported in the 2008 national survey, we measure the self-reported assessment. (3) We use confirmatory factor analysis to extract the first common factor from several variables[8], which represent entrepreneurs' judgments about the influence of the external environment on corporate operation in recent years. Finally, we remove the impacts of above factors from all variables in this study.

Results

Descriptive statistics and correlation analysis

Column (1) of Panel A in Table 2 reports results of summary statistics of all variables in this study. The mean value of corporate longevity (*LONG*) is about 9.3771, suggesting that Chinese family firms' longevity is about 9.3771 years on average. The mean value of religious entrepreneurs (*REL*) is about 0.1456, suggesting that about 14.56% of Chinese entrepreneurs believe in

[7]The first unrotated factor from factor analysis extracts the greatest proportion of the common method variance across variables (Podsakoff & Todor, 1985), and thus is the best approximation of respondents' generalized response set.

[8]The questions include: (1) the impact of authoritative permission for land development on your business; (2) the impact of price inflation of energy on your business; (3) the impact of price inflation of raw materials on your business; (4) the impact of currency rise on your business; (5) The impact of change in export rebates on your business; (6) the impact of the increasing cost of labors on your business; and (7) the impact of tight monetary policy on your business. For each question, the score 1, 2, and 3 represent non, moderate, and serious effects, respectively.

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Table 2. Descriptive Statistics, Pearson Correlation Matrix, and Partial Correlation Matrix

Panel A: Descriptive statistics and *T*/*Z*-tests

	(1) The full sample ($N = 3,325$)			(2) The subsample with religious entrepreneurs (REL = 1, $N = 484$)			(3) The subsample without religious entrepreneurs (REL = 0, $N = 2,841$)			(4) *t*-/*z*-tests	
Variable	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD	*t*-test	*z*-test
LONG	9.3771	8	4.8420	9.8760	9	5.2369	9.2922	8	4.7672	2.30**	1.92*
REL	0.1456	0	0.3527								
DFM	6.8370	7.17	2.8347	7.1904	7.87	2.8537	6.7768	5.80	2.8275	2.97***	3.38***
GENDER	0.1537	0	0.3607	0.1921	0	0.3944	0.1471	0	0.3543	2.35**	2.54**
EDU	4.0129	4	1.1909	3.8182	4	1.2593	4.0461	4	1.1759	−3.72***	−3.57***
POL_CON	0.1765	0	0.3813	0.1260	0	0.3322	0.1851	0	0.3885	−3.53***	−3.15***
FOR_EXP	0.0147	0	0.1205	0.0186	0	0.1352	0.0141	0	0.1178	0.69	0.76
DUAL	0.8605	1	0.3466	0.8781	1	0.3275	0.8574	1	0.3497	1.27	1.21
SGM	0.4980	0	0.5001	0.4855	0	0.5003	0.5002	1	0.5001	−0.60	−0.60
DBOARD	0.4923	0	0.5000	0.5000	0.5	0.5005	0.4910	0	0.5000	0.36	0.37
SBOARD	0.2944	0	0.4559	0.2955	0	0.4567	0.2943	0	0.4558	0.05	0.05
SIZE	16.0788	16.1876	2.1660	16.1909	16.1525	2.2232	16.0597	16.1895	2.1559	1.23	−1.12
LEV	0.2095	0.0101	0.5612	0.1843	0.0074	0.4998	0.2138	0.0109	0.5710	−1.17	−0.52
ROS	0.0969	0.0459	0.2035	0.0979	0.0463	0.2118	0.0967	0.0455	0.2021	0.12	0.16

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Panel B: Pearson Correlation Matrix

	Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	LONG	1.0000													
(2)	REL	0.0425**	1.0000												
(3)	DFM	0.1104***	0.0515***	1.0000											
(4)	GENDER	−0.0613***	0.0440**	−0.0180	1.0000										
(5)	EDU	−0.0495***	−0.0675***	0.0229	0.0052	1.0000									
(6)	POL_CON	−0.0276	−0.0547***	−0.0756***	−0.0005	0.2440***	1.0000								
(7)	FOR_EXP	−0.0085	0.0132	0.0242	0.0171	0.0427**	−0.0174	1.0000							
(8)	DUAL	0.0733***	0.0210	−0.0095	−0.0570***	−0.0510***	−0.0070	−0.0300*	1.0000						
(9)	SGM	−0.1032***	−0.0103	−0.0652***	−0.0409**	0.1296***	0.0578***	0.0080	−0.0224	1.0000					
(10)	DBOARD	0.0388**	0.0063	−0.0060	−0.0677***	0.2166***	0.1231***	0.0193	0.0181	0.1813***	1.0000				
(11)	SBOARD	−0.0153	0.0009	−0.0595***	−0.0667***	0.1393***	0.1145***	0.0086	0.0012	0.3199***	0.4910***	1.0000			
(12)	SIZE	0.1999***	0.0214	0.1518***	−0.1320***	0.2089***	0.0678***	0.0004	0.0315*	0.1049***	0.3292***	0.2433***	1.0000		
(13)	LEV	0.0086	−0.0185	−0.0419**	−0.0274	0.0117	0.0349**	0.0113	0.0156	0.0580***	0.0392**	0.0570***	−0.1196***	1.0000	
(14)	ROS	−0.0090	0.0022	−0.0346**	0.0669***	−0.0426**	−0.0237	0.0112	−0.0539***	−0.0955***	−0.1167***	−0.0895***	−0.2542***	0.0032	1.0000

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Panel C: Partial Correlation Matrix

	Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	LONG	1.0000													
(2)	REL	0.1468***	1.0000												
(3)	DFM	0.4010***	0.1457***	1.0000											
(4)	GENDER	0.0509***	0.0881***	0.0628***	1.0000										
(5)	EDU	0.3710***	0.0993***	0.4130***	0.1677***	1.0000									
(6)	POL_CON	0.0338*	−0.0524***	0.0022	−0.1330***	0.1406***	1.0000								
(7)	FOR_EXP	0.1084***	0.0554***	0.1263***	0.0297*	0.1654***	0.0382**	1.0000							
(8)	DUAL	−0.0104	−0.0074	−0.0579***	−0.0795***	−0.1140***	0.0017	−0.0625***	1.0000						
(9)	SGM	−0.1278***	−0.0625***	−0.0992***	−0.2481***	−0.1258***	0.3261***	0.0180	0.0282	1.0000					
(10)	DBOARD	−0.0127	−0.0409**	−0.0184	−0.2777***	−0.0743***	0.4171***	0.0432**	0.0449***	0.5711***	1.0000				
(11)	SBOARD	−0.0190	−0.0340*	−0.0336*	−0.2580***	−0.0962***	0.4324***	0.0442**	0.0281	0.6215***	0.7621***	1.0000			
(12)	SIZE	0.5946***	0.1974***	0.5791***	0.1282***	0.6592***	0.0592***	0.1823***	−0.0905***	−0.1397***	−0.0453***	−0.0403**	1.0000		
(13)	LEV	0.0838***	0.0116	0.0476***	0.0033	0.1017***	0.0393**	0.0415**	−0.0043	0.0209	0.0055	0.0212	0.0762***	1.0000	
(14)	ROS	0.1128***	0.0246	0.0783***	0.0369**	0.2337***	0.1195***	0.0617***	−0.0687***	0.0487***	0.1072***	0.1496***	0.1525***	0.0421**	1.0000

Note: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively.

a religion. The mean value of *DFM* is 6.8370, revealing the average level of the development of factor markets in China.

As for control variables, on average and approximately, 15.37% of family firms is founded by female entrepreneurs (*GENDER*), entrepreneurs have college-degree (*EDU*), 17.65% of entrepreneurs worked in (center or local) governments before they founded their family firms (*POL_CON*), 1.47% of entrepreneurs have foreign experiences before they established firms (*FOR_EXP*), the CEO and the chairman are the same person (*DUAL*) in 86.05% of Chinese family firms, 49.80%, 49.23%, and 29.44% of Chinese family firms set up the general meeting of shareholders (*SGM*), the board of directors (*DBOARD*), and the board of supervisors (*SBOARD*), respectively, firm size (*SIZE*) is 9.61 million RMB, financial leverage (*LEV*) is 20.95%, and profitability (*ROS*) is 9.69%.

Columns (2)–(4) of Panel A report results of univariate tests after the full sample is partitioned into the REL subsample (*REL* = 1) and the non-REL subsample (*REL* = 0). As shown in Columns (2)–(4), the mean (median) value of corporate longevity is significantly higher for the REL subsample than for the non-REL subsample, implying a positive relation between religious entrepreneurs and corporate longevity and preliminarily supporting Hypothesis 1. Moreover, compared with the non-REL subsample, the REL subsample (*REL* = 1) has a higher level of factor markets development (*DFM*), higher likelihood of female entrepreneurs (*GENDER*), lower education level (*EDU*), and lower likelihood of politically connected entrepreneurs, respectively.

Panel B of Table 2 reports Pearson correlation analysis. Corporate longevity (*LONG*) displays a significantly positive correlation with religious entrepreneurs (*REL*), preliminarily supporting Hypothesis 1. Second, the correlation coefficient between *LONG* and *DFM* is significantly positive, implying the positive influence of the development of factor markets on corporate longevity. Above results suggest the need to investigate the interactive effects between religious entrepreneurs and the development of factor markets on corporate longevity. Moreover, *LONG* is significantly negatively related to *GENDER*, *EDU*, and *SGM*, but is significantly positively associated with *DUAL*, *DBOARD*, and *SIZE*, respectively. Furthermore, correlation coefficients among independent variables are generally small as expected, implying mild multicollinearity in our models[9]. Finally, we also provide partial correlation matrix to control for common method biases. Panel C of Table 2 shows that corporate longevity (*LONG*) has a significantly positive partial correlation with religious entrepreneurs (*REL*), and the partial correlation coefficient between *LONG* and *DFM* is also significantly positive.

Main findings

We estimate the pooled OLS regressions and report results of Hypotheses 1 and 2 after controlling for the common method biases in Table 3. All reported *t*-statistics are based on standard errors adjusted for clustering at firm level (Petersen, 2009).

In Column (1) of Table 3, we address the influence of all control variables on corporate longevity. As shown in Column (1), corporate longevity of Chinese family firms is significantly positively associated with managerial power (*DUAL*), firm size (*SIZE*), financial leverage (*LEV*), and profitability (*ROS*), but is significantly negatively related with entrepreneurial educational level (*EDU*) and the establishment of shareholders' general meeting (*SGM*), respectively.

Column (2) of Table 3 displays regression results of Hypothesis 1, which predicts that corporate longevity is positively associated with religious entrepreneurs. The coefficient on *REL* is positive and significant at the 5% level (0.5419 with $t = 2.23$), consistent with Hypothesis 1. Moreover, this finding reveals several aspects: (1) the significantly positive association between religious

[9]We employ the variance inflation factors and condition indices to diagnose the multicollinearity in empirical models. Non-tabulated results show that both the variance inflation factors and the largest condition index are far below 10, implying no serious multicollinearity in our models (Belsley, Kuh, & Welsch, 1980; Greene, 1990; Belsley, 1991).

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Table 3. Results of corporate longevity on religious entrepreneurs, the development of factor markets, and other determinants

	The dependent variable: corporate longevity (LONG)							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL			0.5419**	2.23	0.4973**	2.05	0.4461*	1.87
DFM					0.8790***	5.76	0.8821***	5.79
REL × DFM							0.1821**	2.03
GENDER	−0.3396	−1.58	−0.3699*	−1.72	−0.4087*	−1.90	−0.4085*	−1.90
EDU	−0.1356*	−1.76	−0.1306*	−1.70	−0.2986***	−3.59	−0.3002***	−3.61
POL_CON	0.1126	0.58	0.1311	0.67	0.0976	0.50	0.0946	0.48
FOR_EXP	0.2257	0.35	0.1901	0.29	0.0344	0.05	0.0001	0.00
DUAL	0.6489***	3.04	0.6352***	2.97	0.6157***	2.89	0.6225***	2.92
SGM	−0.6708***	−4.13	−0.6682***	−4.12	−0.7080***	−4.36	−0.7013***	−4.32
DBOARD	0.2008	1.29	0.2008	1.29	0.2561*	1.65	0.2570*	1.66
SBOARD	0.1175	0.67	0.1098	0.63	−0.0112	−0.06	−0.0190	−0.11
SIZE	0.6689***	29.26	0.6605***	28.50	0.3809***	7.13	0.3812***	7.15
LEV	0.5117***	3.42	0.5134***	3.44	0.3167**	2.06	0.3123**	2.04
ROS	0.9566**	2.37	0.9596**	2.39	0.9060**	2.27	0.9126**	2.28
Constant	−0.5891	−0.67	−0.2083	−0.23	1.2943	1.39	1.2316	1.33
Industry effect	Control		Control		Control		Control	
Province effect	Control		Control		Control		Control	
Observations	3,325		3,325		3,325		3,325	
Adjusted R^2	0.3810		0.3818		0.3881		0.3888	
F (p-value)	40.14***(<.0001)		39.78***(<.0001)		39.92***(<.0001)		39.43***(<.0001)	
ΔR^2			5.39**		34.42***		4.74**	

Note: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively (two-tailed tests). Results in this table are adjusted for common method biases. All reported *t*-statistics are based on robust standard errors adjusted for clustering at firm level (Petersen, 2009).

entrepreneurs and corporate longevity suggests that Chinese family firms with religious entrepreneurs are more long-lived than their counterparts. (2) This finding further echoes the view that individuals can learn managerial and social skills, raise social capital, have more opportunities to establish good connections with government officials, form long-term family value and harmonious family relation, and take inspiration from organizational continuity through voluntary religious participation (Hofstede, 1984; Hogarth et al., 1991; Baron & Markman, 2000; Hunt, 2000; Cao, 2007; Yang, 2011; Nwankwo, Gbadamosi, & Ojo, 2012; Du, 2017). (3) The coefficient on *REL* implies that corporate longevity of Chinese family firms with religious entrepreneurs is 0.5419 year longer than that of their counterparts, equaling about 5.78% of the average longevity of Chinese family firms. Clearly, this amount is economically significant, in addition to its statistical significance.

In Column (3) of Table 3, we link corporate longevity with religious entrepreneurs, the development of factor markets, and all control variables. As Column (3) reports, the coefficient on *REL* is positive and significant at the 5% level (0.4973 with $t = 2.05$), lending additional support to Hypothesis 1. In addition, the moderating variable of *DFM* has a significant positive coefficient.

Column (4) of Table 3 reports regression results of Hypothesis 2, which predicts the reinforced effect of the development of factor markets on the positive association between religious entrepreneurs and corporate longevity. As presented in Column (4), the coefficient on *REL* is significantly positive (0.4461 with $t = 1.87$), providing additional support to Hypothesis 1. Moreover, the coefficient on *DFM* is significantly positive (0.8821 with $t = 5.79$), echoing findings in extant studies (Oliver, 1997; Carney, Gedajlovic, & Strike, 2014) that institutional environment can affect corporate longevity to a great extent. More importantly, *REL* × *DFM* has a significantly positive coefficient (0.1821 with $t = 2.03$), lending important support to Hypothesis 2. This finding in Column (4) suggests that the development of factor markets reinforces the positive effect of religious entrepreneurs on corporate longevity, echoing the view that entrepreneurial behavior closely depends on institutional systems to a great extent (Martinelli, 2004; Dickson & Weaver, 2008; Welter & Smallbone, 2011).

Next, we plot Figure 1 to better display the moderating role of the development of factor markets after controlling for common method biases. According to the mean value of the Development of Factor Markets index from Fan, Wang, and Zhu (2011), we partition the sample into two subsamples: the high-DFM subsample and the low-DFM subsample. As shown in Figure 1, the back, blue, and red lines represent the impact of religious entrepreneurs on corporate longevity for the full sample, the low-DFM subsample and the high-DFM subsample, respectively. Figure 1 shows an obvious tendency that the positive association between religious entrepreneurs and corporate longevity is more pronounced for the high-DFM subsample than for the low-DFM subsample, validating the reinforced effect of the development of factor markets on the positive relation between religious entrepreneurs and corporate longevity. Overall, Figure 1 provides visual and straightforward evidence for Hypothesis 2.

Additional tests using alternative measures of corporate longevity

To ensure the robustness of our findings in Table 3, we conduct several sensitivity tests. First, we employ the nature logarithm of the number of years since firm establishment (*LN* (*LONG*)) as the dependent variable to re-test Hypotheses 1 and 2. As Column (2) of Panel A in Table 4 shows, the coefficient on *REL* is significantly positive (0.0603 with $t = 2.33$), lending additional support to Hypothesis 1. In Column (4) of Panel A, the coefficient on *REL* × *DFM* is positive and significant at 5% level (0.0181 with $t = 2.09$), validating Hypothesis 2 again.

Second, using the industry-median-adjusted corporate longevity (*LONG_IND*) (the difference between the number of years since firm establishment and the median value of the number of years since firm establishment in the same industry) as the dependent variable, Column (2) of Panel B in Table 4 shows that *REL* has a positive and significant coefficient (0.4629 with $t = 1.92$),

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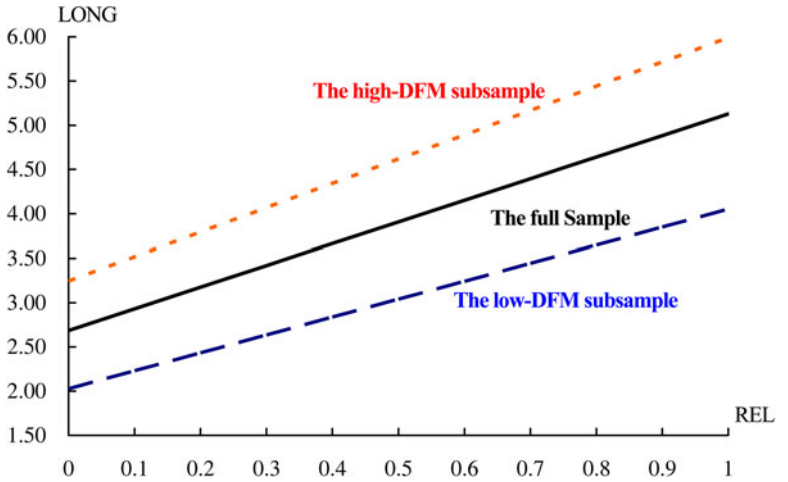

Figure 1. The interactive effects between religious belief (REL) and the development of factor markets (DFM) on corporate longevity (LONG) after controlling for common method biases. Note: In Figure 1, the black, red, and blue lines denote the impacts of religious belief on corporate longevity for the full sample, the high-DFM subsample, and the low-DFM subsample, respectively.

consistent with Hypothesis 1. Moreover, in Column (4) of Panel B in Table 4, the coefficient on *REL* × *DFM* is positive and significant (0.1393 with $t = 1.75$), consistent with Hypothesis 2.

Finally, we compute the median-adjusted corporate longevity at the provincial level (*LONG_PRO*) and use it as the alternative dependent variable to re-test Hypotheses 1 and 2. Column (2) of Panel C in Table 4 displays that *REL* has a significantly positive coefficient, supporting Hypothesis 1 again. In addition, as shown in Column (4) of Panel C, *REL* × *DFM* has a positive and significant coefficient (0.1979 with $t = 2.31$), lending additional support to Hypothesis 2.

Additional tests considering the difference between Eastern religions and Western religions

To address whether different religions asymmetrically affect corporate longevity, we follow Du (2017) to distinguish Eastern religions from Western religions[10], and then re-test Hypotheses 1 and 2. In doing so, we include Eastern religions (*REL_EAST*) and Western religions (*REL_WEST*) as two main independent variables. *REL_EAST* is a binary variable, equaling 1 if an entrepreneur believes in Buddhism or Daoism and 0 otherwise. *REL_WEST* is a dummy variable, equaling 1 if an entrepreneur chooses Catholicism (Christianity), Islamism, or other Western religions as the faith and 0 otherwise.

As shown in Column (2) of Table 5, *REL_WEST* has a significantly positive coefficient (1.3632 with $t = 2.39$). However, the coefficient on *REL_EAST* in Column (2) is insignificantly positive. These findings reveal that the positive association between religious belief and corporate longevity

[10]On the basis of different geographic areas, religion can be classified into Eastern and Western religions (Smith & Marranca, 2009). Eastern religions include Hinduism, Sikhism, Jainism, Buddhism, and Daoism, which are originated in India, Southeast Asia, China, Japan, and etc. (Collins, 1999; Roccas, 2005; Smith & Marranca, 2009). Western religions originated in regions outside of the East (Roccas, 2005; Smith & Marranca, 2009). Another important distinction between Eastern and Western religions is that Eastern religions are typically polytheistic, whereas Western religions are monotheistic and only one God is worshipped (Roccas, 2005). Moreover, the ways that believers worship are different between Eastern and Western religions (Smith & Marranca, 2009). For Western religions, people usually form congregations and worship together at a specific place and time. These frequent gatherings are beneficial to creating common values within a community and reinforce social ties among believers. For Eastern religions, people are more likely to worship privately at home and express their religious beliefs in a private way.

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Table 4. Robustness checks using alternative measures of corporate longevity

Panel A: Results using the natural logarithm of corporate longevity								
	The dependent variable: the natural logarithm of corporate longevity (LN (LONG))							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL			0.0603**	2.33	0.0488*	1.95	0.0435*	1.72
DFM					0.2267***	13.64	0.2281***	13.72
REL × DFM							0.0181**	2.09
GENDER	−0.0246	−0.98	−0.0280	−1.11	−0.0379	−1.55	−0.0377	−1.54
EDU	0.0163*	1.89	0.0168*	1.95	−0.0266***	−2.95	−0.0270***	−3.00
POL_CON	0.0249	1.11	0.0269	1.20	0.0183	0.83	0.0178	0.81
FOR_EXP	0.0254	0.31	0.0215	0.26	−0.0187	−0.23	−0.0221	−0.28
DUAL	0.0684***	2.71	0.0669***	2.65	0.0619**	2.52	0.0626**	2.55
SGM	−0.0590***	−3.19	−0.0587***	−3.18	−0.0690***	−3.81	−0.0686***	−3.79
DBOARD	0.0225	1.31	0.0225	1.31	0.0368**	2.17	0.0366**	2.16
SBOARD	0.0273	1.38	0.0265	1.34	−0.0047	−0.24	−0.0063	−0.32
SIZE	0.1246***	49.19	0.1237***	48.03	0.0516***	8.78	0.0513***	8.74
LEV	0.0896***	5.14	0.0898***	5.17	0.0391**	2.25	0.0382**	2.20
ROS	0.1290***	2.60	0.1294***	2.62	0.1156**	2.39	0.1171**	2.42
Constant	−0.0655	−0.60	−0.0231	−0.21	0.3645***	3.30	0.3464***	3.13
Industry effect	Control		Control		Control		Control	
Province effect	Control		Control		Control		Control	
Observations	3,325		3,325		3,325		3,325	
Adjusted R^2	0.6425		0.6430		0.6631		0.6634	
F (p-value)	111.40***(<.0001)		109.96***(<.0001)		116.27***(<.0001)		115.04***(<.0001)	
ΔR^2			5.44**		195.59***		4.22**	

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Panel B: Results using industry-median-adjusted corporate longevity

	The dependent variable: industry-median-adjusted corporate longevity (LONG_IND)							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL			0.4629*	1.92	0.4629*	1.92	0.4172*	1.75
DFM					0.1232	1.11	0.8048***	3.20
REL × DFM							0.1393*	1.75
GENDER	−0.2964	−1.39	−0.3259	−1.53	−0.3259	−1.53	−0.3208	−1.50
EDU	−0.3528***	−4.63	−0.3491***	−4.59	−0.3491***	−4.59	−0.3508***	−4.62
POL_CON	0.0873	0.45	0.1032	0.53	0.1032	0.53	0.1022	0.52
FOR_EXP	0.0752	0.12	0.0459	0.07	0.0459	0.07	0.0297	0.05
DUAL	0.5996***	2.81	0.5893***	2.76	0.5893***	2.76	0.5984***	2.80
SGM	−0.6842***	−4.27	−0.6808***	−4.25	−0.6808***	−4.25	−0.6744***	−4.21
DBOARD	0.2450	1.58	0.2460	1.59	0.2460	1.59	0.2412	1.56
SBOARD	−0.0899	−0.51	−0.0963	−0.55	−0.0963	−0.55	−0.1072	−0.61
SIZE	0.2052***	9.27	0.1985***	8.85	0.1985***	8.85	0.1997***	8.92
LEV	0.1667	1.15	0.1676	1.16	0.1676	1.16	0.1685	1.16
ROS	0.8802**	2.19	0.8839**	2.20	0.8839**	2.20	0.9010**	2.24
Constant	−1.1258	−1.41	−0.8193	−1.00	−1.4132	−1.27	−4.9600***	−2.85
Industry effect	No		No		No		No	
Province effect	Control		Control		Control		Control	
Observations	3,325		3,325		3,325		3,325	
Adjusted R^2	0.0696		0.0705		0.0705		0.0711	
F (p-value)	8.03***(<.0001)		7.92***(<.0001)		7.92***(<.0001)		7.77***(<.0001)	
ΔR^2			3.99**		0.00		3.39*	

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Panel C: Results using province-median-adjusted corporate longevity

	The dependent variable: province-median-adjusted corporate longevity (LONG_PRO)							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL			0.4450*	1.84	0.4450*	1.84	0.3872*	1.67
DFM					−0.0294	−0.27	0.3102	1.23
REL × DFM							0.1979**	2.31
GENDER	−0.3957*	−1.84	−0.4205*	−1.96	−0.4205*	−1.96	−0.4170*	−1.94
EDU	−0.4073***	−5.29	−0.4032***	−5.25	−0.4032***	−5.25	−0.4057***	−5.29
POL_CON	0.0435	0.22	0.0587	0.30	0.0587	0.30	0.0534	0.27
FOR_EXP	−0.0279	−0.04	−0.0572	−0.09	−0.0572	−0.09	−0.0920	−0.14
DUAL	0.6342***	2.97	0.6229***	2.91	0.6229***	2.91	0.6313***	2.96
SGM	−0.7643***	−4.70	−0.7621***	−4.69	−0.7621***	−4.69	−0.7572***	−4.67
DBOARD	0.2305	1.49	0.2304	1.49	0.2304	1.49	0.2269	1.46
SBOARD	−0.1203	−0.69	−0.1266	−0.72	−0.1266	−0.72	−0.1417	−0.81
SIZE	0.2395***	10.47	0.2325***	10.04	0.2325***	10.04	0.2343***	10.13
LEV	0.2101	1.41	0.2114	1.42	0.2114	1.42	0.2047	1.38
ROS	0.9576**	2.37	0.9600**	2.38	0.9600**	2.38	0.9775**	2.42
Constant	−0.3701	−0.43	−0.0575	−0.06	0.0841	0.07	−1.7770	−1.00
Industry effect	Control		Control		Control		Control	
Province effect	No		No		No		No	
Observations	3,325		3,325		3,325		3,325	
Adjusted R^2	0.0576		0.0584		0.0584		0.0598	
F (p-value)	5.00***(<.0001)		4.97***(<.0001)		4.97***(<.0001)		5.00***(<.0001)	
ΔR^2			3.67*		0.00		5.92**	

Note: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively (two-tailed tests). Results in this table are adjusted for common method biases. All reported *t*-statistics are based on robust standard errors adjusted for clustering at firm level (Petersen, 2009).

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Table 5. Robustness checks considering the distinction between Western religions and Eastern religions

	The dependent variable: corporate longevity (LONG)							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL_EAST			0.4280	1.63	0.3663	1.40	0.2485	0.98
REL_WEST			1.3632**	2.39	1.2272**	2.17	1.2491**	2.22
DFM					0.8661***	5.67	0.8899***	5.80
REL_EAST × DFM							0.2597***	2.75
REL_WEST × DFM							0.0770	0.45
GENDER	−0.3396	−1.58	−0.3728*	−1.73	−0.4092*	−1.90	−0.4034*	−1.88
EDU	−0.1356*	−1.76	−0.1324*	−1.72	−0.2981***	−3.58	−0.3039***	−3.65
POL_CON	0.1126	0.58	0.1269	0.65	0.0934	0.48	0.0856	0.44
FOR_EXP	0.2257	0.35	0.1261	0.19	−0.0192	−0.03	−0.0420	−0.07
DUAL	0.6489***	3.04	0.6506***	3.05	0.6307***	2.96	0.6438***	3.02
SGM	−0.6708***	−4.13	−0.6734***	−4.15	−0.7123***	−4.39	−0.7102***	−4.38
DBOARD	0.2008	1.29	0.2047	1.32	0.2588*	1.67	0.2501	1.61
SBOARD	0.1175	0.67	0.1170	0.67	−0.0023	−0.01	−0.0212	−0.12
SIZE	0.6689***	29.26	0.6535***	27.93	0.3791***	7.10	0.3735***	6.98
LEV	0.5117***	3.42	0.5133***	3.44	0.3195**	2.08	0.3077**	2.01
ROS	0.9566**	2.37	0.9490**	2.36	0.8969**	2.24	0.9276**	2.31
Constant	−0.5891	−0.67	0.9266	0.89	2.2722**	2.15	1.9532*	1.85
Industry effect	Control		Control		Control		Control	
Province effect	Control		Control		Control		Control	
Observations	3,325		3,325		3,325		3,325	
Adjusted R^2	0.3810		0.3823		0.3883		0.3896	
F (p-value)	40.14***(<.0001)		39.10***(<.0001)		39.22***(<.0001)		38.18***(<.0001)	
ΔR^2			8.61***		33.71***		8.72***	

Notes: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively (two-tailed tests). Results in this table are adjusted for common method biases. All reported *t*-statistics are based on robust standard errors adjusted for clustering at firm level (Petersen, 2009).

is only valid for Western religions, but invalid for Eastern religions. Moreover, Column (4) of Table 5 shows that *REL_EAST* × *DFM* has a significant and positive coefficient (0.2597 with $t = 2.75$), but the coefficient on *REL_WEST* × *DFM* is insignificant. These findings reveal that the reinforced role of the development of factor markets is only valid for Eastern religions.

Endogeneity Tests

Endogeneity tests using the PSM approach

In this study, following Du (2017), we employ the PSM (Rosenbaum & Rubin, 1983; Dehejia & Wahba, 2002) method to mitigate the influence of selection bias, which may result in the endogeneity between religious entrepreneurs and corporate longevity. In the first-stage model of the PSM regressions, the dependent variable is *REL*, equaling 1 if an entrepreneur believes in a religion and 0 otherwise. Referring to previous literature (e.g., El Ghoul et al., 2012; Du, 2013, 2017; etc.), we employ several exogenous variables to match the treatment team as below:

(1) Religious atmosphere including *BUD*, *DAO*, *CHRST*, *CATH*, and *ISLAM*, that affects an entrepreneur's religious belief. *BUD* (*DAO*) denotes Buddhist (Taoist) atmosphere, measured as the number of nationally famous Buddhist (Taoist) monasteries per capita in a province. *CATH* (*CHRST*) is measured as the number of nationally famous Catholic (Christian) churches per capita at the province-level. *ISLAM* denotes Islamic atmosphere, measured as the number of nationally famous mosques per capita in a province. Argyle and Beit-Hallahmi (2014) indicate that religion always belongs to both individual and social behavior. An individual who lives in a religious environment is more likely to interact with families, friends, marriage partners, and peer groups, who are adherents, and be affected by local religious media (Myers, 1996; Kelley & De Graaf, 1997). Many scholars argue that local religious atmosphere is one of the most important determinants for religious belief (Myers, 1996; Kelley & De Graaf, 1997; Argyle & Beit-Hallahmi, 2014).

(2) Regional culture including *EAST*, *WEST*, and *NORTH*, which may affect the attitude of individuals towards religions. *EAST* is a dummy variable, equaling 1 if a family firm is located in Beijing, Shanghai, Tianjin, Hebei, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, or Hainan and 0 otherwise. *WEST* is an indicator variable, equaling 1 if a family firm is located in Sichuan, Shaanxi, Gansu, Chongqing, Guizhou, Yunnan, or Qinghai and 0 otherwise. *NORTH* is a binary variable, equaling 1 if a family firm locates in Jilin, Heilongjiang, or Liaoning and 0 otherwise. Because convention, custom, and habits in a region are historically affected by local religions, individuals who live in this region are more likely to interact with local culture, and thus prefer to choose local religions as their beliefs (Argyle & Beit-Hallahmi, 2014). Prior studies reveal that local culture factors affect individual religiosity (Aleksynska & Chiswick, 2013; Argyle & Beit-Hallahmi, 2014; Kelley & De Graaf, 1997). We partition mainland China into eastern, western, and northern regions, because most minorities who have different traditions from Han live in the northern and western regions of China.

(3) Province-level variables such as *TRANS*, *UNEMPR*, *LNFDFF*, and *GDP_PC*, may affect individual preference about engaging in religious activities. *TRANS* is measured as the natural logarithm of the total mileage of highway and railway at the province level. *UNEMPR* is measured as provincial unemployment rate. *LNFDFF* denotes financial deficit, measured as the natural logarithm of provincial financial deficit. *GDP_PC* is computed as provincial GDP per capita. Previous studies indicate that religious preference is associated with local development, such as transportation, unemployment, public deficit, and the level of economic (Osborne & Cormack, 1986; Iannaccone, 1998; Barro & McCleary, 2003; Clark & Lelkes, 2006; Timothy & Olsen, 2006).

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(4) Entrepreneurs-specific variables including *AGE*, *GENDER*, *EDU*, *POL_CON*, *FOR_EXP*, and *DUAL*. *AGE* denotes an entrepreneur's age. Individual religious preference is affected by various personal characteristics (e.g., age, gender, and education level, etc.) (Kelley & De Graaf, 1997; Iannaccone, 1998; Argyle & Beit-Hallahmi, 2014). Moreover, China is a socialist country, and thus work experience in the government is more likely to reduce individual religious preference (Potter, 2003; Yang, 2011). However, overseas experience may increase the possibility of interacting with religion (Potter, 2003; Yang, 2011). In China, an entrepreneur can exert significant effects on corporate behavior (Huang, 2000), and thus we use *DUAL* to capture the managerial power in a family firm.

Next, we employ *t*-tests to address the rationale of exogenous variables used in the PSM process. In doing so, we examine differences in the mean value between the REL subsample ($REL = 1$) and the non-REL subsample ($REL = 0$). As shown in Panel A of Table 6, there is a significant and positive difference in *LONG* between the treatment and the control groups ($t = 2.00$). However, for all variables used in the first-stage selection model, there are no significant differences between these two subsamples, suggesting that exogenous variables are relatively appropriate.

Column (1) of Panel B in Table 6 displays the results of the first-stage selection model. As shown in Column (1), *REL* is significantly negatively associated with *AGE*, *TRANS*, and *EDU*, but *REL* is significantly positively related to *BUD*, *DAO*, *CHRST*, *GENDER*, and *DUAL*.

As expected, using the PSM sample (872 observations), Column (3) of Panel B shows that *REL* has a positive and significant coefficient (0.7643 with $t = 2.28$), validating Hypothesis 1. In addition, Column (5) of Panel B shows that the coefficients on *REL* and *DFM* are both significantly positive and the coefficient on $REL \times DFM$ is positive and significant (0.2205 with $t = 2.17$), consistent with Hypothesis 2. To sum up, results after using the PSM method to control for the endogeneity are qualitatively similar to those in Table 3.

Space graph for matched samples and comparing PSM approach with other matching methods

As King and Nielsen (2016) argue, a more restrictive caliper in PSM may threaten the validity of causal inference. Referring to King and Nielsen (2016), in Figure 2, we report space graphs for matched samples under different matching techniques, which can clarify how the imbalance is left after using PSM. In Figure 2, the vertical axis denotes Mahalanobis matching discrepancy and the extent of imbalance, but the horizontal axis represents a matched sample size. A line in the graph represents the approximation of the imbalance-matched sample size frontier under a specific matching technique[11].

In Figure 2, the red dash line represents the observed frontier for random pruning. The imbalance of random pruning increases along with a decrease in matched sample size, implying serious biases in causal inference. The blue solid line, pink solid line, and black dash line denote the observed frontiers for PSM, Mahalanobis distance matching (MDM), and coarsened exact matching (CEM), respectively. As shown in Figure 2, the blue solid line, the pink solid line, and the black dash line slope downward, suggesting that imbalance decreases when matched sample size reduces. The triangle on the blue line represents the one-to-one PSM solution that has a moderate imbalance. However, MDM has a solution (star point on the pink line) with the lowest imbalance, and CEM reserves more information of raw data. Overall, Figure 2 suggests that the imbalance of matched samples under PSM is moderate, and that MDM and CEM have additional information for causal inference. Thus, we further compare the results of various matching methods.

[11]'The frontier is the set of matching solutions for which no other solution has lower imbalance for a given sample size or larger sample size for given imbalance' (King, Nielsen, Coberley, Pope, & Wells, 2011: 7). Solutions closer to the bottom left of the figure have low imbalance and large sample size, and thus are preferable.

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Table 6. Results after controlling for the endogeneity between religious entrepreneurs and corporate longevity

Panel A: *t*-tests for differences in the mean value between the subsample with religious entrepreneurs and the subsample without religious entrepreneurs					
	The subsample with religious entrepreneurs (REL = 1, *N* = 436)		The subsample without religious entrepreneurs (REL = 0, *N* = 436)		
Variable	Mean	SD	Mean	SD	*t*-test
LONG	9.6603	5.2879	9.0622	4.7176	2.00**
GENDER	0.1923	0.3944	0.1968	0.3980	−0.19
AGE	45.7452	8.0471	45.6707	8.9059	0.15
EDU	3.8558	1.2381	3.8755	1.2005	−0.27
POL_CON	0.1442	0.3516	0.1426	0.3500	0.08
FOR_EXP	0.0224	0.1482	0.0201	0.1404	0.27
DUAL	0.8814	0.3236	0.8594	0.3479	1.08
BUD	0.2006	0.3571	0.1716	0.3213	1.43
DAO	0.0696	0.0861	0.0620	0.0765	1.56
CHRST	0.0060	0.0295	0.0066	0.0317	−0.33
CATH	0.0201	0.0339	0.0231	0.0364	−1.39
ISLAM	0.0365	0.1139	0.0334	0.1111	0.45
EAST	0.5160	0.5001	0.5361	0.4992	−0.67
WEST	0.1811	0.3854	0.1727	0.3784	0.37
NORTH	0.0705	0.2562	0.0863	0.2812	−0.97
TRANS	7.1132	0.7825	7.0670	0.8234	0.96
UNEMPR	3.6180	0.6501	3.6069	0.6533	0.28
LNFDFF	15.0693	0.6801	15.0328	0.6874	0.89
GDP_PC	28.2339	15.9612	30.1102	16.6671	−1.52

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Panel B: Results using the propensity score-matching sample to mitigate the endogeneity

	The dependent variable: REL		The dependent variable: The dependent variable: corporate longevity (LONG)							
	(1)		(2)		(3)		(4)		(5)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
AGE	−0.0069**	−2.36								
BUD	0.4040***	2.69								
DAO	1.0472*	1.76								
CHRST	3.7440*	1.88								
CATH	−2.4265	−1.22								
ISLAM	−0.2634	−0.77								
EAST	−0.0449	−0.38								
WEST	−0.0150	−0.15								
NORTH	0.1882	1.54								
TRANS	−0.4263***	−3.97								
UNEMPR	0.1009	1.36								
LNFDFF	0.0948	0.66								
GDP_PC	−0.0076	−1.12								
REL					0.7643**	2.28	0.7803**	2.34	0.6761**	2.00
DFM							0.7694**	2.32	0.7781**	2.39
REL × DFM									0.2205**	2.17
GENDER	0.1953***	2.96	−0.7724*	−1.87	−0.7599*	−1.86	−0.7596*	−1.87	−0.7546*	−1.86
EDU	−0.0566**	−2.54	−0.3990**	−2.52	−0.4025**	−2.54	−0.5413***	−3.23	−0.5527***	−3.30
POL_CON	−0.0886	−1.28	0.4756	1.10	0.5261	1.22	0.5315	1.24	0.4923	1.16
FOR_EXP	0.2646	1.45	0.7566	0.54	0.7590	0.54	0.6856	0.49	0.6650	0.47

(*Continued*)

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Table 6. (*Continued.*)

Panel B: Results using the propensity score-matching sample to mitigate the endogeneity										
	The dependent variable: REL		The dependent variable: The dependent variable: corporate longevity (LONG)							
	(1)		(2)		(3)		(4)		(5)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
DUAL	0.2095***	2.87	0.9557**	2.08	0.9555**	2.07	0.9603**	2.09	0.9331**	2.04
SGM			−0.4852	−1.49	−0.4835	−1.49	−0.5093	−1.56	−0.4931	−1.52
DBOARD			−0.0547	−0.17	−0.0384	−0.12	0.0225	0.07	0.0356	0.11
SBOARD			−0.3005	−0.86	−0.3441	−1.00	−0.4744	−1.36	−0.4920	−1.41
SIZE			0.6867***	14.91	0.6720***	14.27	0.4238***	3.50	0.4254***	3.54
LEV			0.6410**	1.99	0.6407**	2.00	0.4485	1.37	0.4427	1.35
ROS			1.8134**	2.03	1.8463**	2.10	1.6564*	1.89	1.6204*	1.84
Constant	0.7359	0.37	−2.0263	−1.22	−1.5989	−0.94	−0.0456	−0.02	−0.0268	−0.01
Industry effect	No		Control		Control		Control		Control	
Province effect	No		Control		Control		Control		Control	
Observations	3,325		872		872		872		872	
Pseudo R^2/Adj_R^2	0.0395		0.3602		0.3634		0.3673		0.3692	
LR/F (p-value)	128.78***(<.0001)		9.60***(<.0001)		9.57***(<.0001)		9.57***(<.0001)		9.50***(<.0001)	
ΔR^2					5.11**		5.93**		3.54*	

Notes: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively (two-tailed tests). All results using the PSM sample are adjusted for common method biases. All reported *t*-statistics are based on robust standard errors adjusted for clustering at firm level (Petersen, 2009).

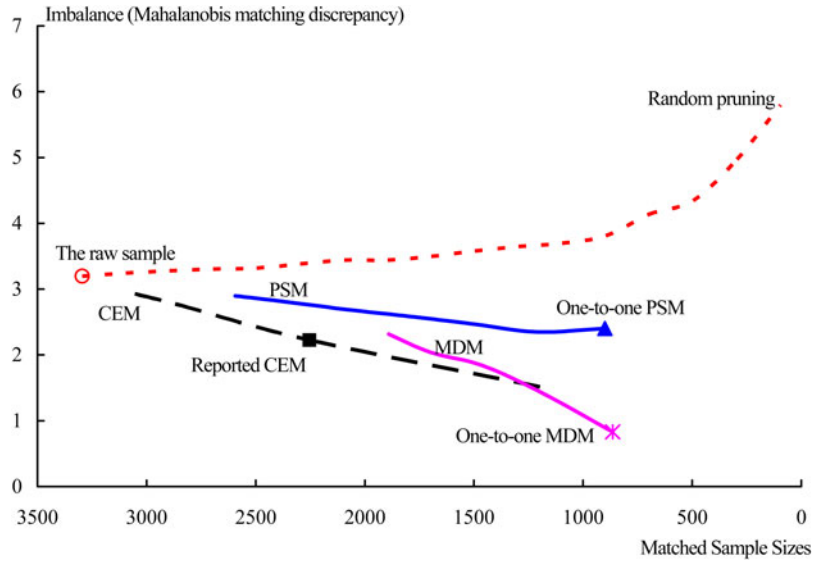

Figure 2. The space graph for multiple matching solutions. Note: In Figure 2, each point represents one matching solution. The red dash line, blue solid line, pink solid line, and black dash line denote the observed frontiers for random pruning, for propensity score matching, for Mahalanobis distance matching, and for coarsened exact matching, respectively. The circle on the left of the red dash line, the triangle on the blue solid line, the star on the pink solid line, and the square on the black dash line represent the solutions for the raw sample, for the one-to-one propensity score matching sample, for the one-to-one Mahalanobis distance matching sample, and for the reported coarsened exact matching sample, respectively.

To further address the validity of PSM used in this study, Table 7 re-test Hypotheses 1 and 2 using MDM sample and CEM sample, and all results are adjusted for common method biases.

Panel A of Table 7 reports results using one-to-one MDM sample. In Column (2) of Panel A, the coefficient on *REL* is significantly positive. Moreover, in Column (4) of Panel A, the coefficient on *REL* × *DFM* is significantly positive. Panel B of Table 7 presents results using CEM sample. In Column (2) of Panel B, the coefficient on *REL* is positive and significant at the 5% level (0.6619 with $t = 2.47$). Column (4) of Panel B shows that the coefficient on *REL* × *DFM* is positive and significant at the 10% level (0.1918 with $t = 1.95$). To sum up, results using MDM and CEM samples are qualitatively similar to those in Panel B of Table 6 (PSM sample is used), implying the validity of PSM for causal inference.

Results using multiple PSM samples

According to King and Nielsen (2016), a large sample is likely to improve the usefulness of PSM for causal inference. As a response, we loosen the matching calipers of PSM to increase matched sample sizes by using 1-to-2, 1-to-3, 1-to-4, 1-to-5 matching. Moreover, we also choose several most common calipers of PSM, such as one-quarter of a standard deviation of the propensity score, half of a standard deviation of the propensity score, and a standard deviation of the propensity score. Results are reported in Table 8 and all results are adjusted for common method biases.

In Columns (1), (3), (5), (7), (9), (11), and (13) of Table 8, the coefficients on *REL* are all significantly positive. Moreover, as shown in Columns (2), (4), (6), (8), (10), (12), and (14) of Table 8, the coefficients on *REL* × *DFM* are all significantly positive. These results are qualitatively similar to those in Panel B of Table 6.

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Table 7. Results using one-to-one Mahalanobis distance matching sample and the coarsened exact matching sample

Panel A: Results using one-to-one Mahalanobis distance matching (MDM) sample								
	The dependent variable: corporate longevity (LONG)							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL			0.6372*	1.90	0.6390*	1.92	0.6219*	1.88
DFM					0.9269***	2.79	0.9432***	2.84
REL × DFM							0.1453*	1.76
GENDER	−0.0474	−0.11	−0.0652	−0.15	−0.1222	−0.28	−0.1069	−0.25
EDU	−0.5115***	−3.29	−0.5025***	−3.23	−0.6973***	−4.11	−0.7022***	−4.14
POL_CON	0.9206**	2.03	0.9258**	2.04	0.9224**	2.04	0.9192**	2.04
FOR_EXP	0.0872	0.06	0.1151	0.08	0.0282	0.02	0.0806	0.05
DUAL	0.6586	1.40	0.6553	1.38	0.6363	1.34	0.6441	1.36
SGM	−0.6274*	−1.93	−0.6379**	−1.97	−0.6995**	−2.14	−0.6944**	−2.13
DBOARD	−0.0841	−0.26	−0.0486	−0.15	0.0108	0.03	0.0255	0.08
SBOARD	−0.0932	−0.26	−0.1308	−0.37	−0.2681	−0.75	−0.2956	−0.83
SIZE	0.7227***	15.23	0.7116***	14.78	0.4208***	3.62	0.4166***	3.59
LEV	0.5187	1.50	0.5303	1.54	0.3178	0.91	0.3042	0.87
ROS	0.9857	1.23	1.0301	1.31	0.9564	1.22	0.9303	1.18
Constant	1.0316	0.50	1.2939	0.63	3.1697	1.48	3.2021	1.50
Industry effect	Control		Control		Control		Control	
Province effect	Control		Control		Control		Control	
Observations	864		864		864		864	
Adjusted R^2	0.3673		0.3693		0.3749		0.3762	
F (p-value)	9.76***(<.0001)		9.68***(<.0001)		9.74***(<.0001)		9.61***(<.0001)	
ΔR^2			3.55*		8.12***		2.90*	

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Panel B: Results using the coarsened exact matching (CEM) sample

	The dependent variable: corporate longevity (LONG)							
	(1)		(2)		(3)		(4)	
Variable	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value	Coefficient	*t*-value
REL			0.6619**	2.47	0.6446**	2.42	0.5788**	2.20
DFM					0.8601***	4.23	0.8639***	4.26
REL × DFM							0.1918*	1.95
GENDER	−0.3601	−1.29	−0.4093	−1.47	−0.4255	−1.54	−0.4226	−1.52
EDU	−0.1712*	−1.70	−0.1638	−1.63	−0.3169***	−2.94	−0.3232***	−3.00
POL_CON	0.1475	0.53	0.1297	0.47	0.1022	0.37	0.1188	0.43
FOR_EXP	0.8166	0.99	0.7677	0.93	0.6270	0.76	0.5928	0.72
DUAL	0.4670	1.32	0.5999*	1.66	0.6851*	1.88	0.6760*	1.87
SGM	−0.8835***	−4.33	−0.8774***	−4.31	−0.9254***	−4.53	−0.9173***	−4.50
DBOARD	0.1460	0.77	0.1468	0.77	0.1696	0.90	0.1688	0.89
SBOARD	0.2238	1.04	0.2077	0.96	0.0989	0.45	0.0857	0.39
SIZE	0.6606***	21.85	0.6524***	21.38	0.3737***	5.14	0.3753***	5.18
LEV	0.4961**	2.55	0.4978**	2.57	0.3201	1.62	0.3157	1.61
ROS	1.0605**	2.00	1.0755**	2.04	0.9973*	1.89	0.9912*	1.88
Constant	−0.7589	−0.71	−0.4659	−0.43	0.9917	0.86	0.9563	0.83
Industry effect	Control		Control		Control		Control	
Province effect	Control		Control		Control		Control	
Observations	2,254		2,254		2,254		2,254	
Adjusted R^2	0.3561		0.3577		0.3629		0.3638	
F (p-value)	25.19***(<.0001)		25.18***(<.0001)		25.06***(<.0001)		24.83***(<.0001)	
ΔR^2			6.36**		18.97***		4.10**	

Note: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively (two-tailed tests). Results in this table are adjusted for common method biases. All reported *t*-statistics are based on robust standard errors adjusted for clustering at firm level (Petersen, 2009).

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Table 8. Results using the larger propensity score-matching samples (adjusted for common method biases)

	The dependent variable: corporate longevity (LONG)													
	One-to-Two Matching sample		One-to-Three Matching sample		One-to-Four Matching sample		One-to-Five Matching sample		Matching sample with 1/4 SD caliper		Matching sample with 1/2 SD caliper		Matching sample with 1 SD caliper	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Variable	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)
REL	0.6309** (2.14)	0.5761** (1.99)	0.6112** (2.23)	0.5486** (2.04)	0.5862** (2.20)	0.5130* (1.96)	0.5788** (2.22)	0.5099** (1.99)	0.5303** (2.07)	0.4407* (1.76)	0.5586** (2.23)	0.4432* (1.81)	0.5237** (2.12)	0.4096* (1.70)
DFM		0.9941*** (3.57)		0.8414*** (3.38)		0.8927*** (3.88)		0.7952*** (3.79)		0.9508*** (4.90)		0.8501*** (5.02)		0.8689*** (5.32)
REL × DFM		0.1757* (1.75)		0.1594* (1.69)		0.1838** (2.00)		0.1770* (1.96)		0.2038** (2.25)		0.2342*** (2.64)		0.2114** (2.43)
GENDER	−0.4886 (−1.34)	−0.5454 (−1.50)	−0.4188 (−1.24)	−0.4582 (−1.36)	−0.3774 (−1.23)	−0.4210 (−1.37)	−0.4333 (−1.51)	−0.4647 (−1.62)	−0.2177 (−0.77)	−0.2431 (−0.86)	−0.1747 (−0.69)	−0.1958 (−0.77)	−0.2637 (−1.14)	−0.2914 (−1.26)
EDU	−0.2758** (−2.08)	−0.4541*** (−3.24)	−0.2277* (−1.93)	−0.3838*** (−3.06)	−0.2030* (−1.84)	−0.3747*** (−3.18)	−0.2324** (−2.26)	−0.3793*** (−3.49)	−0.1605* (−1.67)	−0.3362*** (−3.31)	−0.1898** (−2.21)	−0.3508*** (−3.83)	−0.1537* (−1.88)	−0.3170*** (−3.61)
POL_CON	0.4564 (1.27)	0.3923 (1.10)	0.4032 (1.24)	0.3633 (1.13)	0.3162 (1.07)	0.2718 (0.92)	0.3087 (1.14)	0.2588 (0.96)	0.2222 (0.89)	0.1831 (0.73)	0.1478 (0.67)	0.1091 (0.50)	0.1579 (0.77)	0.1157 (0.56)
FOR_EXP	0.2210 (0.21)	0.1458 (0.14)	0.2798 (0.31)	0.2052 (0.23)	0.2759 (0.34)	0.2107 (0.26)	−0.0078 (−0.01)	−0.0877 (−0.12)	0.9477 (1.02)	0.5720 (0.62)	0.7960 (1.06)	0.5359 (0.72)	0.3982 (0.55)	0.2123 (0.30)
DUAL	0.6503 (1.64)	0.6518 (1.65)	0.5333 (1.49)	0.5263 (1.47)	0.6335** (2.02)	0.6255** (1.99)	0.6561** (2.26)	0.6387** (2.20)	0.6663** (2.40)	0.6348** (2.29)	0.6978*** (2.85)	0.6769*** (2.78)	0.6070*** (2.63)	0.6023*** (2.63)
SGM	−0.8006*** (−2.91)	−0.8030*** (−2.92)	−0.8308*** (−3.38)	−0.8344*** (−3.40)	−0.8599*** (−3.76)	−0.8566*** (−3.75)	−0.9287*** (−4.39)	−0.9255*** (−4.38)	−0.8817*** (−4.50)	−0.9163*** (−4.68)	−0.7382*** (−4.20)	−0.7571*** (−4.31)	−0.7338*** (−4.36)	−0.7607*** (−4.52)
DBOARD	0.1590 (0.59)	0.2151 (0.80)	0.2188 (0.91)	0.2766 (1.15)	0.2112 (0.93)	0.2744 (1.21)	0.1827 (0.86)	0.2545 (1.20)	0.2554 (1.34)	0.3307* (1.74)	0.2824* (1.66)	0.3431** (2.02)	0.2653 (1.62)	0.3185* (1.95)
SBOARD	−0.0337 (−0.11)	−0.2117 (−0.68)	−0.0472 (−0.17)	−0.2093 (−0.76)	0.0631 (0.25)	−0.1194 (−0.47)	0.1001 (0.43)	−0.0627 (−0.26)	0.0901 (0.42)	−0.0771 (−0.35)	0.0645 (0.34)	−0.0894 (−0.46)	0.0943 (0.51)	−0.0483 (−0.26)
SIZE	0.6950*** (17.31)	0.3739*** (3.72)	0.6781*** (19.41)	0.4095*** (4.62)	0.6699*** (20.72)	0.3859*** (4.75)	0.6877*** (22.75)	0.4343*** (5.82)	0.6635*** (23.13)	0.3596*** (5.18)	0.6668*** (25.84)	0.3957*** (6.58)	0.6650*** (27.18)	0.3886*** (6.79)
LEV	0.7192*** (3.10)	0.4360* (1.79)	0.7546*** (3.63)	0.5181** (2.39)	0.6640*** (3.36)	0.4183** (2.04)	0.6571*** (3.52)	0.4349** (2.24)	0.3994** (2.13)	0.1440 (0.76)	0.4980*** (2.95)	0.2977* (1.73)	0.5218*** (3.26)	0.3219** (1.96)
ROS	1.4127* (1.94)	1.1936 (1.64)	1.4248** (2.28)	1.2620** (2.02)	1.2787** (2.21)	1.1331** (1.97)	1.2412** (2.28)	1.1027** (2.04)	1.5964*** (3.06)	1.5237*** (2.92)	1.1741** (2.55)	1.1233** (2.45)	0.9629** (2.21)	0.9332** (2.15)
Constant	−1.5391 (−1.09)	0.2472 (0.16)	−1.0019 (−0.78)	0.4982 (0.36)	−0.9587 (−0.80)	0.6024 (0.47)	−0.7407 (−0.66)	0.6080 (0.50)	0.9161 (0.76)	2.2126* (1.76)	0.8307 (0.83)	1.9671* (1.89)	0.1941 (0.20)	1.4458 (1.45)
Industry effect	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Province effect	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Observations	1,308	1,308	1,744	1,744	2,180	2,180	2,616	2,616	2,271	2,271	2,747	2,747	2,984	2,984
Adjusted R^2	0.3730	0.3806	0.3760	0.3812	0.3743	0.3804	0.3841	0.3892	0.3781	0.3858	0.3704	0.3774	0.3777	0.3848
F-value	17.60***	17.58***	20.38***	20.21***	22.09***	22.03***	25.33***	25.09***	28.96***	28.88***	32.33***	32.15***	35.78***	35.33***

Note: ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively (two-tailed tests). All reported t-statistics are based on robust standard errors adjusted for clustering at firm level (Petersen, 2009).

Discussions

Theoretical contributions

Several theoretical contributions are implied in our study. First, to our knowledge and literature in hand, this study is the first to investigate the influence of religious entrepreneurs on corporate longevity in the context of China – the largest emerging market in the world. In this regard, our study contributes to the existing literature about religious influence on corporate behavior, as well as extant studies about the effects of entrepreneur-specific characteristics on corporate longevity (Bates, 1990, 1995; Nafziger & Terrell, 1996; Pennings, Lee, & Van Witteloostuijn, 1998; Delmar & Shane, 2006; Hilary & Hui, 2009; Williams & Jones, 2010; McGuire, Omer, & Sharp, 2011; Dyreng, Mayew, & Williams, 2012; El Ghoul et al., 2012; King & Peng, 2013; Du, 2017). Although previous studies have examined the determinants of corporate continuity, little attention is paid to the association between religious entrepreneurs and corporate longevity, and thus the following problems are pending: (1) whether religious entrepreneurs affect corporate longevity; (2) whether different religions have asymmetric effects on corporate longevity; and (3) whether the relation between religious entrepreneurs and corporate longevity depends on institutional environment. As such, our study fills above gaps and contributes to two branches of previous studies about religious influence on corporate behavior and the impacts of entrepreneurial characteristics on corporate decisions.

Second, this study adds to the existing literature by exploring the influence of the development of factor markets on corporate longevity. A stream of previous studies (Williams & Jones, 2010; Yu, Orazem, & Jolly, 2011; Carney, Gedajlovic, & Strike, 2014) has found that institutional environment (e.g., macro-economic systems, legal systems, and regional culture, etc.) impacts corporate longevity. However, these studies are conducted in the context of developed markets, and thus the findings may not fit in well with the Chinese context. In this study, we recognize the positive effect of the development of factor markets on corporate longevity, echoing the crucial role of institutional environment in the allocation of social wealth (Oliver, 1997; Carney, Gedajlovic, & Strike, 2014).

Third, this study validates the reinforced effect of the development of factor markets on the positive association between religious entrepreneurs and corporate longevity. This finding adds to the existing literature about the institutional embeddedness of entrepreneurial behavior theory, which argues that the impacts of entrepreneurial behavior and decisions are affected by external institutional environment (Schiff, 1992; Martinelli, 2004; Dickson & Weaver, 2008; Welter & Smallbone, 2011). A stream of extant literature suggests that different institutional contexts bring out a variety of differences in economic consequences of entrepreneurial characteristics, but few studies address whether the development of factor markets moderates the effect of religious entrepreneurs on corporate behavior. In this regard, our findings lend important and additional support to the institutional embeddedness of entrepreneurial behavior theory through exploring the moderating role of the development of factor markets in the positive relation between religious entrepreneurs and corporate longevity.

Finally, our study finds asymmetric effects between Western religions and Eastern religions on corporate longevity, echoing the findings in Du (2017) – different religions affect corporate behavior asymmetrically. A large body of studies mainly focus on a specific religion and investigate religious influence on corporate decisions (e.g., Hilary & Hui, 2009; McGuire, Omer, & Sharp, 2011; Dyreng, Mayew, & Williams, 2012; El Ghoul et al., 2012; Du, 2013, 2014; etc.), but they do not address the asymmetric effects of different religions on specific corporate behavior. Focusing on the Chinese context, our study contributes to prior literature by examining the asymmetric impacts of entrepreneurs with different religious beliefs on corporate longevity.

Managerial implications

In addition to theoretical contributions, our study also has several managerial implications. First, for a long time, there are many doubts on whether religion affects individual and corporate

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behavior in China. Using a sample of Chinese family firms, we show that religious entrepreneurs are significantly positively associated with corporate longevity, revealing religious influence on corporate longevity and validating religious effects on corporate behavior in contemporary China. In this regard, our findings can motivate scholars, practitioners, policymakers, and Chinese officials to pay special attention to the positive effects of religious attendance on corporate behavior including promoting corporate longevity.

Second, the positive relation between religious belief and corporate longevity implies that religious attendance can serve as an important channel or platform for religious entrepreneurs to learn managerial and social skills (Cao, 2007; Nwankwo, Gbadamosi, & Ojo, 2012; Elephant Magazine (EM), 2015; Zhao, 2015), raise individual social capital (Honig, 1998; Cao, 2008; Du, 2017), and draw inspiration of long-term success, and further exert positive influence on corporate longevity (continuity; Huselid, Jackson, & Schuler, 1997; Baron & Markman, 2000; Hunt, 2000; King & Furrow, 2004; Casson & Della Giusta, 2007; Nwankwo, Gbadamosi, & Ojo, 2012). Moreover, religious attendance would be especially valuable and significant in the cases that authoritarian entrepreneurs or relation-oriented culture plays a crucial role in corporate development under the context of China. Therefore, our findings provide useful and practical insights for entrepreneurs to achieve the long-term success in their family business.

Third, our finding about the positive effect of religious entrepreneurs on corporate longevity reveals that religious attendance affects corporate behavior through the way of sharing knowledge or enlightening believers' wisdom. This finding indicates that religious organizations should not only satisfy the spiritual world, but also fulfill important social responsibility such as disseminating positive knowledge. Moreover, religious organizations should realize their roles in building social capital and maintaining social trust, and further endeavor to provide support for the above effects.

Finally, the reinforced effect of the development of factor markets on the positive relation between religious entrepreneurs and corporate longevity motivates entrepreneurs to pay their special attention to the interactions between external institutional environment and religious entrepreneurs on corporate behavior. Because institutional environment embodies the rules of the game (North, 1990), different institution environment might lead to asymmetric impacts on entrepreneurial behavior (Martinelli, 2004; Dickson & Weaver, 2008; Welter & Smallbone, 2011). As such, institution construction becomes increasingly important to moderate religious entrepreneurs on corporate behavior.

Limitations and future research

Our study has several limitations that can be further addressed in future research. First, we use the cross-sectional data from the 2008 national survey to conduct empirical analysis in this study. In this regard, our findings need additional evidence from future research to be further validated. Second, our study employs the number of years since a firm's establishment as the proxy for corporate longevity. Although this method is widely employed in previous studies, it may not fully capture a firm's actual continuity. We call on future research to explore new and additional measures of corporate longevity and further validate the effect of religious entrepreneurs on corporate longevity. Third, we use an indicator variable to denote whether an entrepreneur believes in a religion or not, but this method is hard to measure the extent of religiosity, which limits our study to further explore whether corporate longevity prolongs along with stronger religiosity. As a response, future research should focus on the Chinese context to obtain data on the extent of religiosity, and then examines whether Chinese family firms are more long-lived when entrepreneurs' religious beliefs strengthen. Fourth, our study is conducted in the context of China, and thus our conclusions may not fill in well with other countries. Therefore, future research should consider the impacts of religious entrepreneurs on corporate longevity under different contexts. Fifth, our study provides an interesting angle about how religiosity is important in management

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and organization, which can motivate further discussions and deep follow-up research. Finally, as Du (2017) suggests, future studies should jointly employ survey data and archival data to enhance the reliability of research conclusions.

Conclusion

This study focuses on the Chinese context to examine the relation between religious entrepreneurs and corporate longevity, and further explores the moderating role of the development of factor markets. Using a sample of Chinese family firms, we document that, for religious belief as a whole, religious entrepreneurs are significantly positively related with corporate longevity, and further the development of factor markets reinforces the positive association between religious entrepreneurs and corporate longevity. However, after differentiating religious beliefs, the findings show that the positive relation between religious entrepreneurs and corporate longevity is only valid for Western religions (but not for Eastern religious beliefs), and the reinforced role of the development of factor markets only stands for Eastern religions. Overall, our study extends the existing literature about religious influence on corporate decisions, and thus lends important support to the social capital theory, the institutional theory, and the institutional embeddedness of entrepreneurial behavior theory.

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