



Entrepreneurial Orientation and the Performance of Religious Congregations as Predicted by Rational Choice Theory

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Empirical and anecdotal evidence suggests that businesses that act with an entrepreneurial orientation enjoy superior performance. Our research investigates whether nonprofit, religious congregations can benefit from similar initiatives. We based our hypotheses on the Rational Choice Theory of Religion, which was developed by social scientists to bring economic analysis to the understanding of the effects of competition among nonprofit organizations. Using a sample of 250 religious congregations in five different geographical markets, an entrepreneurial orientation is found to be positively associated with organizational performance. A hypothesized interaction effect between environmental munificence and entrepreneurial orientation is assessed.

Introduction

The concept of entrepreneurial orientation (EO) has emerged as an approach for injecting entrepreneurial behavior into ongoing firms. An EO is conceptualized as a set of distinct but related behaviors that have the qualities of innovativeness, proactiveness, competitive aggressiveness, risk taking, and autonomy. These behaviors are associated with entrepreneurship in that they contribute to the development and implementation of new resource combinations to improve competitiveness and facilitate entry into new markets. EO is linked positively to performance in service and manufacturing industries. However, EO has been neglected as a research topic in nonprofit sectors.

The specific nonprofit organizations studied in this research are religious congregations. Despite the importance of religious institutions in the United States and worldwide economy, there has been a pronounced lack of direct application of strategic theory to

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religious congregations (Miller, 2002). We explore the proposition that many of the same benefits that firms in the manufacturing sector and the for-profit service sector receive from implementing an EO also accrue to religious congregations that adopt an entrepreneurial approach to management.

Attempting to assess the value of EO in a nonprofit context presents a special theoretical hurdle. EO has been conceptually developed and empirically tested to explain performance differences among profit-oriented businesses. While nonprofit organizations share many similarities, many factors are distinctly different, including primary performance indicators, manager/nonmanager relationships, and critically, the consequences of competition among different groups. Since EO is expressly advocated to improve organizational competitiveness, is EO advantageous in a nonprofit, religious context?

To address this issue, our research employs the Rational Choice Theory of Religion (RCT) (Finke & Stark, 1988; Finke, Guest, & Stark, 1996; Iannaccone, 1995b), augmented by the neoclassical rational choice perspective (Spickard, 1998) to more fully understand the consequences of EO for nonprofit religious organizations. The RCT views religion as a social phenomenon that is best understood through economic analysis of a competitive environment in which people make rational choices.

An organization's external environment has long been linked to its performance. Aldrich (1979) identified six salient dimensions of the environment, which Dess and Beard (1984) distilled into three primary dimensions, labeled complexity, dynamism, and munificence. Environmental munificence, which refers to the relative abundance of the resources that support the organization, has since proven to be the most significant of the factors (Castrogiovanni, 1991). The level of munificence reflects demographic, economic, social, political, and technological developments.

Firm munificence emerges as the most consequential factor in EO, when munificence is defined as the carrying capacity of the environment to sustain growth (Castrogiovanni, 1991). Although research has established a positive relationship between munificence and performance in for-profit firms (Covin & Slevin, 1989; Dess, Lumpkin, & Covin, 1997; Hansen & Wernerfelt, 1989), little is known about the relationship in nonprofits, or in religious congregations specifically.

Five large-sample research studies have explored the merits of an entrepreneurial orientation in for-profit service organizations (Altinay & Altinay, 2004; Barney, Busenitz, Fiet, & Moesel, 1996; Becherer & Maurer, 1997; Jambulingam, Kathuria, & Doucette 2005; Jogaratnam and Ching-Yick Tse, 2006). All of the studies tested the association of innovativeness with firm-level performance, and all except Barney et al. tested two other components of an EO: risk taking and proactiveness. Firm munificence was also studied by Becherer and Maurer. Collectively, the findings of these five studies confirmed a positive association between an EO and organization performance, moderated by munificence.

Practical and Theoretical Importance

Since its introduction, the EO construct has been most widely evaluated in manufacturing settings where innovations are definable as tangible new products and changes in manufacturing processes (Covin & Slevin, 1989; Wiklund, 1999; Wiklund & Shepherd, 2003, 2005). Recently, research by Bhuiyan, Menguc, and Bell (2005) has sought to extend the examination of EO in a nonprofit service context, specifically, hospitals. The current study advances research on entrepreneurship in nonprofit contexts by investigating

entrepreneurial actions in the management of nonprofit religious services organizations at the congregational level.

Although there has been a serious undercurrent of work that looks at the impact of religion on entrepreneurship, dating back to the mid-twentieth century, the value of entrepreneurial theory in religious organizations is largely untested (for recent reviews and examples see Bellu & Fiume, 2004; Carswell & Rolland, 2004; Drakopoulou Dodd & Gotsis, 2007; Ibrahim & Angelidis, 2005; Longenecker, McKinney, & Moore, 2004). The current research moves beyond manufacturing, to investigate entrepreneurial action in the management of nonprofit religious services organizations at the congregational level.

We focused on religious congregations for four main theoretical and empirical reasons. First, religion has a pervasive and continuing importance in domestic and world affairs, as evidenced by the rise of Islamic fundamentalism in the Middle East, the political influence of evangelical Christianity in the United States, and the worldwide influence of the Catholic Church.

Second, religious congregations have an important economic impact. Despite its largely not-for-profit status, religion is big business. Religious organizations in the United States received an estimated \$93.18 billion in donations, or 35.8% of the total estimated charitable contributions, \$260 billion, in the United States in 2005 (Giving USA, 2006). However, maintaining congregational performance has become increasingly challenging. While giving to religion formed the largest share of total giving for many years, the percentage it accounts for has declined recently, from over 50% in 1985 to less than 40% in 2005 (Giving USA). In the United States, many Protestant denominations (including Methodist, Presbyterian, and Lutheran) have struggled with relative and absolute declines in membership. Since membership is an important determinant of contributions, a steady decline in the membership of mainline religious institutions calls for research to assist in clarifying effective strategies to confront this loss of members (Barna, 1992; Webb, Benoy, Schimmel, & Moberg, 1998).

Third, religious organizations are not the standard, neoclassical producers selling religious goods and services to parishioner consumers. Finding a positive relationship between EO and performance in religious congregations, a domain previously overlooked by researchers in entrepreneurship, would generate valuable information about the effect of entrepreneurial orientation—and its various sub-dimensions—within the religious community, and by extension, to other nonprofit institutions.

Fourth, the shifting demographics of the United States show that an increasing proportion of the population is moving into the senior age category, where religious involvement has traditionally been especially salient (Roozen, McKinney, & Thompson, 1986). Effective strategies for providing services, religious or other, to these populations will become increasingly valued. Therefore, research that can explicate the strategies and tactics that are effective in the management of religious service organizations will offer practical value.

Few reported studies apply entrepreneurial strategy concepts and models to the performance of religious congregations. This reluctance on the part of researchers to delve into the management of religious organizations may result from uncertainty as to whether the laws of performance that govern competition in for-profit arenas operate similarly among nonprofit, religious organizations (Kanter & Summers, 1987; Miller, 2002). Nevertheless, as shown in Table 1, there have been successful attempts to identify pastor behaviors that are associated with the performance of their congregations. Taken together, these studies find that the initiatives of pastors to empower their members to pursue new initiatives result in positive member perceptions and objective improvements in the performance of religious organizations. Although the term “entrepreneurial” is seldom

Management Orientation and the Performance of Religious Congregations

Authors (year)	Dependent variable	Independent variable	Method/sample	Findings
Brillz (2004)	Parishioner support and satisfaction (financial support and participation)	Pastor behaviors	Survey of 52,786 members matched with and survey's of 32 pastors	Religious congregations whose pastors exhibit emotional intelligence have highly rated parish outreach, sense of community, faith formation, stewardship, and participation in the sacrament.
Bruce (2005)	Organizational performance (financial support, membership growth, and attendance at activities)	Leadership style, member perceptions, and number of activities	Survey of 1,131 members	Congregations with empowering and transformational leaders are more likely to be financially strong, have growing membership, and have religion-involved members.
Carroll (2005)	Congregational effectiveness (membership growth, and attendance at activities)	Leadership style used by the pastor and laity's preference for pastor's leadership style	351 telephone interviews with pastors, matched with surveys of 357 parishioners	Proactive leadership that attempts to inspire and empower laity to act is positively associated with lay perceptions of congregational effectiveness.
Odom and Boxx (1988)	Planning sophistication (informal, operational, and long range)	Geographic location (city size), size of church, and growth pattern (attendance, membership, receipts, and baptisms)	Survey of 175 pastors	Congregations' planning was related more to perceptions than to objective measures of environment. Larger churches participated in more sophisticated planning. Formal planning increased with growth.
Okrepkie (2001)	Success of religious congregations (growth in membership and receipts)	Management initiatives	Survey of 100 pastors	Management initiatives that improve performance include establishing the need to change, getting members involved, acknowledging risks, and taking decisive action.
Webb (1974)	Church effectiveness on 28 goals (development of groups, ministries, and meaningful worship services)	Satisfaction with conflict, reliability, authority, communication, goal consensus, planning, clarity, cohesion, support, and efficiency	Two surveys—one of 117 members and one of 304 members	Church effectiveness is associated with perceived efficiency, support, cohesion, and adaptability.

used, entrepreneurial behaviors are clearly embodied in the preference of members for new outreach programs (Brizz, 2004), empowering and transformational leadership (Bruce, 2005), proactive management (Carroll, 2005), and new initiatives (Okrepkie, 2001).

Despite these encouraging results, the paucity of data-driven insights endangers religious organizations' ability to track the changing needs of their member-customers, thereby threatening their congregations' ability to adapt, innovate, and change (Christensen & Overdorf, 2000).

The Rational Choice Theory of Religion

The central issue in the social scientific study of religion is the concern with the relative advantages of a competitive versus a monopolistic religious market. Historically, the sociology of religious organizations was based on secularization theory, which holds that competition among religions weakens the faith of the laity and decreases their involvement in religious activity (Berger, 1969; Breault, 1989; Christiano, Swatos, & Kivisto, 2008). Since interdenominational competition implies that multiple religions have persuasive models, the laity was believed to have their faith and fervor shaken by debate.

This view was challenged in the late 1980s when the "religious economies model" was introduced by Finke and Stark (1988). Proponents of the model used the analogy of market competition to explain increases and decreases in the membership of religious organizations (Finke & Stark, 1992; Miller, 2002; Stark & Bainbridge, 1987; Stark & Finke, 2000; Warner, 1993). This approach helped economists apply a rational choice perspective to assess competitive strategy in a religious context (Spickard, 1998). Rational Choice theorists' attempt to explain human behavior through the standard microeconomic assumption of utility-maximizing based on fixed personal preferences and an economic, free market metaphor (Bruce, 1999; Finke & Stark, 2004; Greenwood & Hinings, 1996; Iannaccone, 1995b; Lounsbury & Glynn, 2001; Warner, 1993).

Advocates of the RCT believe that religious pluralism attracts the unchurched to formal church membership because competition expands the set of options for religious consumers and causes denominations to redouble their efforts to address the needs of their members. This competition results in greater retention and heightened participation of existing members as well as attracting new members (Finke & Stark, 1992; Finke et al., 1996; Stark & Finke, 2000; Warner, 1993). As expressed by Miller (2002), researchers working from the religious economies perspective believe that "sect-to-church evolution, renewal, schisms, and new religious movements produce ongoing repositioning among religious organizations, with start-up and spin-off organizations stepping into unfilled market niches."

In general, these researchers believe that the prosperity of religious organizations depends on their access to resources in the external environment, and that access derives from competition. In essence, promoters of the RCT believe that pluralism and vigorous competition result in improved congregational performance (e.g., Finke & Iannaccone, 1993; Finke, 1997a, 1997b).

However, the empirical underpinnings for the Rational Choice Theory of Religion have been shaken by two attacks. First, Chaves and Gorski (2001) reviewed the empirical studies and concluded that "the empirical evidence does not support the claim that religious pluralism is positively associated with religious participation in any general sense" (p. 262). Second, Voas, Olson, and Crockett (2002) reported that the correlations

between the Herfindahl pluralism measure and religious participation rates, which had formed the principal bases for the claims of empirical support for the RCT, were merely statistical artifacts. Forced to rebuild their empirical base, researchers began to look for related testable models of competition that could be linked to RCT (Montgomery, 2003; Olson, 1999; Voas et al., 2002).

Subsequently, Montgomery (2003) reported his empirical finding from a new methodological approach, which showed that competitive religious markets are negatively related to religious participation rates. This result harkens back to the findings in the pre-Herfindahl index era (cf. Breault, 1989) and revives questions about the empirical support for the RCT. Foremost among these questions are issues involving the resources—including an entrepreneurial orientation—that can provide sustainable competitive advantage for religious organizations (Miller, 2002).

Goals of This Research

The current research investigates the existence and the relevance of entrepreneurial behavior in a nonprofit, religious context. This research examines the EO construct in a nontraditional small organization environment. It utilizes the dimensions of innovativeness, proactiveness, autonomy, aggressiveness, and risk taking as determinates of organizational performance. In addition, this research is designed to explicate the importance of environmental resources both as a direct contributor to performance, and as a moderating influence on the relationship between EO and the performance of religious congregations.

This study has two primary theoretical foundations. First, an EO as a gestalt has positive effects on organization performance, as do each of the independent dimensions of an EO. Second, the effect of an EO on performance is greater when environmental munificence is low. Therefore, this research investigates three topics pertaining to the performance of religious congregations:

1. What is the relationship between an entrepreneurial orientation and the performance of religious congregations? Is the relationship correctly predicted by the rational choice theory of religion?
2. What is the impact of environmental munificence on the performance of religious congregations? Is the impact correctly predicted by the rational choice theory of religion?
3. What is the interaction among environmental munificence, entrepreneurial-oriented behaviors, and the performance of religious congregations?

In addition, this research proposes that an entrepreneurial orientation is unique and valuable in a faith-based organizational setting under the resource-based view of an organization (Barney, 1991). Consequently, the processes and routines classified as entrepreneurial offer a framework for evaluating and understanding performance in a religious context.

Hypotheses

Unit of Analysis

A classification scheme was created to categorize different faith groups so that our work could consistently focus on a specific unit of analysis. Our branching hierarchy

approach identifies groups according to their positions in an organizational structure. At the broadest, most encompassing level is a “religion,” which is a specific philosophical system of beliefs about the deity and humans’ relationships to deity. Therefore, religions include, among others, Christianity, Islam, and Judaism.

A “denomination” (a.k.a., alliance, conference, denominational family) is a subunit of a religion that refers to groups of aligned members who share major beliefs but differ in some administrative or philosophical aspects. Therefore, various Presbyterian religious bodies are aligned as members of the Presbyterian Church, which is a single denominational body.

Subunits of denominations are “congregations,” which are relatively small groups of individual members who attend services together. Such congregations are alternatively known as branches, churches, mosques, parishes, synagogues, temples, or wards. In our research, the unit of analysis is the congregation, and the respondent is the pastor of each congregation.

Entrepreneurial Orientation

Miller (1983) identified risk taking and innovativeness as the two primary areas of behavior that contribute to entrepreneurial success. Risk taking is the act of entering into a costly commitment with an uncertain future. Innovation is the act of creating new combinations. Proactiveness was added to the conceptualization of an EO to indicate an organization’s goal to be first among contenders to reach a customer (Lieberman & Montgomery, 1988). Lumpkin & Dess (1996) added autonomy and competitive aggressiveness to the set. Autonomy is the ability to take independent action. Competitive aggressiveness is the act of risking conflict and retribution, rather than merely accepting a harmonious coexistence.

There is a stream of research that suggests that the various sub-dimensions of an EO co-vary (e.g., Covin & Slevin, 1989), thereby implying that EO would reduce to a single or unidimensional variable. For example, Covin, Green, and Slevin (2006) treat EO as a unidimensional construct but acknowledge that their reason for doing so was the unique context (China) where the research was conducted. However, despite the close connections and correlations sometimes evident among the various dimensions of EO, other researchers posit EO be treated as multidimensional, and propose that EO dimensions may vary independently, depending on the environmental context (Lumpkin & Dess, 1996). Consistent with the multidimensional view of EO, we hypothesize that autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness will affect performance (i.e., growth in attendance and giving) of a religious congregation and that these relationships may be contingent on external factors, here the munificence of a congregation’s local environment.

Innovativeness reflects an organization’s efforts to pursue new combinations that improve operations or provide a new basis for meeting consumer needs (Pearce, Kramer, & Robbins, 1997). It represents the willingness of an organization to support new ideas, novelty, and experimentation, and to depart from existing technologies and practices. The religious economies research has produced conflicting results on innovativeness. Many religious institutions resist innovation and change (Barna, 1992; Hout & Fischer, 2002). They typically view history and tradition as strategic advantages. For example, Salipante and Golden-Biddle (1995) identified traditionality as a relevant source of competitive advantage for religious institutions.

Conversely, organizational routines are often tied into members’ views of the legitimacy of religious organizations. As a result, innovations lack legitimacy and may meet

resistance from stakeholders (Dougherty & Heller, 1994). Their predictable environment is arguably one that can be exploited through entrepreneurial behavior. For example, a strategy that stresses innovativeness should be a rare and valuable resource in this context. Under the logic of the resource-based view of the firm, innovativeness would consequently be likely to lead to superior performance. Therefore,

Hypothesis 1: Innovativeness will be positively associated with the performance of religious congregations.

Proactiveness is the emphasis on being the first to take action. The ability and willingness of leaders to conceptualize and implement a plan for opportunistic expansion provides for a first mover advantage to help capitalize on a market opportunity (Lieberman & Montgomery, 1988). Proactiveness can be theoretically distinguished from innovation. *Innovativeness* conveys novelty and invention, whereas proactiveness may simply involve the implementation of new measures that are largely imitations. Further, proactiveness emphasizes aligning services and products with the perceived emerging market, rather than exploiting the existing market. The impact of proactiveness on performance for commercial organizations is positive when it leads to a beneficial first-mover advantage.

However, among religious organizations, “first-mover advantages are exploited not by accelerating innovation but by preserving an organization’s history and its path dependent routines and doctrines” (Miller, 2002, p. 442). Since the dominant services and products in a religious context are associated with stability and tradition, the rational choice theory of religion would suggest that stakeholders may view proactiveness unfavorably and an affront to a congregation’s traditional advantage. While innovation may ultimately be viewed positively by stakeholders (Pearce et al., 1997), in a religious context being first with an innovation may be seen as disruptive and disrespectful of tradition.

It is important to keep the unit of analysis in mind when hypothesizing the relationship of proactiveness to performance. Advocates of religious competition believe in a supply-side economic approach, that is, changes in church institutions precipitate increased member participation and satisfaction. They argue that, at the institutional level, competition heightens participation over the monopolistic option because competition inspires improvements in the religious product and has a capacity to offer variations that fill small market needs (Finke & Stark, 1988; Zaleski & Zech, 1995). Essentially, the multiple religious institutions succeed in part because they differ. Therefore, the qualities that define an institution need to be maintained by the small, congregational units of which it is comprised. If an institution’s units differ greatly, the institution’s identity is compromised. Consequently, proactiveness by congregations is discouraged by overarching religious institutions.

Therefore, the rational choice theory of religion appears to be in conflict with the empirical findings on EO among for-profit businesses. Since prior results on proactiveness have been mixed, we based our hypothesis on the RCT:

Hypothesis 2: Proactiveness will be negatively associated with the performance of religious congregations.

Competitive aggressiveness is a strategic behavior focused on expanding an organization’s market share at the expense of competitors. This behavior is distinct from proactiveness in that the focus of aggressiveness is on growth in existing markets and at the expense of other providers rather than focusing on being the first to address emerging needs.

An implication of institutional theory is that competitive aggressiveness is not associated with performance in a religious context because of the heavy emphasis that congregations place on legitimacy and the credence qualities of their services (DiMaggio & Powell, 1983). However, several authors have explored the role of competitive rivalry among churches by employing the rational choice theory of religion, and all have concluded that while the preferred form of competition ranges from subtle to overt, all denominations strive to maintain and grow their membership through competitive means (Cimino & Lattin, 1998; Dawson, 1998; Finke, 1990, 1997a; Finke et al., 1996; Finke & Stark, 1988, 1992; Greer & Roof, 1992; Miller, 2002). Therefore,

Hypothesis 3: Competitive aggressiveness will be positively associated with the performance of religious congregations.

Risk taking is the willingness to take risks, and to act outside of accepted practices and norms. Risk-taking behavior has the potential to facilitate exceptional results, especially in a setting where predictable behavior is characteristically high, such as in church settings (Gill, 1995; Kohl, 1984). Religious decision-making has the “character of risky investments” in that resources are required without assurance that the goals of the investment will be achieved (Iannaccone, 1995a). Religious institutions mitigate this risk by employing strategies that emphasize exclusivity and commitment. In a church setting, intentional risk taking can be viewed as a sign of commitment that signals credibility (Zech, 2001). Additionally, from a religious economies perspective, risk-bearing differentiation strategies are associated with the growth of denominations (Cimino & Lattin, 1998, pp. 32–33). Therefore,

Hypothesis 4: Risk taking will be positively associated with performance of religious congregations.

Autonomy is the ability to take independent action that affects strategy. Since layers of bureaucracy and organizational tradition seldom contribute to new activities or programs (Kanter, 1989), the ability of parishioner groups to act independently increases the number of actions that can be simultaneously explored by the organization. This increased action is posited to improve the organization’s fit with the environment, as well as increase the participants’ commitment to the organization.

The rational choice theory of religion must deal with counterbalancing stakeholder interests in religious conformity and local denominational responsiveness. One faction seeks to preserve the denomination’s traditional values and path dependent routines (Miller, 2002). The second group identifies with the one-third of Americans who switch religions during their lifetimes in search of responsive congregations whose autonomy allows them to meet local needs (Loveland, 2003). Congregational autonomy may increase responsiveness to environmental imperatives by empowering members (Jambulingam et al., 2005), to identify, develop, and initiate changes in church programs and activities, which results in increased innovation and organizational performance (Von Hippel, 1988). Since prior results on autonomy in EO research are mixed, we based our hypothesis on the rational choice/religious economies model. Therefore,

Hypothesis 5: A religious congregation’s autonomy will be positively associated with its performance.

The rationale in support of the efficacy of the *EO model* is compelling. The shortening of organization and service/product life cycles (Hamel, 2000) puts a premium on a strategy that improves an organization’s precise fit with the environment. This adaptability, which leads to improved performance (Nelson & Winter, 1982), often involves

creative action and taking risks by introducing new services and products in uncertain markets (Covin & Slevin, 1991). In fact, several empirical studies support the proposition that organizations that have adopted an EO outperform their competition (Covin & Slevin, 1989; Wiklund, 1999; Zahra & Covin, 1995).

The role of entrepreneurial behavior in a religious context is unexplored, but anecdotal evidence indicates that it is both rare and effective. A Public Broadcasting Service (PBS) documentary in 2005 outlined the dramatic growth of Pentecostal churches where the rules are relaxed and members are encouraged to create their own religious products with very few constraints (Abernethy, 2005). Their experiences can be contrasted to those in some traditional religious contexts where the emphasis on doctrine, order, and established methods of sense making is associated with declines in membership. Additionally, from a rational choice/religious economies perspective, clergy often contextualize and personalize services, suggesting that the decision-making orientation of the pastor-leader can have a profound influence on the success of the congregation. Research has also shown that organizational performance differences may be due to subtle differences in leaders' personalities, and the resulting organizational cultures, and adaptations of religious practices (Miller, 2002). Therefore, when EO is studied as a unidimensional construct:

Hypothesis 6: Entrepreneurial orientations in religious congregations will be positively associated with their performance.

Environmental Munificence is the relative abundance of resources in the overall environment that is available to support an organization (Castrogiovanni, 1991; Dess & Beard, 1984). When resources are abundant, organizations enjoy a wider variety of choices, easier access to resources, and mortality is decreased. Scarcity increases competition for resources, which results in decreased performance.

The main pool from which a congregation draws its resources is the surrounding population (e.g., Finke, 1997a, 1997b; Finke & Iannaccone, 1993; Iannaccone, 1995a). Therefore, a change in the surrounding area's population is a proxy for munificence. Increases to a pool of candidates in an area tend to increase a congregation's membership growth or income, and may also signal increased attractiveness of the community, and therefore possibly a more desirable location for church membership. Competition for new members among congregations is important to assess since there is evidence that competition is associated with increased membership and participation, even as such competition can result in divided gains for the congregations involved (Finke & Stark, 1988, 1992; Zaleski & Zech, 1995). Therefore:

Hypothesis 7: Environmental munificence will be positively associated with the performance of religious congregations.

Munificence and EO Interaction. In a nonprofit setting, Koberg (1987) found that as munificence decreased there is a tendency to decrease budgets, planning, equipment utilization, and expenses. Thus, as resources become scarce, religious congregations may become less ambitious in their outreach and expenditures. This direct effect will stall or decrease a congregation's performance, and it will have a moderating influence on the EO-to-performance relationship. Specifically, as environmental resources become scarce, organizations that exhibit a high EO will outperform their peers (Covin & Slevin, 1989).

Although environmental munificence is posited to have a positive direct effect on congregation performance, it can be hypothesized to have a negative moderating effect on

the relationship between EO and congregational performance. In other words, congregations in a constrained environment will benefit more from adopting an EO than would congregations that are in a munificent environment. The favorable conditions in a growing area will not generate as large a need for organizational innovation and risk taking. However, in a constrained environment, the increased competition will better reward an EO. Congregations that adopt a more aggressive, innovative, and risk-taking strategy will outperform less entrepreneurial congregations:

Hypothesis 8: The effect of entrepreneurial orientation on the performance of religious congregations will be stronger when munificence is low.

Performance

The entrepreneurship literature research supports the recommendation that organizational performance should be based on multiple dimensions (Murphy, Trailer, & Hill, 1996). Specifically, a review of the literature on religious organizations reveals that attendance and monetary giving are the preferred performance measures. The most used measure of congregation performance is member attendance at congregational activities (Brizz, 2004; Bruce, 2005; Carroll, 2005; Miller, 2002). If attendance is increasing, it is argued that the less tangible products that the congregation is trying to deliver, such as faith, comfort, hope, and salvation, are available at sufficient levels to support increased attendance. The second performance measure used to gauge the progress of religious congregations is the percentage change in total dollars given to the congregation by its members. Congregational giving is a proxy for an increasing value of the congregation's services to its members.

It is conceivable that giving and attendance could move in opposite directions. Giving may decline even when attendance is increasing or, more likely, attendance may decline while giving continues to rise. Yet, in either case, both dimensions are important indications of performance and the overall success of the organization. A declining church that is increasing the giving of its members is performing at a higher level than a declining church with a similar decline in giving. Therefore, a multiple dimension performance measure provides a better test of the association of EO to the overall performance of the organization.

Methods

Sample

This study involved semi-autonomous religious organizations affiliated with a large mainline denomination. The Evangelical Lutheran Church of America (ELCA) was selected due to its status as a “bridge” denomination among Protestants. Since 2000, the Lutheran denomination has developed declarations of purpose and doctrine that align them with the structurally orthodox Episcopal Church, and the structurally liberal Methodist and Presbyterian Churches. The study sample was drawn from ELCA congregations in five metropolitan areas: St. Paul, MN; Philadelphia, PA; Pittsburgh, PA; Lincoln, NE; and Charlotte, NC. These areas were selected due to the density of congregations within a 30-mile radius that minimized variation in the settings and contexts. East Coast and Midwestern organizations were selected to expand the generalizability of the findings.

Consistent with the recommendation to survey the person most knowledgeable, the pastor was selected as the key informant (Hambrick & Mason, 1984). Clergy have been

found to be reliable sources of information related to organizational behavior and performance (Seidler, 1974).

Independent and Dependent Variables

Six independent variables were included in the study. Five variables clustered under the rubric of entrepreneurial orientation (innovativeness, proactiveness, risk seeking, competitive aggressiveness, and autonomy seeking) plus environmental munificence.

Performance, the dependent variable, is defined as the degree to which the organization's goals are achieved. Performance is best measured with multiple indicators in entrepreneurial firms (Murphy et al., 1996). A review of the literature, structured interviews with pastors, and a pretest identified growth in attendance and growth in voluntary giving by parishioners as the primary indicators of congregational performance. Therefore, this research takes growth as the primary proxy for performance. This approach is consistent with much of the prior research for religious institutions (Busenitz, McDaniel, & Lau, 1990; Kohl, 1984; Sullivan, 1985), and entrepreneurial firms (Brush & Vanderwerf, 1992; Chandler & Hanks, 1993).

The RCT model uses voluntary giving by church members as a main measure of their satisfaction with their congregation (Busenitz et al., 1990; Kohl, 1984; Sullivan, 1985). Increases in member contributions are also seen as support for the competitive market theory in that they indicate the relative success of congregations in satisfying the needs of their parishioners (Finke & Stark, 1992; Zaleski & Zech, 1995) follow a similar line of reasoning when they argue that competition leads to increased religious participation because people differ in their preferences for religious beliefs and activities, and that a variety of denominational options best meets their differing needs.

Most entrepreneurial research to date has relied on self-reported (subjective) performance data. However, questions have been raised about the accuracy of self-reported data and its correlation with performance. The reliance on single sourced mono-method data for the dependent variable has placed restrictions on the generalizability of many of the findings related to small entrepreneurial firm performance. To address this limitation, secondary data was retrieved manually from archival sources to supplement the self-reported performance data and to minimize threats to validity due to mono-method bias. While the U.S. government collects few statistics and little information on religious organizations beyond Internal Revenue Service (IRS) tax records, nearly all denominations track indicators of performance including their membership and contributions (Iannaccone, 1998). For the purposes of the present study, we manually retrieved attendance and giving records from denominational reports for all congregations whose pastors responded to the survey. A percentage change in total giving and total attendance was calculated using the figures for the period from 2001 to 2004.

The subjective performance data was obtained from a survey instrument. The survey requested each pastor to assess his congregation's change in overall giving and change in attendance over the same 3-year period (1 = much worse than similar organizations; to 7 = much better than similar organizations). The subjective measures showed adequate reliability ($\alpha = .71$). The archival attendance and giving figures were also correlated at a significant level ($r = .22, p < .001$). All four performance measures were significantly correlated ($p < .01$).

The archival performance data and the self-reported data were subsequently standardized, and combined to develop one composite measure for performance. This was done to minimize the potential for method bias from using self-reports for both the independent and dependent variables. Therefore, for purposes of hypotheses testing, performance is

defined as a composite index composed of four indicators of performance over the previous 3-year period. The four performance indicators are pastor-reported growth in attendance, pastor-reported growth in giving, archival change in attendance, and archival change in giving. The combined composite performance index provides a more robust test of our hypotheses.

Control Variables

Consistent with previous EO research, the age and size of the organization were included as control variables (Covin et al., 2006; Stam & Elfring, 2008). In addition, several other control variables including average attendance, the tenure of the pastor, and local market conditions were also included in the model. The number of years that the pastor has been at the current congregation was included as a control variable since the tenure of the pastor might make an entrepreneurial strategy more, or less, effective. Church size was included since small nonprofit organizations have been found to be innovative and creative (Barrett, Balloun, & Weinstein, 2005). Organization age was included since it has been correlated with resistance to innovation and lower performance. The data on church size (average attendance) and church age were collected from archival sources. Data on the pastors' tenure were collected from the survey instrument. In addition, since congregations operate in local markets we included dummy variables to control for the five metropolitan regions that were examined in the study.

Development of Measures for EO in a Religious Setting

Research Instrument. Questionnaire items designed to measure each of the five areas of entrepreneurial behavior were based on a review of prior research. For the constructs of innovativeness, proactiveness, and risk taking, we utilized the measures from Covin and Slevin (1989).

Since these items were originally developed for industry settings, steps were taken to ensure their validity in a nonprofit religious sector. To adapt the wording to the religious context, the survey items were discussed with a group of four pastors. First, each survey item was reviewed by the group. Business terms were changed to reflect church context. Two academics and three pastors then reviewed the revised survey items to assess equivalency and face validity. Revisions were made to improve salience and clarity.

Finally, the pastors in our pretest commonly used the words "congregation" and "church" interchangeably, despite the fact that various religions use the term "church" to refer to different levels or groups within a faith structure. Therefore, the term "church" was used in the survey instrument to refer to "the individual local church . . . and not to the wider church or to the denomination as a whole."

Of the 35 total items in the survey instrument, 15 items were utilized to assess EO. The recommended sample size for the confirmatory factor analysis ranges from 4:1 observations per item (Hinkin, 1998) to 10:1 observations per item (Bentler, 1995). We chose the conservative recommendation, and designed a mailing targeted to yield 150 respondents.

Data Collection

Within the five selected geographical areas, a potential sample of 493 congregations was identified. The survey and a stamped pre-addressed envelope were included with a

cover letter addressed to the pastor. Six days after the initial mailing, a signed postcard was sent to thank those who had responded, and to prompt those who had not yet completed the survey to do so. From these two mailings, eight surveys were returned as undeliverable, and two were returned with a letter stating that the pastor had just arrived and therefore did not feel qualified to participate. The final sample pool consisted of 483 congregations.

Results

Sample

In all, 252 usable surveys were received (52.17%). Of the respondents, 92% identified themselves as the pastor, 2% as the associate pastor, and 6% as other (e.g., executive pastor, senior pastor, or other more specific term for pastor). The average respondent had served their current church for 10 years, and the average church size (attendance) was 204 members.

The data were tested to evaluate the existence of common method bias using several procedures recommended by Podsakoff, MacKenzie, and Lee (2003). First, since we obtained both archival and subjective performance data for all 250 of the subject organizations, we performed a comparison of the two measures. The subjective and objective measures were all significantly correlated ($p < .01$, $r = .38$) and yielded similar findings.

Second, we conducted Harmon's (1967) one factor test using all of the surveyed items as input. We extracted six distinct factors that accounted for 68.0% of the variance. The first factor explained 28.5% of the variance. The findings that no single factor emerged, and no factor accounted for the majority of the variance, minimize common method bias as a threat to the validity of the obtained results.

To check for nonresponse bias, the average attendance statistic for the responding organizations was compared to the attendance statistic for the overall sample population. The two populations were of similar sizes, indicating that the responding congregations were representative of the overall target population. Further, the responses that were received more than 2 weeks after the reminder postcard (60 responses) were compared to the first 60 early respondents. This process follows the recommendation of Armstrong and Overton (1977) where the first and fourth quartiles are compared for differences. Results of the test indicated that there were no significant differences on the study variables between the early and late responders. Therefore, the probability of nonresponse bias is minimal.

Psychometric Properties of the Instrument

A confirmatory factor analysis was performed using LISREL 8.51 (Jöreskog & Sörbom, 1982). The sample size of 250 exceeds the conservative estimate of 10:1. The measurement model included all 18 items and the six independent variables (innovativeness, proactiveness, risk taking, competitive aggressiveness, autonomy, and environmental munificence). The measurement model demonstrated a good fit ($\chi^2 = 206.82$; $df = 120$) with significant loadings for each of the items. A chi-square of less than two times the degrees of freedom is generally accepted as indicating a good fit (Hughes, Price, & Marrs, 1986).

Since the χ^2 statistic can overestimate the fit for some samples, additional fit indicators were examined. A good fit is indicated by indicators greater than .90. The generally

acceptable indicators were all over the .90 threshold (goodness of fit index = .92; comparative fit index = .96; normed fit index = .91; non-normed fit index = .95), as recommended by Hu and Bentler (1995).

The standardized loadings all exceeded the .5 threshold recommended to demonstrate convergent validity (Fornell & Larcker, 1981). The loadings ranged from .54 to .90 and were all highly significant (*t*-values range: 8.14–17.72). Additionally, Cronbach's alpha was calculated for each of the constructs of interest. The Cronbach's alphas ranged from .72 to .92, which exceeded the .70 threshold recommended by Nunnally (1978). The instrument demonstrated satisfactory convergent validity.

Given the extended discussion in previous studies of EO as a single versus multiple dimension construct, we undertook several tests to investigate the discriminant properties of our instrument. First, a chi-square test was performed. Measurement models were examined where each of the pairs of closely related constructs were constrained to 1 (Andersen & Gerbing, 1988; Bagozzi & Phillips, 1982). The unconstrained model was significantly better than each of the constrained models (innovativeness-proactiveness, $\Delta\chi^2 = 11$, $df = 4$, $p < .05$; innovativeness-risk seeking, $\Delta\chi^2 = 31$, $df = 4$, $p < .001$; proactiveness-risk seeking, $\Delta\chi^2 = 26$, $df = 4$, $p < .001$). The chi-square test supports the modeling of the construct as multidimensional.

Second, a confidence interval of the correlations of each of the constructs was constructed which included two standard errors from the correlation. None of the confidence intervals included 1.0. Therefore, this test provided support for the discriminant validity of the constructs.

Finally, the average variance extracted was compared to the average variance explained (Fornell & Larcker, 1981). All of the constructs were close to the threshold prescribed and most combinations exceeded it. However, only competitive aggressiveness received support as distinct from all four other entrepreneurial behaviors. Thus, the measures received adequate but mixed support for discriminant validity. Having demonstrated satisfactory psychometric properties, the 18 items grouped statistically into the six independent variables of innovativeness (items 1–3 in Appendix), proactiveness (4–6), risk taking (7–9), competitive aggressiveness (10–12), autonomy (13–15), and environmental munificence (16–18).

Munificence was operationally defined as a composite measure of the respondents' assessment of their congregations' Location, Resources, and Population Growth. As shown in the Appendix, item M16 evaluated the threat of survival from the Location of the congregation, item M17 measured the degree to which resources for growth were abundant or scarce, and item M18 assessed the population growth in the area of the congregation's facility.

The correlations also corresponded with theory and prior research. Specifically, innovativeness, proactiveness, and risk taking were most highly correlated. The constructs of autonomy seeking and competitive aggressiveness demonstrated a stronger correlation to the EO constructs than to munificence. The means, standard deviations, and correlations among study variables are shown in Table 2.

After validating the measurement properties, composite scores were developed for each construct. The composite scores for each of the independent variables were developed by summing the raw responses. This raw total score was then standardized ($M = 0$; $SD = 1$).

A review of the statistics on normality was conducted to identify outliers. The dependent variable and all independent variables had acceptable levels of kurtosis and skewness (<1.0). Mardia's multivariate kurtosis was 45. Two observations making the largest contribution to the kurtosis were eliminated from the sample. A review of the data

Table 2

Correlations, Means, and Standard Deviations of Independent Variables

	1	2	3	4	5	6
1—Innovativeness	(.76)					
2—Proactiveness	.73**	(.85)				
3—Risk seeking	.76**	.84**	(.92)			
4—Competitive aggressiveness	.42**	.52**	.54**	(.73)		
5—Autonomy seeking	.65**	.75**	.72**	.42**	(.71)	
6—Munificence	.16**	.21**	.18**	.08	.18**	(.84)
Mean	11.91	11.23	10.62	7.95	11.84	13.28
Std deviation	3.71	4.15	4.07	2.91	3.23	4.27

N = 250, * $p < .05$, ** $p < .01$.

Scale reliability (Cronbach's alpha) on the diagonal.

indicated acceptable parameters for normality. Mardia's multivariate kurtosis was reduced to 2.5. Mardia's multivariate statistic less than 3.0 indicates multivariate normality (Hutcheson & Sofroniou, 1999). This resulted in a final sample size of 250.

A composite score was developed for performance (DV) following the process outlined by Rosenthal and Rosnow (1991). Since the self-report and archival scores used different scales, the four performance measures (self-reported attendance, self-reported giving, archival attendance, archival giving) were standardized ($M = 0$; $SD = 1$). Using the standardized performance scores as input, exploratory factor analysis was performed using principal components analysis. A single factor solution emerged. The standardized performance scores were then summed to create a composite performance score.

The assumption that religious congregations varied in their use of these entrepreneurial strategies was validated. The behaviors varied significantly among the surveyed congregations. The composite entrepreneurial scores ranged from a low of 21 to a high of 87. The mean for all respondents was 53.5 and the standard deviation was 15.34. The mean score of 53.5 indicates that the responding religious congregations view themselves as slightly "nonentrepreneurial" in their orientation (a neutral response would be 60). Of the sample, 36% of the organizations scored above the neutral value of 60 indicating that entrepreneurial religious congregations exist in this nonprofit sector. Only 8% of the sample scored above 70, indicating a rarity of highly entrepreneurial organizations in the context of religious congregations. This finding supports the position that the five entrepreneurial behaviors can be viewed as rare under the resource-based view and that they are therefore a potential source of competitive advantage.

Hypotheses Testing

Using the composite scores developed for each of the independent variables as outlined above, a series of regression analyses were performed to assess the eight hypotheses. Table 3 reports the results of our regression analyses. A base model established the effect of the control variables. This base model, which included the four control variables (church age, church size, pastor tenure, and local market), was found to explain a small but statistically significant amount of church performance (model 1: $R^2 = .062$, $p = .005$).

Table 3

Results of Regression Analysis: EO and Munificence

Dependent variable: Performance index	Model 1	Model 2	Model 3	Model 4
Controls				
Church size (attendance)	.206***	.081		.080
Church age (years)	.052	.100*		.100*
Tenure (years)	.038	-.055		-.055
Local market				
Pittsburgh	-.049	-.020		-.021
Philadelphia	.061	-.044		-.045
Minneapolis	-.046	-.091		-.092
Lincoln	.000	.008		.008
Independent variables				
Munificence		.106*	.107*	.095
EO		.439****		.430***
Innovativeness			.217**	
Proactiveness			.028	
Risk seeking			.120	
Competitive aggressiveness			.000	
Autonomy seeking			.148*	
Interaction terms				
EO*Munificence				.015
Model R ²	.062**	.234****	.246****	.234****
Adjusted R ²	.035	.205	.205	.202
Model F	2.27	8.14	5.94	7.30

N = 250, * p < .10, ** p < .05, *** p < .01, **** p < .001.

Standardized regression coefficients are reported.

The direct effects were next added to the base model. This second model, which contained the four control variables, the five EO and the munificence variables, explained a substantial and significant share of performance (model 2: $R^2 = .23$, $\Delta R^2 = .17$, $p < .0001$). To test the differential impact of the EO sub-dimensions in this novel context, a separate third model was run to explore the EO with independent constructs. This third model offered similar explanatory power to that found in the second model (model 3: $R^2 = .25$, $p < .0001$). The final step in model testing was to enter our interaction term to test the differential impact of EO in hostile, low munificence environments. The composite scores for overall entrepreneurial orientation, munificence, and an EO-Munificence interaction term were added to the original base model (controls only) to test hypotheses 6–8. The addition of the EO-munificence interaction term did not provide a significant improvement in the explanatory power of the model containing only the direct effects (model 4: $R^2 = .23$, $p < .0001$). Table 3 shows the results of the regression models.

Whether an entrepreneurial orientation has a significant and positive effect on performance for religious congregations was the basis for hypothesis 6. The sign was positive (+.44) and significant ($t = 6.99$; $p < .0001$) indicating that an entrepreneurial orientation has a significant and positive effect on performance. Thus, the hypothesis was supported.

Five separate hypotheses (1–5) tested the relationship of each of the specific entrepreneurial behaviors (innovativeness, proactiveness, competitive aggressiveness, risk seeking, and autonomy, respectively) on performance. To test these hypotheses, the

individual entrepreneurial behaviors and munificence were all added to the base model. The overall model demonstrated a strong ability to explain performance variation ($R^2 = .23$; adjusted $R^2 = .21$; $p < .0001$). This model makes a significant contribution over and above the base model ($\Delta R^2 = .17$, $p < .0001$) demonstrating an improved ability to explain the performance of religious congregations.

The results of the regression analysis showed support for innovativeness (hypothesis 1) and autonomy (hypothesis 5) as significant influences on performance. For hypothesis 1 (innovativeness) the sign was positive (.22) and significant ($t = 2.29$; $p < .05$). For hypothesis 5 (autonomy) the sign was also positive (.15) and significant ($t = 1.96$; $p = .05$). In contrast, proactiveness (hypothesis 2), competitive aggressiveness (hypothesis 3), and risk seeking (hypothesis 4) were not supported as significant individual contributors to performance: For hypothesis 2, proactiveness ($t = -.25$, $p = .79$); for hypothesis 3, competitive aggressiveness ($t = .01$, $p = .99$); and for hypothesis 4, risk taking ($t = 1.01$, $p = .31$). When considered in light of our other findings, we conclude that innovativeness, autonomy, and environmental munificence are the primary determinates of performance in religious congregations.

Hypothesis 7 tested the effect of environmental munificence on performance. The finding that the sign was positive (.11) and significant ($t = 1.67$; $p = .09$) suggests that environmental munificence has a separate and positive effect on the performance of nonprofit organizations provides support for hypothesis 7.

Hypothesis 8 tested whether an EO had a greater effect when the environmental munificence was low, that is, when the environment was hostile. An interaction term was created by multiplying the munificence score by the EO composite score prior to standardizing the data, and was entered simultaneously into the full model. The interaction effect was not significant ($t = .06$; $p = .95$), indicating that EO is not significantly more important as a determinant of performance when munificence is low.

Discussion

The Entrepreneurial Orientation Composite Hypothesis

A primary goal of this research was to assess whether religious organizations that utilize an EO were more successful than those not engaged in EO behaviors. For our sample, an EO was positively associated with performance. Behaviors associated with innovativeness, proactiveness, autonomy, competitive aggressiveness, and risk taking, when combined in an overall strategy helped religious congregations to improve their member attendance and contributions. Regression analysis cannot document causality, but arguments favoring EO as stimuli for growth can be constructed easily. Table 4 provides a summary of the results of the hypotheses testing.

The evidence from our research is that performance benefits are associated with entrepreneurial orientations. Increases in membership and donations in religious congregations associated with EO have the potential to exert a strong self-reinforcing relationship (Arthur, 1994). For example, as congregational attendance continues to grow as a result of adding new members, increased social capital contained in the skills, knowledge, and relationships of the new members may enable the congregation to be even more innovative. This occurs partly because the newer members may be less tied to the traditional behaviors and established processes of the organization, which may allow for increased innovation as new members offer novel suggestions and implement new ways of working to achieve congregational objectives.

Table 4

Summary of Research Hypotheses Results

Hypothesis	Support	Significance <i>t</i> -value	<i>p</i> -value
1. Innovativeness	Supported	2.29	<.05
2. Proactiveness	Not supported	-.25	.79
3. Competitive aggressiveness	Not supported	.01	.99
4. Risk taking	Not supported	1.01	.31
5. Autonomy	Supported	1.96	.05
6. Overall EO	Supported	6.99	<.0001
7. Environmental munificence	Supported	1.67	.09
8. EO-Munificence interaction	Not supported	.06	.95

Growth may also lead to improved environmental scanning behavior. The new members have entered from the external environment and may have superior knowledge on qualities that make the organization attractive to outsiders. This knowledge coupled with improved scanning behavior may improve the quality of the innovativeness, as well as the frequency of innovation. The growth in membership may also increase monitoring. New members, who are less accustomed to the religious congregation's standard operating procedures, may question policies, procedures, and actions. Monitoring has been shown to decrease agency behavior and improve performance (Michael & Pearce, 2004).

Nonprofit research indicates that organizations become less innovative and restrictive in their actions when faced with difficulties and that this entrenchment has a negative effect on performance (Gill, 1995). Although religious congregation members may find solace in maintaining the status quo during challenging times, this research indicates that continued innovativeness is a better strategy. Creative action may contribute to a congregation's performance by creating new solutions and venues for action in the face of crisis. Actions that turn the members' focus toward action and renewal during times of decline, rather than toward protectionism, are encouraged by this research.

The Environmental Munificence Hypothesis

Another major finding of this study regards the effect of environmental munificence on performance. Hypothesis 7, which proposed that environmental munificence would have a positive effect on performance, was supported ($t = 1.97$; $p < .01$). This finding extends previous research in manufacturing and commercial service settings to include the non-profit sector. When the performance goal of a religious congregation is growth (in attendance and dollar giving), our findings indicate that it will be more difficult to achieve in hostile environments.

The EO and Munificence Interaction Hypothesis

The hypothesis that entrepreneurial orientation has a greater effect when the organization faces a hostile environment was not supported (hypothesis 8). Instead, an

entrepreneurial orientation was similarly associated with performance in both good and bad environments. This finding implies that religious organizations should not change their entrepreneurial orientation based simply on the munificence of their environments.

Association Between Specific Entrepreneurial Behaviors and Performance

This study investigated the ability of each of the five entrepreneurial behaviors to vary independently of one another. A separate model tested the individual behaviors and their association with performance (hypotheses 1–5). Of the five individual entrepreneurial behaviors, innovativeness (hypothesis 1) and autonomy (hypothesis 5) were positively and significantly associated with performance. The effects of risk taking and competitive aggressiveness failed to achieve statistical significance.

Innovativeness (hypothesis 1) had the strongest effect on performance, indicating that religious congregations that make more changes, changes that are more dramatic, and emphasize new services and activities had superior performance to congregations that took a more conservative approach (e.g., offering tried and true services, few changes, minor changes).

Religious congregations display an affinity for tradition, in part because much of their attraction vests in continuity, stability, and predictability. Such ideas are consistent with religious economies theory, which argues that seeking legitimacy is a primary goal, and therefore utilizing widely accepted practices is preferred over radical changes or innovation (DiMaggio & Powell, 1983; Dougherty & Heller, 1994). In contrast, our findings suggest that innovation is a lever for improved performance in the form of improved growth in attendance and monetary giving.

Consistent with hypothesis 5, congregational autonomy was found to be positively associated with performance. This finding indicates that religious congregations that empower their membership to design and implement a mission, goals, and plans, perform at a higher level than those who are more autocratic and structured. The finding that autonomy seeking is positively associated with growth is consistent with the rational choice model, and with the evolution of organizational behavior and organizational development theories. Models of empowerment (Forrester, 2000), servant leadership (Greenleaf, 1998), and self-managing teams (Pearce & Ravlin, 1987) include arguments that are highly compatible with our findings.

Three entrepreneurial orientation behaviors failed to receive statistical support. Theory argued that proactiveness and risk-taking were distinguishable from innovativeness, despite early research that found them to be a unidimensional construct (Lumpkin & Dess, 1996; Morris & Paul, 1987). In our research, high correlations among the constructs raised the concern of multicollinearity, which limits the ability to interpret the results of the analysis. The measures of intercorrelation showed that proactiveness and risk taking were close to the level that quantitatively defines multicollinearity (proactiveness variance inflation factor [VIF] = 4.29; tolerance (TOL) = .23; risk seeking VIF = 4.2; TOL = .23). A VIF of less than 10 indicates multicollinearity is acceptable (Neter, Wasserman, & Kutner, 1985); however, a VIF above 4 and a correlation above .80 is a concern. The high correlation is consistent with the mixed discriminant properties of the instrument reported earlier. Therefore, although our results are acceptable, a tighter conceptualization and measurement of the individual entrepreneurial behaviors is necessary. It is quite possible that nonobtrusive or secondary measures might better distinguish these theoretically distinct constructs than our self-reported measures in order to progress on a multidimensional analysis. *Post hoc* analysis indicates in our sample a 3-factor structure that includes

the original conceptualization of EO, competitive aggressiveness, and autonomy seeking provides the strongest discriminant properties.

Competitive aggressiveness (hypothesis 5) did not reach the level of statistical significance, indicating that congregations that utilized more aggressive strategies did not outperform those churches that adopted strategies that are more passive. The weak influence of competitive aggression in this context was anticipated by the rational choice/religious economies model, since stakeholders prefer that their religious leaders base the congregation's message on their traditions. Additionally, anecdotal evidence reinforces the theoretical plausibility that religious congregations do not value interdenominational or intercongregational competitiveness.

Our findings do not support proactiveness and risk seeking as independent behaviors associated with improved organizational performance. However, these two measures were highly correlated with innovativeness, which suggests that improved measures for these constructs may be needed to distinguish them adequately. Although the theory makes clear distinctions among these constructs, the respondents did not. Future research might refine their measures or utilize a three-factor model for research in recognition of the substitutability of the concepts in practice. A three-factor model would include competitive aggressiveness, autonomy, and a third factor, perhaps labeled as innovativeness, which combines innovativeness, proactiveness, and risk taking.

The positive findings related to autonomy seeking and innovativeness appear particularly promising. Autonomy in organizations has both scientific and practical significance. Autonomy is a key variable in the centralization-decentralization controversy that has long raged in management theory. Autonomy has been linked to the success of executive training, to the efficacy of managerial control, to organizational members' feelings of frustration and conflict, to timeliness in making decisions, to the flexibility of organizational responsiveness to environmental changes, and to other aspects of organizational performance. Research that could further explain the sources and mechanisms for capitalizing on congregational and member autonomy in religious denominations, and in not-for-profit enterprises with other missions, appears to be warranted.

The findings related to innovativeness also support further research. Innovation is considered central to the notion of entrepreneurship (Michael & Pearce, 2009). Studies have found that innovativeness is one of the key factors that drive the performance advantage of EO (Covin & Slevin, 1989; Lumpkin & Dess, 1996; Miller, 1983). While considerable work has been conducted around product innovation in for-profit enterprises, little has been done to address innovation in a not-for-profit context, particularly so among religious organizations. We believe that additional theoretical and normative insights can be gained by exploring EO and other key constructs associated with performance in religious and other not-for-profit settings. For example, additional empirical work on the interaction of leadership style with EO, environmental munificence, and organizational performance may offer potential for improving organizational outcomes in the not-for-profit sector.

The positive correlation observed between performance and innovation, coupled with the negative correlation between performance and proactiveness, suggest that the inclusion of the time horizons should be involved in future research. Proactiveness speaks to immediacy of response (short-term changes) while innovation may require a long-term approach to affecting organizational performance.

Conclusions

Based on prior theory and research on the concepts of entrepreneurial orientation and the rational choice theory of religion, we proposed a number of hypotheses to capture the relationship between the dimensions of EO and congregational performance as well as investigate whether environmental factors moderate the EO–performance relationship. The essential conclusions of this paper are threefold. First, the investigation of the impact of entrepreneurial behaviors in religious congregations, as evident in the various sub-dimensions of the EO construct, is a valuable undertaking. The fact that religious congregations were found to engage in an effective combination of innovativeness, autonomy, proactiveness, competitive aggressiveness, and risk taking and thereby enhance performance, affirmatively answers the question as to whether an entrepreneurial orientation benefits religious organizations at the congregational level. Thus, an entrepreneurial orientation, as reflected in the various dimensions of the EO construct, can be a source of competitive advantage or strategic renewal for local organizational units of larger religious denominations.

Second, in conceptualizing the environment on the basis of its munificence, we were able to make systematic and meaningful comparisons of the effects that an environment's capacity to sustain growth has on the EO–performance relationship among otherwise similar religious congregations.

Third, our study supports the efficacy of the rational choice model in understanding the successful utilization of an EO in religious congregations. Despite the common economic underpinnings of the RCT and the findings of empirical outcomes of prior EO research, the rationale for the hypotheses pertaining to the components of EO (hypotheses 1–5) occasionally differed. However, both approaches were powerful in correctly predicting our study results.

Our findings contribute to the extension of the empirical foundations of the RCT, because our research provides new confirmation of the model as a powerful theoretical paradigm for understanding the relative success of religious organizations (Chesnut, 2003). The findings also provide encouragement for further extensions of EO theory to other nonprofit contexts.

Our findings that the innovativeness and autonomy elements of an entrepreneurial orientation are more strongly associated with the improved performance of nonprofit religious congregations than proactiveness, risk-seeking, and competitive aggressiveness bring into question the notion that various EO dimensions work in concert to enhance an organization's entrepreneurial performance (Lumpkin & Dess, 1996; Miller, 1983). The evidence provided here offers cautious support for suggestions in the literature that the laws of performance that govern competition in for-profit arenas may operate similarly among nonprofit organizations (Kanter & Summers, 1987; Miller, 2002).

Finally, in our study, the beneficial effect of EO on performance is over and above the positive impact of environmental munificence. This finding suggests that religious congregations, and potentially other not-for-profit organizations, benefit from an EO, regardless of the prevailing environmental conditions. That is, an entrepreneurial orientation is useful for organizations facing either munificent or hostile environments.

Appendix: Survey Instrument

Throughout this survey the word "church" refers to your specific church, and not to the wider church, or to your denomination as a whole.

Answer all questions based on your impression of the church during the previous three years

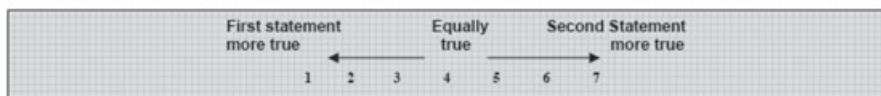
Instructions:

Please circle a single number to indicate which of the two statements is most true for your church. Circling a one (1) indicates strong agreement with the first statement, while a seven (7) indicates strong agreement with the second statement, and a four (4) indicates both are equally true. The numbers in between, represent differing degrees of agreement with one of the two statements.

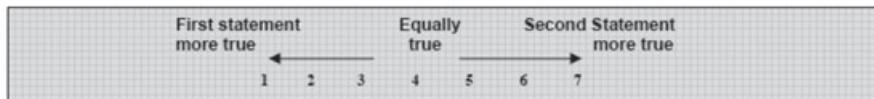
As in the following example:

We position ourselves to meet the existing demands

We consistently try to position ourselves to meet emerging demands



- | | | | | |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------|
| 11 | <i>In general the leadership in our church favors...</i> -
A strong emphasis on offering tried and true ministries and worship services | 1 2 3 4 | 5 6 7 | A strong emphasis on developing, new ministries and worship services |
| 12 | <i>How many new activities, programs, or services has your church offered in the last 3 years-</i>
Very many new activities, programs or services | 1 2 3 4 | 5 6 7 | Very few new activities, programs or services |
| 13 | Changes in activities, programs and services have been mostly of a minor nature- | 1 2 3 4 | 5 6 7 | changes in activities, programs and services have been quite dramatic |
| P4 | Is very seldom the first church to introduce new products or services, administrative techniques, operating technologies, etc | 1 2 3 4 | 5 6 7 | Is very often the first church to introduce new products or services, administrative techniques, operating technologies, etc |
| P5 | We position ourselves to meet the existing demands | 1 2 3 4 | 5 6 7 | We consistently try to position ourselves to meet emerging demands |
| P6 | We rarely make changes, due to perceived changes occurring in the community | 1 2 3 4 | 5 6 7 | We continually make changes, due to perceived changes occurring in the community |
| RT7 | <i>In general the leadership of my church have ..</i>
A strong tendency to adopt low-risk projects with normal and certain results)- | 1 2 3 4 | 5 6 7 | A strong tendency to adopt high risk projects (with chances of very dramatic results) |
| RT8 | <i>In general, the leadership of my church believes that ...</i>
Owing to the nature of the environment, it is best to explore changes gradually via cautious incremental behavior | 1 2 3 4 | 5 6 7 | Owing to the nature of the environment bold, wide ranging acts are necessary, to achieve the church's objectives |



	<i>When confronted with the decision making situations involving uncertainty, our church...~</i>	
RT9	Typically adopts a cautious, wait and see posture in order to minimize the probability of making costly decisions	Typically adopts a bold aggressive posture in order to maximize the probability of exploiting potential opportunities
	1 2 3 4	5 6 7
CA10	<i>in dealing with its competitors, my church...~</i> rarely responds to changes and actions that other churches initiate- -	always responds to changes and actions that other churches initiate
	1 2 3 4	5 6 7
CA11	Typically seeks to avoid competitive clashes, with other churches-	typically adopts a very competitive strategy towards other churches
	1 2 3 4	5 6 7
CA12	Our actions towards other churches can be termed accommodating	Our actions towards other churches can be termed aggressive
	1 2 3 4	5 6 7
AS13	Very many changes suggested by members are implemented	Very few changes suggested by members are implemented
	1 2 3 4	5 6 7
AS14	Identifying new ministry activities and programs is the responsibility of a small number of individuals	Identifying new ministry activities and programs is done by all members
	1 2 3 4	5 6 7
AS15	Our church discourages independent activity to develop new services and programs	Our church encourages independent activity to develop new services and programs.
	1 2 3 4	5 6 7

How would you rate the adequacy of resources in your area?

M16	Great location, little threat to the survival and well-being of our church	Poor location, very risky, a false step can mean this church's undoing
	1 2 3 4	5 6 7
<i>How would you rate the competition from other churches in your area?</i>		
M17	Location, rich in growth opportunities in terms of members and giving	Very stressful, exacting, difficult location; very hard to keep afloat
	1 2 3 4	5 6 7
<i>How would you rate the population growth in your area?</i>		
M18	The population in the area that our church serves has grown significantly since the year 2000	The population in the area our church serves has declined significantly since the year 2000
	1 2 3 4	5 6 7

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