Communication and marketing of services by religious organizations in India [☆]

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ABSTRACT

Marketing communication is a vital strategic tool for religious organizations to achieve competitive differentiation. The study uses media richness theory with competitive response to develop hypotheses about the use of personal and non-personal channels by religious organizations. The study uses unique primary survey data on 568 Hindu, Muslim, Christian, Sikh and Jain organizations spread over 7 states in India, collected between 2006 and 2008, to investigate the marketing communication strategy of religious organizations in response to their competitors' use of non-personal communication channels and provision of non-religious services. The findings suggest that if a competitor uses higher non-personal communication channels, then this evokes a retaliatory reaction with the incumbent, increasing their personal communication channels. Second, an incumbent who is more responsive to a competitor increasing their non-religious service provision will respond by increasing their non-personal communication channels and by decreasing their personal channels. The findings have implications for managers who need to select the richness of the media for their communications' strategy in the context of competitive response.

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1. Introduction

Organizations increasingly use marketing communication as a strategic tool to establish, maintain and enhance a positive brand identity for a product or service. The customer forms his/her view of the marketer's brand not only by the kinds of messages exchanged, but also by the choice of media (Schultz & Kitchen, 2000). Daft and Lengel (1984) suggest that "media richness," or the richness of the medium of communication used, affects the information processed, which reduces uncertainty and equivocality in consumer and business environments. Richer media, such as word-of-mouth and face-to-face communication, are better than written communications when messages contain equivocality (Daft & Lengel, 1986). Studies show that in the face of competition, richer media for communication increase customer loyalty (Harrison-Walker, 2001; Vickery, Droge, Stank, Goldsby, & Markland, 2004).

The choice of communication channels also has important strategic implications for not-for-profit organizations such as religious organizations. The current empirical literature in marketing does not lay sufficient emphasis on media richness and the competitive strategy of religious organizations. The research question addressed here is to study the determinants of a religious organization's communication strategy to investigate how religious organizations use non-personal and personal communication channels to communicate and market their services, specifically in response to competition from other religious organizations.

Research studies broadly categorize marketing communication channels as *personal channels*, which involve persons communicating directly; and *non-personal channels*, which involve non-personal interaction (Kotler, 2002). Personal channels are typically richer than non-personal channels. This study examines the research question by conducting a unique primary survey of Hindu, Muslim, Christian, Sikh and Jain religious organizations in India over the period 2006–2008, to investigate the determinants of communication channel selection. Using media richness theory with competition effects, this work shows that religious organizations respond competitively to other organizations' provision of personal and non-personal communication channels. The work proceeds through five remaining sections: Section 2 discusses the marketing of religion and media richness theory; Section 3 outlines the primary research hypotheses; Section 4 presents the survey of religious organizations in India; Section 5 discusses the econometric methodology; Section 6 presents the results; and Section 7 concludes.

2. Marketing of religion and media richness

Economics and management studies on religious organizations typically focus on supply-side and demand-side concerns, such as the

structure of religious organizations, consumer preferences for religious services, faith-based welfare programs, economic regulation of the church, and the influence of religion on economic behavior (see Berman & Iannaccone, 2008, for a review). On the supply-side, religious organizations behave similarly to firms by providing a range of services to attract potential adherents. Buyers (the individuals) and sellers (the religious organizations) meet in a marketplace in which supply and demand dictate allocations of adherents across religions. While most religions preserve their core teachings, they innovate in terms of how they provide services or secure resources from members, increasing their efficiency in competing for adherents (Miller, 2002; Finke, 2004; Iyer, Velu, & Chakravarty, 2011).

In a competitive environment, analogous to firms retaining customers, religious organizations retain and attract adherents by using marketing tools to ensure customer satisfaction (Shawchuck, Kotler, Wrenn, & Rath, 1992). One marketing study of religion emphasizes marketing communication as an integral tool of the marketing process, which religious organizations employ to create a differentiated brand positioning (Abreu, 2006). Consequently, they develop and execute a communication strategy that establishes their brand identity. Previous studies analyze how church services satisfy attendees' needs (Mehta & Mehta, 1995; Moncrief, Lamb, & Hart, 1986). Studies find a positive correlation between adherent growth and broadcasting of church services in personal media channels such as event sponsorships; and in non-personal media channels such as TV, radio, newspaper and yellow pages (McDaniel, 1989; Vokurka, McDaniel, & Cooper, 2002). Therefore, the selection of appropriate communication channels by religious organizations influences their ability to flourish.

Coordination of communication channel strategies remains a major challenge in a multichannel environment. Marketing communication channels can be personal and non-personal. Personal channels include direct face-to-face conversations, interpersonal communications, and local meetings. The opportunity for individualizing the message and gathering immediate feedback makes these channels effective. Non-personal channels include the traditional broadcast and print media, outdoor display advertisements, and marketing events.

In this context, 'media richness' theory is pertinent because the theory examines channel selection from the sender's perspective. The message-carrying capacity of a communication channel, termed as 'media richness,' determines the effectiveness of communication (Daft, Lengel, & Trevino, 1987). Richer media reduces ambiguity and uncertainty and ensures that complex information can be processed quickly, which can strongly affect the success of a religious organization. Scholars consider 'rich media' to be communication channels that overcome ambiguity by providing information quickly; in contrast to any communication that takes longer to decipher or contributes less to understanding of the uncertainty present in a situation. One can see the 'richness' of the channel: first, by its ability to transmit feedback; second, to transmit multiple cues such as body language, speech intonations and so forth; third, to customize the message for the receiver; and finally, to convey emotions (Daft & Lengel, 1984). The degree of media richness necessary for communication increases with the degree of uncertainty and complexity of the message. Communication channels are ranked in accordance with these criteria to show that direct face-to-face communication is the richest media channel. Non-personal asynchronous channels are the leanest, and thus ineffective for transmitting complex and persuasive messages. Higher equivocality and complexity of the message make imperative the use of richer media. Media richness also builds customer satisfaction and customer loyalty (Vickery et al., 2004).

This study argues that one can also extend the current media richness theory to include religious competition. Brand positioning requires an organization to define its identity and simultaneously to differentiate itself from its competitors (Aaker, 1991). As one uses communication channels, along with the message, to form a brand identity, channel selection allows organizations to differentiate themselves from others, and to respond to competitors. For example, a more visible competitor's actions generate higher levels of awareness and are more likely to attract a competitive response (Chen & Miller, 1994; Leeflang & Wittink, 2001). Both theoretical and empirical studies address competition in communication channel selection (Mohr & Nevin, 1990; Prins & Verhoef, 2007). Three underlying behavioral drivers of competitive reaction are: awareness of the competitive attack; motivation to react; and ability to react (Chen, 1996). Such a response by organizations calls for active management of communication channels; if religious organizations do respond to competition, one must examine which channels they use in response – personal or non-personal – to best promote their key messages.

The study therefore proffers media richness theory together with competitive response as the overarching theoretical construct to motivate the research hypotheses. The study asks within the specific context of religious organizations: Which communication channels do religious organizations use to promote their services? How 'rich' or visible are these channels? Do organizations respond to service competition; and do they do so by personal or non-personal communication channels? Fig. 1 summarizes the research framework.

3. Research hypotheses

This study develops four testable hypotheses grouped by two. The paper first discusses non-personal communication channels and competition, and then non-religious service provision and competition.

3.1. Non-personal communication channels and competition

Vickery et al. (2004) analyze the performance implications of media richness in a business-to-business service environment. They show that media richness is positively related to relational customers, customer satisfaction, customer loyalty, and organization success. The research shows that preference is given to richer personal mediums of communication over indirect non-personal mediums when the channel structure is complex and high uncertainty exists in the relationship. Direct (personal) communication channels, such as face-to-face communication, generate relational customers instead of transactional customers (Mohr & Nevin, 1990). Relational customers, as compared to transactional customers, show higher commitment and trust with their service providers, resulting in lesser uncertainty, complexity, and higher cooperation in their relationships (Morgan & Hunt, 1994). Richer modes of communication transform transactional customers to relational customers. Therefore, a religious organization needs to use simultaneously both non-personal and personal channels, to communicate their complex and less complex offerings, in light of religious competition.

When a competing religious organization increases the use of a certain communication channel, the incumbent (the study uses this term to denote the focal organization under study, or the protagonist) religious organization's response varies according to: 1) whether the incumbent uses the same channel, personal or non-personal, as the competitor (a "simple" reaction), a different communication channel (a "multiple" reaction), or a combination of both (see Steenkamp, Nijs, Hanssens, & Dekimpe, 2005) and 2) intensity of the competitive reaction by the incumbent religious organization. The two options available to the incumbent are "accommodating" (e.g., decreasing personal channels in response to increased personal channel use by competitors), and "retaliation" (e.g., increasing personal channels in response to increased personal channel use by competitors).

Steenkamp et al. (2005) perform a large-scale empirical study on short- and long-run competitive reactions, concluding that multiple reactions reveal more retaliatory responses than accommodating responses. Other studies show that a retaliatory reaction is more likely if competitor's actions have greater visibility (Chen & Miller, 1994; Leeflang & Wittink, 2001).
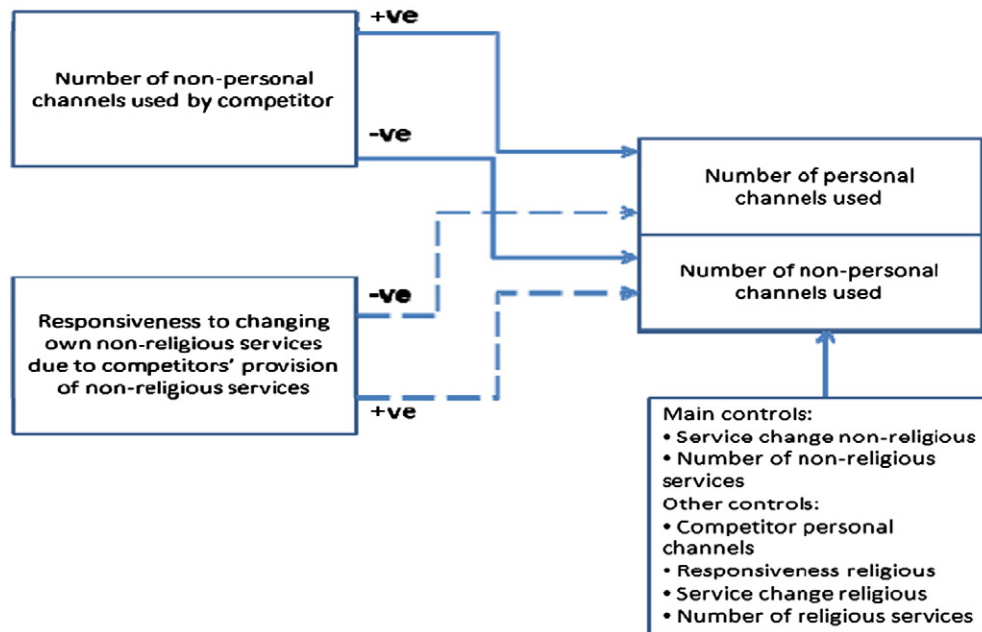
Fig. 1. Research framework.

Non-personal channels are more prominent and visible than personal channels. When a competitor increases non-personal channels, one hypothesizes a multiple retaliatory reaction by the incumbent religious organization so that the incumbent reallocates its limited resources to more direct and effective personal channels, away from non-personal channels.

H1a. Incumbent religious organizations increase their use of personal communication channels when competitors use more non-personal communication channels.

H1b. Incumbent religious organizations decrease their use of non-personal communication channels when competitors use more non-personal communication channels.

3.2. Non-religious service provision and competition

When competing with other religious organizations, a religious organization can reinforce its views through retaliatory measures, such as warnings through word of mouth from the pulpit or public advertising (Cafferky, 2005). This study argues that an incumbent religious organization will react to information received if a competitor provides religious and non-religious services, and uses personal and non-personal channels. The study also contends that the reaction of increased/decreased provision of personal/non-personal channels depends on the incumbent religious organization's key differentiator. For instance, if the incumbent considers religious services as its key competitive differentiator, then if a competitor increases its provision of religious services, the incumbent may respond by increasing personal channel use and decreasing non-personal channel use. The study explains this finding by asserting that personal channels are more effective in communicating complex messages that religious services demand.

However, as Finke (2004) argues, empirical evidence suggests that religious organizations keep the core teachings stable but innovate and differentiate on other characteristics to attract adherents. Iyer et al. (2011) show that religious organizations innovate on non-religious services to compete for adherents. If the function of religious organizations is primarily to promote religious services (the larger questions of personal purpose, service to others, spiritual and moral nourishment

and guidance, particular ways of thinking, feeling and behaving etc.), for which few other substitutes exist either in consumers' experiences with for-profit organizations or with informal social groups, then the focus of religious organizations may be on achieving better or more effective operations. However, since this finding also relates to non-religious services (the ability to maximize non-religious services by minimizing inputs), one can equally regard non-religious services as the key competitive differentiator for religious organizations.

Therefore, when a competitor increases its non-religious services, the incumbent religious organization is likely to respond by maintaining and enhancing its competitive differentiation. Since providing non-religious services is less core and complex compared to religious services, the incumbent organization is likely to respond by increasing the use of non-personal channels and decreasing the use of personal channels. So the study hypothesizes that the organizations that are more responsive to increasing their own non-religious service provision as a result of competition will display a stronger competitive response.

H2a. Incumbent religious organizations that are more responsive to changing their own non-religious services due to competitors' provision of non-religious services will use more non-personal channels than less responsive organizations.

H2b. Incumbent religious organizations that are more responsive to changing their own non-religious services due to competitors' provision of non-religious services will use less personal channels than less responsive organizations.

4. Survey of Indian religious organizations

The study uses unique survey data on religious organizations in India collected between 2006 and 2008 (Iyer et al., 2011). This survey is one of the first large-scale Indian surveys of religious organizations with a view to understanding their economic, marketing and competitive behavior. The survey entails extensive primary data collection and careful fieldwork using questionnaire and personal interview methods. The survey represents an extremely challenging task of coordination and execution, requiring 52 surveyors working over 328 man-days in 7 major Indian states over 2 years.

The study comprises a clustered sample of 568 religious organizations in selected districts of each of the 7 states, based on a listing of all religious organizations listed by the Registrar of Charities. The religious organizations themselves consist of temples, mosques, churches, gurudwaras; religion-based NGOs; religion-based family trusts (*parivar*); religion-based trusts (*samitis*) and religion-based communes (*ashrams*); other religion-based groups (*mandals* and *sabhas*) and religion-based charities (*madrasas*); religion-based committees; and welfare societies. The groups and bodies interviewed are diverse since religious activity per se is not coordinated and regulated in India, but comparisons across them is possible as they provide similar services. The organizations varied in their dates of foundation from the thirteenth to the twenty-first century. As Table 1 shows, the survey covers 272 Hindu (47.89%), 248 Muslim (43.66%), 25 Christian (4.40%), and 23 Sikh and Jain organizations (4.05%) based in the Indian states of Jammu and Kashmir, Uttar Pradesh, West Bengal, Madhya Pradesh, Gujarat, Maharashtra and Karnataka.

In terms of the logistics of conducting the survey, the average number of visits per interview varies between 1.6 and 3.5 visits per religious organization. In each organization the researchers interview those most closely involved with the religious, administrative and organizational decision-making. In order to avoid common method bias, and since no uniformity exists across the organizations in terms of responsibility and knowledge of all of the survey questions, the researchers conduct interviews of a few people in each organization to obtain the information needed for different sections of the survey, including competitive reactions (Doty & Glich, 1998; Friedrich, Bryne, & Mumford, 2009). Thus, on average they interview three people in each organization – typically a trustee, one person responsible for administration, and one who is knowledgeable about financial issues. Between them, these people have responsibility for theological matters, administrative day-to-day practical matters, and financial planning and execution. Although interviewing several people may introduce a different bias, nevertheless interviewing those who are most closely connected with particular aspects of the organizations' functioning is important since this aspect is quite decentralized in most of the sample organizations. Furthermore, each field investigator makes repeat visits to the organization to better understand its ethos, to actually view the services provided, and to collect pamphlets and other literature distributed, so as to provide external validity for the information provided in interviews. The individual field investigator is responsible for recording the final responses in the questionnaire in the local language, which a translator then translates into English.

The researchers conduct a pilot survey in two states in order to test run the questionnaire before administering the actual survey in all seven states. They coordinate the survey so that the field staff on this project have the adequate training (many of them are research scholars or young professors in local Indian educational institutions) through feedback and practice sessions. The researchers encourage discussion to ensure reliability and consistency in recording responses. Several issues arise in the sample design and in administering this survey. First, response rates are lower if a Hindu investigator approaches a Muslim

organization, and vice-versa. Issues with data collection arise in Jammu and Kashmir, where conducting interviews is an extremely difficult task; four or five visits are necessary in order to obtain information.

Among the religious services that organizations provide, propagation of the faith and religious education are possibly the two most important activities. Nearly all religious organizations increase their provision of every non-religious service such as education, health care and food distribution, closely followed by child care, employment and other services. Religious organizations also view the provision of non-religious services as a key way in which to propagate and expand their faith — over 55% of organizations consider this fact to be very important. In relation to the number and size of other organizations operating in the same area, 150 organizations report 1–2 others; 136 report 3–5 competitors; 96 report 6–10; and 74 report over 10 organizations as competitors (112 report that they are aware of competition but do not know precisely the number of competitors).

Tables 2 and 3 illustrate the channels of communication that the religious organizations use and the channels through which they receive information about their competitors. Newspapers, panchayat (local self-government institutions) meetings, and word of mouth are the most significant vehicles of propagation of communication about the organizations' services. They use television and radio less frequently. Newspapers and word of mouth seem to be the most effective communication channels for Hindus and Muslims. Christian organizations are more reliant on newspapers and other media for their information about other organizations, probably a reflection of the higher literacy levels in the Christian community more generally in India. Sikh and Jain organizations use panchayat meetings and word-of-mouth channels more than the Hindus, Muslims and Christians.

5. Methodology and econometric model

The study uses two dependent variables: a) the number of personal channels (local panchayat meetings, word of mouth, and others); and b) the number of non-personal channels (television/radio, newspapers/other print media) used by the incumbent religious organization. The independent (explanatory) variables are: a) the number of non-personal channels of communication used by the competitors; and b) the responsiveness of the incumbent organization to its competitors' non-religious services provision. The two main control variables are: a) the degree of change in non-religious services of the incumbent; and b) the total number of non-religious services offered by the incumbent. Tables 4 and 5 provide some descriptive statistics of the dependent variables.

Table 6 summarizes the various dependent, independent and control variables, as well as the survey questions used in the analysis.

The study estimates two separate regressions of the following form:

$$Y_{1i} = b_0 + b_1 X_{1i} + b_2 X_{2i} + b_3 C_{1i} + b_4 C_{2i} + \Sigma p_j M_j + \Sigma l_j N_j + \Sigma q_j K_j + e_i \quad (1)$$

Table 1
Distribution of the sample across religions and regions in India.

Religion	Frequency	Percentage	State	Frequency	Percentage
Hindu	272	47.9	Gujarat	88	15.5
Muslim	248	43.7	Jammu and Kashmir	82	14.5
Christian	25	4.4	Karnataka	75	13.2
Other religions	23	4.1	Maharashtra	78	13.7
			Madhya Pradesh	75	13.2
			Uttar Pradesh	92	16.2
			West Bengal	78	13.7
Total	568	100	Total	568	100

Table 2
Communication of information through different sources, by religion.

Communication channels	Hindu		Muslim		Christian		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Television/radio	46	18.5	43	18.6	1	4.3	6	27.3	96	18.3
Newspapers/other news media	183	73.5	172	74.5	16	69.6	15	68.2	386	73.5
Local panchayat meetings	127	51.0	109	47.2	16	69.6	9	40.9	261	49.7
Word of mouth	185	74.3	176	76.2	20	87.0	13	59.1	394	75.0
Other — please specify	52	20.9	40	17.3	4	17.4	9	40.9	105	20.0

Table 3
Sources of information about other organizations, by religion.

Communication channels	Hindu		Muslim		Christian		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Television/radio	33	14.4	64	26.7	6	26.1	3	13.0	106	20.6
Newspapers/other news media	185	80.8	196	81.7	21	91.3	14	60.9	416	80.8
Local panchayat meetings	107	46.7	83	34.6	6	26.1	18	78.3	214	41.6
Word of mouth	195	85.2	183	76.3	15	65.2	19	82.6	412	80.0
Other − please specify	14	6.1	30	12.5	4	17.4	0	0.0	48	9.3

$$Y_{2i} = b_0 + b_1 X_{1i} + b_2 X_{2i} + b_3 C_{1i} + b_4 C_{2i} + \Sigma p_j M_j + \Sigma l_j N_j + \Sigma q_j K_j + e_i \quad (2)$$

Where:

Y_{1i}	Number of personal channels used by organization i
Y_{2i}	Number of non-personal channels used by organization i
X_{1i}	Number of non-personal channels used by the competitors of organization i
X_{2i}	Degree of responsiveness of organization i to the non-religious services provided by its competitors
C_{1i}	Degree of change in non-religious services of organization i
C_{2i}	Total number of non-religious services provided by organization i
ΣM_j	Vector of state fixed effects
ΣN_j	Vector of religion fixed effects
ΣK_j	Vector of additional control variables.

6. Results

The discrete nature of the dependent variable suggests the appropriateness of using count data (Poisson) regression modeling. Tables 7 and 8 present the main results from the Poisson regressions.

Hypotheses 1a and 1b posit that incumbent religious organizations increase their use of personal channels and decrease their use of non-personal channels when competitors use more non-personal communication channels. The findings indicate that the incumbent organization decreases its non-personal channels when competitors increase their non-personal channels. This result is shown by the coefficient on the competitor non-personal channels being negative (−0.10) and significant (Table 7, Specification 1). Furthermore, incumbent organizations increase personal channels as competitors increase their non-personal channels. This result is shown by the coefficient on the competitor non-personal channels being positive (0.30) and significant (Table 8, Specification 1). The results jointly provide support for Hypotheses 1a and 1b.

To explore this notion further, the study calculates the marginal effect of the independent variables, which is the predicted value of the dependent variable as a single independent variable changes, keeping all other independent variables constant at their average value (shown in Fig. 2). The analysis reports standard errors for the predicted values using the delta method.

Table 4
Personal communication channels: Frequency distribution.

Number of *personal* communication channels used	Count	Frequency	Cumulative frequency
0	12	2.11	2.11
1	237	41.73	43.84
2	250	44.01	87.85
3	69	12.15	100.00

Table 5
Non-personal communication channels: Frequency distribution.

Number of *non-personal* communication channels used	Count	Frequency	Cumulative frequency
0	90	15.85	15.85
1	302	53.17	69.01
2	176	30.99	100.00

Fig. 2 shows that the increase in competitor non-personal channels has greater effects on the incumbent organization's use of personal channels compared to non-personal channels (as the steeper gradient of the red line shows). The incumbent organization perceives the increase in competitors' non-personal channels as a competitive threat, and consequently reacts by using a personal channel, which is its more effective mode of communication.

Hypotheses 2a and 2b posit that an incumbent religious organization that is more responsive to changing its own non-religious services due to competitors' provision of non-religious services will increase its use of non-personal channels and decrease its personal channels more than less responsive organizations. The findings show that as the incumbent organization becomes more responsive towards competitor's non-religious service changes, the organization increases its non-personal channels and decreases its personal channels. First, this result is shown by the coefficient on the 'responsiveness non-religious' being positive (0.03) and significant where the dependent variable is the number of non-personal communication channels (Table 7, Specification 1). Second, this result is shown by the coefficient on the 'responsiveness non-religious' being negative (−0.05) and significant where the dependent variable is the number of personal communication channels (Table 8, Specification 1). The results jointly provide support for Hypotheses 2a and 2b.

Fig. 3 depicts nearly equal (but opposite) reaction tendencies of the incumbent in response to changes in responsiveness towards the competitor's non-religious services. Fig. 3 shows that an increase in the incumbent's responsiveness towards competitors' non-religious services leads to a predicted increase in the incumbent's non-personal channels and a corresponding decrease in personal channels.

The study concludes that, as the incumbent becomes more responsive towards a competitor's provision of non-religious services, the incumbent must make a choice to respond through either personal or non-personal channels. If one reserves personal channels for communicating the central tenets of the incumbent, and one considers non-religious services to be supplementary, then an increase in the incumbent's non-religious services' responsiveness results in an increase in non-personal channels and concurrent decrease in personal channels.

6.1. Robustness

Three analyses assess the robustness of the results: fixed effects; additional control variables; and Path Analysis using Structural Equation Modeling.

6.2. Fixed effects

State fixed effects and age of organizations account for the heterogeneity of religious organizations across the various states and across time. The results are robust to including state fixed effects and age. Specification (1) of Tables 7 and 8 include state fixed effects to capture the heterogeneity of religious organizations across the various states. Madhya Pradesh is the reference state, against which to compare all other states. Tests of the consistency of the estimated coefficients and the results indicate, in general, substantial consistency across Hindu and Muslim religious organizations in terms of sign, statistical significance, and magnitude of the estimated coefficients.

Table 6
Variable definitions, survey questions and summary statistics.

Variable	Name	Definition	Survey question
Number of personal channels used (mean 1.7; S.D. 0.71)	Personal channels (dependent)	Total number of non-personal channels (local panchayat meetings, word of mouth and others) used	When you make changes to religious or education/ health services, how do you inform everyone? (TV/ radio, newspapers/other news media, local panchayat meetings, word of mouth, other)
Number of non-personal channels used (mean 1.2; S.D. 0.66)	Non-personal channels (dependent)	Total number of non-personal channels (TV, newspaper and other print media) used	When you make changes to religious or education/ health services, how do you inform everyone? (TV/ radio, newspapers/other news media, local panchayat meetings, word of mouth, other)
Number of non-personal channels used by competitor (mean 0.9; S.D. 0.65)	Competitor non-personal channels (explanatory)	Total number of non-personal channels through which the incumbent religious organization receives information about its competitors	How do you get information about other organizations and the religious/socio-economic services that they provide? (TV/radio, newspapers/other news media, local panchayat meetings, word of mouth, other)
Degree of responsiveness towards non-religious service (mean 2.2; S.D. 3.35)	Responsiveness non-religious (explanatory)	Ranges from 0 to 18 (note 1).	Why does your organization provide each of the following services? (kindly rank the reasons for each service provided according to first three preferences, Rank — 1, 2, 3) virtuous thing to do, others do not provide, in response to provision by other organizations, requirement of the area, other, do not provide
Change in non-religious services (mean 0.6; S.D. 0.49)	Service change non-religious (control)	Equates 1 if provision of education and health services has changed over the period 1990–2006	Over the period 1990–2006, has your organization changed any education or health services that you provide? (yes, no)
Number of non-religious services provided (mean 2.1; S.D. 1.36)	Number of non-religious services (control)	Total number of different non-religious services that the organization provides post-1991	What are the other services (education, health etc.) provided by your organization post-1991? (education, health, employment, food distribution, child care, other)
Number of personal channels used by competitor (mean 1.2; S.D. 0.74)	Competitor personal channels (additional control)	Total number of personal channels through which the incumbent religious organization receives information about its competitors	How do you get information about other organizations and the religious/socio-economic services that they provide? (TV/radio, newspapers/other news media, local panchayat meetings, word of mouth, other)
Degree of responsiveness towards religious service (mean 0.5; S.D. 0.71)	Responsiveness religious (additional control)	Ranges from 0 to 4. 0 if organization has not provided any new religious in response to competition; 4 if organization ranks "Provides religious service in response to provision by other organizations" as Rank 1 in survey question 11	Why does your organization provide each of the following services? (kindly rank the reasons for each service provided according to first three preferences, Rank — 1, 2, 3) Virtuous thing to do, others do not provide, in response to provision by other organizations, requirement of the area, other, do not provide.
Change in religious services (mean 0.8; S.D. 0.40)	Service change religious (additional control)	Equates 1 if religious services provided now are more/less traditional in comparison to 20 years ago	Compared to 20 years ago, do you think these religious services are now — (more traditional, less traditional, stayed the same)?
Number of religious services provided (mean 0.8; S.D. 0.81)	Number of religious services (additional control)	Total number of different religious services that the organization provides	What are the religious services provided by your organization? (propagation and expansion of faith, offering services like weddings, divorce, funerals etc., religious education, any other)
Region	State (fixed effects)	Equals 1 for stated region (Jammu & Kashmir, Uttar Pradesh, Karnataka, Gujarat, Uttar Pradesh, West Bengal); base group Madhya Pradesh	
Religion	Religion (fixed effects)	Equals 1 for stated religion (Christian, Muslim, Others); base group Hindu	

Note 1. The study generates the composite score from a question asking why the organization provides each of the non-religious services (e.g., education, health). The study uses the answers related to provision because of competition, as follows. For each of the types of non-religious services, the study assigns the value of "0" if the incumbent organization does not provide any new non-religious in response to competition. The study assigns the value of "4" if the incumbent organization answers "Provides non-religious service in response to provision by other organizations" as Rank 1 in the survey questions. Correspondingly, the study assigns the value of "3" or "2" if the answer is Rank 2 or Rank 3 respectively. The study generates the summary variable by adding the individual variables.

Specification (1) in Tables 7 and 8 which compares tests for pooled and sub-sample regressions (not reported here) examine organizations of all religions, Hindus and Muslims separately. The chi-squared statistic tests the difference for each pair of independent variable coefficients across the two sub-samples of Hindu and Muslim religious organizations.

6.3. Additional control variables

The study sequentially introduces additional independent variables (Specifications 2–5). These independent variables are the counterparts of the initial two independent variables and the two main control variables, but now for religious services and personal channels. The sign, significance and magnitude of the coefficients for the independent variables "Competitor's utilization of non-personal channels" and "Responsiveness towards competitor's provision of non-religious services" show minor variance across all the alternative specifications (Specifications 2–5) for non-personal channel use as the dependent variable (Table 7). Only for the independent variable "responsiveness towards competitor's provision of non-religious services" does the study find evidence of statistical insignificance when applying the full set of independent variables (Specification 5). Similar strong robustness results emerge with personal channels as the dependent variable (Table 8).

Table 7
Estimation for non-personal communication channels.

Variable	(1)	(2)	(3)	(4)	(5)
Competitor non-personal channels	−0.10***	−0.09*	−0.09***	−0.08*	−0.08*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Responsiveness non-religious	0.03***	0.02*	0.02*	0.02*	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Service change non-religious	−0.15***	−0.13***	−0.13***	−0.12***	−0.12***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Number of non-religious services	0.03	0.03	0.03	0.03	0.04
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Competitor personal channels		0.10***	0.10***	0.10***	0.09***
		(0.03)	(0.03)	(0.03)	(0.03)
Responsiveness religious					0.07*
					(0.03)
Service change religious			0.01	0.01	0.01
			(0.06)	(0.06)	(0.06)
Number of religious services				−0.07***	−0.07*
				(0.03)	(0.03)
Goodness-of-fit					
Bayesian information criterion	1369.76	1393.82	1389.76	1393.91	1399.08

Standard robust errors reported in parentheses. Likelihood ratio test, using likelihood statistic, LR = 2{ln $L_{\text{Negative binomial}}$ − ln L_{Poisson}} ~ $x^2(1)$, to examine the null hypothesis of equidispersion indicates no evidence of over-dispersion; hence reduction of the Negative Binomial model to the Poisson regression model.
　* Denotes significance at p < 0.1.
　** Denotes significance at p < 0.05.
*** Denotes significance at p < 0.01.

The findings indicate significant robustness of the initial findings (Specification 1). The analysis uses the Bayesian Information Criteria to measure goodness-of-fit. The statistic indicates that Specification 1 across both Tables 7 and 8 is the preferred model.

6.4. Structural Equation Modeling

Structural Equation Modeling (SEM) methods investigate direct and indirect effects on the dependent variable. The multiple regression framework of the previous analysis allows the examination only of the direct effects of the independent variables on the dependent variable. However, relationships between various variables may be interconnected.

Path Analysis is useful for analyzing such complex interrelationships (Bollen, 1989). In the regression analysis it considers four independent variables (X_1, X_2, C_1 & C_2) and dependent variables $Y_{1, 2}$. The regression analysis estimates the direct effect of the four independent variables on the dependent variable. However, variable C_2 may affect the dependent variables ($Y_{1, 2}$), both directly and indirectly (through the independent variable X_2). The study hypothesizes that those religious organizations with substantial non-religious service offerings will be more responsive towards a competing religious organization's non-religious service provision. This is because religious organizations with relatively larger non-

Table 8
Estimation for personal communication channels.

Variable	(1)	(2)	(3)	(4)	(5)
Competitor non-personal channels	0.30***	0.31***	0.30***	0.29***	0.29***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Responsiveness non-religious	−0.05***	−0.05***	−0.05***	−0.05***	−0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Service change non-religious	−0.03	−0.01	−0.02	−0.03	−0.03
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Number of non-religious services	0.01	0.01	0.01	0.01	0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Competitor personal channels		0.07	0.07	0.08	0.09
		(0.05)	(0.05)	(0.06)	(0.05)
Responsiveness religious					−0.10
					(0.06)
Service change religious			0.13	0.13	0.14
			(0.08)	(0.09)	(0.09)
Number of religious services				0.05	0.05
				(0.04)	(0.04)
Goodness-of-fit					
Bayesian information criterion	1186.16	1191.37	1189.07	1194.55	1199.72

Standard robust errors reported in parentheses. Likelihood ratio test, using likelihood statistic, LR = 2{ln $L_{\text{Negative binomial}}$ − ln L_{Poisson}} ~ $x^2(1)$, to examine the null hypothesis of equidispersion indicates no evidence of over-dispersion; hence reduction of the Negative Binomial model to the Poisson regression model.
　* Denotes significance at p < 0.1.
　** Denotes significance at p < 0.05.
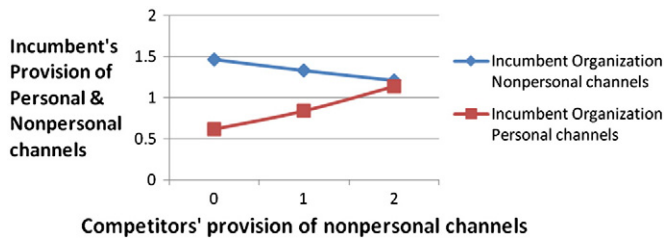*** Denotes significance at p < 0.01.

Fig. 2. Marginal effect of the provision of the number of non-personal channels by competitors.

religious service offerings will consider this factor to be their main competitive advantage, and hence protect such offerings by responding more to the actions of competitors.

Fig. 4 provides estimates of the direct and indirect effects for the dependent and independent variables. The estimates indicate that the indirect effect of independent variable C_2 on independent variable X_2 is statistically insignificant. Bryman & Cramer (1990) show that the statistical insignificance of interrelationships between independent variables invalidates indirect effects of the respective independent variables on the dependent variable. The independent variable C_2 only directly affects the dependent variables ($Y_{1, 2}$). To further test the robustness of the Path Analysis, the study develops an alternative measure for non-religious responsiveness (X_2) using another related question from the survey. Confirmatory factor analysis shows that both measures correspond to the same underlying construct. Including the alternative measure in the Path Analysis framework does not change the estimates of the influence of the direct and indirect effects respectively, further validating the analysis. In summary, the SEM analysis provides support and shows the robustness of the multiple regression results.

7. Discussion, implications and conclusions

The research elucidates the communication channel selection decisions of religious organizations. Using media richness theory with competition as the overarching framework, the contribution is to ascertain the competitive reaction of religious organizations in response to their competitors' use of non-personal communication channels and non-religious services in India. The findings have two managerial implications and one theoretical implication.

First, non-personal communication channels are more visible although less effective in communicating complex messages. Non-personal communication channels convey messages that are less equivocal, such as reminding the target audience about key messages. The study shows that incumbents increase their personal communication channels in response to the higher non-personal communication channels (channels with greater visibility) that a competitor uses. One key managerial implication is that organizations need to trade off the benefits of reminding the target audience about certain propositions against the possibility of strong retaliatory response from competitors, which might dilute the benefit of the message.

Second, the distinction between core and peripheral propositions of an organization and the communication medium the organization uses to convey messages have implications for how competitors react. The relative complexity of core versus peripheral propositions determines how organizations communicate their offerings and possible responses by competitors. Non-religious services act as the principal differentiator for religious organizations; but equally they are also less complex to communicate, so religious organizations respond by increasing their non-personal communications. This result has significant managerial implications, as the combination of complexity and how core a proposition frequently determines the richness of the medium chosen to communicate the proposition.

The study also has implications for research. A promising avenue for future research is to integrate media richness and competitive response in service propositions. In particular, to develop integrated marketing communications (IMC) with media richness in the context of services (see Cornelissen, 2000). Understanding integrated marketing communications with respect to personal and non-personal channels and applications to the study of religion provides new possibilities for theoretical developments.

Some caveats and opportunities to further extend this study should be noted. First, the dependent variable measures the variety of channels that a religious organization adopts rather than the intensity of channel use. Second, the cost of media channels and resource constraints in communication budgets that religious organizations face discernibly affect their channel selection strategy. Third, the study involves using a cross-sectional survey. Extension of the study using longitudinal datasets under different socioeconomic conditions would enable causal relationships to be established.

Ultimately, however, the study contends that across all religions in India, marketing communication may well be playing a central role in the activities of religious organizations therein. This research offers real opportunities for future work in religion and marketing in developing countries more generally.
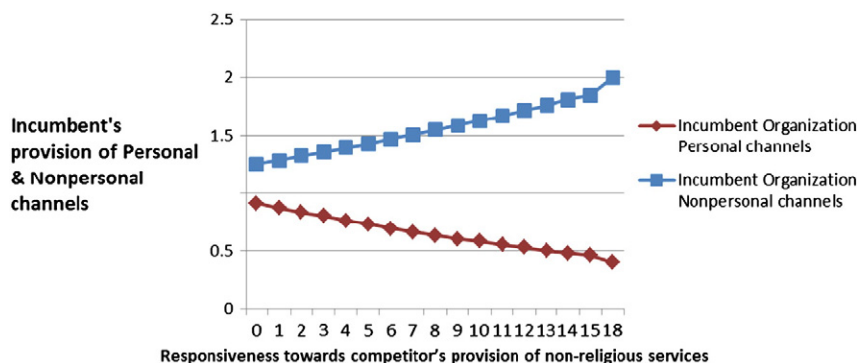

Fig. 3. Marginal effect of changes in responsiveness towards competitor's provision of non-religious services.
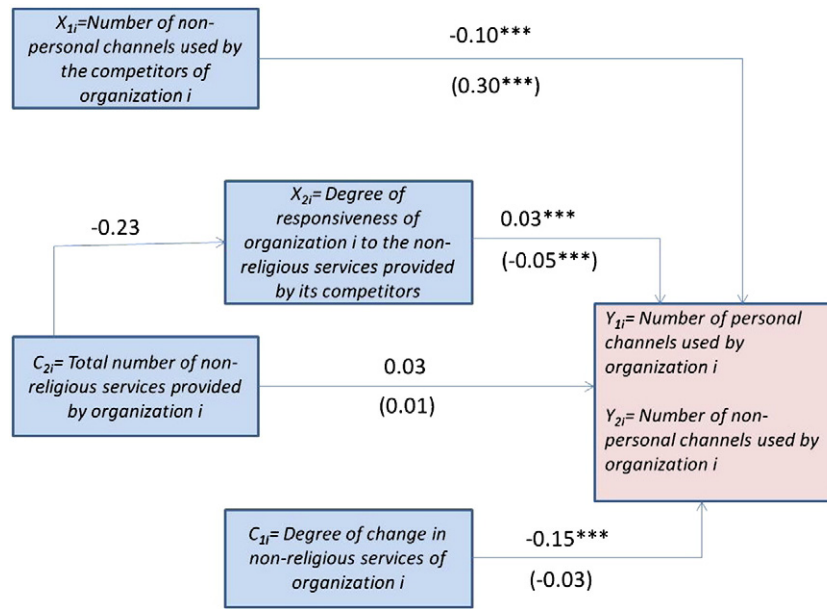
Fig. 4. Path diagram for estimates of direct and indirect effects. Figures in parentheses provide estimates for Y_1. *** indicates statistical significance at $p = 0.01$. Standard errors calculated as robust, clustered.

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