Location of Decision Rights in Catholic Church Franchise Systems

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Abstract

A survey of the historical literature suggests that the global Roman Catholic Church can be viewed as a vertically integrated firm with the Pope as the franchisor and the local clergy as franchisees. The Vatican thereby acts as a holding company for different franchise systems. In the early 13th century, the Church came up with a new organizational innovation, that is, the licensing of religious orders. This article empirically shows that religious orders follow precisely the organizational prescriptions of economics for franchise systems avant la lettre. thereby securing its survival in difficult times. It is argued that religious orders face the problem of controlling the actions of their branch offices to assure the continued value and uniqueness of their trademark. We use the Jensen and Meckling (1995) distinction between specific and general knowledge to analyze the optimal colocation of decision rights within the specific knowledge framework of a religious order. An empirical analysis of 114 local communities of 20 religious orders of the Roman Catholic Church shows that the different orders of the Church decentralize their local communities the higher the ratio of credence goods produced and centralize their local communities located on trade routes and the higher the number of communities administered by the religious order. Finally, orders with higher reformation damages have more decentralized local communities.

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1. Introduction

Since medieval times, the economics of religion has viewed the Roman Catholic Church as a monopolistic "multidivisional" firm: A firm characterized by a central office that not only controls the most relevant financial allocations and has the last word on strategic planning but also allows its divisions a high degree of autonomy in matters of operation.

An article in this journal by Davidson (1995) discussing the medieval monastery as a franchise monopolist develops this idea further. The article presents a theoretical public choice analysis of the Roman Catholic Church showing that the Cistercian Order can be seen as a downstream monopoly franchise of the medieval Roman Catholic Church. Several articles in this journal deal theoretically with the organizational issues of churches in general and the issue of monasteries in particular (Adolphson and Ramseyer, 2009). In an early paper, Allen (1995) argued that there is a one-to-one mapping between doctrinal beliefs and organizational structure. For our sample of Roman Catholic religious orders, the Allen conjecture would imply that they all have the same organizational structure, which is not the case. Mao and Zech (2002) extended Allen's idea by showing that there exists a continuum of organizational structures, which is consistent with a particular church's doctrine. Both our theory and our empirical results support their findings.

Our article's goal is to show empirically that religious orders follow precisely the organizational prescriptions of economics for franchise systems avant la lettre thereby securing its survival in difficult times. Under the Roman Catholic Church's umbrella, its religious orders can be viewed as sub-brands with their local communities as franchisees. The argument posed is that religious orders face the problem of controlling the actions of their branch offices to assure the continued value and uniqueness of their trademark. We use the Jensen and Meckling (1995) distinction between specific and general knowledge to analyze the optimal colocation of decision rights within the specific knowledge framework of a religious order.

The paper is organized as follows: First, we briefly outline historical evidence on the Roman Catholic franchise system. Then, we apply franchise theory to religious orders and develop our hypotheses. This is followed by an empirical analysis of 114 local communities of 20 religious orders of the Roman Catholic Church. It should be noted that this paper describes religious issues using economic terminology. This does not mean that spiritual, moral, or political considerations are unimportant.

2. Distribution of Decision Rights in the Roman Catholic Franchise System[1]

2.1. Historical Evidence on the Roman Catholic Franchise System

The global Roman Catholic Church can be viewed as a vertically integrated firm with the Pope as the franchisor and local institutions, for example, bishoprics or religious orders, as franchisees (Davidson, 1995; Ekelund et al., 1989; Schmidtchen and Mayer, 1997; Zech, 2003). The Vatican thereby acts as a holding company for the different franchise systems. In a usual franchise system, the upstream firm provides an intangible input or asset, like a brand name, to the downstream firm in exchange for some form of compensation, such as a fixed fee, a sales revenue royalty payment, or a lump sum franchise fee (Davidson, 1995). However, in the religious orders financial rewards are just one of several options to pay. Mendicant orders as the Franciscans had only few revenues but instead they produced reputation for the overall church, disseminated Catholic doctrine or evangelized new members for the church. A survey of the historical literature suggests that the medieval Roman Catholic Church and its religious orders were engaged in such vertical arrangements (Davidson, 1995).

En excellent example to illustrate the interconnections of the papal franchise system is the salvation industry in the medieval ages. The Roman Catholic Church was the dominant firm in the salvation industry (Ekelund et al., 1989), which made use of franchise

[1] Following Davidson (1995) and Ekelund et al. (1996) we use the term "franchise system". We use it as an economic metaphor, knowing that the Catholic Church is a distribution system with vertical restraints that fulfills not all preconditions of modern franchise systems

arrangements to control the franchisees (Davidson, 1995). In return for a variety of payments and services, the Roman Catholic Church supplied guidance and hope, that is, the widespread belief in an afterlife, to the many supplicants who suffered the often brutish conditions of daily existence (Ekelund et al., 1989).

The Roman Catholic Church has offered the service of salvation for almost two millennia. The franchisor is the Pope, and the local clergy, that is, the bishops and priests, are the franchisees who deliver the product salvation (Ekelund et al., 1989). The sales areas originally were broken into dioceses and parishes (Feine, 1964). Upon licensing, the franchisee received an exclusive territory and paid the Pope a franchise fee and a proportion of the income (Schmidtchen and Mayer, 1997).

With the formation and rise of the religious orders new important participants entered the market and, as the clergy, operated as downstream successive monopolists in the salvation industry. The monasteries possessed some degree of local monopoly power due to the assignment of exclusive territories and the absence of alternative sources of salvation supply. Salvation is, however, a credence good; that is, its quality is uncertain prior to and after its purchase, implying that the quality had to be authenticated by the Church (Davidson, 1995). As the dominant firm in the salvation industry, the Church had a profit incentive to vertically integrate with the monasteries and to develop franchise arrangements. From 1100 to 1240, the monasteries rapidly emerged as major institutions of capitalist enterprise, acting as bankers, financiers, territorial empire builders, and technological innovators who implemented water mills, walk mills, and fulling mills to augment efficiency in the regulated time allocated to daily labor (Tyerman, 1988; Williams, 1990). The Pope used his influence on monks to facilitate the payment of amounts owed to the papacy. The Church provided intangibles, such as guarantees for salvation, doctrinal purity, and a brand name, in exchange for revenue royalty of up to 5 percent of the annual gross income of a monastery or a lump sum entry fee to obtain papal confirmation for new abbots of exempt monasteries (known as servitia)

(Ekelund et al., 1989). The friars of the religious orders were perfect agents for the Church (Schmidtchen and Mayer, 1997): The friars could, by their way of life, rapidly gain a reputation. Public poverty made religious messages credible. Control costs for the Pope were also reduced. First, the friars could not easily obtain a release from their vow of poverty. Second, deviations could heavily harm the friars, for example, the exclusion from the market of religious goods or the danger of being punished as a heretic.

In the early 13th century, the Church came up with a new organizational innovation, that is, the licensing of religious orders (Schmidtchen and Mayer, 1997). In the approved orders, the Pope granted the friars the right to preach and to cure souls (Moorman, 1968). The first of the new religious movement were the Carmelites (licensed in 1209/1214), Dominicans (licensed in 1216), Franciscans (licensed in 1209/1210), and Augustinians (licensed in 1256). Many of these orders, which spread in a short period of time throughout the whole of Western Europe (Emery, 1962), were involved in selling a doctrinal innovation, namely release time from purgatory (Aries, 1980; Ekelund et al., 1992; Schmidtchen and Mayer, 1997). At the beginning, good deeds were the "currency" of redemption. Later on, the faithful were given the choice of paying for venial sins with money instead of good deeds (Ekelund et al., 1992). The new service was launched in free competition between the old established clergy and the newly licensed friars (Schmidtchen and Mayer, 1997). In the late Middle Ages the Roman Catholic Church goes even so far as to fix the final price of the new religious good by issuing confession manuals where each sin was matched one-for-one with a tariff penance that was authorized by the Roman Curia (Feine, 1964; Schmidtchen and Mayer, 1997). The Pope and many friars engaged in profit sharing, whereas the preachers and confessors of the religious orders "were to receive 6 d. in the pound from the money obtained as a result of their work" (Lunt, 1962: 1539; cited from Schmidtchen and Mayer, 1997: 129). The depicted development is a contributory factor that the formerly loosely organized and decentralized religious orders became an integral part of the Church's formal organization. They were

usually placed under the authority of a regional bishop who moved revenues upstream to the Vatican (Lunt, 1934). Medieval church law required bishops to make annual visitations to each monastery for the purpose of auditing its finances. The costs of visitations could easily amount to 5 percent of the monastery's annual gross income (Ekelund et al., 1989; Snape, 1926).

Consequently, the description of the Church as an upstream monopolist and the monasteries as downstream monopolists is consistent with the vertical and horizontal structure of the industry in the medieval period.

2.2. Religious Orders as Intra-brand Competition within Catholic Franchise Systems

Of the franchise systems mentioned in the following, we concentrate on the different Roman Catholic religious orders. A religious order is viewed as the sub-franchisor of the Roman Catholic Church and its local communities, mostly monasteries, as franchisees. The former literature focused on the licensing between the Roman Catholic Church and its monasteries therefore neglecting the role of the religious orders. However, the Roman Catholic Church licensed not a single monastery but entered into franchise arrangements with religious orders (Davidson, 1995; Schmidtchen and Mayer, 1997). To get licensed by the Church, religious orders had to estimate their profitability[2] or to justify their legitimacy. Thus this can be analyzed as intra-brand competition within the Roman Catholic Church franchise systems. Religious orders use identifiable brand names that help to assure the customer of uniform product quality (Brickley and Dark, 1987). Under the Roman Catholic Church's umbrella brand, religious orders occupy niche markets by offering specialized products and services under a sub-brand. Put differently, the various religious orders are something like McCafe and the Big Mac under the McDonalds' umbrella brand.

[2] As described before, in former times, religious orders had to pay franchise fees to the Roman Catholic Church via their monasteries. Today, religious orders finance only their own needs through work and donations, and they do not have to pay church rates or other fees.

A Catholic religious order is an organization, recognized by the Roman Catholic Church, whose members strive to achieve a common purpose through formally dedicating their life to God. Religious orders are regulated not only by Church law but also by the religious Rule they have adopted and by their own norms. Each religious order has its own unique mission and adheres to a particular way of religious living (Schwaiger and Heim, 2008).[3] For example, some religious orders strictly isolate their members from the outside world (e.g., Carthusians and Cistercians), whereas other religious orders require their members to interact with the secular world by teaching (e.g., Jesuits and Salvatorians), missionary work (e.g., Divine World Missionaries and White Fathers), or social work (e.g., Franciscans and Camillians). Different customs and religious practices, which have developed through the centuries, lead us to expect an influence on the monitoring and the colocation of decision rights *within* an order. It is suggested that due to product differentiation each religious order developed a different way for the colocation of knowledge and decision rights for its branch offices. Religious orders face the problem of controlling the actions of their branch offices to assure the continued value and uniqueness of their trademark. Our theory is in line with the game theoretical model of Mao and Zech (2002) showing that there exists a continuum of organizational structures within a particular church's doctrine.

2.3. Specific Knowledge and the Distribution of Decision Rights

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[3] The traditional categorization depends on the historical background of the orders. In the Roman Catholic Church, the following five categories are distinguished: (1) Monastic orders, such as the Benedictines or the Cistercians, live in the same abbey for a lifetime (stabilitas loci), wear the same habit (common garment), reside in the same enclosure, and observe times of silence. Besides work, contemplation plays an important role in many monasteries, for example, in the liturgy of the hours. (2) Canons regular, such as the Premonstratensians or different Canons Regular of St. Augustine, are clerics who unite in life partnerships under a rule, most often the rule of St. Augustine. Accordingly, pastoral care in the parishes is the main task of these communities. (3) Mendicant orders, such as the Dominicans, Franciscans, and Capuchins, abandoned the stabilitas loci. In an apostolic ideal, the brothers are active where poverty and misery are severe. (4) Clerks regular, for example,. the Society of Jesus and Camillians, rose in the course of the renewal of the Catholic Church in the 16th century. Their fields of activity are tasks like pastoral care, education, or missions. The orders have a worldly orientation and therefore abandon a liturgy of the hours or an obligation to a particular monastery. (5) Congregations, such as the Redemptorists, Divine Word Missionaries, Salvatorians, Missionary Oblates of Mary Immaculate, or White Fathers, are organizations founded from the 16th century onwards, whose way of life was oriented to evangelization and social service in response to the widespread problems of poverty, disease, and later on missions, education, youth work, and so on. The religious habit and daily obligations were adjusted to their purpose (Dinzelbacher and Hogg, 1997).

It seems plausible that agency considerations are an important variable in the organizational choice of religious orders. For the central company, that is, the religious order, the question arises of how many decision rights and monitoring authority should be maintained to assure product quality (Fama and Jensen, 1983a; Fama and Jensen, 1983b). To answer this question, Jensen and Meckling (1995) make a distinction between specific and general knowledge. They define specific knowledge as knowledge that is costly to transfer among agents and general knowledge as knowledge that is easy and cheap to move. Assuming that knowledge is valuable in decision-making, then the colocation of the decision authority with the knowledge that is beneficial to those decisions is preferable. Logically, two ways for the colocation of knowledge and decision rights can be conceived. One is to move the knowledge to those with the decision rights; the other is to give the decision rights to those who have the knowledge. Total organizational costs plotted in Figure 1 are the sum of the costs owing to lack of knowledge and the costs owing to the wrong use of information advantages. The last costs are high at the completely centralized allocation and decline as the decision right is moved down in the hierarchy to where more relevant specific knowledge is located.

It depends on the shape of both marginal costs curves whether more centralization or more decentralization is appropriate. Let the marginal costs owing to poor information rise more rapidly with size than the marginal costs owing to inconsistent objectives, then the optimal degree of decentralization rises. Changes in information technology or external changes of opportunity costs have an ambiguous impact on the optimal degree of decentralization. The direction of the effect depends on which information is most affected.[4] Of course the respective costs of (de)centralization also include the costs of devising measurement and reward systems and the costs of monitoring and evaluation. Monitoring is

[4] The overall impact of improvements in information technology or external changes of opportunity costs on the design of organizations depends very much on their direct impact on the transfer of knowledge. Should information technology lower the transfer costs of specific knowledge formerly appropriated at higher levels of the organization to lower levels, then a development towards decentralization will materialize. On the other hand, when technology lowers the transfer costs of specific knowledge from lower to higher levels in the organization, then a tendency towards centralization will be appropriate.

defined as the measurement of the performance of decision agents and implementation of rewards (Jensen and Meckling, 1995).

Figure 1 about here

Our hypotheses regarding the (de)centralization decision rights within the specific knowledge framework of a religious order refer in particular to the monitoring problems mentioned above.

2.3.1. Search/experience versus credence goods

The local communities of religious orders broadly produce two distinct sets of goods: search/experience goods, that is, goods whose features and characteristics are either easily evaluated before purchase or can be ascertained upon consumption, and credence goods, that is, goods whose utility impact is difficult or impossible to ascertain. The first set, for example, includes such products as beer, herbs, farming, mission, or solidarity with the poor. The quality of these products can be (more) easily evaluated and priced. The second set includes salvation goods like contemplation, catechesis, saints, afterlife, or prayers. The quality of salvation goods cannot be judged accurately. For example, in the case of the good "afterlife," one cannot rely on testimonials from satisfied customers. The credibility of the supplier of the religious good, which is usually based on its long-term reputation, is therefore the best indicator for the quality of salvation goods.

We posit that the production of all goods with observable characteristics, that is, of search/experience goods, should be organized centrally because the knowledge involved is easily available higher in the hierarchy of the religious order. Vice versa, all credence goods require specific knowledge, which is costly to transfer among agents. We suggest that the production of these goods needs a decentralized organization to be supplied in the quality demanded. "Decisions must be left to the people who are familiar with these circumstances,

who know directly of the relevant changes and of the resources immediately available to meet them. We cannot expect that this problem will be solved by first communicating all this knowledge to a central board which, after integrating all knowledge, issues its orders. We must solve it by some form of decentralization" (Hayek, 1945: 524). Therefore we hypothesize:

Hypothesis 1. The more religious orders centralize their local communities, the higher the ratio of search and experience goods produced.

Hypothesis 2. The more religious orders decentralize their local communities, the higher the ratio of credence goods produced.

2.3.2. Monitoring costs of the headquarters

As a consequence of monitoring costs and costs owing to inconsistent objectives, four testable hypotheses can be derived with regard to the optimal degree of (de)centralization. The first hypothesis is that the (de)centralization of local communities is related to their reachability from the monitoring headquarters. Outlets close to the monitoring headquarters can be monitored at relatively low costs and should be more centralized (Klein, 1980; Minkler, 1990). The monitoring hypothesis suggests that monasteries located along trade routes can be reached more easily by the religious order and thus are more centralized. In addition, there exists a further reason to expect more centralization: In particular, in the Middle Ages, the location on a trade route implied higher earnings due to the potential for trading and exchange deals. Also the central location could have provided the monasteries with ideas critical to the headquarters. Tightened monitoring so seems appropriate to avoid potential losses due to poor information.

Hypothesis 3. Religious orders centralize their local communities if they are located on trade routes.

In line with the first three hypotheses, we argue in the fourth one that the more remote the local community is from the headquarters or the more difficult it is to reach for the

monitoring hierarchy, the more decentralized it should be. In particular, local communities located in the mountains are difficult to reach and therefore should be more decentralized. Eventually, such a location decision corresponds with the decision to produce salvation goods because seclusion allows for concentrating on the credible production of credence goods. At least qualitative evidence validates that sequestered monasteries frequently apply themselves to prayer and contemplation (Schwaiger and Heim, 2008).

Hypothesis 4. Religious orders decentralize their local communities if they are located in the mountains.

The fifth hypothesis suggests that local communities located in proximity to a theological facility are more decentralized. Headquarters could save monitoring costs; the control by outside Catholic leaders was already high.

Hypothesis 5. Religious orders decentralize their local communities if they are located in proximity to a theological facility.

The sixth hypothesis is that the degree of (de)centralization is linked to the number of local communities within a religious order. More branch offices imply that economies of scale in monitoring can be realized (Brickley and Dark, 1987; Rubin, 1978). The basic economic argument for this refers to the high fixed cost of the headquarters that leads to declining monitoring costs per unit when the number of monasteries increases.

Hypothesis 6. The more religious orders centralize their local communities, the higher the number of communities administered by the religious order.

2.3.3. Reformation damages

One major problem facing the Church included the excessive accumulation of wealth among the church hierarchy accompanied by the lack of trained clergy (Allen, 1995; Knowles, 1968). In medieval times, the Church introduced several theological innovations including the verification of miracles, the identification of saints, the payment of indulgences, the sale of relics, and the emergence of the Pope as God's representative on earth and the lord of church

property (Allen, 1995). It led to well-known abuses like the fabrication of miracles or profit-maximization by the sale of thousands of indulgences, and in 1517 the reformation was underway (Ekelund et al., 1989). The Protestant movement attacked these weaknesses heavily, bringing down the legitimacy of the most corrupt actors and organizations within the Roman Catholic Church. Fama and Jensen (1983a) interpreted the evolution of Protestantism as an example of competition among different contract structures to solve a major agency problem—in this case, the monitoring of the relevant clergy to prevent them from accumulating wealth through the expropriation of donations. These issues were tackled by the Council of Trent (1545–1563). The post-Reformation movement within the orders looked like déjà vu because the evolution of monasticism in the first place was also viewed as a response to organizational conflicts. Monasteries came into being in the fourth century as an organizational response to changes in legal status as a way to spread the message of the gospel. The enormous growth of monasticism throughout Europe was especially attributed to poverty, celibacy, and the other rules of behavior that governed the lives of the monks (Allen, 1995; Knowles, 1968). And again, along with the Council of Trent, the renewal of organization had to overcome illegitimacy and to costly rebuild legitimacy again.

In response to the growth of Protestantism, the Roman Catholic Church launched a counter-reformation that not only involved the creation of new religious orders like the Jesuits but also led to more closely controlled organizational structures with the Church (Allen, 1995; Davidson, 1987). In particular the Council of Trent addressed the major problems facing the Church, including the excessive accumulation of wealth among the holders of church benefices, the involvement in secular affairs, and the lack of trained clergy (Allen, 1995). Minimum qualifications for religious leaders, regular visitations of parishes, annual clerical meetings, examinations, and responsibilities were introduced. Congregations reported directly to the Pope on matters such as doctrine, implementation of rules, and missions.

The tighter organizational control in the Roman Catholic Church after the Reformation leads us to our last hypothesis. Religious orders not affected by the Reformation because they were founded later or they made themselves not liable to prosecution should be more centralized. The new centralization inspired by the Council of Trent helped them to gain legitimacy after the Reformation.

In contrast, religious orders heavily affected by the Reformation, that is, by the destruction and the temporary closing of local communities, should be more decentralized. In these turbulent times, the limited scope of influence of papal authority in the disputed areas prevents closer ties with the affected communities and supports a decentralized organization.

Hypothesis 7. Religious orders with higher reformation damages have more decentralized local communities.

3. Method

3.1. Sample

In 2009–2010, we collected a sample embracing the full spectrum of the landscape of orders in the Roman Catholic Church in the German-speaking area of Germany, Switzerland and Austria (see Table 1). The sample contains 20 major Roman Catholic religious orders. For each order, we collected historical data on six randomly selected local communities. Additionally, we contacted the leaders of the selected local communities and asked them to participate in survey research about the control mechanisms within their local communities. From each religious order, at least one community completed a questionnaire. In total, 114 communities returned a completed questionnaire (see Table 1, Germany 58 communities, Austria 29 communities, Switzerland 27 communities). In 73 percent, the survey was filled out by the leaders of the local community and in 19 percent by officials, suggesting that the participants had the requisite knowledge on the location of decision rights. Persons answering the questionnaire were on average 58 years old, 83 percent had a study degree, and 25 percent held a PhD. For the subsequent analysis, we matched the historical data on an average local

community within the religious order with the survey data on the location of decision rights within a specific local community of the religious order.

Table 1 about here

3.2. Measurements

3.2.1. Centralization and decentralization of decision rights

Five indices, all measured by survey research, were used to capture the (de)centralization of decision rights in religious orders.

The index “control rights” consists of 16 items (see Table 2). For each decision, the communities indicated whether the decision is made (1) democratically by the local community, (2) by the abbot taking into consideration the advisory council of the local community, (3) by the abbot alone, (4) by the association/province, or (5) by the religious order. The final index totals the 16 items and indicates whether the control rights in a religious order are decentralized (minimum: 1) or centralized (maximum: 5).

Table 2 about here

The index “financial rights” consists of four items (see Table 3). The communities specified whether a financial decision is made by the religious order/umbrella association (1) or by the local community (0). The final index totals the four items and illustrates whether the financial rights in a religious order are decentralized (minimum: 0) or centralized (maximum: 1).

Table 3 about here

The item “frequency of visitations” measures how often a community is visited by representatives of the religious order/umbrella association. All monasteries within the sample are visited on a regularly basis. The time interval between visitations however varies from one to six years. Higher values of the index thus indicate higher levels of decentralization within a religious order.

The item “internal abbot” measures whether a community relies exclusively on internal leaders (1), or if it makes use of external leaders or exclusively relies on external leaders (0). A high value indicates decentralization within a religious order as decision rights are given to those who have specific knowledge.

The item “Stabilitas Loci” measures whether the monks change their local community/venue more than six times within their life (1), three to six times within their life (2), one or two times within their life (3), have a lifelong tenure within their community but for special tasks (e.g. mission) live for some years in other communities (4), or have a lifelong tenure within their community (5). Higher values are taken as an indication for higher levels of decentralization as it indicates that specific knowledge is costly to transfer among agents.
Figures 3a–3e shows the distribution of the five indices for the different religious orders. As indicated the (de)centralization of decision rights varies greatly between the orders. Next we introduce the independent variables used to explain these differences in the location of decision rights.

Figure 2a–2e about here

3.2.2. Search/experience versus credence goods

The items “mission” and “solidarity” were used to capture two different search/experience goods produced in local communities. Leaders indicated whether one main task of their local community was the engagement in mission projects for intercultural and interreligious

interworking (0=no, 1=yes) or in solidarity with people in need (0=no, 1=yes). Both goods are at lower costs observable to the order.

In contrast, the items “contemplation” and “catechesis” were used to measure two credence goods produced in local communities. Leaders indicated whether one main task of their local community was contemplation (0=no, 1=yes) or catechesis/literacy (0=no, 1=yes). The quality of both goods cannot be judged accurately from outside. Finally, the index “signaling salvation goods” is used to capture credible signals about the production of salvation goods. In contrast to both former items, the index is measured by objective, historical data. For the average community of a religious order, the composite index measures the number of saints, the likelihood of having a showy church or a significant library, and the likelihood of being praised as a pilgrim’s venue (see Table 4).

Table 4 about here

3.2.3. Monitoring the costs of the headquarter

The item “monastery located on trade route” measures for each order the percentage of local communities that were located on a (medieval) trade route. The item “monastery located in the mountains” measures for each order the percentage of local communities that are located in the mountains. The item “distance theological facility” captures for each order the average distance of local communities to the next theological facility. Finally, for present day, we measured how many local communities belong to each religious order (“number of branch offices”).

3.2.4. Reformation damages

The item “amount of damage by reformation” measures for each order the percentage of local communities that were damaged by the Reformation either by massive destruction or by

temporary closing. Orders founded after the Reformation take the value "0." Orders founded before the Reformation take values between 0 and 1.

4. Results

Table 5 lists the descriptive statistics and bivariate correlations. In line with Hypotheses 1 and 2, the bivariate correlations provide the first empirical evidence that religious orders tend to centralize their local communities the higher the ratio of search and experience goods produced (i.e., mission or solidarity) and tend to decentralize the higher the ratio of credence goods produced (i.e., contemplation, catechesis, or salvation goods). In line with Hypotheses 3 and 6, there is also evidence that the orders centralize their local communities if they are located on trade routes and if the number of communities administered by the religious order is higher. Furthermore, as suggested in Hypotheses 4 and 5, there is some evidence that the orders decentralize if they are located in the mountains or in proximity to a theological facility (reverse coding). Finally, there seems to be strong evidence for Hypothesis 7, suggesting that religious orders with higher Reformation damages are characterized by more decentralization. However, the bivariate correlations also indicate that the former characteristics of local communities are not strictly independent from each other, thus implying that multivariate analyses may obtain different results. For example, the data support that a location decision on a mountain strongly corresponds to the decision to produce salvation goods.

Table 5 about here

Table 6 lists the regression results.[5] The multivariate analysis reveals that some of the former drivers of the colocation of decision rights are no longer significant. Hypothesis 1, which suggests that religious orders centralize their local communities the higher the ratio of

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[5] Because most independent variables are measured on the religious order and not the community level, the data were clustered on the level of each order to get unbiased standard errors.

search and experience goods produced, is no longer supported. There is also no multivariate evidence for Hypotheses 4 and 5, suggesting that the orders decentralize if they are located in the mountains or in proximity to a theological facility.

The results however temporarily support Hypothesis 2: Religious orders tend to decentralize their local communities the higher the ratio of salvation goods. For communities that send credible signals about salvation goods, we observe more control and financial rights and longer time intervals between headquarters' visitations. Furthermore, these communities rely on specific leadership knowledge, that is, on internal abbots and on specific employee knowledge, such as the Stabilitas Loci, suggesting that decision rights are given to those who have specific knowledge.

Hypotheses 3 and 6 are also temporarily supported by the findings: Orders tend to centralize their local communities if they are located on trade routes and if the number of communities administered by the religious order is higher. In both cases, local communities obtain less control and financial rights, and headquarters visits to the communities occur in frequent time intervals.

Finally, there is strong temporary evidence for Hypothesis 7: Orders with higher Reformation damages are characterized by more decentralization. Communities of religious orders looking back on high Reformation damages have more control and financial rights. Headquarters' visits to the communities occur in longer time intervals. Furthermore, communities more often rely on specific leadership knowledge, such as internal abbots. It shows that giving decision rights to those who have specific knowledge is a double-edged sword. On the one hand, as supported by salvation goods, the quality of some production processes can neither be observed nor controlled. On the other hand, as indicated by the last finding, weaker control can contribute to the abuse of authority, and it was the main reason for the Reformation.

In contrast to our theory's predication and the bivariate results, the multivariate findings indicate that orders located in the mountains make less use of the Stabilitas Loci. Although this result contradicts Hypothesis 4, which predicts decentralization to avoid monitoring costs, it may be explained by our theory's neglect of motivational costs. An exchange with other communities may be important to prevent motivational crowding out due to the isolation and to secure the production of high quality salvation goods.

Summing up, we find empirical evidence that religious orders follow the organizational prescriptions of economics for franchise systems. The explained variance in the models of Table 6 is rather high. It amounts to almost 60 percent, suggesting that the distinction between specific and general knowledge helps to explain differences in the location of decision rights within religious orders.

Table 6 about here

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5. Conclusion

This study extends the work done by Mao and Zech (2002), Allen (1995), and others on the relationship between a denomination's doctrine and its organizational structure. We view the religious orders as sub-brands of the Roman Catholic Church umbrella brand with their local communities as franchisees. It has been argued that religious orders face the problem of controlling the actions of their branch offices to assure the continued value and uniqueness of their trademark. In particular, when knowledge is valuable for decision making, then the colocation of the decision authority with the knowledge that is beneficial to those decisions is preferable, at least in profit-maximizing organizations. Our article empirically shows that religious orders also follow these organizational prescriptions of economics for franchise systems to mitigate the agency problem between franchisor and franchisees.

We found that in particular the production of credence goods, which requires specific knowledge, is not centrally organized because the knowledge involved is not easily available higher up in the hierarchy of the religious orders; this implies that the religious orders decentralize their local communities the higher the ratio of credence goods produced. We found support for two classical results of the franchising literature: First, the religious orders centralize their local communities located on trade routes that can be monitored at relatively low cost. Second, because of economies of scale in monitoring, local communities tend to be more centralized the higher the number of communities administered by the religious order. Finally, the religious orders with higher Reformation damages have more decentralized local communities. We interpret this result as a consequence of changes in opportunity costs. Here, the particular costs of political legitimacy dramatically changed during the process of Reformation necessitating organizational changes from the demand side; in the case of the reformation in Germany, the sign of these cost changes varied from region to region and so sometimes meant more and sometimes less centralization. Here, we see that Allen's (1995) conjecture that all churches try to match their organizational structure to their particular theology with one organizational form does not hold. To the contrary, we suspect that for every distribution of specific and general knowledge only one optimal organizational structure exists whereas a continuum of organizational structures is consistent with a particular church's doctrine (see Mao and Zech, 2002).

6. Tables

Table 1. List of included religious orders and monasteries

Religious order	Initials	Included Communities	Category
Candidus et Canonicus Ordo Praemonstratensis	Opraem	6	Canons regular
Congregatio Canonicorum Regularium	CRL	5	Canons regular
Congregatio Fratrum Alexianorum	CFA	1	Congregation
Congregatio Sanctissimi Redemptoris	C.SS.R	5	Congregation
Diverse Congregations	Congr	12	Congregation
Ordo Carmelitarum Calceatarum	OCC	1	Mendicant order
Oblati Mariae Immaculatae	OMI	4	Congregation
Ordo Carmelitarum Discalceatarum	OCD	2	Mendicant order
Ordo Cartusiensis	Ocart	1	Monastic order
Ordo Cisterciensis	OCist	5	Monastic order
Ordo Cisterciensium Reformatorium seu Strictioris Observantiae	OCSO	1	Monastic order
Ordo Clericorum Regularium Ministrantium Infirmis	OSR	2	Clerks Regular
Ordo Eremitarum Sancti Augustini	OESA	2	Mendicant order
Ordo Fratrum Minorum	OFM	11	Mendicant order
Ordo Fratrum Minorum Cappucinorum	OFMCap	11	Mendicant order
Ordo Fratrum Minorum conventualium	OFMConv	6	Mendicant order
Ordo Fratrum Praedicatorum	OP	9	Mendicant order
Ordo Sancti Benedicti	OSB	12	Monastic order
Societas Jesu	SJ	11	Clerks Regular
Societas Verbi Divini	SCD	7	Congregation

Table 2. Items used to measure centralization of control decision rights

Items	Mean	SD
Predefinition of church service	1.65	1.05
Dress code/rules	3.08	1.75
Duration of probation for candidates	4.30	1.15
Approval of a candidate	3.41	1.09
Launching of a new branch office	3.76	1.36
Assignment of tasks/ places of action	3.24	0.98
Election of abbot	2.73	1.54
Choice of representatives for umbrella organization	2.72	1.55
Sale of real estate (Value <100'000 Euro / 150'000 SFr.)	3.42	1.42
Launch of a new business (e.g.: Monastery pharmacy)	3.03	1.36
Refurbishment inclusive raising of credit (e.g. chapel / church)	3.02	1.32
Purchase of a community car	2.60	1.14
Recruitment of an external administrator	3.17	1.12
Donation (5000.-) to a mission project of our order	2.62	1.16
Financial share in a society/company (asset 20000.-)	3.33	1.17
Resolution of a monastic community	3.77	1.35
Scale reliability coefficient (Cronbachs Alpha):		.8812

Legend: Decision is made (1) democratically by the local community, (2) by the abbot, but by considering the advisory council of the local community, (3) by the abbot, (4) by the association/province, (5) by the religious order

Table 3. Items used to measure centralization of financial decision rights

Items	Mean
Finances of the local community are central controlled	.25
Financial settlements exist within the religious order	.65
Financial settlements exist within the association/province	.71
Legacies are handed over to association/province	.47
Scale reliability coefficient (Cronbachs Alpha):	.6621

Legend: (0) no (1) yes

Table 4. Items used to measure signaling salvation goods

Items	Mean	SD
Number of saints per monastery	.26	.57
Pompously Church*	.41	
Significant library*	.52	
Pilgrim's venue*	.26	
Scale reliability coefficient (Cronbachs Alpha):	.8041	

Legend:*(0)no(1)yes

Items are measured for six randomly selected monasteries per religious order.

Table 5. Descriptive statistics and correlations

ID	Variables	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Control rights	3.11	.80	1.00	4.53														
2	Financial rights	.51	.33	.00	1.00	.72*													
3	Frequency of visitations	3.32	1.49	1.00	6.00	-.47*	-.55*												
4	Internal abbot	.42	.50	.00	1.00	-.46*	-.52*	.33*											
5	Stabilitas Loci	2.89	1.39	1.00	5.00	-.63*	-.75*	.55*	.43*										
6	Contemplation	.14	.35	.00	1.00	-.22*	-.30*	-.00	.12	.33*									
7	Catechesis	.45	.50	.00	1.00	-.12	-.10	.09	-.03	.06	-.21*								
8	Signaling Salvation Goods	.00	.90	-.91	2.30	-.63*	-.69*	.58*	.47*	.62*	.24*	.19*							
9	Mission	.17	.38	.00	1.00	.24*	.11	-.06	.08	-.02	-.12	-.28*	-.14						
10	Solidarity	.23	.42	.00	1.00	.22*	.32*	-.14	-.16	-.24*	-.16	-.23*	-.20*	-.08					
11	Number of branch offices of religious order	334	530	.00	1,661	.21*	.36*	-.30*	-.14	-.21*	.07	-.21*	-.24*	.08	.17				
12	Monastery located on trade route	.77	.20	.00	1.00	.31*	.38*	-.45*	-.28*	-.48*	-.05	.04	-.24*	-.18*	.18	.37*			
13	Monastery located in the mountains	.05	.07	.00	1.00	-.17	-.21*	.45*	.11	.03	-.13	.11	.45*	-.16	.11	-.35*	-.13		
14	Distance theological facility	46.66	21.99	17.62	97.67	.03	.17	-.02	-.19*	-.17	.02	-.09	-.18	-.11	.19*	.38*	.25*	-.00	
15	Amount of damage by reformation	.32	.30	.00	.86	-.51*	-.39*	.33*	.31*	.35*	.31*	.05*	.40*	-.34*	-.11	.34*	.07	-.07	.23*

Significance levels: *<.05

Table 6. Predicting the location of decision rights dependent on high-cost and low-cost-situations

	Centralisation of decision rights:								**Decentralisation of decision rights:**											
Dependent variable/	**Control rights**				**Financial rights**				**Frequency of visitations**				**Internal abbot**				**Stabilitas Loci**			
Independent variables	B	SD	t	Sig.	B	SD	t	Sig.	B	SD	t	Sig.	B	SD	t	Sig.	B	SD	t	Sig.
Search/experience goods:																				
-Mission	.24	.17	1.38		.03	.07	.44		.15	.33	.46		1.16	.75	1.54		-.04	.30	-.12	
-Solidarity	.06	.15	.43		.10	.06	1.75		.11	.28	.38		-.32	.68	-.48		.01	.25	.06	
Credence goods:																				
-Contemplation	.07	.18	.41		-.06	.07	-.84		-.60	.32	-1.84		-.55	.84	-.65		.43	.30	1.43	
-Catechesis	.10	.13	.80		.07	.05	1.39		-.11	.24	-.48		-.68	.62	-1.09		-.04	.22	-.17	
-Signaling Salvation Goods	-.41	.09	-4.70	***	-.18	.03	-5.49	***	.52	.16	3.16	***	1.26	.55	2.28	*	.90	.15	5.98	***
Monitoring of the headquarter																				
Number of branch offices of religious order	.00	.00	2.50	*	.00	.00	3.59	***	.00	.00	-2.07	*	.00	.00	-.68		.00	.00	-1.00	
Monastery located on trade route	.77	.31	2.48	*	.25	.12	2.16	*	-2.62	.57	-4.61	***	-1.15	1.33	-.86		-2.58	.53	-4.89	***
Monastery located in the mountains	1.60	1.01	1.58		.51	.39	1.32		3.56	1.93	1.84		-3.32	5.06	-.66		-5.79	1.70	-3.40	***
Distance theological facility	.00	.00	-1.26		.00	.00	-.24		.01	.01	1.23		-.02	.01	-1.45		.00	.00	.38	
Reformation																				
Damaged by reformation	-.98	.26	-3.85	***	-.29	.10	-3.00	***	1.96	.49	3.99	***	3.05	1.27	2.40	*	.64	.43	1.49	
_cons	2.62	.31	8.50	***	.26	.12	2.20	*	4.87	.57	8.55	***	1.35	1.37	.99		5.02	.52	9.57	***
Number of monasteries			114				114				114				114				114	
Number of religious orders			20				20				20				20				20	
Adj. R-square			.5261				.5955				.5519								.5522	
Pseudo R-square															.2927					

Legend: OLS or Logit regression clustered by religious orders.
Significance levels: ***<.001, **<0.01, *<.05

7. Figures

Figure 1. The trade-off between costs owing to inconsistent objectives and costs owing to poor information as a decision right is moved further from the franchisor´s office in the hierarchy (Jensen and Meckling, 1995)

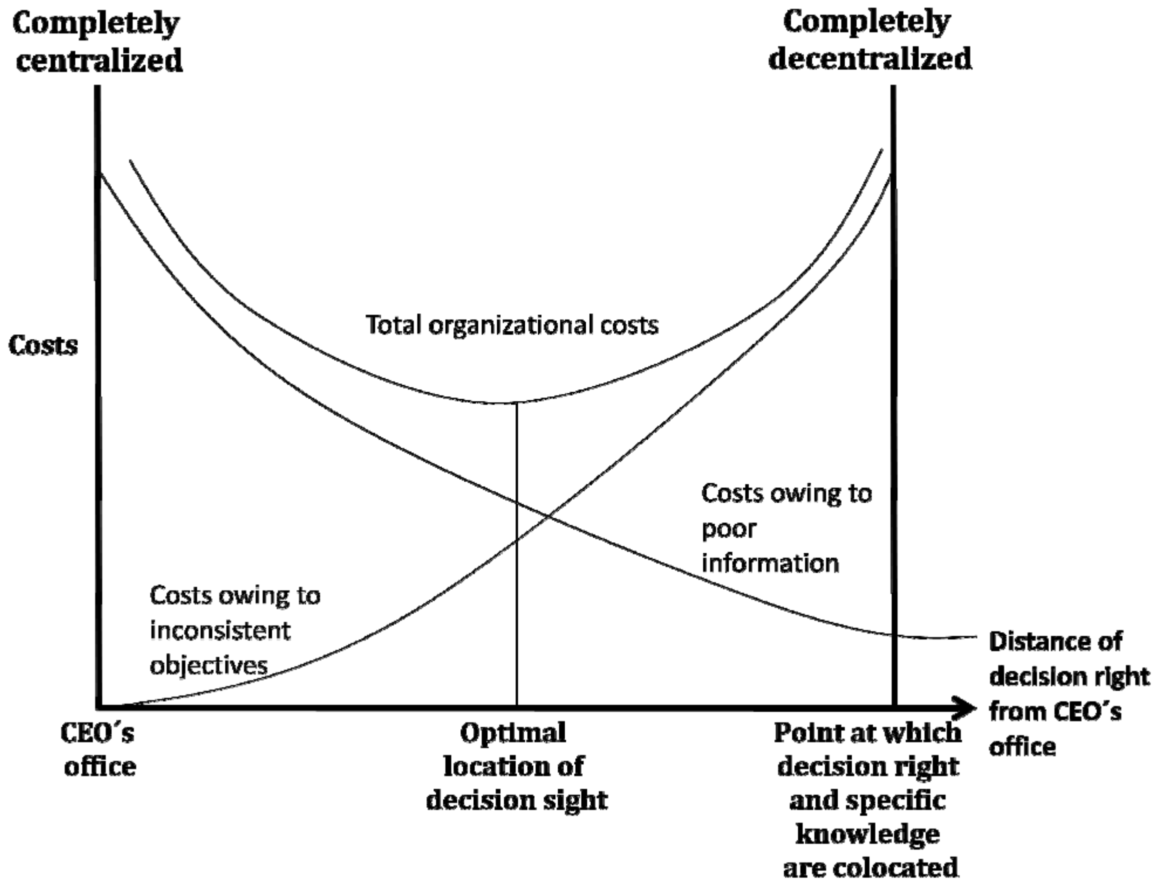
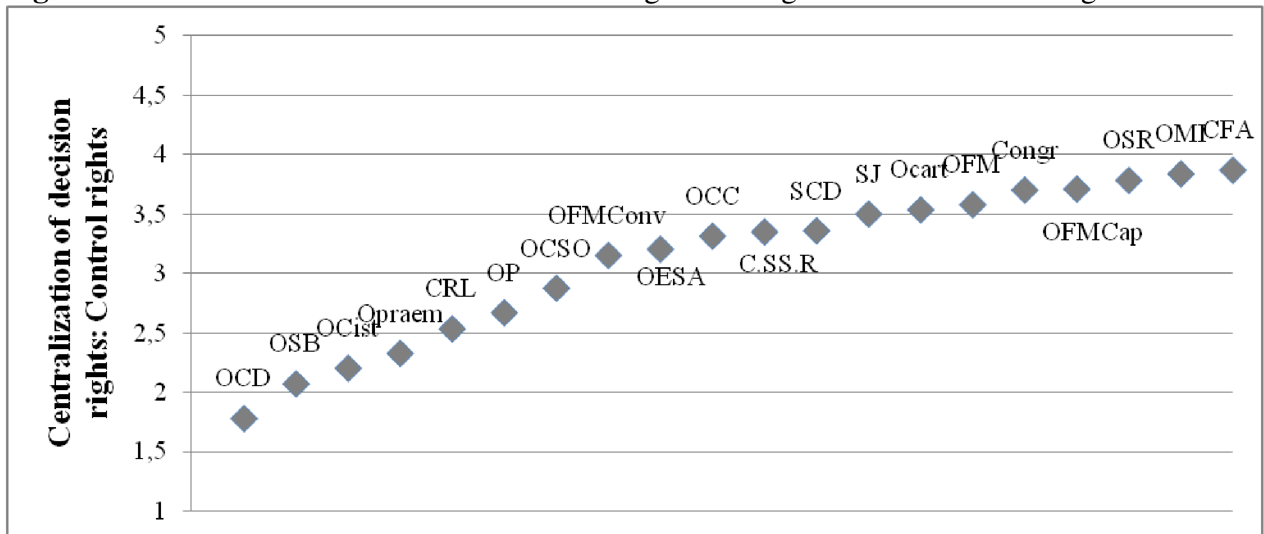
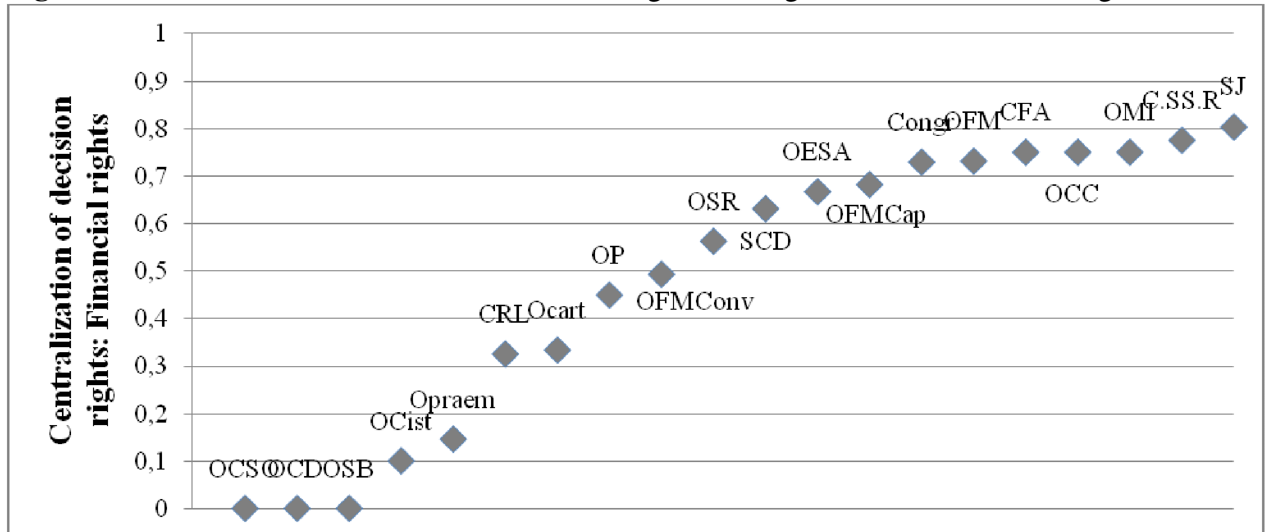


Figure 2a. Differences in allocation of decision rights in religious orders: Control rights



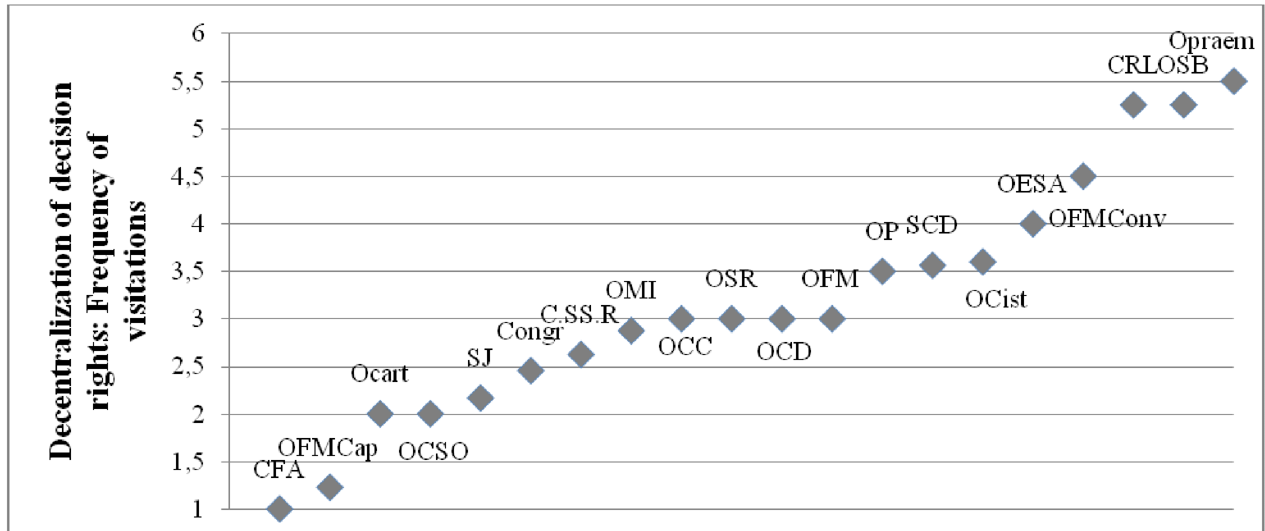
Legend: Mean value of all included monasteries per religious order

Figure 2b. Differences in allocation of decision rights in religious orders: financial rights



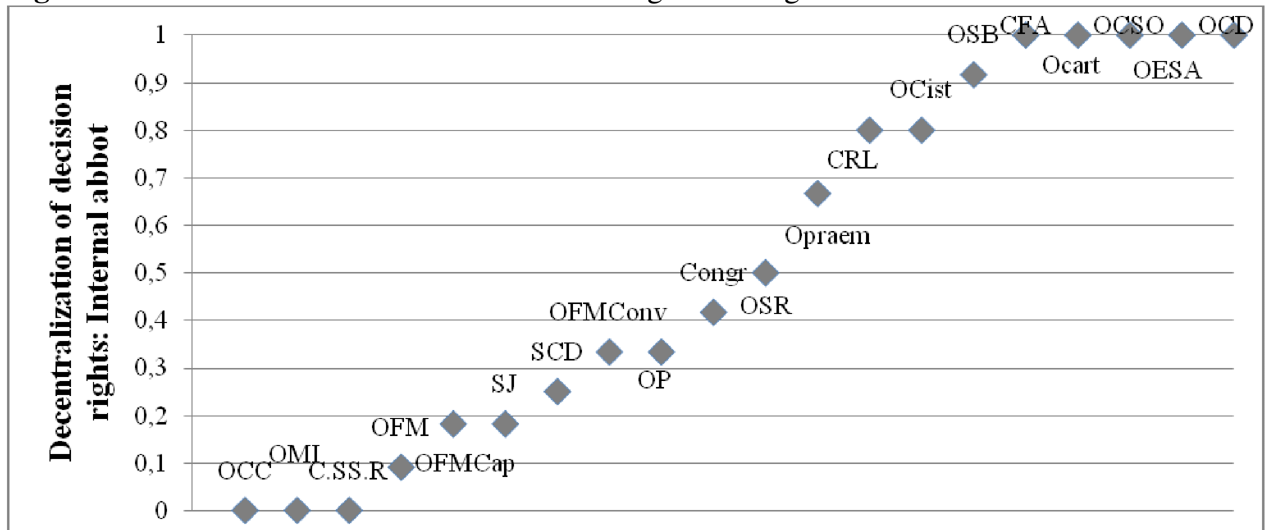
Legend: Mean value of all included monasteries per religious order

Figure 2c. Differences in allocation of decision rights in religious orders: Frequency of visitations



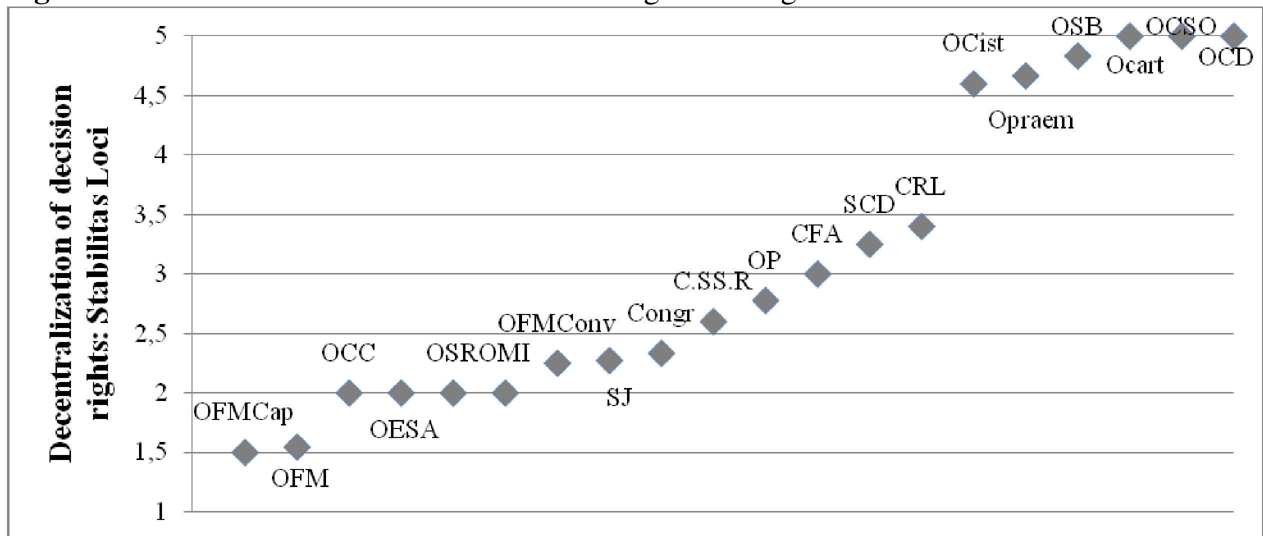
Legend: Mean value of all included monasteries per religious order

Figure 2d. Differences in allocation of decision rights in religious orders: internal abbots



Legend: Mean value of all included monasteries per religious order

Figure 2e. Differences in allocation of decision rights in religious orders: Stabilitas Loci



Legend: Mean value of all included monasteries per religious order

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