Market justice, religious orientation, and entrepreneurial attitudes
An empirical study

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Abstract
Purpose – The purpose of this paper is to test the proposition that religious orientation has a measurable affect on individuals' definitions of market justice and attitudes toward self-employment.

Design/methodology/approach – The paper distinguishes between religious orientation and spirituality and defines religious orientation to be either intrinsic or extrinsic. It then examines the modern concept of market justice and hypothesizes that individuals with intrinsic religiosity will have negative opinions of the justice of market exchange while those with extrinsic religiosity will have positive opinions. It is expected that individuals that own their own business or have positive views of self-employment will have positive opinions of the justice of market exchange. Finally, the paper hypothesizes that intrinsic religiosity will lead to higher levels of entrepreneurial behavior once opinion about market justice has been controlled for. The survey instrument was administered to 141 undergraduate business students.

Findings – Cluster analysis revealed two clusters; cluster membership was used as a binary dependent variable indicating positive or negative opinions of market justice. The intrinsic religiosity hypothesis is statistically supported. The self-employment hypothesis is only partly supported. The entrepreneurial behavior hypothesis is also statistically supported.

Originality/value – This paper examines the concepts of religious orientation and attitudes toward market justice and entrepreneurship. It offers an empirical analysis of value-based attitudes and their impact on entrepreneurial activity, and the importance of religious attitudes on market behaviors.

Keywords Religion, Market value, Entrepreneurship

Paper type Research paper

The impact of religion on the development of humanity has long been of interest to social scientists. But while researchers have aggressively examined the correlations between...
religious orientation and almost every aspect of mental health, human psychology, deviant behaviors, and sociological opinions, discerning the fundamental relationship among religious orientation, entrepreneurial behavior, and economic development has proven much more elusive. This is partly due to the lack of survey-based empirical research in the field and partly due to the complexity of the equation that ties religion orientation to entrepreneurial activity and economic achievement. One line of thought suggests that socio-economic and religion-related research should more closely examine the perceptions, attitudes, and beliefs about how markets and economic institutions function within an entrepreneurial context, and whether these perceptions, attitudes, and beliefs then influence various types of economic behavior. This study falls squarely within this perspective, and offers a preliminary investigation of both the theoretical and empirical relationships between perceptions of market justice, religious orientation and attitudes toward self-employment.

Religion and economic achievement

Influenced by the competing constructs of Max Weber and Karl Marx, the socio-economics literature has had a nearly obsessive interest in debating the relationships between religion and economic development. While the vast majority of the discussion during the past century has taken a broad philosophical perspective of arguing about the concepts of value, technology, capital, and labor, there has also been some progress in defining the broad relationships between religion and economic development. A critical theme in this work is Weber’s thesis that an ethical rationality derived from religious activities significantly contributes to the development of both modern capitalism and individual economic achievement – a theme commonly folded into the dual notions of worker productivity and social contracts as illustrated by Weber’s seminal 1905 work, *The Protestant Ethic and the Spirit of Capitalism*. Weber, of course, was not only interested in the USA, but also in the broad impact of religious institutions and belief systems on economic activity throughout the world as his less known essays on Hinduism, Confucianism, Taoism, Buddhism, and ancient Judaism illustrate.

Early attempts at testing the various derivations of the Weberian theses within the USA have proven somewhat problematic, often resulting in a much-criticized Protestant-Catholic dichotomy (Winter, 1974, Roof, 1979). A number of studies, however, have also examined similar Weberian themes in non-Western cultures such as Asia and India (Hirschmeier, 1964, Iyer, 1999; Candland, 2000). More recently this line of socio-economic research has been extended by entrepreneurship researchers, sociologists, and ethnographic anthropologists to the topics of religion, social capital, ethnic networks and enclaves, and economic development for immigrant populations (Kwon, 1997; Light and Karageorgis, 1994; Light and Gold, 2000; Martes, 2000; Martes and Rodriguez, 2004, Portes and Bach, 1985; Ryman, 2004).

Although most of this empirical research uses either broad secondary data sources or anecdotal case interviews, the results generally indicate that immigrants’ religious orientation significantly contributes to both economic achievement and entrepreneurial activity. The few published survey-based empirical studies also support this conclusion. For example, in one large-scale study of religion and entrepreneurship among Japanese immigrants, Woodrum (1985) found that both an individual’s participation in religion and their familial religiosity were positively associated with self-employment.
Some researchers have even suggested that the entrepreneurial spirit of evangelical religious sects may also contribute to economic achievement among their immigrant members (Martes and Rodriguez, 2004; Champion, 2003). Within the Korean immigrant community, for example, Kwon (1997) found that Churches with highly developed structural linkages through cell group evangelical ministries facilitated business contacts among Korean parishioners. And, as Galbraith et al. (2004) note, even traditional, well-established Catholic congregations are instrumental in transferring both financial and intellectual capital to the newly arrived entrepreneurial Hispanic members of the Church.

While appearing to support the Weberian position, a common criticism leveled against this line of empirical research is that it typically does not capture important attitudes toward work, money, markets, and the institutions of both capitalism and religion as they relate to economic activity. It is legitimately argued that the calculus that ties religious orientation to entrepreneurial activity must also include perceptions and beliefs about how markets and economic institutions function within this entrepreneurial context, and whether these perceptions and beliefs then influence economic behavior (Woodrum, 1985; Marshall, 1980; Kwon, 1997; Caterine, 2001; Deutschmann, 2001).

### Religious orientation and spirituality

It is important to note that the Weberian derived discussions of religious orientation, ethical rationality, and economic achievement is somewhat different from parallel discussions regarding the notion of spirituality, and its role in the workplace. Whereas religious orientation typically involves discussions of belief systems, and the depth and range of personal, familial, and work related commitment to those systems, spirituality is typically seen as a somewhat broader concept of developing an individual as a “whole person” (Brandt, 1996). Religiosity therefore has an element of acting on one’s belief system or religious tradition, which, in turn, results in concepts such the “protestant work-ethic.” Spirituality, however, is often thought of as a personality dimension involving the beliefs and values that pervade one’s perceptions on life (Dollahite, 1998; Elkins et al., 1998; Piedmont and Leach, 2002; Maltby and Day, 2001, 2003). To many writers, religion also has a sense of community-based activity and ritual, while spirituality represents the individual experience (Hodge, 2003; Canda and Furman, 1999).

The topic of “spirituality” in an economic or workplace setting has received increasing attention in the literature, particularly in the human resources and personnel area (Kahnweiler and Otte, 1997; Leigh, 1997; Mitroff and Denton, 1999; Briskin and Peppers, 2000). But while many authors attempt to distinguish between religiosity and spirituality, with religiosity often viewed more as a structured, ritualistic, or formal community-based process, there remains substantial debate as to whether or not this is a somewhat artificial distinction (Hill et al., 2000; Emmons and Paloutzian, 2003; Smith, 1991). Rose (2001, p. 197), for example, suggests that “the only difference between the terms ‘religion’ and ‘spirituality’ maybe one of breadth.” In fact, content analysis of articles employing the concepts of religiosity and spirituality appears to indicate a high degree of overlap between the two concepts (Scott, 1997; Harris, 2003). This overlap is particularly evident in the “intrinsic” dimension of religious orientation (Allport, 1966; Hodge, 2003). In general, however, during the past decade spirituality has come to be viewed as a broader concept than religious orientation or religiosity.
Historical context of market justice

The debate between religion and market justice has a long theological tradition within the Western world. Most early pricing theories took a subjective, or intrinsic worth view of value. This view of justice in market exchange has its roots in Aristotelian thought, which argued for an application of commutative justice. With respect to pricing this means that the “just price” of a good or service should be in proportion to its intrinsic worth to mankind, thus the classic “diamond versus water” paradox often discussed in medieval economic treatises – water has more “intrinsic” usefulness, but diamonds are more expensive. From a production point of view, the “just price” argument moved in the direction of reflecting the cost of labor and material inputs, which ultimately led to the medieval debates surrounding fair interest rates and usury as well as the merits of secular and religious institutions that enforced certain pricing behaviors. But while many pre- and post-Scholastic theologians argued for moral control over markets to encourage “just” pricing, other early scholars, such as Pierre de Jean Olivi (1248-1298) began to recognize the fundamental importance of utility and scarcity in the notion of value.

With the expanding international trade routes, the accumulation of excess capital in the merchant classes, and the brewing reformation debates, the theological and economic issues of just prices and wages, entrepreneurship, and proper return for equity investment were brought to a focal point by the sixteenth century. By this time a “just price” was beginning to be viewed by many economic theologians purely as a function of common market forces, or as Domingo de Soto (1494-1560) noted, “the price of goods is not determined by their nature but by the measure in which they serve the needs of mankind.” Thus, value does not reside in some inherent quality or input cost of a commodity as many early theologians posited but rather in the perceptions and decisions of consumers, with the market mechanism determining value at any particular point in time – thus the marketplace becomes, by definition, a just process of allocation and pricing. Even Thomas More struggled with these market justice and moral pricing issues in his highly influential Utopia published in 1516.

For many, the final split in perceptions of market justice occurred with the early seventeenth century Spanish Catholic School of Salamanca. This line of economic thought concluded that the estimation of usefulness varies from person to person, and that the market place is ultimately where the just price for a good or service will be determined, regardless of the foolishness of individual preferences. This concept of market justice and value continued through Adam Smith (1723-1790) to the nineteenth century Austrian economists, and set the foundation for much of modern pricing and preference theory, and as many argue, the basis for modern capitalistic thought (Rothbard, 1995; Sirico, 1998).

However, not all agreed with the market-based justice arguments of the Salamancans, and the later Scottish and Austrian schools of economic theory. The path of economic theory that conceptually separates a “just” price (derived either from an intrinsic value of something or the sum of its inputs) from the “market” price (derived from supply and demand) continued after the sixteenth century with various Papal edicts, and remains strong in various theoretical forms in the twenty-first century, particularly among economic humanists, liberation theologians, Catholic sociologists, and Marxian oriented thinkers. The inevitable conclusion of this approach is that there is a moral aspect of markets, and thus markets need to be regulated in
a moral manner by moral institutions. Of course, the definition of “moral” in this context varies depending upon an individual’s philosophical grounding. However, regardless of the definitional problem surrounding “morality,” this basic theme has provided the foundation for much of the social justice and social economic thought developed during the last two centuries. Another line of thought that still leads to a social justice orientation of marketplace behavior is that while markets could possibly be just and fair in theory, they simply cannot be just and fair in practice.

The study

Measures

To explore some of these issues we designed a structured questionnaire using previously validated measures to record religious orientation and orientation toward self-employment. Since, this study is intended to use a measurement of religiosity per se, not religious behavior or core religious belief set (such as Christianity v. Islam), a measure of an individual’s dedication, commitment, and involvement in his/her religion was used. In essence, while acknowledging the importance of the religiosity-spirituality definitional debate, due to the nature of this study we are taking a more classical Weberian orientation of religious “enactment.” However, it is our belief that many of the same arguments would also apply from the spirituality perspective.

In particular, we used Allport and Ross’s (1967) “religious orientation scale.” Allport’s (1966) model of contrasting religious orientations identifies two major dimensions of religiosity, intrinsic and extrinsic, and remains one of the most commonly used instruments to measure religious orientation. While recognizing that the original Allport and Ross scales have been criticized on several levels, particularly in that they appear to combine belief, behavior, and motivation (Gorsuch and McPherson, 1989; Burris, 1999; Hill and Hood, 1999; Hodge, 2003), the vast majority of researchers (Bergin, 1991; Boadella, 1998; Donahue, 1985; Kahoe, 1974; McNeill, 1988; Hodge, 2003) continue to support the basic idea that there are these two fundamental types, or dimensions, of religiosity.

In the Allport (1966, p. 455) model, the intrinsic orientation is directed, “toward a unification of being, takes seriously the commandment of brotherhood, and strives to transcend all self-centered needs.” According to this perspective most religious teachings emphasize unity and brotherhood, but those individuals that are religiously motivated for intrinsic reasons will typically incorporate these religious tenets within their daily life (Frankel and Hewitt, 1994). Allen and Spilka (1967) agree and describe intrinsic religiosity as “committed religiousness,” while Bergin (1991) views intrinsic religiosity as an internalized belief system that is followed “regardless of social pressure.” Boadella (1998) sees intrinsic religiosity as the “the basic, simple message at the heart of a religion.” It is this “intrinsic” dimension of religious orientation that is typically viewed as overlapping with the broader notion of spirituality (Scott, 1997; Harris, 2003). Or as McNeill (1988) points out, intrinsic religiosity is directly associated with “healthy religiousness.”

The counterpart to intrinsic religiosity is extrinsic religiosity. The extrinsic orientation is, “useful for the self in granting safety, social standing, solace, and endorsement for one’s chosen way of life” (Allport, 1966, p. 455). It has been suggested that brotherhood and unity become less important to the extrinsic individual’s own personal beliefs and values, while conformance to community-based norms increases in importance. A number of researchers, such as McNeill (1988) and Bergin (1991) go
even further and describe extrinsic religiosity as the use of religion to gain social acceptance or reward, finding it to be associated with various pathological behaviors. But while most writers tend to view extrinsic religiosity somewhat negatively, or at best dogmatic and anti-humanist, others (Boadella, 1998; Galbraith and Galbraith, 2004) suggest that this dichotomy may be somewhat simplistic. For example, some characteristics that are typically associated with “extrinsic religiosity” also probably contain many positive elements of ritual and community, providing the discipline required for increasing levels of spirituality as described by various monastic leaders and mystics such as Benedict of Nursia (480-547), Bernard of Clairvaux (1090-1153) and Ignatius of Loyola (1491-1556).

In addition, from an entrepreneurial point of view there may be another positive aspect of an extrinsic orientation. We argue that the adherence to certain dogmas, church attendance, and the specific community-based parameters of behavior often associated with the extrinsic dimension of religious orientation may also be an important source of economic and social capital for entrepreneurs (Candland, 2000). By standardizing behavior and social contracts, the transaction costs of intra-sect exchange are reduced, social capital is enhanced, and efficient economic “clubs” can form (Galbraith, 2004). Recent research suggests that some of the “standardizing” elements commonly associated with the extrinsic dimension of religious orientation, have in fact, benefited both traditional groups such as the Mennonites (Ryman, 2004), and early stage Catholic entrepreneurs in immigrant Hispanic populations (Galbraith et al., 2003).

Given the interest in these two dimensions, we use the revised Allport and Ross (1967) scale with intrinsic religious orientation measured as an eight-item scale ($\alpha = 0.93$), and external religious orientation measured by a nine-item scale ($\alpha = 0.73$).

For orientation toward self-employment we used a five-item scale ($\alpha = 0.86$; Singh and De Noble, 2003). This measure collects opinions and personal attitudes about self-employment and entrepreneurship. In addition, we collected information about actual self-employment as well as age and gender.

We are also interested in attitudes about fairness and justice in market exchange. To measure this construct we developed a five-question instrument. Each of the five questions was designed to address a different aspect of market justice and exchange fairness discussed in the moral markets literature. These were:

- I believe that the proper price of goods and services is determined in the market place,
- I believe that proper compensation of an individual is determined in the market place,
- I believe that the market place is a fair place to trade,
- I feel confident that I would not be cheated in the market place,
- I do not trust the market place to set price and compensation.

Examination of the correlation matrix, plus a factor analysis indicated that each question addressed a fundamentally different dimension of market justice and exchange fairness.

**Hypotheses**

There is substantial prior empirical evidence to suggest that intrinsic religious orientation is associated with social justice issues and concerns as well as various psychological characteristics such as empathy and altruism, whereas extrinsic religious orientation is typically found to be opposite, or in many cases, not associated at all (Allen and Spilka, 1967; Bergin, 1991; Zita and Chamberlain, 1992; Boadella, 1998). Therefore, we hypothesize that individuals with strong intrinsic religious orientation
will have negative opinions about the justice and fairness of market exchange, while individuals with strong extrinsic religions orientations will have more positive opinions about market behaviors.

In addition, we expect that individuals that either own their own business, or have positive views toward self-employment will have more positive opinions about market justice. Because we are primarily interested in the relationship between religious orientation, self-employment and opinions about market fairness and justice, gender and age are included primarily as control variables for this study.

We are also interested in examining the various explanatory factors that lead to entrepreneurial behaviors. With respect to religiosity, we hypothesize that higher levels of intrinsic religiosity will lead to higher levels of entrepreneurial behavior once opinion regarding market justice has been controlled for. That is, while individuals with strong intrinsic religious orientation may have more negative opinions about the justice and fairness of market exchange, we hypothesize that they are still more likely to start a business, or have entrepreneurially inclined attitudes since these individuals tend to demonstrate a greater sense of positive self-determination and esteem (Zita and Chamberlain, 1992; Frankel and Hewitt, 1994), personality characteristics often associated with entrepreneurial behaviors. However, the conforming nature of extrinsic religious orientation may, by definition, suppress entrepreneurial intentions and behaviors.

Sample
We drew our sample from senior level business students at a large public university in a major metropolitan area. Business students were specifically chosen since we were primarily interested in entrepreneurial expectations and orientation while controlling for business education level and content. Several different types of business classes were surveyed, including traditional management and marketing courses. A total sample of 141 usable responses was obtained. Since, this particular university tends to be a commuter college, only 44.6 percent were of traditional college age (less than 23 year old), with ages ranging between 19 and 46. Approximately, 8 percent of the sample owned their own business.

Analysis
To determine a typology of opinions about market justice and fairness, a cluster analysis on the five items of market exchange attitudes was performed. Utilizing a \( k \)-means cluster analysis, with distances computed using simple Euclidean distance to maximize both intra-cluster similarity and inter-cluster differences, a two-cluster solution was estimated. Table I shows the results of the cluster analysis.

Examination of the cluster characteristics revealed that cluster 1 (which accounted for about 71 percent of the sample) had a significantly more positive view of market justice and fairness than cluster 2 (29 percent of the sample), which tended to view market exchanges much more suspiciously. It is important to note that while this higher sample percentage holding a “positive view” of market justice may be typical of the overall attitudes of business students, it may not, in fact, be reflective of college students in general, or the overall population. It is, however, interesting to note that over one-quarter of the business students sampled for this study had rather negative attitudes toward market justice.
To examine the hypothesis regarding perceptions of market justice, using the cluster membership (opinion of market exchange justice) as a dichotomous dependent variable (positive v. negative view of the market place), a binary logistic regression model was estimated using intrinsic religions orientation, extrinsic religious orientation, attitude toward self-employment, actual self-employment, gender, and age as explanatory variables. Three different models were estimated. The first represented a full model of all the explanatory variables. However, because there was a natural correlation between attitudes toward self-employment and actual self-employment, the second and third model was estimated with one or the other, but not both, of these variables. Table II shows the results of this analysis.

In general, the estimated full model appeared quite robust. Although there was a significant positive correlation between opinion of self-employment and actual self-employment, dropping either of these variables from the model did not significantly alter the estimated model. In our estimated model, given the way the market justice variable was scored, a positive estimated coefficient is associated with low opinion of justice (low justice is scored a 2; high justice is scored a 1).

Table I.
Opinion of high v. low justice in market exchange: cluster analysis

<table>
<thead>
<tr>
<th>Variable of market fairness</th>
<th>Mean values</th>
<th>F-statistic (significance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief in price of goods determined in market place</td>
<td>4.09</td>
<td>72.706 (0.000)</td>
</tr>
<tr>
<td>Belief in price of labor determined in market place</td>
<td>3.46</td>
<td>25.073 (0.000)</td>
</tr>
<tr>
<td>Belief in fairness of market place to trade</td>
<td>3.84</td>
<td>53.560 (0.000)</td>
</tr>
<tr>
<td>Confident won’t be cheated in market place</td>
<td>2.68</td>
<td>10.476 (0.002)</td>
</tr>
<tr>
<td>Lack of trust in market place to set prices</td>
<td>2.53</td>
<td>35.878 (0.000)</td>
</tr>
<tr>
<td>Descriptive title</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High justice in market exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low justice in market exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of sample</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>Internal religious orientation</td>
<td>0.423 **</td>
<td></td>
</tr>
<tr>
<td>External religious orientation</td>
<td>-0.496 *</td>
<td></td>
</tr>
<tr>
<td>Perception of self-employment</td>
<td>-0.036</td>
<td></td>
</tr>
<tr>
<td>Actual self employment</td>
<td>-1.582 *</td>
<td></td>
</tr>
<tr>
<td>Gender (1 = male, 0 = female)</td>
<td>0.213</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.028</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.064</td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>141</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *p < 0.10 one-tailed; **p < 0.05; ***p < 0.01

Table II.
Binary logistic regression model: opinion of market exchange justice

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Coefficients</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.001</td>
<td>-0.117</td>
<td>0.469</td>
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</tr>
<tr>
<td>Internal religious orientation</td>
<td>0.423 **</td>
<td>0.420 **</td>
<td>0.371 **</td>
<td></td>
</tr>
<tr>
<td>External religious orientation</td>
<td>-0.496 *</td>
<td>-0.495 *</td>
<td>-0.453 *</td>
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</tr>
<tr>
<td>Perception of self-employment</td>
<td>-0.036</td>
<td>-</td>
<td>-0.137</td>
<td></td>
</tr>
<tr>
<td>Actual self employment</td>
<td>-1.582 *</td>
<td>-1.619 *</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Gender (1 = male, 0 = female)</td>
<td>0.213</td>
<td>0.208</td>
<td>0.167</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.028</td>
<td>-0.027</td>
<td>-0.033</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.064</td>
<td>0.064</td>
<td>0.038</td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *p < 0.10 one-tailed; **p < 0.05; ***p < 0.01
Overall, our hypothesis regarding religious orientation is statistically supported. In each of the three models, intrinsic religious orientation is negatively related to a positive opinion of justice and fairness in the market, whereas extrinsic religious orientation is positively related to a higher opinion of market justice. Our hypothesis regarding self-employment is only partially supported, however. As hypothesized, actual self-employment is statistically significant, and positively associated with a high opinion of market justice. However, self-employment orientation, (though estimated in the hypothesized direction), was not statistically significant in any model. In addition, neither gender nor age showed any statistical significance in the model.

While the estimated models were statistically significant and supported our hypotheses, the estimated relationship was fairly weak in explanatory power. The Nagelkerke $R^2$ for the full model, for example, was only 0.064. While the Nagelkerke $R^2$ attempts to provide a logistic analogy to $R^2$ in OLS regression, it must be considered more of a pseudo $R^2$, and cannot be interpreted directly as the percentage of the variation explained as in ordinary regression.

To examine attitudes toward self-employment, two additional regression models were estimated. The first model employed perceptions of self-employment as the dependent variable, with gender, perception of market exchange justice, age, and the two religious orientations as independent variables. The second model used actual self-employment as the dependent variable, with the same independent variables. For both of these models, the OLS estimations are presented in Table III.

For perceptions of self-employment, although the estimated model again showed relatively weak explanatory power ($R^2 = 0.048$); the model does support the hypothesis that higher scores on internal religiosity are positively related to perceptions of self-employment. Gender was also significant in this model, with males having more positive perception of self-employment.

The second estimated model using actual self-employment produced a somewhat better model, with a substantially higher $R^2$ and an ANOVA significance of $p < 0.025$. Like the perception of self-employment model, intrinsic religiosity was also positively related to actual self-employment. In addition, as hypothesized extrinsic religiosity was negatively related to actual self-employment. The variable of market justice was also statistically significant in this second model; as hypothesized; individuals

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Coefficients Perception of self employment</th>
<th>Coefficients Actual self employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.329***</td>
<td>0.011</td>
</tr>
<tr>
<td>Internal religious orientation</td>
<td>0.157**</td>
<td>0.059***</td>
</tr>
<tr>
<td>External religious orientation</td>
<td>-0.077</td>
<td>-0.050*</td>
</tr>
<tr>
<td>Perception of market justice</td>
<td>-0.057</td>
<td>-0.073**</td>
</tr>
<tr>
<td>Gender (1 = male, 0 = female)</td>
<td>0.266**</td>
<td>0.058*</td>
</tr>
<tr>
<td>Age</td>
<td>-0.006</td>
<td>0.003</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.048</td>
<td>0.091</td>
</tr>
<tr>
<td>N</td>
<td>141</td>
<td>141</td>
</tr>
</tbody>
</table>

Table III. OLS regression models: self-employment

Notes: * $p < 0.10$ one-tailed; ** $p < 0.05$; *** $p < 0.01$
with more positive perceptions of market exchange justice are more likely to be self-employed. In the second model, gender is also statistically significant, with males more likely to be self-employed.

Conclusion
This study offers a preliminary examination of various relationships between opinions of market justice, religious orientation, and attitudes toward self-employment. Using a limited sample of undergraduate business students, the results of this Weberian grounded study suggest that perceptions of market justice, religious orientation and attitudes toward self-employment are, indeed, related. Several specific conclusions are suggested.

First, there does seem to be a relationship between religiosity and perceptions of market justice, and this relationship varies depending on the locus of religious orientation. Individuals with high intrinsic religious orientations tend to be more suspicious of justice and fairness in the marketplace, whereas extrinsic religious orientation is positively related to a higher opinion of market justice. Second, both religiosity and attitudes toward market justice appear to be related to both the perception of self-employment and actual self-employment. Internal religious orientation, which is often associated with individual self-determination and esteem, appears to encourage both anticipated and actual entrepreneurial activity, while the more conforming nature of external religious orientation appears to discourage entrepreneurial activity.

Taken together, the results point to an intriguing theoretical and empirical conclusion – individuals that score high on intrinsic religious orientation, which by our analysis is associated with negative perceptions of market-based justice, may be more likely to “internalize” the potential market-based externalities associated with their moral beliefs through strategies of self-employment – in juxtaposition, Demsetz (1967) makes a similar internalization of externalities argument with regard to property-rights. In other words, by self-employment there is more internalized control over income, work-standards, worker compensation, employee relations, charitable giving, and product quality than simply being an employed bystander. In essence, the economies of moral organization substitutes for the cost of individual moral externalities within the boarder marketplace or large corporate environment – a thesis that underlies the “economic ethics” of the Focolare and other movements (Gold, 2003). This may also help to explain why modern North Europe, which is often considered more of a “non-theist” recent culture, has a declining rate of entrepreneurial activity, with business birth-rates one-half to one-third of that in the USA. Under these conditions the moral component inherent in the theory of the firm becomes particularly relevant (Garvey, 2003).

While the results of this study are interesting and thought provoking, clearly, this study can only be considered preliminary. Given the relatively weak explanatory power of the estimated models, and the limited sample of undergraduate business students, much more research in this area needs to be done. However, the study does suggest a complex, and perhaps, significant interaction between opinions of market justice, religious orientation, and self-employment that has not been previously investigated in the literature.
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