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SOCIAL ENTREPRENEURSHIP: A GLOBAL MODEL FOR EVALUATING LONG-TERM IMPACT

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ABSTRACT

How can social entrepreneurs across the globe ensure their long-term viability and impact? Researchers argue that the key to sustainability is demonstrating enduring results, i.e., an ongoing social value proposition delivered with fiscal responsibility. Financial audits aside, this belief implies a need for a temporally-based, social value measurement system. A review of the literature on performance measurement systems in general, and social value measurement in particular, yields a wide range of results and few conclusions, other than that the measurement of social value is challenging but useful. A cross-case comparison of four organizations tests a model proposed for the measurement of long-term impact. The dimensions encompass the externalities of the social value delivered by these enterprises as well as the fiscal foundation for its sustainability. Implications for application and further research about this theory-building and multi-dimensional and global approach are discussed.

For social entrepreneurs there has always been the challenge to evaluate program effectiveness and to address stakeholders' expectations. In today's hyper-connected world, organizations are held to increasing standards for accountability and transparency. Beyond financial and operational measures, though, organizations in this sector are challenged to demonstrate their ongoing social value. Dees (1998, p. 60) notes the pressures on social entrepreneurs to become sustainable through the introduction of commercial activity and suggests a spectrum of social enterprises from the purely philanthropic to the purely commercial. In his 2003 work with Anderson, Dees (2003, p. 16) coins the term "sector-bending... a wide variety of approaches, activities, and relationships that are blurring the distinctions between nonprofit and for-profit organization." Never easy, the competition for time and money is increasingly challenging.

Moreover, Porter and Kramer (2011, pp. 64-65) argue that, "the purpose of the corporation must be redefined as creating shared value, not just profit per se. ... Around the world, societal needs, not just conventional economic needs, define markets, and social harms can create internal costs for firms." For-profit businesses are interdependent with their communities and stakeholders, which creates more pressure on non-profits (K'nIfe & Haughton, 2013).

The challenge to be accountable, transparent, and sustainable—while delivering programs and services, coordinating volunteers, managing cash flow, and dealing with the wealth of challenges that a social entrepreneur can face in a day—can arguably be accomplished through a performance measurement system. Is there a way to capture the right metrics in the right way at the right time that does not burden the social entrepreneurial organization? And, that are meaningful on predictive of a long-term existence?

In the sections that follow, the motivation for the research is developed further, explaining how performance measurement can be used to the advantage of the social entrepreneur, anywhere around the world. The literature review examines performance

measurement systems, social value measurement, and the capture of long-term effects known as externalities. Based on this review, a logic model is proposed and validated with empirical data. The approach and results are presented, followed by a discussion of implications of the findings.

MOTIVATION AND BACKGROUND

Investors and volunteers of the social enterprise, worldwide, are the metaphorical lifeblood that keeps these organizations alive. The intentions and commitment levels of individuals vary, but ultimately it can be argued that the investment of money and/or time is intended to have an impact. So as these organizations compete for these scarce resources, how can they demonstrate their impact? Often, they use an emotional appeal, such as video of a hungry child foraging for bits of food in a faraway land. They might take the anecdotal approach, such as highlighting the youth who participated in the after-school program and completed his/her education. Sometimes, they try to use measures the success of a group of women turning localized crafts into a profitable venture (Global Girlfriends).

Measures are increasingly expected when trying to attract grants from foundations or governments. Bill Gates, reporting on the Gates' Foundation work, states that he has "been struck again and again by how important measurement is to improving the human condition" (Levy, 2013). In force as of January 2013, The Social Value Act in the United Kingdom is intended to "ensure that, when awarding contracts, commissioners should consider not just costs aspects of a proposed project or bid but its overall value to the community" (Arvidson & Kara, 2013).

In this context, we define social value broadly as a benefit to humankind, including health, education, quality of life, and ecological improvements.

LITERATURE REVIEW

According to Mulgan (2010), metrics used to measure social impact have proliferated over the past several decades, resulting in hundreds of competing methods for calculating social value. In our own review of the literature on social value metrics, traditional metrics, and not-for-profit metrics (c.f., Kaplan & Norton, 1992, 2001; Crandall, 2003; Wall et al., 2004; Alfrević et al., 2005; Somers, 2005; Urrutia & Eriksen, 2005; Yang et al., 2005; Bull, 2007; Kocakülâh et al., 2007; Rotheroe & Richards, 2007; Epstein, 2008; Herman & Renz, 2008; Niven, 2008; Dodor et al., 2009; Gomes & Liddle, 2009; McLoughlin et al., 2009; Carton & Hofer, 2010; Ashoka, 2011); we found that to be the case.

Moreover, many of the measurements lacked some or all of the characteristics of a good measurement system (Brennan, 2011, p. 30): relating the desired results to the construct being measured; using valid indicators, triangulation, and time series to measure the construct; or being subject to periodic audits, even when large, reputable organizations are involved.

For example, the worldwide Ashoka foundation provides funding to Ashoka Fellows based on five criteria (2011) that, although admirable, are difficult to measure and compare results on a period-over-period basis (www.ashoka.org):

1. The Knockout Test: ... a new solution or approach to a social problem—that will change the pattern in a field, be it human rights, the environment, or any other. We evaluate the idea historically and against its contemporaries in the field, looking for innovation and real change potential.
2. Creativity: Successful social entrepreneurs must be creative both as goal-setting visionaries and as

- problem solvers capable of engineering their visions into reality. Creativity is not a quality that suddenly appears—it is almost always apparent from youth onward.
3. Entrepreneurial Quality: [A] defining characteristic, first class entrepreneurs [are] leaders who see opportunities for change and innovation and devote themselves entirely to making that change happen. These leaders often have little interest in anything beyond their mission, and they are willing to spend the next ten to fifteen years making a historical development take place.
 4. Social Impact of the Idea: Ashoka is only interested in ideas that it believes will change the field significantly and that will trigger nationwide impact or, for smaller countries, broader regional change.
 5. Ethical Fiber: Social entrepreneurs introducing major structural changes to society have to ask a lot of people to change how they do things. If the entrepreneur is not trusted, the likelihood of success is significantly reduced. Ashoka asks every participant in the selection process to evaluate candidates for these qualities rigorously. To do so often requires one to resort to instinct and gut feelings, not just rational analysis.

While these constructs are not directly linked to Ashoka's desired result, "a world that responds quickly and effectively to social challenges, and where each individual has the freedom, confidence, and societal support to address any social problem and drive change." Ashoka does use a form of triangulation, in that it involves multiple people in the selection process, and seems to perform regular audits.

With a mission to highlight and advance leading models of sustainable social innovation, the Schwab Foundation's annual recognition of the most accomplished social entrepreneurs around the world seems to be aligned with the desired results. In the evaluation process, their "eminent jury" uses three criteria (Schwab Foundation, 2012):

1. Innovation: The candidate has transformed traditional practice through an innovative product, service, approach, or a more rigorous application of known technologies and ideas.
2. Sustainability: The organization is achieving some degree of financial self-sustainability through revenues or is engaged in creating mutually beneficial partnerships with business and/or the public sector.
3. Direct social impact: The candidate implements the initiative directly with poor or marginalized beneficiaries. Impact manifests itself in quantifiable results.

Like Ashoka, the Schwab Foundation also uses multiple perspectives, which arguably gives the subjective evaluations greater validity. Temporal measures are not evident in this approach, nor does there seem to be long-term accountability (e.g., an audit).

On a more localized level, we found several cases in which a balanced scorecard (BSC) approach was applied but used different metrics. Kaplan and Norton, the originators of the BSC (1992), suggest that applying the scorecard to nonprofits and government organizations is often challenging because beyond mission, vision, and a list of programs, these types of organizations have difficulty clearly defining their strategy, (2001, pp. 97-98). As Bull and Crompton (2006) note, the applicability of a BSC model to non-profit organizations has been criticized for its lack of measures related to social performance, environmental concerns, or community issues. The BSC's usefulness within small companies is also questionable (Deakins et al. 2002).

Typically, a BSC can be the cornerstone to a good measurement system tying an organization's strategic plan (i.e., the desired results) to the measures, using multiple measures for a performance characteristic, and providing a structure that facilitates audits. While the conventional BSC is considered "balanced" in that it combines internal and external perspectives and uses short- and long-term characteristics; it falls short when measuring social value or true economic impact.

Similarly, Bagnoli and Megali, (2011, p. 16) address the topic of measuring performance in social enterprises, acknowledging that social enterprises will need to implement a control system for multidimensional management. The proposed framework had three dimensions: economic-financial, social-effectiveness, and legitimacy. For the social-effectiveness dimension, they identified the following performance measures (p. 162):

1. Evaluation of the sustainability of resources and production methods (environmental and social);
2. Output in terms of “physical” results: the number of services, actions, and so on;
3. Outcome indicators on the basis of concrete actions and in relationship to external benchmarks;
4. Evaluation of economic and social impact.

While we do not argue with these suggestions, we are still left with the questions of how, what, and when to specifically measure. As Paton (2003, p. 3) notes, “performance may sound ... unitary, stable and objectively real ... but it is far more elusive than that.”

Data collection can be costly and time consuming. An organization concerned with delivering social value does not want to waste resources capturing data that are not accurate, valid, or useful. Therefore, we are not focused on “how is social value measured,” but “how can—or should—social value be measured (Griffiths et al., 2012)?” Our research question then asks: how can social entrepreneurs reasonably demonstrate enduring impact through social value creation and financial viability?

Capturing Externalities

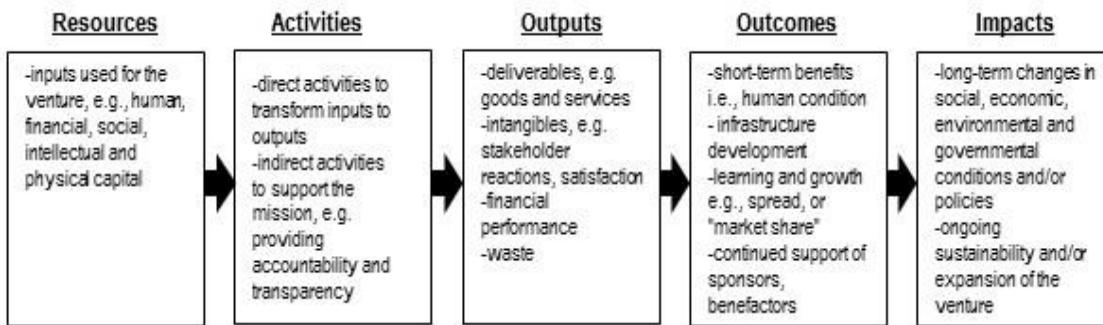
First, impact can be viewed as the “ripple effect” that starts with the outputs, the goods and/or services provided by the social enterprise. Most measurement systems focus on the outputs. There are externalities (i.e., gains in the welfare of one party resulting from an activity of another party) without there being any compensation for the latter, which are not captured in typical financial assessments (www.businessdictionary.com).

York and Venkataraman (2010, p. 459) note that, “Some have argued for viewing environmental issues as examples of market failures... the invisible hand of the market will produce externalities which render the destruction of public goods.” From a positive externality perspective, Epstein (2008, p. 163) stresses the importance of the economic perspective. He states that “any social and environmental impacts may appear to have no market consequences and no financial effect, but many of the externalities are internalized in future periods and do affect the operations and profitability of the firm in the long run.” He (p. 165) also distinguishes between outputs (deliverables and stakeholder reactions) and outcomes (long-term corporate financial performance). Nicholls (2005) suggests longitudinal social metrics, such as improvement in income or welfare, standard of living for individuals and/or communities, and psychological or developmental benefits, while acknowledging measurement of such is problematic.

We found our model for capturing the data in the literature on corporate social responsibility, specifically, in the arena of environmental sustainability. Because of the tangible nature of ecological impact, the extant literature on metrics is more robust than that for strictly social impact. From this work, we culled two important ideas toward the theoretical foundation of our work: providing the constructs and variables of interest as well as some sense of their relationships (Haugh, 2012, p. 8).

McLoughlin et al. (2009, pp. 164-165) argue “that when an organization has a discernable impact on local GDP or employment, with multiplier effects, then the financial impacts fail to capture these effects... economic impact ... is a valid separate impact category in its own right.” Their approach to conceptualize impact builds on the Whaley (1979) logic model, as shown in Figure 1. Resources are used to perform activities that result in outputs, then from the outputs, outcomes can be identified, and then finally the impact of the outcomes can be evaluated in the aggregate.

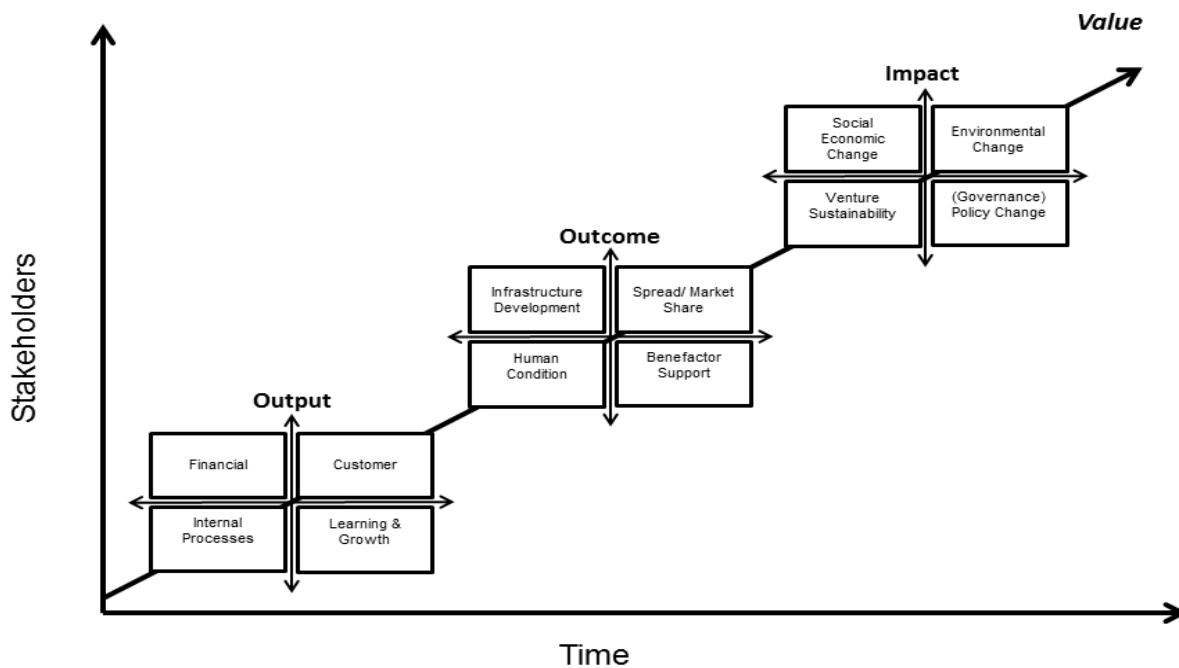
**Figure 1
IMPACT MODEL**



Approach

Our methodology was inspired by the need to incorporate the short- and long-term perspectives of the balanced scorecard, the cost avoidance insight from sustainability measures, and the economic dimension of externalities into a social impact instrument. The balanced value matrix (BVM) presented in Figure 2 (Authors, Year) provided a framework to incorporate the measurement of externalities by applying the logic model (Figure 1) to a familiar business practice, the balanced scorecard. In earlier work, we illustrated the BVM framework with social enterprise archetypes (e.g., a rural African girls' school, global vision and hearing medical clinics) to demonstrate its underlying validity.

**Figure 2
THE BALANCED VALUE MATRIX**



This three-dimensional framework, rather than a two-dimensional scorecard, provided the vehicle to capture the “ripple” or “multiplier” effects of outcomes and impacts. As Lumpkin and Brigham (2011) assert, a long-term orientation can help to achieve goals other than financial returns.

We worked with four different organizations to test for ongoing social value or impact. In essence, this phase of our research could be viewed as experiential learning, in the vein suggested by Kickul et al. (2010, p. 660): “get real... go deep... and get feedback.” We needed to better understand the social value proposition by capturing data in real organizations. Rather than a broad, large-scale study, we chose deep immersion with cross-case comparison, and wanted participants’ feedback to create a model and methodology. The four organizations operate in different size markets and target different social needs. Eisenhardt (1989) noted that the selection approach is appropriate as the research meets the criteria of “extend emergent theory or fill theoretical categories” (p. 538).

This cross-case analysis evaluated output, outcome, and impact measures in order to demonstrate the social value of the operations. To determine sample selection, we considered that the nature of the output - tangible or intangible - could have an impact on ease of measurement. We also thought that the size of operation in terms of its market could be related to the level of sophistication in the data gathering and processing. Accordingly, we selected two organizations with tangible and intangible outputs, with two each from a mid-sized market and a large market, resulting in the four separate cases. This selection allowed us to both minimize and maximize the differences between groups, allowing us to perform the following actions (Glaser & Strauss, 1967, p. 58):

1. Verify usefulness of categories [in the model]
2. Spot fundamental uniformities of the greatest scope
3. Spot fundamental differences under which [the usefulness of the model] vary
4. Delimit the scope of [the model].

Once initial contact was made with a prospective organization, we identified a meeting time to discuss the feasibility of his/her participation. In the meeting, details about the study were provided and asked for the participant support was requested in the following ways:

1. Meeting with the investigator to understand the needs, objectives and performance of the organization in the areas of output, outcome and impact (Authors, Year)
2. Identify sources of data for the requested information and/or provide (up to one year of) historical data to use in the analysis.
3. Provide feedback on the results as to whether:
 - a. the output/outcome/impact measurement is valid,
 - b. the measurement system is useful to the organization and
 - c. the data is useful in attracting or assigning additional funding or external support.

Once we had four confirmed participants (Table 1), we followed a consistent approach to conduct our study. We designed the methodology to be flexible, by allowing for participants' preferences on face-to-face or computer-mediated communications.

Table 1
DESCRIPTION OF PARTICIPATING ORGANIZATIONS

Case	Description
Major Market Intangible Need (MajInt)	The participant from a major market organization meeting an intangible social need is an expanding not-for-profit committed to enhancing and improving conservation. This relatively new organization with only 7 years of history has grown steadily and productively in its mission to create an "engaging and educational experience inspiring stewardship in conservation." (website) The organization was established primarily with funding from an individual with additional contributions from sponsor companies. As with most not-for-profits, volunteers play a critical role. In this case over 3000 volunteers support the 25/7 operation of the organization. In this case the role is to inform and educate the public on the needs and benefits of conservation in an entertaining setting. MajInt provides a leading edge facility and research experts necessary to achieve the stated mission.
Major Market Tangible Need (MajTan)	The major market organization having a tangible social outcome is an affiliate of an international not-for-profit agency. Their mission is to help ensure "every person canlive and grow into all that God intends." (website) This mission is accomplished through improving the living conditions of families. MajTan has been hard hit by the downturn in the local economy and much of the recent focus has been on ensuring organization viability. Their retail outlet has recently been acquired by the international parent organization, and there have been discussions regarding mergers with nearby sister organizations. Corporate donors are the primary contributors of financial support, material donations and volunteer labor. MajTan's strong community presence also attracts support from faith-based organizations and individuals in and around the community.

Table 1
DESCRIPTION OF PARTICIPATING ORGANIZATIONS

Case	Description
Midsize Market Intangible Need (MidInt)	Our participant from the midsize market addressing an intangible need is a well-established program to cultivate a network of people committed to servant leadership and community development. From its website, its mission is “bringing people of diverse backgrounds and encouraging them to be leaders in [location]. Our vision is to create ‘greater leaders for tomorrow.’” In existence for more than 30 years, it has more than 900 graduates from its yearlong program of educational meetings, team-building exercises, and service projects. As a not-for-profit subsidiary that is part of the local Chamber of Commerce, it has been sustained largely through the energies of the Director, who is responsible for its operations as well as ensuring its financial sustainability through tuition and sponsorships. Anecdotally, the program is highly regarded and respected.
Midsize Market Tangible Need (MidTan)	Like the MajTan participant, this organization is an affiliate of an international not-for-profit agency that provides access to tangible improvements in families’ quality of life. While the tangible output is easily measured, it is clear that there is a ripple effect with longer-term consequences. The international agency has established a program to recognize “affiliates of distinction” which is an organization-wide measurement system to help track, improve and reward performance.

To be judicious in our use of their time, we incorporated publicly-available data wherever possible. In addition, we determined that using the data from the last complete year would ensure more validity (and would be more easily compiled). We presented the participants with a draft of the data capture. In addition, the availability of the requisite data was confirmed to one of the following characteristics:

1. Easily at Hand
2. Partially available, or available in pieces
3. Not available
4. Publicly available

Once the data was collected we verified the category (output, outcome or impact). Then, further granularity was achieved by validating with the organization the specific objective of the measure and it was linked to a specific subcategory.

All of the indicators were mapped to create an organization specific model (Table 2). A description of unique features provides context for the existing measurement systems and challenges identified at the organizational level in this effort.

Table 2
MEASUREMENT INDICATORS AND FOR BALANCED VALUE MATRIX

	Major Market	Major Market Tangible	Midsized Market Intangible	Midsized Market
Output				
Financial	Traditional revenue, expense and margin	Traditional coupled with mortgage portfolio and delinquency	Traditional with specific focus on tuition, cash and	Traditional profit, expense, portfolio and delinquency
Customer	Attendance, annual passes and guest ratings	Customer satisfaction and volunteers both new and repeating	Customer recommendations for change, referrals from participants and alumni	Store customers and volunteers
Internal Processes	Net operating profits and project milestones	Fundraising efficiency and administrative costs	Maximizing spending on programs and cost of new contributions	Productivity of store income, fundraising and administration costs
Learning and Growth	Employee and volunteer training, New research projects	Homeowner and volunteer training	Training and alumni participation	Accuracy in database, employee development and homeowner and volunteer training
Outcome				
Infrastructure	Exhibits created and expanded and new animal behaviors	Homes constructed, rehabilitated and acquisition of lots	Cumulative value of class projects	Productive use of specified neighborhoods, construction of home and lot
Spread/Market Share	Digital media fans and followers, student education, research papers published and major	International tithe impact and visibility	Digital media visits and fans, alumni and outreach efforts	International tithe impact, social media followers,
Human Condition	HERA research with human impact	Families served and debt forgiven	Population with access to class project and hands-on service hours	Sweat equity for debt payment, families served
Benefactor Support	New sponsors, donors and their satisfaction rating	Board engagement	Board support, renewing sponsor support and in-kind support	Board engagement and support
Impact				
Social Economic Change	Change in: property values, sales tax and hospitality tax	Property values, crime rates and increase in tax revenue in adjoining zip codes	Requests for recommendations for local board position and training requests by local business	Property values, crime rates, scores in local schools
Environmental Change	Species rating improved by research and/or conservation	Energy Star and energy efficiency certification	N/A	Goods recycled through store, energy efficiency
Venture Sustainability	Conservation initiatives, self-sustaining revenues and species reproduction	Neighborhood revitalization	Members who become participants, alumni who become charter members	Neighborhood revitalization
Policy Change	Environmental policy changes	Reduction in substandard housing	Alumni in leadership roles in citizen sector	Change in zoning, ordinances legislation influence,

RESULTS

Once we compiled and organized the case data the analysis allowed for comparisons between the type of organization (tangible/intangible and market size), the applicability of the BVM and the availability of data. Table 3 provides data specific to each organization while Table 4 provides comparisons by type of organization. Both provide insight to help better understanding if and how social entrepreneurs can reasonably demonstrate enduring impact through social value creation and financial viability.

The data availability for the indicators varied across organizations. Significant differences in availability were identified between the type of organization (tangible/ intangible), size (major/midsize market) and category (output/outcome/impact) (Table 3). In the overall category of output, data was available for 71% of the indicators. As these outputs resulted in outcomes data availability increased to 74% of the indicators suggesting that we may not know what is impacting our outcomes or not measuring the correct outputs. The most significant and perhaps most predictable lack of data was evident for impact indicators. Only 37% of the organizations demonstrated the ability to measure impact indicators.

**Table 3
BALANCED VALUE MATRIX FRAMEWORK INDICATORS AND DATA**

	MAJINT Indicators			MAJTAN Indicators			MIDINT Indicators			MIDTAN Indicators			Average
	#	# with data	%										
Outputs	13	10	69%	11	7	64%	12	10	83%	17	11	65%	71%
Outcomes	11	7	64%	7	6	86%	11	6	55%	12	11	92%	74%
Impact	9	2	22%	7	4	57%	5	1	20%	10	5	50%	37%

In the organizations serving a tangible social need, data was available for 69% of the indicators compared to those serving an intangible social need at 52%. In general the data availability for outcomes (74%) was greater than outputs (71%). Yet the organizations that served intangible social needs had fewer indices with data when comparing output to outcome (69%/83% to 64%/55%) (Table 4).

**Table 4
BALANCED VALUE MATRIX: PERCENT OF INDICATORS BY
ORGANIZATION TYPE**

	Intangible	Tangible	Major	Midsize
Outputs	76%	64%	66%	74%
Outcomes	59%	89%	75%	73%
Impact	21%	54%	40%	35%
Total	52%	69%	60%	61%

The theoretical framework allowed for placement of the indicators for each organization. All indicators were easily identified as input, outcome and impact. At the theoretical category level only one organization (MidInt) was unable to identify at least one indicator for each category. In this instance they did not feel that they had an ‘impact’ on the ‘environment’. At times it appeared that a ‘less than perfect’ placement was made, it was always a logical placement.

While MajInt has a sophisticated dashboard system of measurement for “output” data and certain systems for collecting “outcome” data, there are few vehicles to collect the recently suggested “impact” measurers. In reviewing current indicators and performance, 33 measures were identified. This is consistent with the findings in the initial conversations with the key executives. While the focus had been on outputs and outcomes of the new organization, they are now just beginning to identify the long-term sustainable impact.

MidInt would like to be able to more directly measure the impact by creating additional measures that would be meaningful to the program. For example, impact measures for the sponsored community improvement projects intended to have a lasting effect on the human condition could be added as well as measures related to how the program is funded (i.e., with sponsors rather than donors).

A system of measures has been established by the governing international agency for the tangible work done by MajTan and MidTan, yet MajTan, has not been able to adapt them to the local organization. Outcome data appeared to be the focus of performance measures based on seven of the eight indicators with data. The community needs are immediate limiting a longer term focus. Additionally, the leader of the organization has returned from retirement from the position and is intentionally working to provide a stable structure before handing the role off to a new leader. MidTan is in the process of implementing several new information systems. Of the 39 measures identified, 11 were not available particularly in the area of impact. The new systems should address this void.

DISCUSSION

The overarching insights we gained from this study contribute to the enhancement of a model that will enable social entrepreneurs to demonstrate enduring impact through social value creation and financial viability. Successfully adapting the case data from each organization to the balanced value matrix framework better defined specific areas for output, outcome, and impact across the four categories of the balance scorecard (Kaplan and Norton, 1992). This, in fact, will provide greater continuity and clarity for future research.

Additional insights included the observation that one of the two participating organizations that have faith-based origins noted a lack of interest in measures due to a philosophy that “God will provide.” This notion may be unusual in the United States considering the religious freedom and diversity of the country. Yet, we anticipate these factors to be more of a challenge in the international arena where some countries have predominantly religious cultures. Lastly, the category with the fewest measures, while not surprising, is impact (37%). As this continues to be a focal point for social entrepreneurs, translating what they hope to impact with specific means of measurement will support sustainability for the long-term.

Framework

The theoretical framework (BVM) structure worked well and leant itself easily to customization. To achieve a widespread use, it may make sense to use a superset of common metrics (i.e., include a broader array of metrics in the general framework). In this way, social entrepreneurs can simply determine that a measure does not apply, rather than try to create or customize each dimension of performance.

One measure that we noted was missing was the monetary value of outside grants received. While grant monies might be captured in the financial measures, they are not distinguished from other fundraising activities. We suggest that grant receipts be considered an output measure as an indication of effectively leveraging outside resources.

Data Sources

Working with available data from a prior year, we clearly had holes in our populated framework. We expected these gaps but were somewhat surprised at how unhelpful the publicly available data could be which is partly due to the lack of granularity in the data. It was also interesting to note that the IRS 990 filings yielded no useful information about our participants. In addition, data that is readily available in the United States (e.g., census data, educational outcomes, IRS 990 form filings) and other developed economies is unlikely to be available in developing economies. For example, some members of the European Union have established a new legal form of incorporation, a Community Interest Company, which has separate public reporting requirements. In addition, the requirements may make it easier to identify the impact of social entrepreneurs on public policy (Nicholls, 2010). Most data regarding third-world countries is compiled by non-governmental organizations (NGOs).

On a more positive note, we did see how we could help our participants easily gather some of the requisite data going forward. In particular, we recommend the use of a template for board meeting minutes and reporting. It may also be of use for participants to use Google Analytics (<http://www.google.com/analytics/index.html>) to understand the effectiveness of their social media efforts and other computer-mediated communications.

Validity

In cross-case comparisons, validity can be justified with the consideration of rival explanations (Yin, 2000). However, we are not testing hypotheses in these cases, but rather testing a process for relevance and usability. With the results presented here, we are ready for our next steps.

Next Steps

Long term, we envision a large-scale study, perhaps under the imprimatur of a global foundation that provides enterprise capital to social entrepreneurs e.g., The Gates Foundation. This study may enable us to create social norms to influence entrepreneurial action (Meek et al., 2010), i.e., compliance. With top down support, the foundation could “encourage” the clients to participate in the measurement protocol with the additional incentive of an honorarium for participation.

Specific hypotheses to test are whether or not the use of the measurement system improves the social enterprise's productivity in producing outputs; whether the distinction of outcome measures creates more strategic focus; and whether the measurement of impact will enable the enterprise to attract greater resources.

Ideally, we would have 50-100 participants. Starting with a survey of existing practices, we would follow-up with training on the system. We could provide an iPad® as an incentive for participation, which would also be a vehicle for using computer-based materials, and a "leave behind" for use in continued training, communications, and measurement. This incentive would allow for continued reinforcement and taking measurements at periodic intervals.

Another possible extension of this research is to examine the other end of Whaley's (1979) logic model (i.e., resources). An interesting approach could be to evaluate the extent and consequences of social bricolage (e.g., "making do," refusing to be constrained by limitations, and improvisation) (Di Domenico et al., 2010). Do such processes limit or enhance the output, outcomes, or impacts of social enterprises?

One other research avenue may be to study the interaction between public policy and social entrepreneurs. Baumol (1990, p. 919) argues that policy, or "the rules of the game," may be changed "in ways that help to offset undesired institutional influences or supplement other influences that are taken to work in beneficial directions." Campbell (2012, p.7) echoes and expands this assertion:

... institutions, especially public policies, are a significant determinant of economic outcomes. Entrepreneurship is often the channel by which public policies affect economic outcomes... Entrepreneurial activity affects the economic conditions that feed back into the policy-making process. The activities of political entrepreneurs influence public policy or the underlying, "deeper" institutions of social mores, acceptable conduct and expectations about economic and political life.

In the same way, some social entrepreneurs and volunteer organizations endeavor to influence public policy around the world. Studying how influencers are influenced by each other in the context of public policy and social value may yield insights into ways to productively magnify social impact.

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THE DETERMINANTS OF SOCIOEMOTIONAL WEALTH AND THE FAMILY FIRM'S OUTCOMES

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ABSTRACT

Based on the Behavioral Agency Theory and the socio-emotional wealth model proposed by Berrone, Cruz & Gómez-Mejía (2012), this work focuses on measuring and validating the model and its relationship to family firm's results. It also analyzes some characteristics such as size and age of the family businesses to determine their influence on the relation between socioemotional wealth and family firm's results. Unlike other studies, an empirical study was made in private family firms (not listed in the stock market). The study suggests that family firm's outcomes are positively related to socioemotional wealth. Furthermore, the 5 dimensions model of socioemotional wealth is valid but requires adjustments in some dimensions.

Key words: family business, socioemotional wealth, organizational outcomes, Behavioral Agency Theory.

INTRODUCTION

The family businesses have a principal role in the world economies but even more in the emerging economies in which they are considered as a motor of the economy (Carney, 2005; Kachaner, Stalk, & Bloch, 2012; Whyte, 1996). The family businesses have a unique characteristic that make them different from non-familiar companies; the integration of the family and the business (Astrachan & Shanker, 2003). The evidence of the family influence on the organizational outcomes of the company are contradictions, studies demonstrate that family businesses have a superior result to other organization forms (Anderson & Reeb, 2003, 2004; McConaughy, Walker, Henderson, & Mishra, 1998; Villalonga & Amit, 2006), but on the other hand, one of the reasons of an inferior organizational outcomes is the conflict of personal relationships that are lived in the family business (Eddleston & Kellermanns, 2007).

The most common theories to study the family businesses are the Agency Theory and the Stewardship Theory. The Behavioral Agency Theory recently proposed to understand the influence of family in a business. This theory proposes that the decisions in a company will depend on the reference point that uses the principal, and this one at the same time, will take into consideration his wealth or accumulated legacy in the company at the moment of taking decisions even against an economical logic (Berrone, et al., 2012). The principal's wealth and accumulated legacy in the company is denominated as socioemotional wealth. On this research work, socioemotional wealth is the value related to the family's affection for keeping the ownership and the business control (Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007). The socioemotional wealth could also be considered as one of the most

important characteristics that captures the family business' essence that makes them different from other organizational forms (Berrone, et al., 2012).

We made this analysis to collaborate within the family business field for three main reasons. First, the study of the emotional commitments and its characteristics will contribute to the comprehension of a family business and it could be sustained through socioemotional wealth (Yu, Lumpkin, Sorenson, & Brigham, 2012). Second, the socioemotional wealth has not been measured directly and it has been used variables such as property, decision making power, intention of transgenerational control, and others (Gómez-Mejía, et al., 2007; Jones, Makri, & Gomez-Mejia, 2008; Zellweger, et al., 2012), for this reason we will use the construct to measure directly the socioemotional wealth proposed by Berrone, et al., (2012) through a scale of 5 dimensions. Third, this research work has as objective the collaboration in the analysis of socioemotional wealth and its impact on organizational outcomes of the family business. The organizational outcomes construct is constituted by 6 subjective elements from the financial, marketing and human resources areas. It also has the purpose of analyzing how the characteristics of the size and age influence on the relation of the socioemotional wealth and family firm's results in the context of private companies from an emerging economy. Despite other research works that analyze public family businesses, this study focuses only on private businesses (not listed on the stock market).

The current work is organized in the following order: after the introduction, in the second section the theoretical framework is presented from the most relevant literature about Behavioral Agency Theory and socioemotional wealth. The third section contains the hypothesis and the proposed model. Later, the study, data and methodology are presented. The fifth section contains the results of the study. The sixth section includes the conclusions and implications for the family businesses. Finally, the ending part presents the limitations and future suggestions for research fields.

THEORETICAL FRAMEWORK

Family Business

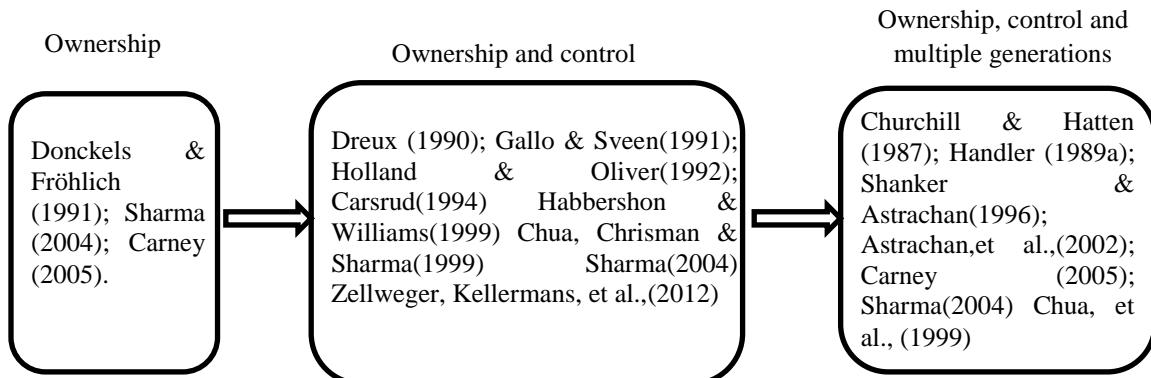
Researchers have proved, based on statistical results, that the family companies are the most common form of business organizations in the world, more than two thirds of the companies are administrated and/or owned by a family, for this reason they are the motor of the economies (Carney, 2005; Lansberg, 1983). Historically the family businesses have represented the pillar of the world economy and the civilizations (Bird, Welsch, Astrachan, & Pistrui, 2002). The aspect that makes the family business unique is the conjunction of its key elements, such as: ownership, governance, administration and succession, all of them have relevant influence on the goals and objectives, strategies and family business structures (Chua, et al., 1999). The origin of this unique aspect results from the integration of the two main pillars, the family and the family business (Astrachan & Shanker, 2003).

Despite the efforts by various researchers that have revised current definitions, there is not a unique definition of family business. Some authors have proposed as distinctive characteristic to differentiate between family businesses and non-family businesses, using ownership percentages to classify them (Berrone, Cruz, Gómez-Mejía, & Larraza-Kintana, 2010; Donckels & Fröhlich, 1991; Sharma, 2004). Other authors use besides the ownership as singular characteristic, they include the making decisions control for its classification (Carsrud, 1994; Gómez-Mejía, et al., 2007; Zellweger, et al., 2012); finally others consider that family businesses

are those that have the ownership, the control and the presence of multiple generations as characteristics that distinguish them from non-family companies (Astrachan, et al., 2002; Handler, 1989b).

In figure 1 it is shown a summary of the approaches of the family business definition that is used in different studies and theoretical propositions.

Figure 1
EXTENSION OF THE FAMILY BUSINESS



Source: prepared by the author

One of the definitions with more acceptance and used for this study is that family business is: a business managed and/or administered to achieve the business vision of a dominant group of members of the same family or a small number of families, allowing the family the control of a sustainable family business with the intention of generational transition (Chua, et al., 1999).

Agency Theory

The Agency Theory assumes that when the owner delegates the control and direction to other person (the agent/administrator) creates the risk of countering the actions and decisions taken by the agent (administrator) with the owner's interests (Jensen & Meckling, 1976) and assumes that the contracts are insufficient because of the people and organization natures. The contracts are insufficient because it is impossible to design a contract that includes all the possible combinations of interests and situations that are presented. Due to this insufficiency, there are two main risks between the owner (principal) and the administrator (agent), the first one is the moral risk that happens when there is asymmetry information between the parties and the opportunistic behaviors are opened; the second one is the adverse selection, which is the hiring risk of personnel without capabilities (Lubatkin, Schulze, Ling, & Dino, 2005).

Stewardship Theory

The Stewardship Theory stipulates that the agents (considered as stewards) are motivated by psychological and situational factors to act in benefit of the principals (Donaldson & Davis, 1991). Some academics consider it an applicable theory to analyze the family businesses due to their high identification with the company, personal and social satisfaction and an administration

oriented towards involvement (Corbetta & Salvato, 2004). They also consider that the organizational control decreases the intrinsic motivation of the steward to show behaviors in favor of the organization and thus increasing its inclination for opportunistic behaviors (Corbetta & Salvato, 2004).

Behavioral Agency Theory

The Behavioral Agency Theory (Gómez-Mejía, Welbourne, & Wiseman, 2000; Wiseman & Gómez-Mejía, 1998) integrates elements of the Agency Theory (Eisenhardt, 1989; Jensen & Meckling, 1976), the Behavior Theory (Cyert & March, 1963) and the Prospective Theory (Kahneman & Tversky, 1979). This Behavioral Agency Theory proposes that the decisions taken in a company will depend of the reference point that uses the principal, and this one will take decisions to preserve his accumulated legacy in the company (Berrone, et al., 2012).

Wiseman & Gómez-Mejía (1998) propose the Behavioral Agency Theory as a model, where the risk aversion is changed for a loss aversion, causing a change in the auto-interest of the agent, that according to the Agency Theory, it should maximize the future benefits for minimizing the current wealth losses.

Agency Theory indicates that main family members will take decisions focused on the maximization of the benefits and avoid significant financial risks in the company due the strong relationship between the family wealth with the company (Eisenhardt, 1989). Nevertheless, when the accumulated legacy of the company is threaten, the family (principal) will take decisions that are not based on an economical logic with the objective of preserve this legacy even if they put the company on risk (Berrone, et al., 2012).

Gómez-Mejía, et al., (2007) denominate the accumulated legacy of the principal in a family business as socioeconomical wealth and in general terms, it captures the value related to the family's affection for keeping the ownership and the business control.

In the context of the Behavioral Agency Theory, the preservation of the socioemotional wealth contradicts the basics predictions of the Agency Theory, the socioemotional wealth becomes reference point of the family principals to take decisions, instead of maximizing the business economic wealth. Because of this, when the strategies for reducing the business financial risk cannibalize the socioemotional wealth, the family will opt for strategies that will preserve the socioemotional wealth (Gómez-Mejía, et al., 2007).

For this reason, from the Behavioral Agency Theory's perspective, protecting the socioemotional wealth of the family becomes a priority for the principal, even in detriment of other principals (minority shareholders, institutional investors, etc.) that have different priorities (Berrone, et al., 2012).

Socioemotional Wealth

The socioemotional wealth refers to the value for the non-financial and affective aspects that have the owner families with the company and by nature, it is an intrinsic value that is originated at a psychological level in the owner family (Berrone, et al., 2010).

In the literature it is observed different elements of the socioemotional wealth of the family business, the relevance through the preservation of the family dynasty (Casson, 1999), the reputation and the family values (Handler, 1989a), the conservation of the company's social capital (Arregle, Hitt, Sirmon, & Very, 2007), the ownership, authority and control (Schulze, Lubatkin, & Dino, 2003).

The different interpretations of the socioemotional wealth are caused because the model is new, but in the future this model will be considered as one of the most important characteristics because it captures the essence of the family businesses that make them different from other organizational forms (Berrone, et al., 2012).

Theoretically, the socioemotional wealth model is based on the Behavioral Agency Theory and does not contradict the central argument of the Agency Theory by accepting that the family (principal) will have opportunistic behaviors (Eisenhardt, 1989), however, these behaviors will be based on protecting the socioemotional wealth as priority without taking into account a higher economical cost (Berrone, et al., 2012). Besides, the model considers the emotions (Baron, 2008) and collaborative behaviors (Sundaramurthy & Lewis, 2003) that are presented in the family business and not in the Agency Theory.

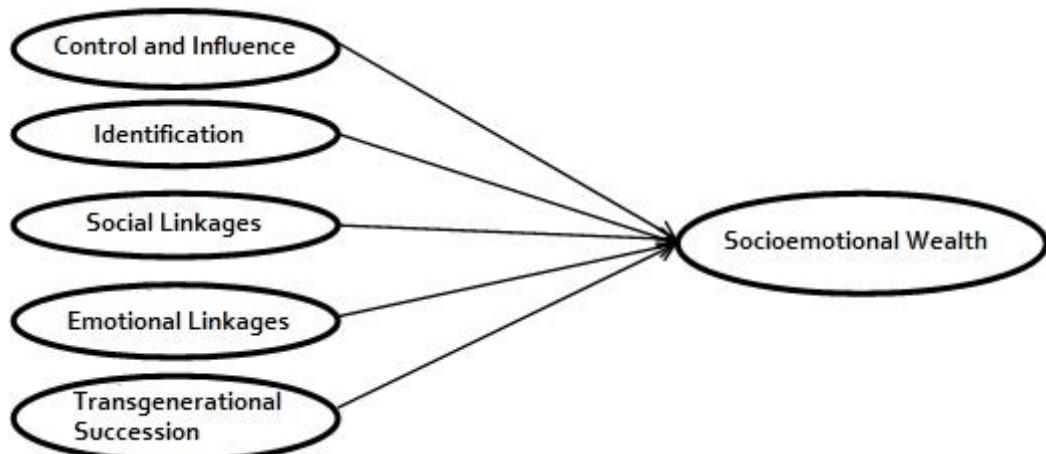
Unlike the Stewardship Theory (Donaldson & Davis, 1991) that stipulates that the agents (considered as stewards) are motivated by psychological and situational factors to act in benefit of the principals (Davis, Schoorman, & Donaldson, 1997), the socioemotional wealth model does contemplate the assumption of the individual objectives by family members, but they are not necessarily economical and are guided by family values that evolve with time (Berrone, et al., 2012).

Based on the Behavioral Agency Theory, the central assumption of the socioemotional wealth model stipulates that at the moment of observing a high family involvement, the companies tend to accept more the cost and uncertainty generated at the moment of taking strategic decisions that assure the non-economic objectives in detriment of the benefits maximization (Gómez-Mejía, et al., 2007).

The socioemotional wealth in the family business has been studied related with different elements. Gómez-Mejía, et al, (2007), determined that the family businesses prefer keeping their independence than participating in a cooperative although they obtain economic benefits and risk reduction, and they propose the loss of socioemotional as explanation. Jones et al., (2008), studied the administrative councils of the family business, concluding that they prefer having associated executives than external directors with the objective of keeping the control, family values and other elements of the socioemotional wealth. Zellweger, et al., (2012) argue that the family business with intention of transgenerational control would consider to sell the company to a higher price to compensate the loss of the socioemotional wealth.

However, most of the studies about family business besides using public companies samples (listed on the stock market) to measure the socioemotional wealth have used approximations such as property, taking decisions control, influence on the administrative council and intention of transgenerational control (Berrone, et al., 2010; Gómez-Mejía, et al., 2007; Jones, et al., 2008; Zellweger, et al., 2012). Nevertheless, the model has not been measured directly and we do not know the factors that constitute it and the different levels of socioemotional wealth in the family business. Berrone, et al., (2012) propose the construct FIBER to measure the socioemotional wealth that has 5 dimensions which are: family control and influence, family identification with the business, social linkages, emotional linkages between the family members and transgenerational succession as we show in Figure 2.

Figure 2
SOCIOEMOTIONAL WEALTH MODEL AND ITS 5 DIMENSIONS



Source: Prepared by the author

MODEL AND HYPOTHESIS

The family can be a source of competitive advantage that impacts positively on the organizational outcomes of the company, getting a superior result to other organizational forms (Anderson & Reeb, 2003, 2004; McConaughy, et al., 1998; Villalonga & Amit, 2006). Allouche, Amann, Jaussad & Kurishina (2008) found that the family control strongly influence firms performance, they compared the performance achieved during 5 years, financial profitability, between Japanese's family and non-family firms and confirmed a better profitability on those where the family control is present (family firms). While others studies suggest that family influence could be a weakness for family firms. Resources limitation or conflict are sources that affects negatively the organizational outcomes (Eddleston & Kellermanns, 2007) and show an inferior result to non-family companies (Miller, Le Breton-Miller, Lester, & Cannella, 2007).

The discrepancies in the results founded in previous studies could be explained by the socioemotional wealth differences, since in family business, the socioemotional wealth takes a reference point in the decision making and when this is threaten, the family will prefer the ones that preserve the socioemotional wealth although this can decrease the financial result (Gómez-Mejía, et al., 2007). Zellweger, Eddleston & Kellermanns (2010) suggest that the performance differ on family firms because of the level of family's identity on the firm. The differences on socioemotional wealth experienced on the family firm could explain the firm performance variance presented in family firms and De Tienne & Chirico (2013), suggest a negative relation between socioemotional wealth and performance as a result of family owner's tolerance on firm performance and their intentions to preserve socioemotional wealth (emotional reasons). According to these, a higher firm performance is expect when the socioemotional wealth is low because the owners are interested on firm performance and present low motivation to preserve socioemotional wealth. Therefore, we propose the next hypothesis:

H1: The socioemotional wealth is negatively related with the organizational outcomes of the company.

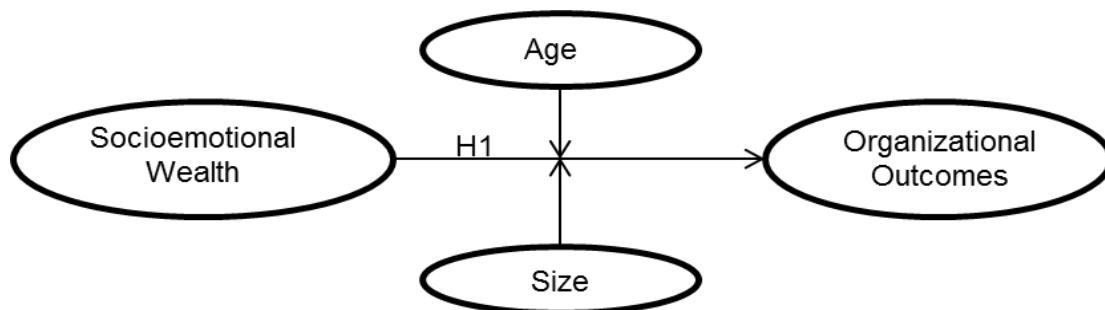
Besides, within the future research lines to understand the differences between the companies and its impact on the socioemotional wealth, it is proposed to research factors that contribute to the heterogeneity of the family business (Berrone, et al., 2012). We decided to analyze some firm's characteristics to capture this heterogeneity and the possible influence as control variables.

Some believe that the bond (socioemotional wealth) between the family and the business get weaker through the pass of the years. It is strong when the first generation (founder) keeps the ownership and the administration (decision control) but when the company passes to the next generations, this link decreases (Chua, et al., 1999; Gómez-Mejía, et al., 2007; Schulze, et al., 2003), in a way that in family business the agency problems are getting similar to those in non-family companies (Carney, 2005; Jaskiewicz & Klein, 2007). In contradiction, the value of the socioemotional wealth should increase according to the duration of the ownership business, increasing the emotional linkages with the time (Zellweger, et al., 2012) while the family is involved, the identification feeling, belonging and social linkages will also tend to increase. Taking as a reference point the total loss of socioemotional wealth, Zellweger, et al., (2012) analyzed the relation between the duration of the company and the value perceived with a not significant result. Given those different postures, it is interesting to analyze the influence of the age of the company on the relation between the socioemotional wealth and the organizational outcomes as a moderator variable.

The need of obtaining status and legitimacy is less in private companies than in public companies because they are less visible to the community and other interest groups (Miller, Le Breton-Miller, & Lester, 2013) and this visibility is related the family's concern for firm reputation (Zellweger, Nason, Nordqvist, & Brush, 2013). For this reason, we expect that the companies with a bigger size, at the moment of being more visible, the family members will show a larger socioemotional wealth and thus, moderate the relation between the socioemotional wealth and the organizational outcomes.

Figures 3 shows the proposed model with the elements that can influence the relation of socioemotional wealth and the organizational outcomes.

Figure 3
MODEL PROPOSED OF SOCIOEMOTIONAL WEALTH



Source: Prepared by the author

METHODOLOGY

Sample and Information Collection

To test our hypothesis, surveys were sent by email to family business owners of a list provided by a family business center from a university in Mexico with 250 private companies that are auto-defined as family businesses that operate in the sectors of manufacturing, services, commercialization and construction. The representation of the sectors are: commerce 45%, services 34%, manufacturing 13%, construction 8% and others, these are similar to the ones shown at a national level (INEGI, 2013). The criteria that we used to determine its classification as family business is that at least 51% of the ownership belongs to the family, the decision control falls in the family and have the intention of transferring the company to the next generations.

Dependent Variable

Organizational outcomes (OR). For the measure of this variable we used the construct used by Jaworski & Kohli (1993), Narver & Slater (1990) and more recently by Gómez, Rialp & Llonch (2008); which is composed by 6 subjective elements from the financial, marketing and human resources area: return over investment (ROI), benefits (NI), sales (SL), customer satisfaction (CS), employee satisfaction (ES) and global results (GR). We asked every owner to grade using a Likert scale of 5 points, where 1 was inferior and 5 superior.

Independent Variables

Socioemotional Wealth (SEW). To measure the variable of socioemotional wealth we used the construct proposed by Berrone, et al., (2012) formed by five dimensions denominated FIBER which are: control and family influence (CFI), identification of the family with the business (IFB), social linkages (SL), emotional linkages between the family members (ELBFM) and transgenerational succession (TS). Each dimension is formed by 5 elements using a Likert scale of 5 points, from 1 (total disagreement) to 5 (total agreement).

Control Variables

1. Age: the duration of the family business is considered as the number of years that passed since its foundation.
2. Size: to measure the size of the family business we asked directly the number of employees in the company.

For the validation of the questions, we applied 10 questionnaires and latter we sent the survey by email to 260 companies. Initially we received 65 questionnaires, the answer rate of the first sending was of 26% and we proceeded to make a second sending, reaching the amount of 113 answers that equal a rate of 43%.

The techniques used for the analysis of the proposed model were: reliability and factorial analysis and correlation to validate the model of 5 dimensions of the socioemotional wealth besides the construct of organizational outcomes that is formed by 6 elements. Then, we used the technique of multivariate analysis of structural equations to analyze the relations between explicative variable and explained with interdependence relations and the control variables. The

software's used to make the calculations were IBM SPSS Statistics 19.0 and AMOS 5.0.

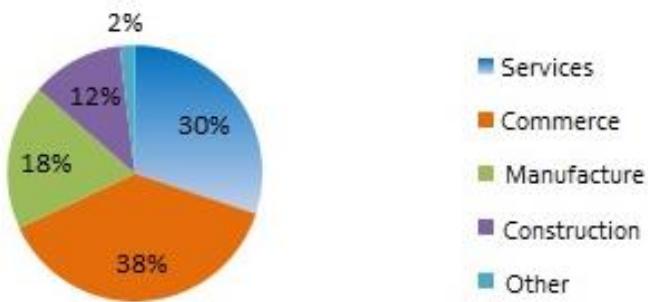
Results

All the companies of the sample are private and they fulfill with the characteristics that we defined to classify them as family businesses: at least 51% of the business is owned by the family, they have control on taking decisions and the real intention of transferring the business to future generations. We observed that the average age of the companies that answered was of 22 years, 6 years the youngest one and 88 years the oldest one. About the size, the average of employees was of 122, the company with fewer employees had 5 people and the company with most employees had 3000 people, as it is shown in Table 1.

Table 1 STATISTICS OF THE SAMPLE'S COMPANIES					
		Minimum	Maximum	Media	Standard Deviation
Age	113	6	88	22.62	15.727
Employees Num	113	5	3000	122.09	349.569
N valid (according to list)	113				

Taking into account the sector where the companies of the sample operate, we observe similar percentages to the population of the country (INEGI, 2013), the commerce and services sectors represent 78% of the companies, followed by the manufacturing sector with 18% and the construction sector with 12% as it is shown in Figure 4.

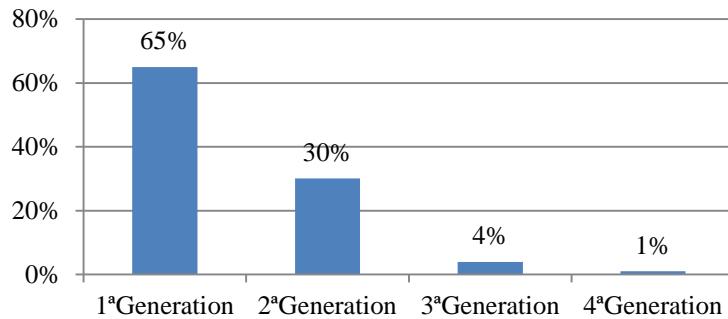
Figure 4
REPORT OF THE SECTORS OF THE COMPANY SAMPLES



Finally, within the characteristics of the sample, 65% of the companies are found in the property and control of the first generation, while the 30% already did the transition to the second generation. It is important to highlight that 4% of the companies have made the transition to the third generation but only 1% of the companies are in the fourth generation, as it is shown in Figure 5.

Figure 5

REPORT OF GENERATION WITH PROPERTY AND CONTROL OF THE FAMILY BUSINESS



Once the characteristics of the sample are analyzed and with the objective of probing the proposed model of socioemotional wealth by Berrone, et al., (2012) we started the reliability and factorial analysis of the dimensions of the socioemotional wealth model besides the construct of organizational outcomes that we summarized in Table 2.

About the socioemotional wealth model, we can observe that the dimensions with the less Cronbach's alpha are SL and TS with .70 and .75 respectively and fulfills the established parameters, while the dimensions ELBFM and CFI have .85 and .86 and IFB reached the value of .90 for the Cronbach's alpha (Table 2).

After reviewing the reliability analysis we reviewed the results from the factorial analysis of the socioemotional wealth dimensions, finding similar results. All the dimensions reached a Kaiser-Meyer-Olkin (KMO) minimum of .7 fulfills the established parameters. The dimensions with the smallest KMO were SL and TS again with .7, while the rest of the dimensions reached a KMO of .8 or more (Table 2).

Afterwards to review the factors of the socioemotional wealth model we found that the explained variation of the dimensions SL and ELBM is under the 60%, 45% and 58% respectively. The other dimensions fulfill with the model having a percentage equal or higher to 60% of the explained variance (Table 2).

Table 2 REPORT OF RELIABILITY AND FACTORIAL ANALYSIS				
Factor	Cronbach's Alpha	KMO & Bartlett's test		Explained Variation
		KMO	Sig	
CFI	0.86	0.80	.000	66%
IFB	0.90	0.86	.000	73%
SL	0.70	0.70	.000	45%
ELBFM	0.85	0.84	.000	58%
TS	0.75	0.70	.000	60%
OR	0.92	0.90	.000	73%

Then, we proceeded to analyze the table of correlations to verify the existence of significant correlations between the elements of each dimension and we found that practically all the elements show a significant correlation of .01 between them. However, when we checked if there was a divergence between the elements of a dimension with other dimensions, we found

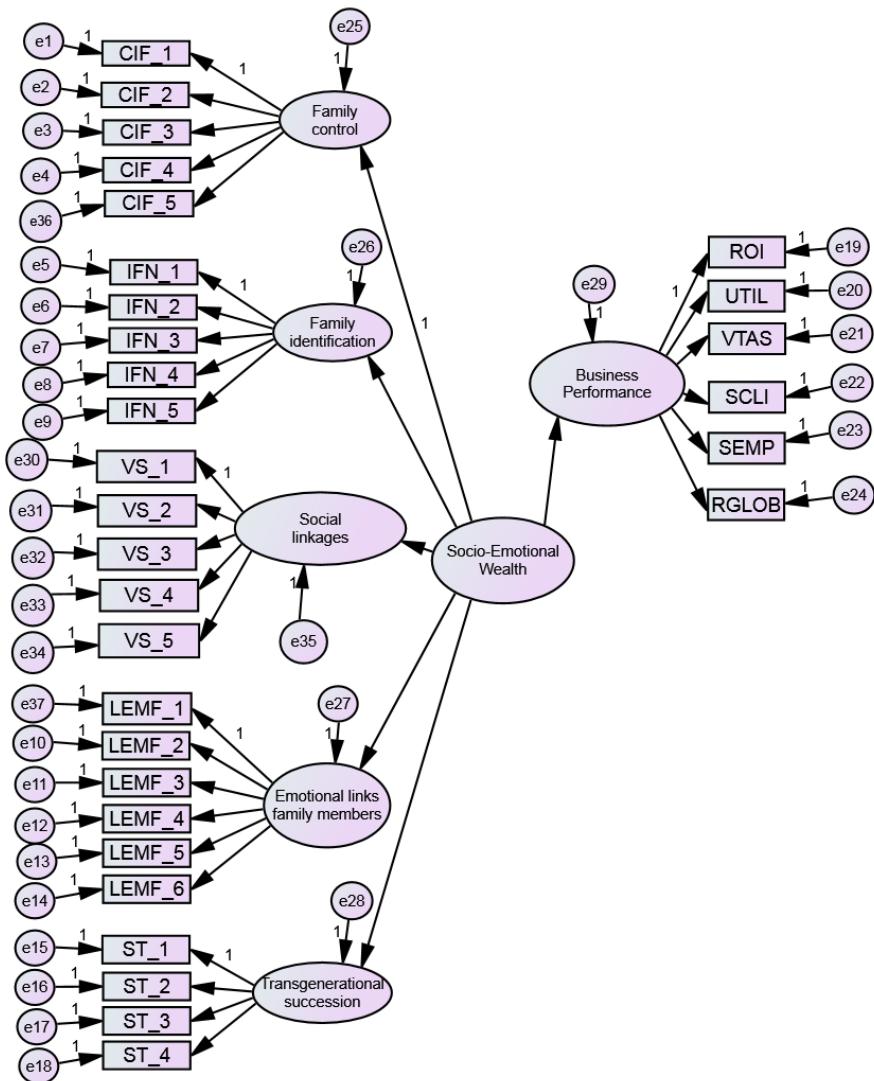
that in some cases, some elements show a significant correlation with elements of other dimension, the correlations table is found on appendix 2.

Once we analyzed the results of the dimensions of the socioemotional wealth model, we started with the same process for the construct of organizational outcomes. The reliability analysis has a Cronbach's alpha of .92 that fulfills the parameters established as with the KMO of .90 and an explained variation of 73% (Table 2). To finish the verification of the construct we analyzed the correlations between the elements of the factor and we found the presence of significant correlations between the elements (Table 3).

Table 3.								
Correlation analysis of the organizational outcomes factor								
		ROI	NI	SL	CS	ES	GR	
ROI	Corr. Pearson		1	.794	.687	.577	.629	.710
	Sig.			.000	.000	.000	.000	.000
	N	113	113	113	113	113	113	113
NI	Corr. Pearson	.794	1	.817	.601	.691	.807	
	Sig.	.000		.000	.000	.000	.000	.000
	N	113	113	113	113	113	113	113
SL	Corr. Pearson	.687	.817	1	.467	.557	.766	
	Sig.	.000	.000		.000	.000	.000	.000
	N	113	113	113	113	113	113	113
CS	Corr. Pearson	.577	.601	.467	1	.686	.599	
	Sig.	.000	.000	.000		.000	.000	.000
	N	113	113	113	113	113	113	113
ES	Corr. Pearson	.629	.691	.557	.686	1	.674	
	Sig.	.000	.000	.000	.000		.000	.000
	N	113	113	113	113	113	113	113
GR	Corr. Pearson	.710	.807	.766	.599	.674	1	
	Sig.	.000	.000	.000	.000	.000		.000
	N	113	113	113	113	113	113	113

After going through the reliability and factorial analysis the socioemotional wealth model and the construct of organizational outcomes, we proceeded to make an analysis of the hypothesis through the structural equations technique to know the relations between the variables as is shown in figure 6.

Figure 6
STRUCTURAL EQUATIONS MODEL OF THE SOCIOEMOTIONAL WEALTH



In the model we can observe the five dimensions with its elements that contribute to the measure of the socioemotional wealth and its relation with the organizational outcomes of the company. It also includes the influence proposed with of the company's characteristics (size and age) in the relation between the socioemotional wealth and the organizational outcomes.

In the table 4 we observe that the model proposed before shows a GFI (Goodness of Fit Index) of .967 as well as an AGFI ("adjusted GFI) of .957, both higher to .9 so it is considered a model that fulfills with all the established parameters of the adjustment model.

The relation between the socioemotional wealth and the organizational outcomes of the family business shows a positive coefficient of .96 and it is significant at .01, thus the hypothesis is rejected, because the contrary relation that we expected.

Table 4
SOCIOEMOTIONAL WEALTH ANALYSIS WITH STRUCTURAL EQUATIONS

		Estimate	S.E.	C.R.	P
Organiz_Outcome	← Socio_Emot_Wealth	.962	.364	.644	.008

Model	NPAR	CMIN
Default model	13	147.829

Model	RMR	GFI	AGFI	PGFI
Default model	.054	.967	.957	.747

In order to analyze the influence of family firm size and age, all the results are shown in Table 5. We can observed that the relation between the socioemotional wealth and the organizational outcomes is still significant on both groups, younger than 20 years and 20 years and older, but the coefficient is lower in the family firm's group with more than 20 years.

With respect to the influence of the firm size on the socioemotional wealth and organizational outcomes relation, the results show that for the group where the family firm has fewer than 50 employees, the coefficient is significant contrary to the other group (family firms with more than 50 employees) where the coefficient is not significant and also, it is less than a half than the group with fewer employees.

Table 5
SOCIOEMOTIONAL WEALTH ANALYSIS WITH STRUCTURAL EQUATIONS

Control Variable				Estimate	S.E.	C.R.	P
Age < 20 years	Organiz_Outcome	←	Socio_Emot_Wealth	.901	.386	2.336	.019
Age ≥ 20 years	Organiz_Outcome	←	Socio_Emot_Wealth	.812	.687	1.909	.056
Size < 50 employees	Organiz_Outcome	←	Socio_Emot_Wealth	.791	.759	2.361	.018
Size ≥ 50 employees	Organiz_Outcome	←	Socio_Emot_Wealth	.343	.246	1.389	.165

Control Variable	Model	NPAR	CMIN
Age < 20 years	Default model	113	163.559
Age ≥ 20 years	Default model	113	125.114
Size < 50 employees	Default model	113	163.839
Size ≥ 50 employees	Default model	113	122.903

Control Variable	Model	RMR	GFI	AGFI	PGFI
Age < 20 years	Default model	.080	.952	.938	.735
Age ≥ 20 years	Default model	.071	.915	.890	.707
Size < 50 employees	Default model	.078	.939	.921	.725
Size ≥ 50 employees	Default model	.073	.942	.925	.728

CONCLUSIONS AND IMPLICATIONS FOR FAMILY BUSINESSES

One of the objectives of this study and the difference from others was the analysis of the private family businesses (not listed on the stock market) that provide applicable results to most of the family companies from countries with emerging economies that count with an index of public companies (listed on the stock market).

We also achieved to try the socioemotional wealth model of 5 dimensions proposed by Berrone, et al., (2012) and we could conclude that it is functional because the reliability and factorial results fulfill with the established parameters to validate the dimensions. However, the proposed scale has details to adjust, when we revised the existence of a divergence between the elements of one dimension with other dimensions, we found that in some cases with some elements show a significant correlation with elements of other dimension.

The weakest dimension of the socioemotional wealth model is the social linkage followed by the intention of transgenerational succession, one of the possible explanations to this is the culture of the country.

The organizational outcomes of the family business show a positive and significant relation with the socioemotional wealth and thus hypothesis is rejected. Opposite to DeTienne & Chirico (2013), when the family members present high levels of socioemotional wealth, the organizational outcomes will be better than those when the socioemotional wealth is lower. This result is of great interest for the owners, not only in a short term but also in a long term because at the moment of knowing the level of socioemotional wealth of the family members, it will be possible to infer the organizational outcomes when the transition is done.

The results confirmed the negative influence of time over the relation between the socioemotional wealth and the organizational outcome, which becomes weaker through the pass of the years; a possible explanation could be the lower level of socioemotional wealth presented in next generational family members (Chua, et al., 1999; Gómez-Mejía, et al., 2007; Schulze, et al., 2003). This outcome is contrary to the proposed positive relation between the duration of the ownership family business and the socioemotional wealth (Zellweger, et al., 2012).

According to the presented results, the size influences negatively the relation between socioemotional wealth and organizational results. We expected that the variable size will influence positively this relation because firms with bigger size, for being more visible, would show more socioemotional wealth (Miller, et al., 2013).

LIMITATIONS AND FUTURE RESEARCH LINES

We made a transversal study with applicable results during a specific moment and context, thus we propose a linear study to observe the evolution of the socioemotional wealth and its effect on organizational outcomes.

Another limitation of the study is that the survey was applied to the owner and the general manager, and for the cases where the general manager was not part of the family, the survey was applied to the owner. Therefore, we only got one answer from the company and we recommend making a study with two or three answers to decrease the bias.

The sample used was from companies that operate in Mexico, country that is considered an emerging economy with a specific context and particular cultural characteristics. We propose to make a study in different countries to make a comparative study that helps to explain and understand the differences of the socioemotional wealth in family businesses.

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VARYING ENTREPRENEURIAL ORIENTATION LEVELS AND EXPORT PERFORMANCE

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ABSTRACT

The literature on Export Entrepreneurship and its interface with Export Performance primarily focusses on the impact of the former on the later. Little attention is given on analyzing the effect of varying levels of Entrepreneurial Orientation on Export Performance. This study purports to compare the Entrepreneurial Orientation levels between three groups First generation, Second Generation and others and finally managers. It evaluates the impact of these varying levels on the Export Performance of select export firms operating from India. The validated scale used for this purpose explains 86% of the variance. The ANOVA tests indicate that the three groups vary significantly from each other. The Post Hoc tests indicate that the first group comprising of the First Level Entrepreneurs show significantly higher means in the variables that measure Export Performance. This study suggests encouragement of entrepreneurship spirit in emerging economies.

INTRODUCTION

This study draws inspiration from the studies done earlier in the areas of Nascent Entrepreneurship, Born-Globals, International Entrepreneurship and studies that connect Entrepreneurial Orientation and Firm Performance. Studies in the past indicate that differences exist between family and non-family businesses. Based on the recommendations put forth by seminal paper by (Sharma *et.al* 1997) comparative studies attempted between family and non-family firms like Anderson & Reeb, (2003); Coleman & Carsky, (1999); Gudmundson, Hartman, & Tower, (1999); M. Lee & Rogoff, (1996); Littunen, (2003); Westhead, Cowling, & Howorth, (2001) present mixed results. While some studies report that these firms differ in entrepreneurial activities undertaken, performance, perception of environmental opportunities and threats but differ on strategic orientation, sources of debt financing etc. Similarly some studies report that family firms outperform non-family firms but it is reported the other way in some other studies (Daily and Dollinger, 1992; Binder Hamlyn, 1994). Conceptually, Entrepreneurial orientation (EO) is understood as a process and includes decision making as practiced by entrepreneurs leading to new entry and business support activities. (Lumpkin and Dess, 2001; Kropp, Lindsay, and Shoham, 2006). EO is measured using three dimensions risk taking, proactiveness and innovativeness (Naman and Slevin, 1993). These three components of entrepreneurship prove to constitute a unidimensional measurement of EO (1983). Different conceptualization of EO reveals varying degree of relationship with performance (Rauch, Wiklund, Lumpkin & Frese, 2004).

Family businesses when viewed from generational perspective give varying results. Family businesses, when analyzed from the generational perspective, emphasizes that members of different generations differ in stages of development of their firms and in their own capability to influence the firm (Greiner 1972; Sonfield and Lussier 2004). Founders are entrepreneurs with the necessary impetus to create a business (Schein 1983; Aldrich and Cliff 2003). As generations evolve, the challenges faced by the entrepreneurs too differ (Peiser and Wooten 1983). The

entrepreneurs, when classified based on generational perspective differ in the degree of family identification, influence and personal investment in the firms (Gersick et al. 1997; Schulze et al. 2003). The entrepreneurs are found to differ in various dimensions as seen in the previous studies like Bammens *et.al.*, 1997; Sonfield and Lussier 2004 etc. The impact of EO on the entrepreneurs when classified based on generational dimensions yields mixed results. The Entrepreneurial Orientation, when measured using autonomy, risk-taking and competitive aggressiveness are observed to decrease as generations get involved (Martin & Lumpkin, 2003; Kellermanns and Eddleston, 2006) observe that generational involvement has no impact on corporate entrepreneurship. This study purports to bridge the gap in the earlier studies on Family businesses, that are operating internationally, when analyzed from generational perspective.

REVIEW OF LITERATURE

Entrepreneurial Orientation (EO) refers to the strategy making processes that provide organizations with a basis for entrepreneurial decisions and actions (e.g., Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). Although many dimensions are used to define the entrepreneurial orientation of exporters, the domination held by the three-dimension construct put forth by Miller on other variables is notable. (Miller and Friesen, 1978, Covin and Slevin, 1986, 1989 and Naman and Slevin, 1993; Knight, 1993; Wiklund, 1999) Lumpkin and Dess, 1996; Lee & Peterson; Kreiser et al., 2002; Tarabishy et al., 2005. Miller (1983) characterized an entrepreneurial firm as “one that engages in product /service -market innovation, undertakes somewhat risk ventures, and is first to come up with “proactive” innovations, beating competitors to the punch”. Further analysis of the literature indicates that some studies support the relationship between EO and firm performance. (Covin Slevin, 1989; Lumpkin & Dess, 1996; Becherer & Maurern, 1997; Dess et al., 1997; Wiklund, 1999; Lee & Peterson, 2000). Lumpkin and Dess (1996) argue that the relationship between EO and firm performance is context specific and introduces the integrative framework for exploring this relationship between EO and firm performance. Becherer and Maurern (1997) investigates the relationship among EO, Marketing Orientation, and firm performance, and proves that EO is directly related to profit change. Covin and Slevin’s (1989) study also suggests that EO is related to performance among small firms in hostile environments. The variables tested in this study include the three dimensions put forth by Miller (1983) and Wiklund (2004) to measure EO namely Innovativeness, Proactiveness and Risk-taking.

Export Performance is defined as the result of a firm’s action in export markets. (Shoham, 1996). Though, many researchers attempt to define export performance, there is no evenly accepted conceptual and operation framework. (Cavusgil and Zou, 1994). The dimensions that the study measures financial performance include the turnover of the firm, the profit earned during the last financial year, Export Intensity, Degree of Foreign Involvement. This includes Strategic, Economic and Financial dimensions of Export Performance.

Sonfield & Lussier, (2004, p. 190) define the First Generation Family Firms (1GFF) as family owned and managed firm with more than one family member involved, but only of the first and the founding generation of the family. A 2GFF and 3GFF are defined as firms in which the second and third generation of the family firms is also involved in the ownership and the management of the company.

SIGNIFICANCE OF THE STUDY

A review of the existing literature indicated that the focus of the entrepreneurship scholars have mainly been with the antecedents of the firm's entrepreneurial orientation and the relationship between the dimensions of Entrepreneurial Orientation (EO) and firm performance (Escriba-Esteve, Sanchez-Peinado, & Sanchez-Peinado, 2008; Green, Covin, & Slevin, 2008; Rauch, Wilkund, Lumpkin, & Frese, 2009;). The recent meta-analysis by Wilkund et. al (2004) present four main directions for future research, first being, all studies on EO applied only to surviving firms. The authors express a concern for the overlooking of the researchers on the causal relation between EO and performance. It was also found out that the studies do not report basic descriptive statistics, making meta-analysis difficult. Extending the literature on Entrepreneurship, studies that analyse the influence of personal characteristics on their decisions are to be attempted (Brannon et.al, 2013).

HYPOTHESES TESTED

The main question regarding Entrepreneurship is Why some entrepreneurs are innovative than others (Shane & Venkatraman, 2000). The individual factors and the environment in which the individuals work determine the innovativeness (Koellinger, 2008). This leads us to analyze whether the firms differ in their Innovativeness. Opportunities are not limited to certain entrepreneurs alone, it is available to all. Success comes to those entrepreneurs who identify opportunities, hone the required skills and exploit them (Butler et al. 2010; Vaghely and Julien 2010; Zahra et al. 2005). In other words, some entrepreneurs are alert compared to others when it comes to exploiting the available opportunities (Zahra, 2005). "An opportunity is defined as a future situation that the decision-makers deem personally desirable and feasible." (Keh et al, 2002). Proactiveness is defined as the ability of entrepreneurs to seek new opportunities. Thus Proactive entrepreneurs are more likely to take up exporting than reactive entrepreneurs (Dana et al, 2009). Thus our second hypothesis tests whether the sample entrepreneurs significantly differ in their levels of Proactiveness. As international operations often entail greater risk than selling at home, internationalization may discourage firms from initiating, developing, and sustaining international operations (Ruzzier et al. 2007). Accordingly, when entrepreneurs are willing to assume risk, the degree of risk they attach to an internationalization strategy is reduced. Consequently, risk-taking entrepreneurs are more likely to respond favorably to export opportunities and become exporters compared to those who are risk-averse (Leonidou et al. 1998).

H₁: The firms did not differ in their EO levels

H₂: The EO of the firms were not related to the Export Performance of the firms

H₃: The differing EO levels did not have any impact on the Export Performance of the firms.

RESEARCH METHODOLOGY

The study uses the online data base available with the Export Processing Zone situated in India. From the database, a sample of 5000 firms is selected at random using Simple Random Sampling Technique. Mails are sent to the selected firms. Of 5000, only 1500 are found to have reached the respondents. Out of this 1500, 500 respondents revert to us with the filled up questionnaire. But finally 330 questionnaires are selected for analysis as they only remain fully filled-up. The remaining stand rejected thus reducing the response rate of the study to 69.4%.

The respondent is tested for EO using the structured questionnaire developed and tested by Wiklund (1997). The steps to be followed in the analysis are listed below.

1. The variables are tested for reliability and dimensions are reduced by applying Principal Component Analysis (PCA). Since the validity is already tested, it is not repeated in this study.
2. The reduced dimensions are used to compare the EO levels of the respondent-firms.
3. The firms are compared for differences in Export Performance (EP) using ANOVA. Post Hoc tests are employed to find out whether the EO and EP differences are significant and to prove which of the three groups of firms stand out.

RESULTS AND DISCUSSION

The sampling adequacy measure as estimated by the Kaiser-Meyer-Olkin (KMO) statistic is 0.74 for the study. Since it falls in the acceptable area of 0.60 to 1, (Vines, 2000) the data is considered fit for further analysis. The individual KMO is used for determining the variables to be included or deleted before conducting the Principal Component Analysis (PCA) (Cu, 2009 et.al.). For analyzing reliability, Cronbach Alpha technique is employed. Reliability is understood as internal consistency, which is, in other words the degree of inter correlations among the variables that constitute the scale (Nunnally, 1978). If the reliability score is not acceptably high, the scale can be revised either by altering or by deleting items that have scores lower than a pre-determined cut-off point (Hair et al., 2006). If a scale used to measure a construct has alpha (α) value greater than 0.60, the scale is considered to be reliable to measure the construct (Hair et al., 2006).

**Table 1
RESULTS OF PRILIMINARY ANALYSIS**

FACTORS	CRONBACH'S ALPHA
FACTOR 1: PROACTIVENESS	0.957
FACTOR 2: INNOVATIVENESS	0.950
FACTOR 3: RISK TAKING	0.884

Principal Component Analysis (PCA) is conducted to reduce the variables to factors. The factor loadings with values less than 0.5 were suppressed and the remaining were alone taken for further analysis. This also indicated higher correlations with the factors as presented in the table. The Factor analysis indicated that 84.6% of the total variance in the Export Performance was due to the EO levels and the remaining was due to unexplained factors.

For further analysis the firms managed by FGE are coded as 1, firms managed by SGE and others as 2 and the third group firms are coded as 3. The descriptive statistics are presented in Table 2. The second column titled N indicate the number of firms in each group. The third column indicates the mean of the variables that measures the Export Performance. The next column indicates the standard deviation. The remaining columns indicate the maximum and minimum values under each of the variables that test the Export Performance.

TABLE 2 DESCRIPTIVE STATISTICS						
		N	Mean	Std. Deviation	Minimum	Maximum
Turnover	1	109	11402.7523	1284.79057	10300.00	14800.00
	2	103	9788.8350	301.86772	9000.00	10200.00
	3	118	7995.0000	599.86288	6500.00	9000.00
	TOTAL	330	9680.4848	1644.20001	6500.00	14800.00
Revenue	1	109	36.1683	1.01308	35.00	39.00
	2	103	33.0010	1.42190	30.00	34.75
	3	118	25.5975	2.17143	21.00	30.00
	TOTAL	330	31.3998	4.80124	21.00	39.00
Export Intensity	1	109	72.0826	5.73671	62.00	80.00
	2	103	56.1748	4.08831	49.00	62.00
	3	118	35.0458	8.85321	25.00	50.00
	TOTAL	330	53.8739	16.80798	25.00	80.00

Further tests were done to compare the influence of varying entrepreneurial levels on the firms based on their EO levels. This comparison was done using the ANOVA tests. The tests revealed that all the variables that measured Export Performance significantly varied with the EO levels. It also confirmed the existence of three groups of respondents when classified based on their EO levels. The performance of the first group of participants was found to be higher than the other two groups. This indicated that the FGE were exhibiting higher levels of EO and Export Performance than the other two groups.

Table 3 RESULTS OF TESTS OF SIGNIFICANT DIFFERENCES AMONG GROUPS OF FIRMS								
		Sum Of Squares	Df	Mean Square	F	Sig.		
Turnover	Between Groups	659746937.918	2	329873468.959	469.669	.000		
	Within Groups	229669584.506	327	702353.469				
	Total	889416522.424	329					
Revenue	Between Groups	6715.350	2	3357.675	1263.857	.000		
	Within Groups	868.737	327	2.657				
	Total	7584.087	329					
Export Intensity	Between Groups	78515.692	2	39257.846	889.659	.000		
	Within Groups	14429.484	327	44.127				
	Total	92945.176	329					

In Table 3 the first column depicts the dependent variables. The second column presents the dimensions in which the analysis is done. The sum of squares when divided by the degree of freedom gives the mean square between the groups. Since the number of groups are three, the degree of freedom is $3-1=2$. Similarly the sample size is 330, hence the degree of freedom for within groups is 327. F test gives the ratio between variances measured from two dimensions, within the groups and between the groups. The numerator is between the groups and the denominator is variance within the groups. The F statistic is significant as shown by the significance value. If $P<0.05$, we reject the null hypothesis. Here it is accepted that the Export

Performance between the firms is significantly different. In other words, the groups differ significantly in their Export Performances when Entrepreneurial Orientation is used as a factor.

The next objective is to find whether the firms under Group 1 show significantly higher export performances under the influence of EO. For this Post Hoc tests are employed to compare the firms against each other for significant differences. In Post Hoc test, Tukey statistic is used to interpret significant differences among groups.

Table 4
RESULTS OF POST HOC TESTS

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Turnover	1	2	1613.91734*	115.16326	.000*	1342.7728	1885.0618
		3	3407.75229*	111.33624	.000*	3145.6183	3669.8863
	2	1	-1613.91734*	115.16326	.000*	-1885.0618	-1342.7728
		3	1793.83495*	113.00935	.000*	1527.7617	2059.9082
	3	1	-3407.75229*	111.33624	.000*	-3669.8863	-3145.6183
		2	-1793.83495*	113.00935	.000*	-2059.9082	-1527.7617
Revenue	1	2	3.16738*	.22398	.000*	2.6400	3.6947
		3	10.57089*	.21654	.000*	10.0611	11.0807
	2	1	-3.16738*	.22398	.000*	-3.6947	-2.6400
		3	7.40351*	.21979	.000*	6.8860	7.9210
	3	1	-10.57089*	.21654	.000*	-11.0807	-10.0611
		2	-7.40351*	.21979	.000*	-7.9210	-6.8860
Export Intensity	1	2	15.90781*	.91283	.000*	13.7586	18.0570
		3	37.03681*	.88249	.000*	34.9590	39.1146
	2	1	-15.90781*	.91283	.000*	-18.0570	-13.7586
		3	21.12899*	.89575	.000*	19.0200	23.2380
	3	1	-37.03681*	.88249	.000*	-39.1146	-34.9590
		2	-21.12899*	.89575	.000*	-23.2380	-19.0200

*. The mean difference is significant at the 0.05 level.

The Table 4 presents the results of Post Hoc tests. This is done to test for significant univariate differences among the groups using Tukey (1953), Honestly Significant Differences (HSD). The first variable Turnover is first compared for individual differences across the three groups. The first group mean is significantly different from the means of the other two groups with the intervention of EO (p -value 0.00). Similarly, for revenue too, the means of three groups are significantly different from each other when each of this group is compared with that of the other. Thus we reject the second hypothesis that the firms managed by the FGE do not differ in terms of EP with the intervention of EO (p - value = 0).

The results support the necessity for encouraging new entrepreneurial ventures. The second generation and third generation entrepreneurs perform on the platform provided by the earlier generations, whereas the first generation entrepreneurs are given to perform on a clean ground and start from the scratch. Earlier studies confirm the need for encouraging entrepreneurship, and this study stands supportive to the findings made earlier.

LIMITATIONS AND FUTURE RESEARCH

The study is not devoid of any limitations. It takes only the three factors that are widely discussed and considered to be influential. The influence of other factors like time is also duly acknowledged as those factors stand overlooked. Rather than a deliberate omission, it is a genuine submission that these factors find limited attraction in the literature of entrepreneurship.

CONCLUSION

The analyses done to test whether the EO levels significantly varied among the entrepreneurs confirmed the fact that greater EO levels had influence on the Export Performance of the firms. The study also confirmed the predicting power of EO on export performance. The owners significantly differed among themselves on the three dimensions. The first-generation entrepreneurs showed a higher level of EO. This implies that the first-generation managers are more aggressive in their outlook and every step of theirs takes them to the success ladder. It also implies that governmental policies could be developed to encourage entrepreneurship in countries that are trending the development path. Venture capitalists, Private Equity firms and others too could invest their funds by identifying the entrepreneurship who are willing to absorb the risks in the export sector and contribute to the nation.

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EFFECT OF PRICE, ADVERTISING AND MOTIVATION ON ONLINE PURCHASE BEHAVIORS AMONG YOUTH ACADEMIC ENTREPRENEURS IN NIGERIA: SOCIAL INFLUENCE AS MODERATOR

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ABSTRACT

The purpose of this study was to examine the effect of price, advertising and motivation on online purchase behaviors among youth academic entrepreneurs in Nigeria, with moderating influence of social groups. The introduction of entrepreneurship courses in tertiary institutions of learning in Nigeria is a similar practice in many developing countries. The aim is to generate self-employment among youths and employment generation for others. This is due to poverty and unemployment in the country where most parents could not access study scholarships for their children to study in universities thereby making the students self-sponsored. This is one reason students seek low-priced products online. However, the issue here is: do academic entrepreneurs only depend on conventional markets for their raw materials, current business information, and sales avenues for their product or do they operate online to some degree? If they do, what factors influence their online business transactions? The study adopted a survey method to solicit responses from 293 final year university business students in the north, east and west regions of Nigeria. Stratified proportionate random sampling was adopted and data were analyzed using hierarchical regression. One of the findings suggest that academic entrepreneurs in Nigeria perceived price reduction and after-sales service advertising as critical factors influencing their online purchase behavior. The authors recommend, among others, that policymakers should encourage online vendors to provide after sales service information, such as return policy, for customers.

Keywords: *online purchase behaviors, youth academic entrepreneurs, Nigeria*

INTRODUCTION

The introduction of entrepreneurship courses in tertiary institutions of learning in Nigeria is similar to what is being practiced in many developing countries of the world. The purpose is to generate self-employment among Nigerian youths and employment generation for others. This is due to poverty and unemployment in the country where most parents could not access study scholarships for their children to study in universities thereby making the students self-sponsored (Ekpe et al., 2014). This is one reason students seek low-priced products online and adequate information on vendor' return policy. Their families also influence their purchase decisions in some cases. The resultant effect of this entrepreneurship programs in universities is that a number of students, as expected, have started entrepreneurship practice while on campus in such areas as: hand phone accessories, hairdressing, tailoring, apparel and shoes, and other creative arts and designs. This has proved the importance of motivation. Again, the "industrial training

program" especially in universities of technology exposes the students to compulsory practical experience in the field. However, the issue here is: do academic entrepreneurs only depend on conventional markets for their raw materials, current business information, and sales avenues for their product or do they operate online to some degree? If they do, what are the possible factors influencing their online business transactions? Given the contextual characteristics as expatiated above; could price, advertising and motivation be the possible factors influencing online purchase intentions, and subsequent online purchase behaviors among youth academic (student) entrepreneurs in Nigeria? Could social group influence online business decisions of the student entrepreneurs? This study seeks to provide answers to these questions.

Internet technology has made shopping easy, fast and more convenient than traditional market (Chandra & Sinha, 2013). Nazir, Vel and Mateen (2012) and Yu and Wu (2007) also argued that the price of products shopped online could be cheaper, and sellers could easily advertise their goods and services. Regarding shopping, customers are different in terms of choices and decisions, and they evaluate given situations before making purchase decisions (Perner, 2008). Therefore, effort to know the critical factors that affect customer's purchase decisions is worth investigating.

Identification of the critical factors influencing online purchase intentions and behaviors has suffered lack of consensus among scholars in the field. This has made it difficult to compare research results. Some studies have argued that there exist limited knowledge about consumers' online purchase intentions and behaviors due to its numerous social and economic factors (Khanh & Gim, 2014; Moshrefjavadi, Dolatabadi, Nourbakhsh, Poursaeedi & Asadollahi, 2012). Other studies indicated that these factors are psychological and contextual (Ajzen, 1991; Chandra & Sinha, 2013; Destiny, 2012; Kruger & Mostert, 2014; Kuester, 2012). Such psychological factors that could influence purchase intentions include motivation, attitude and life experiences (Kotler & Armstrong, 2006; Ooi, 2009). While contextual factors that could impact online purchase behaviors include public policy, culture and technology (Aminu, 2013; Dange & Kumar, 2012; Ekpe, Mat & Razak, 2011; Madahi & Sukati, 2012). In addition, it is observed that current trends in consumer's life style and self-perception are changing, and their purchasing decisions would have to meet the changing tide. This situation equally applies to students whose ultimate purchase behavior could be inferred from their purchase intentions, in line with Ajzen (1991) and Kruger and Mostert (2014). Therefore, studying the factors affecting online purchase intentions and behaviors among academic entrepreneurs is timely.

Numerous studies exist that have examined the factors influencing online purchase intentions and behaviors in developed and developing nations, such as Alley (2010); Ariff Yan, Zakuan, Bahari and Jusoh (2013); Destiny (2012); Gong, Stump and Maddox (2013); Heijden, Verhagen and Creemers (2003); Khanh and Gim (2014); Liu (2013) and Nazir, Vel and Mateen (2012). However, paucity of studies exists that examined these factors in Nigeria, for example, Aminu (2013) and Ayo, Adewole and Oni (2011). Therefore, more studies are needed here because of some unique characteristics such as low e-commerce adoption by most entrepreneurs in Nigeria (Aminu, 2013). Again, the mediating influence of purchase intentions on the relationship between purchase factors and purchase behavior has scant literature. The closest studies to this are those of Heijden et al. (2003) and Leelayouthayotin (2004) which measured perceived experience and perceived usefulness respectively as mediators. Examining the mediating and moderating effects of intention and social group respectively are vital because price, advertising and motivation might not lead to purchase behavior without purchase intention. Similarly, a student who has intention to purchase product online might be hindered by the

advice of his family or friends. Therefore, measuring purchase intention as a mediator and social influence as a moderator in this recent study will strengthen the existing literature in the field.

LITERATURE REVIEW

Internet technology, such as e-commerce, is a product of creativity and innovation which has extensively simplified contemporary business transactions, and made easy the lives of people, though they may not be able to physically examine the goods purchased online like in an open market. In addition, customers' decisions affect their purchases; therefore the factors affecting such decisions require proper understanding.

Online Purchase Behaviors

Recently, most behavioral scholars have built their research ideas on the premise of the theory of planned behavior (Ajzen, 1991). Similarly, this study is tied to Ajzen (1991). For example, the perception of academic entrepreneurs (students) towards price and advertising could lead to their intention to purchase or not. This is related to the perceived behavioral control of Ajzen's theory of planned behavior (TPB). Motivation is related to attitude of TPB. For example, if the students perceived favorable return policy from online sellers, they could be motivated to buy such products. Social influence relate to subjective norm of TPB which relates to the opinion of their social group members towards their intended behavior.

As earlier stated in this work, there is no consensus among scholars regarding the factors influencing online purchase intentions and purchase behaviors. While studies (e.g Kotler & Armstrong, 2006) suggested that cultural, social, personal and psychological factors could influence online purchase behaviors among American consumers; other studies (Chandra & Sinha, 2013) indicated that demography, attitude, convenience, website designs, time-saving and security affected purchase behaviors among Indian consumers. In the work of Aaijaz and Ibrahim (2010), shopping orientation, perceived benefits and attitudes towards online shopping were the major determinants of purchase behavior among Malaysian consumers. Furthermore; attitude, trust, subjective norms, perceived behavioral control, demography and desired consequences were related to online purchase behavior among Thai consumers (Thananuraksakul, 2007). Yet still; other studies measured demography, safety, security, return policy, convenience, website features, previous experience and marketing mix elements on online buying behavior in Hong Kong (Constantinides, 2004; Destiny, 2012).

Studies have reported that information quality, web designs, security and reliable customer service were related to online buying behavior in Malaysia (Ariff et al., 2013). Whereas demography, perceived economic benefit, perceived ease of use, perceived product and transaction risks and payment benefits were correlated with online shopping behavior in Vietnam (Khanh & Gim, 2014). Equally; price, convenience, trust, security, time saving, after sales service and discounts were examined on online shopping behavior in Pakistan (Nazir et al., 2012). Again; accessibility, trust, personal constraints and perception influenced consumer's buying behavior in Nigeria and United Kingdom (Alley, 2010). We, therefore, hypothesized that:

H1: Price, advertising and motivation is positively related to online purchase behaviors among youth entrepreneurs

Online Purchase Intentions

It is stated that intentions are the best predictors of behavior (Ajzen, 1991). Therefore, consumers' purchase intentions help to understand their ultimate purchase and post-purchase behaviors (Bashir, 2013). In Netherlands, perceived risk (trust) and perceived ease of use positively affected online purchase intention of consumers (Heijden et al., 2003). Whereas in Sweden, online purchase intention was influenced by such factors as perceived usefulness, perceived ease of use, perceived risk, price, e-trust and website quality (Liu, 2013). In China, demography and perceived usefulness were the determinants of online purchase intention (Gong et al. (2013). Similarly, demographics, security, prices, commercial credits and store designs were found to influence online purchase intention in China (Guo, 2011). Task-technology fit and perceived usefulness positively influenced consumer's intention to use e-commerce in Nigeria (Ayo et al., 2011). In Ethiopia, attitude and perceived behavioral control positively affected consumer's intention to adopt e-banking, where attitude was represented by perceived usefulness, perceived ease of use and perceived risk (Takele & Sira, 2013). In Taiwan, perceived product's value and e-trust determined consumer's online purchase intention (Chen, 2012). In the work of Leelayouthayotin (2004) in Thailand, product and company attributes and perceived usefulness had direct effect while customer experience and perceived risk had indirect effect on purchase intention, using perceived ease of use and perceived usefulness as mediators. In the same vein, trust and risk in online social network determined online purchase intention in Thailand (Leeraphong & Mardjo, 2013). While in Malaysia, factors such as trust, perceived usefulness and subjective norms influenced online purchase intention (Liat & Wuan, 2014).

From the literature evidence shown above, it is clear that the common factors determining online purchase behavior, measured by most previous studies, were: internet knowledge, perceived risk, usability, trust, service quality, and price. For example motivation, attitude, subjective norm, behavioral control, demography, social and cultural environments, previous experience, convenience, empathy, time saving, enjoyment, security, safety, usefulness, ease of use, enjoyment, lifestyle, personality, trust and risk were categorized as "motivation" because motivation drivers are perceived usefulness, perceived ease of use, perceived enjoyment (Chin, 2012) and perceived risk (Takele & Sira, 2013). It was earlier stated in this study that the factors influencing online purchase intentions are numerous, with no consensus among authors (Khanh & Gim, 2014; Moshrefjavadi et al., 2012). However, among these factors; price, advertising and motivation seem more relevant to student entrepreneurs in Nigeria due to the prevalent contextual characteristics such as poverty, unemployment and low e-commerce adoption. Therefore, this study investigated consumer's purchase behavior in Nigeria based on price, advertising and motivation.

Motivation

This refers to a general term applying to the entire class of drives, desires, needs, wishes and similar forces (Weihrich, Cannice & Koontz, 2008). In the shopping context, motivation is an attraction to consumers for doing shopping inside the shopping centre (Chen & Chang, 2003). A person's purchasing intentions were influenced by psychological factors such as motivation, perception and learning (Kotler & Armstrong, 2006). Whereas intrinsic motivation is not associated with task completion, extrinsic motivation leads to shopping efficiency in terms of time saving (Kotler & Armstrong, 2006). Consumers could be extrinsically motivated through social interaction, experience, interest and enjoyment; and consumers online shopping behavior

depends on their shopping motivations (Chen & Chang, 2003). In Netherlands, attitude towards online purchase intention was significantly influenced by perceived risk (trust) and perceived ease of use (Heijden et al., 2003). In the same vein, consumer's purchase intention in online group buying websites in Malaysia was positively influenced by motivation drivers such as perceived usefulness, perceived ease of use and perceived enjoyment (Chin, 2012; Harn, Tanakinjal, Sondoh & Rizal, 2014). In China, consumers' online purchase intention was significantly influenced by perceived usefulness, perceived ease of use, e-trust, word of mouth and price (Gong et al., 2013; Liu, 2013). In Taiwan, except trust (integrity), online purchase intention was directly influenced by perceived value, perceived product sacrifice, ability and benevolence (Chen, 2012). In Thailand, online purchase intention was only affected by perceived usefulness (Leelayouthyotin, 2004). Also in Thailand, online purchase intention was positively influenced by perceived risk, trust, subjective norms, past experience and word of mouth (Leeraphong & Mardjo, 2013). We, therefore, hypothesized that:

H2: Motivation is positively related to online purchase intentions among youth entrepreneurs

Advertising

With regards to online purchase intentions, advertising has a broader exposure and a lasting effect on consumer's mind (Katke, 2007) and so helps to influence their awareness, attitudes and buying behavior. Therefore, advertising has the potential to contribute to brand choice among consumers (Ayanwale, Alimi & Ayanbimipe, 2005; Latif, Saleem & Abideen, 2011).

In Malaysia, online purchase intention was directly influenced by information quality, web design, security (privacy) and reliable customer service (Ariff et al., 2013). In Hong Kong, online purchase intention was positively affected by demography, safety, security, return policy, convenience, website features, previous experience and marketing mix elements (Constantinides, 2004; Destiny, 2012). In Pakistan, online purchase intention was significantly influenced by price, after-sales service, convenience, trust, security, time saving, and discounts (Nazir et al., 2012). In Taiwan, online purchase intention was directly affected by perceived product's value and e-trust (Chen, 2012). In Thailand, online purchase intention was positively influenced by product and company attributes, and perceived usefulness (Leelayouthayotin, 2004). We, therefore, hypothesized that:

H3: Advertising is positively related to online purchase intentions among youth entrepreneurs

Price

With internet, consumers are able to search for existing and new products and services, compare prices and place orders easily. For vendors; maintenance cost, transaction cost and carried cost are low for online presence. As such, prices are lower than conventional markets. A firm should, therefore, strike a balance between consumer's satisfying value for their money and the firm's profit expectation. In Hong Kong, online purchase intention was positively affected by safety, security, return policy, convenience, website features, previous experience and marketing mix elements (Constantinides, 2004; Destiny, 2012). In Malaysia, consumer's online shopping behavior was directly related to price, safety, time saving, convenience, web designs and brand awareness (Bashir, 2013; Chen & Chang, 2003). Whereas demography, perceived economic

benefit, perceived ease of use, perceived product and transaction risks, and payment benefits were correlated with online shopping behavior in Vietnam (Khanh & Gim, 2014). Similarly, demographics, security, prices, commercial credits and store designs were found to influence online purchase intention in China (Guo, 2011). We, therefore, hypothesized that:

H4: Price is positively related to online purchase intentions among youth entrepreneurs

Intention to Purchase (Mediator)

Relating Ajzen (1991) theory of planned behavior to online shopping behavior; it could imply that consumer's intention to shop online mostly leads to actual shopping behavior. Similarly, without intention to purchase a product or service online, motivation, advertising and price could not lead to actual purchase. Perceived usefulness, perceived ease of use, perceived risk, price, e-trust and website quality affected online purchase intention in Sweden (Liu, 2013). While attitude, perceived benefits, demography, convenience and price were found to influence online purchase intention in Malaysia (Delafrooz, 2009). Demography and perceived usefulness were the determinants of online purchase intention in China (Gong et al. (2013). Perceived experience (motivation) mediated the relationship between perceived risk (trust) and perceived ease of use, and online purchase intention in Netherlands (Heijden et al., 2003). We, therefore, hypothesized that:

- H5a: Intention to purchase products online is positively related to actual purchase behavior among youth entrepreneurs*
- H5b: Intention to purchase products online mediates the relationship between motivation, advertising and price; and actual purchase behavior among youth entrepreneurs*

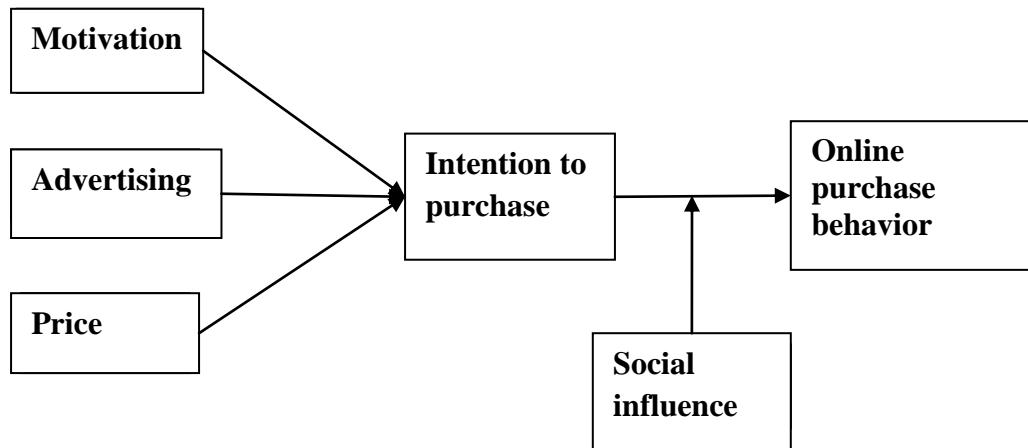
Social Influence (Moderator)

This involves social ties, influence of friends and family, role models and advisors. Perceived social environment also had positive impact on students' entrepreneurial intentions in China (Yun & Yuan-qiong, 2010). A weak relation was found to exist between social norms and entrepreneurial intention, indicating that social environment affect individual's attitude to entrepreneurial intention (Ajzen, 1991; Krueger et al., 2000). On the other hand, Kuzilwa (2005), Shastri and Sinha (2010), concluded that the possession of education, right attitude to risk, motivation and working experience aside; social environment may hinder identification and exploitation of entrepreneurial opportunity. This evidence indicated that social influence could hinder purchase intention from maturing into purchase behavior among the youth academic entrepreneurs. Nasurdin, Ahmad and Lin (2009) found that social identity (appreciation from family, friends and society if someone becomes an entrepreneur) did not have any significant relationship with entrepreneurial intentions in Malaysia. The inconsistency in these studies suggest the need for a moderator because Baron and Kenny (1986) suggested that when there is inconsistent or weak relation between predictor and criterion variables, a moderator is necessary. Therefore, the study hypothesized that:

H6: Social influence moderates the relationship between motivation, advertising, price and purchase intention; and actual purchase behaviors among the youth entrepreneurs.

The conceptual framework for this study is shown in Figure 1 below:

**Figure 1
CONCEPTUAL MODEL**



METHODOLOGY

Survey Procedures

The study adopted a survey method to solicit responses from 293 final year university business students in the north, east and west regions of Nigeria; using stratified proportionate random sampling. This method was used because university business faculties mostly offer entrepreneurship courses or train academic entrepreneurs; and the respondents, according to previous studies in other contexts, show high propensity to internet technology and social media usage, and are susceptible to social influence. The total population of this study was 1089 registered and active final year university business students, made up of 289 students from the north, 600 students from the east and 200 students from the west regions of Nigeria. From this population, a total sample size of 293 students was used; determined by Israel (1992) based on Yamane's (1967) formula for finite population: $n = N/1+N(e)^2$. From the questionnaires returned, 137 questionnaires were usable. However, after data cleaning, data for 134 students were used for the analysis. Data were analyzed using hierarchical regression methods, while descriptive statistics were used to describe and reinforce the results of the study.

Measures

Measures for motivation, advertising and price, and online shopping behavior were adapted from Osman, Yin-Fah & Hooi-Choo (2010); while measures for intentions were adapted from Basheer and Ibrahim (2010); and Kasem and Shamima (2014). Measures for social

influence were adapted from Kennedy et al. (2003). Motivation was measured in terms of perceived time saving, perceived ease of use, perceived safety, perceived service quality and complaints. Advertising was measured in terms of website design, product information quality, product design, brand awareness and after-sales service. Price was measured in terms of affordability, discounts and commercial incentives. Intention to purchase was measured in terms of future plan or desire to purchase an item. Social influence was measured in terms of social group's influence (influence of friends, families, relatives, role models and advisors). Consumer online behavior was measured in terms of frequency of online visits to purchase, explore product and/or price information. All the measures were tapped on a 5-point scale.

The mediator-interaction effects were determined in line with the procedure suggested by Baron and Kenny (1986). A variable functions as a mediator when it meets the following conditions: (a) variations in levels of the independent variable significantly account for variations in the presumed mediator, (b) variations in the mediator significantly account for variations in the dependent variable, and when the independent variables and the mediator are controlled, a previously significant relation between the independent and the dependent variables is no longer significant. To put it simply, the coefficient (beta) of the mediator must be significant while that of the predictors must not. The strongest mediation occurs when the last step is zero, showing a single dominant mediator. However, from theoretical perspective, a significant reduction demonstrates that a given mediator is indeed potent; though not a necessary and sufficient condition. Again, mediator should correlate with predictor or criterion variable (Baron & Kenny, 1986).

The moderator-interaction effects were determined in line with the procedure suggested by Baron and Kenny (1986). A moderator-interaction effect would occur if a relation is substantially reduced instead of being reversed (Baron & Kenny, 1986). Again, a moderator hypothesis is supported if the interaction or the product of a predictor variable and the moderator is significant when the predictor and the moderator were being controlled (Baron & Kenny, 1986).

RESULTS

Data Cleaning

The data used were free from errors. For instance, negatively worded questions reverse coded, outliers were detected by comparing the Mahalanobis distance (D^2) or chi-square value of each respondent with the critical or table chi-square value, using the number of predictor variables as the degrees of freedom, at $p < 0.001$ (Hair et al., 2010). Extreme observations in a sufficient number of variables in multivariate and univariate detections were deleted (Hair et al., 2010). Normality was handled through skewness and kurtosis. Observations with Z-score above or below the critical value of 1.96, at $p = 0.05$ were deleted (Hair et al., 2010). Linearity was detected through Pearson correlation matrix and all predictors correlated with the criterion variable. The output of the hierarchical regression analysis indicated that the error term (as indicated by Durbin Watson statistics) were all within the recommended range of 1.50-2.50. There was no case of multicollinearity as the collinearity statistics of the regression output indicated Tolerance > 0.10 , Variance Inflationary Factor < 10 and Condition index < 30 in most cases (Hair et al., 2010). Homoscedasticity (equality of variance) was verified through an examination of the residuals of the regression output which showed no clear relationship between the residual and the predicted values (Coakes & Steed, 2003).

Goodness of Measures

The principal component analysis for the predictor variables revealed the presence of two components with eigenvalues greater than one, using Varimax with Kaiser's normalization rotation method. These two components factors were renamed price reduction and after-sales advert information. The naming was done according to the items with the highest factor loadings in each component. The two components explained a total variance of 64.06%. Communalities were above 0.6 for most variables, anti-image (MSA) was above 0.5 for each item and Barlett's test of sphericity (sig.) was 0.000 which was <0.05 recommended value. Kaiser-Meyer-Olkin' measure of sampling adequacy was 0.574 and factor loadings were above 0.5 as suggested by Hair et al. (2010). The mediator, intention to purchase product online, converged into one component with a total variance explained as 64.27%. Communalities were above 0.6 for most items, MSA was also above 0.5 and Barlett's test of sphericity (sig.) was 0.000. Factor loadings were above 0.5 and KMO was 0.630. The moderator, social influence, converged into two components renamed family's influence and relatives' influence; with a total variance explained as 59.23%. Communalities were above 0.6 for most items, MSA was also above 0.5 and Barlett's test of sphericity (sig.) was 0.000. Factor loadings were above 0.5 and KMO was 0.768. The criterion variable converged into one component with a total variance explained of 57.70%. Communalities were above 0.6 for most items, MSA was above 0.5 and Barlett's test of sphericity (sig.) was 0.000. Factor loadings were above 0.5 and KMO was 0.612. However, resulting from the EFA, motivation was kicked out from among the variables and was no longer considered for further analysis. Therefore, Hypothesis 2 was deleted from further analysis.

After the principal component factor analysis, the data were standardized by finding the mean of items of each factor or construct which then became the variables for subsequent analyses such as reliability. However, for hierarchical regression, the variables were centralized to avoid high multicollinearity (Aiken & West, 1991). Prior to hierarchical multiple regression, the independent variables and the mediator were multiplied with the moderators to get the product of interaction terms that were entered into specific levels of the hierarchical regression analysis.

Reliability test was performed on the factors after the exploratory factor analysis. Alpha ranged from 0.60 to 0.82. Descriptive statistics was also performed on the variables. The result indicated that among the predictor variables, after-sales service advert and price had higher mean values and standard deviations ($M=3.71$, $SD=0.75$) and ($M=3.58$, $SD=0.92$) respectively. This proved that academic entrepreneurs in Nigeria perceived after-sales service advert and price reduction as critical factors influencing their online purchase behavior. The questions measured for price were Q20, Q24 and Q19. Questions measured for advertising were Q16, Q15 and Q17. Questions measured for purchase intention were Q39, Q32, Q38 and Q34. Questions measured for relatives' influence were Q46, Q47, Q45, Q40 and Q48. Questions measured for family influence were Q42, Q43, Q41 and Q44. While questions measured for consumer purchase behavior were Q56, Q53 and Q50. This is shown in Table 1.

Table 1 DESCRIPTIVE ANALYSIS OF THE VARIABLES (MEAN AND STD. DEV) AND CRONBACH' ALPHA COEFFICIENT					
Variables Measured	Items After Efa	Mean	Std. Deviation	Cronbach' Alpha	Sample Size (N)
Price (P)	3	3.58	0.92	0.60	134
Advertising (A)	3	3.71	0.75	0.64	134
Intention to Purchase (IP)	4	3.50	0.73	0.61	134
Social Influence (Relatives) (MSI. 1)	5	2.81	0.96	0.78	134
Social Influence (Family) (MSI. 2)	4	2.10	0.97	0.82	134
Consumer Purchase Behavior (CB)	3	3.22	0.87	0.60	134

Testing Hypotheses

Table 2 RESULTS OF HIERARCHICAL REGRESSION ON CONSUMER ONLINE PURCHASE BEHAVIOR						
Variable	Condition 1 (IV-DV) Beta 1 (Step 1)	Condition 2 (IV-Med-DV) Beta 2 (Step 2)	Condition 3 (IV-Med- Mod-DV) Beta 3 (Step 3)	Condition 4 (Interaction Effect) Beta 4 (Step 4)	Condition 5 (IV-Med) Beta 5 (Step 5)	Condition 6 (Med-DV) Beta 6 (Step 6)
Price (P)	0.344****	0.298***	0.287***	0.217**	0.173**	
Advertising (A)	0.141*	0.083	0.063	0.033	0.219**	
Intention to Pur.(IP)		0.267***	0.232**	0.188**		0.348****
Social Influence (MSI.1:Relatives)			0.121	0.046		
Social Influence (MSI.2: Family)			0.023	-0.006		
MP*MSI 1				-0.077		
MA*MSI 1				-0.035		
MIP*MSI 1				-0.191		
MP*MSI 2				-0.244**		
MA*MSI 2				0.135		
MIP*MSI 2				0.067		
R square	0.152****	0.217***	0.231	0.321	0.089	0.121
Adjusted R square	0.139	0.199	0.201	0.259	0.075	0.114
R square Change	0.152	0.065	0.014	0.089	0.089	0.121
F Value	11.743	10.770	1.203	2.668	6.386	18.167
Sig. F. Change	0.000****	0.001***	0.304	0.018**	0.002**	0.000****

Note: *p < 0.10; **p < 0.05; ***p < 0.01; ****p < 0.001

Dependent Variable: Consumer Online Purchase Behavior (MCB)

From Table 2, beta 1 (step 1) showed the direct influence of price reduction and after-sales service advertising on consumer online purchase behavior. The R square was 0.152. In other words, the two independent variables explained 15.2% of the variance in purchase behavior (R square change = 0.152, p < 0.001). The overall regression model was significant (Sig. F change = 0.000, R square = 0.152, F change = 11.743, p < 0.001). From the individual coefficients, both price reduction (beta = 0.344, p < 0.001) and after-sales service advertising (beta = 0.141, p < 0.10) were significant. This indicated that price reduction and after-sales service advertising were critical factors influencing the students' online purchase behavior.

In beta 2 (step 2), when intention (mediator) was entered, the R square was 0.217. This showed that total variance explained by the model as a whole became 21.7% (R square = 0.217, F change = 10.770, p < 0.01). The additional variable explained an additional 6.5% of the variance in purchase behavior, after controlling price and advertising (R square change = 0.065).

Again, the overall model was significant ($\text{Sig. F change} = 0.001, p < 0.01$). However, among the individual coefficients, only price reduction ($\text{beta} = 0.298, p < 0.01$) was significant. Furthermore, price had a reduction in its beta from condition 1 to condition 2; as such it indicated a partial mediation (Baron & Kenny, 1986). The intention to purchase (mediator: $\text{beta} = 0.267, p < 0.01$) was also significant. After-sales service advertising ($\text{beta} = 0.083$) was insignificant.

In beta 3 (step 3), when relatives' influence (moderator 1) and family influence (moderator 2) were entered, the R square was 0.231. This showed that total variance explained by the model as a whole became 23.1% ($R^2 = 0.231, F \text{ change} = 1.203$). The additional variable explained an additional 1.4% of the variance in purchase behavior, after controlling price, advertising and intention ($R^2 \text{ change} = 0.231$). The overall model was insignificant ($\text{Sig. F change} = 0.304$). However, from the individual coefficients, relatives' influence (moderator 1) and family's influence (moderator 2) were positively related to price reduction ($\text{beta} = 0.287, p < .01$) and intention to purchase ($\text{beta} = 0.232, p < .05$). Relatives' influence (moderator 1) and family's influence (moderator 2) themselves were insignificant ($\text{beta} = 0.121$) and ($\text{beta} = 0.023$) respectively.

In beta 4 (step 4), when the interaction was performed, then R square became 0.321. This showed the total variance explained by the model as a whole was 32.1%. The interaction effect was noticed by the increase in R square value by 9% ($R^2 \text{ change} = 0.089$) which explained an additional 9% of the variance in purchase behavior ($R^2 = 0.321, F \text{ change} = 2.668$). The overall model was significant ($\text{Sig. F change} = 0.018$). From the individual coefficients, family's influence interacted with price ($\text{beta} = -0.244, p < .05$) to predict online purchase behavior among the students. Therefore, social influence (family) moderated the relationship between price (not advertising) and online purchase behavior among academic entrepreneurs in Nigeria.

In beta 5, price and advertising were separately regressed on intention (mediator) so as to test hypotheses 3 and 4. R square was 0.089 which showed the total variance explained by the model as a whole was 8.9%. The R square change was 0.089, $p < 0.05$. The overall model was significant ($\text{Sig. F change} = 0.002, p < .05, R^2 = 0.089, F \text{ change} = 6.386, p < 0.05$). From the individual coefficients, price reduction ($\text{beta} = 0.173, p < .05$) was significant and after-sales advertising ($\text{beta} = 0.219, p < .05$) was also significant.

In beta 6, intention to purchase (mediator) was separately regressed on online purchase behavior (DV) so as to test hypothesis 5a. R square was 0.121 which showed the total variance explained by the model as a whole was 12.1%. The R square change was 0.121, $p < 0.001$. The overall model was significant ($\text{Sig. F change} = 0.000, p < .001, R^2 = 0.121, F \text{ change} = 18.167, p < 0.001$). From the individual coefficients, intention ($\text{beta} = 0.348, p < .001$) was significant. This proved that intention to purchase could lead to actual consumer purchase behavior.

Hypothesis 1 predicted a positive relationship between price, advertising and motivation; and consumer online purchase behavior. The regression analysis result, Table 2 (step 1), revealed that price ($\text{beta} = 0.344, p < .001$) and advertising ($\text{beta} = 0.141, p < .10$) had significant relationship with online purchase behavior. Thus, hypothesis 1 was supported.

Hypothesis 3 predicted a positive relationship between advertising and consumer online purchase intention. The regression analysis result, Table 2 (step 5), revealed that advertising ($\text{beta} = 0.219, p < .05$) had a significant relationship with online purchase intention. Thus, hypothesis 3 was supported.

Hypothesis 4 predicted a positive relationship between price and consumer online purchase intention. The regression result, Table 2 (step 5), revealed that price reduction ($\text{beta} =$

0.173, $p < .05$) had a significant relationship with consumer online purchase intention. Thus, hypothesis 4 was supported.

Hypothesis 5a predicted a positive relationship between intention and actual purchase behavior. The regression analysis result, Table 2 (step 6), revealed that intention ($\beta = 0.348$, $p < .001$) had significant relationship with online purchase behavior. Thus, hypothesis 5a was supported.

Hypothesis 5b predicted a mediating effect of intention on the relationship between advertising, price and actual purchase behavior. The regression analysis result, Table 2 (step 2), revealed that intention only mediated between price and online purchase behavior ($\beta = 0.298$, $p < .01$). Thus, hypothesis 5b was partially supported.

Hypothesis 6 examined the moderating influence of social groups (relatives and family) on the relationship between advertising, price and intention; and consumer online behavior. The regression analysis result, Table 2 (step 3), revealed that social influence (relatives and family) had relationship with price ($\beta = 0.287$, $p < .01$) and intention ($\beta = 0.232$, $p < .05$) regarding online purchase behavior among the academic entrepreneurs. The overall model was insignificant. However, most vital in a moderating relationship is the interaction effect. Therefore, Table 2 (step 4) showed the interaction effect between advertising, price, intention and social group's influence. The result indicated that only price ($\beta = -0.244$, $p < .05$) (not advertising) interacted with family influence (moderator 2) to predict online purchase behavior among the students. The regression coefficient of the moderator itself was insignificant ($\beta = -0.006$). According to Sharma (2003), this indicated a pure moderator. Therefore, social influence (family) moderated the relationship between price (not advertising) and consumer online purchase behavior. Therefore, hypothesis 6 was partially supported.

DISCUSSION

The result of this study supported previous studies that price and advertising positively and significantly affect consumer online purchase behavior (Ariff et al., 2013; Khanh & Gim, 2014; Nazir et al., 2012). Similarly, and in line with previous researches, the result also proved that price and advertising have significant positive effects on consumer online purchase intention (e.g Ajzen, 1991; Ariff et al., 2013; Bashir, 2013; Chen, 2012; Destiny, 2012; Guo, 2011; Latif et al., 2011; Nazir et al., 2011). Again, in agreement with previous works (Delafrooz, 2009; Gong et al., 2013; Liu, 2013), this study has provided evidence that purchase intention has a significant positive relationship with actual online purchase behavior. Furthermore, in support of Ajzen (1991), this study has shown that intention mediated the relationship between price, advertising and actual online purchase behavior; though a greater influence was on price. In addition, the study supported earlier studies (Nasurdin et al., 2009; Yun & Yuan-qiong, 2013) that social groups have profound influence on individual's behavior, especially the youths. Therefore, this research confirmed a positive influence of social group (relatives and family members) on students' online purchase behavior in Nigeria. For example, this study revealed that social group (family) moderated the relationship between price (not advertising or intention) and consumer online purchase behavior among academic entrepreneurs in Nigeria, as shown in the interaction effect. This finding supported Shastri and Sinha (2010), and also confirmed the behavior common among youths whose decisions are mostly influenced by their immediate families.

CONCLUSION

The results of these analyses confirmed that the overall model of price, advertising and purchase behavior was significant. Also the overall model of price, advertising and purchase intention was significant. This indicated that price and advertising were positively related to purchase intentions and purchase behaviors of the academic entrepreneurs in Nigeria. Also, the overall model of purchase intention and purchase behavior was also significant; indicating that intention to purchase a product online is positively related to actual purchase behavior. Again, the overall model of the mediating effect of purchase intention on the relationship between price, advertising and online purchase behavior was significant. This indicated that purchase intention mediated the relationship between price, advertising and online purchase behavior among academic entrepreneurs in Nigeria. The study, again, indicated that social influence (family) moderated the relationship between price, advertising, intention and consumer online purchase behavior in Nigeria.

This study recommended that policymakers and educators should ensure that products and services sold online are at affordable prices. This is because the vendors mostly incur less advertising and maintenance costs on products marketed online. In addition, adequate information about after-sales services, such as return policy, should be provided by online vendors. In this way, more online purchases would be encouraged especially among the Nigerian youths.

This study was limited to university students who are an arm of youths in Nigeria. Future studies could include youth entrepreneurs in secondary and vocational schools.

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THE DECISION TO BECOME AN ENTREPRENEUR IN SPAIN: THE ROLE OF HOUSEHOLD FINANCES

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ABSTRACT

Our objective is to analyse the decision to become an entrepreneur in Spain, with a special focus on the role of household finances in making that decision. To that end, we compare earnings for both salaried workers and entrepreneurs, and develop a theoretical framework to characterize entrepreneurship outcomes by a production function. This model is then estimated by binary Maximum Likelihood estimation regression models, employing Spanish micro-data from the Financial Survey of Families (Encuesta Financiera de las Familias), 2011. Our results show that household assets (vehicles, real estate, and investments) and the financial security that they provide, also affect entrepreneurship by encouraging individuals to become entrepreneurs.

INTRODUCTION

Entrepreneurship is a common alternative to salaried employment at a global level. However, we should think about it not simply as one kind of occupation, but also as an activity where background (family factors, education...) and external determinants must be taken into account (Galindo, Méndez & Alfaro, 2010).

In this context, the objective of our work is to analyse the decision to become an entrepreneur in Spain, with a special focus on the household financial situation. To that end, we first compare earnings and its determinants for both salaried workers and entrepreneurs. Spain has been strongly affected by the economic crisis and the unemployment rate has suffered greatly from its effects. Thus, Spanish individuals may have incentives to find income from sources other than salaried jobs (Congregado, Golpe & Carmona, 2010; Cueto, Mayor & Suárez, 2015). However, it is possible that the expectations of those considering becoming an entrepreneur - a job without supervision, without a boss, without rigid schedules - will be trammelled by the reality of a crisis-affected labour market, in the sense that the expected earnings cannot be obtained unless entrepreneurs devote not only large temporal and capital investments and managerial inputs, but also use other concepts, such as innovation.

In order to satisfy our objective, we develop a theoretical framework stating that entrepreneurship outcomes are characterized by a production function whose inputs are capital investment, time devoted, and individual managerial ability (see Blau, 1985; Taiwo, 2010). We also regard technical abilities as being important. Individual managerial ability refers to the capability to successfully run a business, which will be taken into account as labour experience, while technical abilities involve technical knowledge, closely linked to the individual's level of education. We will also include other personal and family variables that have traditionally been included in wage empirical works to check their relevance and utility in our entrepreneurship context.

LITERATURE AND CONCEPTUAL FRAMEWORK

Literature

Theoretical and empirical studies of entrepreneurship are common fields in the economic literature. Before describing the literature on the economic factors that may play a key role in entrepreneurship, we first refer to the works that have studied earnings for both salaried workers and entrepreneurs. Carrasco, Martínez-Granado & Albarán (2009) study the inequality between salaried and entrepreneur workers, showing that salaried workers' wages are significantly higher than the earnings of their self-employed counterparts. Castro and Santero (2014) find empirical evidence on the importance of level of education, labour stability, and experience of gender as determinants of entrepreneurship. At an international level, Hamilton (2000) studies earnings differentials between private-sector salaried workers and self-employed workers, showing that the financial profits of salaried workers, and their rate of growth, are 35% higher than those of self-employed workers. Although the literature includes many works analysing wages and their determinants (e.g., Pinkston, 2003; Soni & Goel, 2014; Rodrigo, 2015), to the best of our knowledge there are no analyses testing whether those determinants play any role in determining self-employment outcomes. In fact, analyses of the linkages between entrepreneurial activities and background and individual characteristics do not emphasise the role of potential self-employment and entrepreneurship income (e.g., Ruiz-Arroyo, Fuentes-Fuentes & Ruiz-Giménez, 2014; Gonzalez and Montero, 2014; Diaz. Guerrero & Peña, 2014; Garcia-Villaverde, Ruiz-Ortega, Parra-Requena & Rodrigo-Alarcón, 2014; Mata, 2014).

Returning to the influence of economic factors on entrepreneurial activity, and according to Acs (1992), there are certain macroeconomic factors that are important in determining levels of entrepreneurship, such us institutions (Kotsova, 1997) and social and economic country-specific factors. Barrado & Molina (2015) present an analysis of such indicators and find that OECD countries provide a more favorable macroeconomic background for developing entrepreneurship activities, although there are also some non-OECD countries where entrepreneurial activity is strong. There is some controversy about the importance of these institutional factors. Spencer and Gomez (2003) maintain that legal treatment and tax regimes are not sufficient in themselves to either encourage or discourage entrepreneurship, although Gomez-Haro & Gomez (2010) and Lugo & Espina (2014) find a positive relationship between entrepreneurial activity and institutions. Furthermore, there is no consensus on the role of Government incentives in entrepreneurial activity (Yu, 1998; Bjornskov & Foss 2006).

We now introduce some relevant information for Spain with respect to the key variables of our study. Spain is a country with a high structural unemployment rate (Domenech & Gomez, 2005), and during the recent crisis its unemployment rate reached 24.6% in 2012 (Rocha & Aragon, 2012). According to the Federal Reserve Bank of St. Louis (2012), there were almost 31.35 million individuals of working age in Spain, which states a rate of the working age population of 67.5%. The demographic and unemployment data could lead us to conclude that becoming an entrepreneur would be a good labor alternative to being an employee or unemployed, i.e., entrepreneurship due to necessity may be strong in Spain. However, we can find in Barrado & Molina (2015) a detailed review of the Spanish context (according to GEM indicators), in comparison with OECD and non-OECD countries, which does not agree with this hypothesis. These authors show that entrepreneurial activity in Spain was 6.1% in 2001 (vs. 8.7% of the OECD mean) and increased to 7.6% just prior the crisis (2007), then decreased to 4.3% in 2010 (vs. around 6% of the OECD mean), then remained stable around 5.6% until 2014.

(vs. 8.99% of the OECD mean). The comparison with the OECD mean is even more dramatic when we measure entrepreneurship via GEM's TEA (Total Entrepreneurship Activity) index. The Spanish index is about one-half of the OECD mean. As is shown in Barrado & Molina (2015), Spanish institutions do not specially favour entrepreneurship. In all cases, the indicators (tax treatment, bureaucracy, I+D transfers, Government incentive policies and programmes, access to infrastructures, market opening and dynamism, entrepreneurial education programmes, and social norms) are below the OECD means – some of them significantly - and in the case, for example, of access to financing, Spain is at the bottom of the list, above only Greece.

Focusing now on the social and economic factors, Gimenez-Nadal & Molina (2014) show the importance of identifying those economic factors, such as unemployment, and the household economic situation, that can encourage or discourage entrepreneurship, in order to develop and design labor policies. Thus, unemployment has a strong impact on entrepreneurial activity, although there is no clear relationship and it can be conditioned by socio-geographical characteristics (Storey & Johnson, 1987; Thurik, Carree, Van Stel & Audretsch, 2008).

Cueto, Mayor & Suárez (2015) find that, in certain regions of Spain, unemployment and self-employment move in opposite directions, while in other regions they move in the same direction. This is due to the so-called “entrepreneurial spirit” of individuals: if this entrepreneurial spirit is strong in a certain region, then people will find entrepreneurship to be an attractive alternative to salaried employment and they may resort to it as a way out of unemployment. On the contrary, if the entrepreneurial spirit is weak in a given region, increases in unemployment will not be followed by increases in self-employment.

Following the same line of research, and also in the case of Spain, Congregado, Golpe & Carmona (2010) analyse the relationship between unemployment and entrepreneurship and find that, during economic crises, unemployment encourages entrepreneurship. Moreover, during periods of expansion, few successful entrepreneurs leave self-employment because they cannot find better labour conditions. On the other hand, these same authors (Congregado, Esteve & Golpe, 2012) find evidence that, while the level of salaried employment in Spain has varied substantially during the recent economic crisis, the level of self-employment has not, in a different pattern from that of the 1991-1993 crisis, where the level of self-employment was not stable.

Household variables have been underestimated, and underused, in the existing literature and we believe that the inclusion of the household economic situation in a micro-econometrical model is novel. Sobel (2008) highlights the importance of individuals assuming personal financial risks in order to be entrepreneurs as an important and inherited characteristic of entrepreneurial activity. This argument leads us to analyse the role of the family financial situation, which is a primary factor in the individual's attitude toward risk - not only economically, but also psychologically. Despite that some authors (e.g. Keeble, Bryson & Wood, 1993) claim that a higher level of education leads to more entrepreneurial opportunities, Galindo, Méndez & Alfaro (2010) show how University-educated individuals may choose salaried jobs rather than initiate a business, because of the inherent risk and income instability. On the other hand, Gimenez-Nadal, Molina & Ortega (2012) analyse the relationships between self-employment and time spent on household chores, showing how self-employment offers individuals more flexible hours, allowing mothers, for example, to structure their market-work time and childcare time in a more efficient way. Ruiz-Arroyo, Fuentes-Fuentes & Ruiz-Giménez (2014) discuss the importance of resources and capabilities in entrepreneurship, although they do not include in this category any household finance-related factors, and Mata (2014) talks about

the role of the entrepreneurial environment, while also omitting any variables connected with the financial situation of individuals or households.

Conceptual Framework

Our new approach takes the unitary models of Blau (1985) and Taiwo (2010) as benchmarks, in order to formulate a household/collective conceptual model, in line with those developed by Chiappori (1992) and Donni & Matteazzi (2010), for example. In the context of the unitary models, individuals maximize their utility function (whose inputs are leisure and consumption) individually, subject to both budgetary and temporal constraints. As mentioned above, entrepreneurship outcomes are characterized by an income-production function with capital, temporal, and managerial inputs. Individuals can control the time devoted to entrepreneurship and capital investment, but not personal abilities, which are fixed for each individual.

In moving to a household approach, we suppose that households are formed by two individuals $i=1,2$, i.e., our households will be couples. The difference is that it is the household itself, and not its component individuals, who maximize utility. Thus, we can write the maximization utility function as follows:

$$\mu \times U_1(\mathbf{G}_1, S_1) + (1 - \mu) \times U_2(\mathbf{G}_2, S_2) \quad (1)$$

where $U_i(\mathbf{G}_i, S_i)$ is the utility of i , in function of consumption, \mathbf{G}_i , and leisure time, S_i . Parameter $\mu \equiv \mu(w_i + Q_i, d)$ defines the household bargaining power of $i = 1$ (so $1 - \mu$ is that of individual $i = 2$) as a function of individual earnings, $w_i + Q_i$, and socio-demographic characteristics, d . We define w_i as private-sector wage and Q_i as the self-employment earnings of individual i .

Let E be total household worth and T be total disposable time (which must be divided between leisure, salaried work, H_i , and entrepreneurship, N_i). We take w_i as exogenous. Now, we characterize entrepreneurship by using a production function $Q_i \equiv Q_i(K_i, N_i, M_i)$ where Q_i is output, K_i is capital investment and M_i reflects personal (managerial and technical) abilities. Q_i follows the common productivity function hypothesis. Then, temporal and budgetary constraints can be respectively written as:

$$H_i + N_i + S_i = T, \quad i = 1, 2 \quad (2)$$

$$G_1 + G_2 + K_1 + K_2 = E + w(H_1 + H_2) + Q_1 + Q_2 \quad (3)$$

Note that there is a temporal restriction for each individual because there is no conceptual or analytical reasoning behind defining a household temporal restriction. However, there is a unique budgetary constraint that depends not only on individual earnings and working time, but also on household income.

Against this background, individuals have control over H , N and K (note that as far as T is fixed, by controlling H and N , $S = T - H - N$ is immediately determined). Thus, the maximization problem can be solved by using the second theorem of welfare economics. According to this theorem, the problem is analogous to a two-step process. In the first step, an intra-family

negotiation process is carried out and individuals arrive at an agreement regarding household income distribution: $E = E_1 + E_2$. In the second step, individuals maximize their utilities independently, under a traditional temporal constraint and a new budgetary constraint that depends upon the negotiation process of the previous step:

$$\begin{aligned} \text{For } i = 1, 2, \quad \text{Max: } U_i &= U_i(G_i, S_i) \\ \text{Subject to: } H_i + S_i &= T \\ G_i + K_i &= E_i + wH_i + Q_i \end{aligned} \quad (4)$$

METHODS

Data and Variables

The Bank of Spain's "Encuesta Financiera de las Familias" (EFF) is a survey of the National Statistical Plan ("Plan Estadístico Nacional") that collects information about income, assets, debts, and consumption at the household level. It has been developed every three years since 2002, for individuals of each socio-economic stratum, in order to obtain a complete picture. Its objective is to offer direct information about the economic and financial situations of Spanish families. Such information complements the aggregated data collected in the financial accounts ("Cuentas Financieras") of the Spanish economy. The survey is based on 245 (on average) stylized questions about the following: demographics, real assets and their associated debts, other debts, financial assets, pensions and insurance, labor market situation and labor income, non-labor income, means of payment, and consumption and savings. Some of these questions are asked of the head of the household and others to every member of the household. The sample oversamples the wealthy, because a small fraction of the population holds a large share of household wealth, and many financial assets are held by a small fraction of the population. It also contains replicate weights in order to take into account simple design features. The total sample size is of 6,106 individuals. More information can be found in http://www.bde.es/bde/es/areas/estadistic/Encuesta_Financi/.

We use the cross-sectional data collected in this survey for both the household and the head of household for the year 2011. The importance of this data is that it includes financial and economic variables, such as wages, earnings, labour contracts, self-employment outcomes, levels of debt, value of business, value of household worth, mortgages, benefits, scholarships, loans, assets..., and also personal, social variables such as age, education level, and nationality. This kind of data has been underused in labour economics, particularly in entrepreneurship analyses.

We keep or set up the following variables: "entrepreneur" (determines when an individual is an entrepreneur), "entrepreneur, main" (when an individual's main job is as an entrepreneur), "salaried" (when an individual is employed in a salaried position), "salaried, main" (when an individual's main job is salaried), "wage" (measured in Euros, of the head of the family), "entrepreneurship earnings" (measured in Euros, of the head of the family), "total earnings" (the sum of the two former values), "salaried work time" (measured in hours per week, of the head of the family), "entrepreneurship work time" (measured in hours per week, of the head of the family), "work time" (the sum of the two former values), "household income", "household expenses" (both measured in average Euros per month of the whole family), "home ownership" (when a family owns the home they live in, versus renting it), "age" (of the head of the family), "age^2/100", "family size", "living as a couple", "good health" (of the head of the family, self-

reported by individuals in EFF), “education level” (of the head of the family; we distinguish between basic, secondary, and university education), “age of business” (for entrepreneurs), “experience, private sector” (for salaried head of families), “long-term contract”, “full-time contract” (for salaried head of families), “mortgages” (aggregating the present value of all outstanding mortgages in the household, measured in Euros), “household vehicles value” (aggregating the present value of all household vehicles, measured in Euros), “household estate value” (aggregating the present value of all household real estate, measured in Euros), “other property value” (jewellery, art...), “debts” (aggregating the present value of all household debts, except mortgages, measured in Euros) and “assets” (aggregating the present value of all household assets, measured in Euros). A summary of these constructed variables and their correspondence to the original EFF2011 counterparts can be found in Table A1 in the Appendix.

We eliminate those families whose head of household is retired or unemployed, and retain a sample of 2,501 individuals (of whom 1,724 are salaried workers and 842 are self-employed or entrepreneurs). A statistical summary of our variables, by gender and by labour status, is shown in Table 1. We have defined zero earnings for those individuals who are entrepreneurs and have no profit from a business. It is apparent that, on average, men present higher earnings than women. In fact, this pattern is true for both salaried (+1,400€) and entrepreneur (+600€) families. Moreover, those who are employed receive significantly higher earnings than those who are entrepreneurs (+2,000€ for men and +1,000€ for women). Regarding time devoted to work, we find that, in fact, entrepreneurship is not related to less market work time. On the contrary, entrepreneurs, both men and women, devote on average 3 hours more per week to their jobs than do their counterparts. Men also devote, on average, more time to market work than women, +6 hours and +5.5 hours per week for employed and entrepreneur men, respectively. This is directly related to the so-called Household-Responsibilities Hypothesis (Gimenez-Nadal and Molina, 2015), which holds that women devote more time to childcare and household activities. Thus, mothers will devote less time to other activities, such as market work.

**Table 1
DESCRIPTIVES**

Variables	Male					Diff. <i>P</i> -value	Female				
	Entrepreneurs		Salaried				Entrepreneurs		Salaried		
	Mean	E.D.	Mean	E.D.		Mean	E.D.	Mean	E.D.		<i>P</i> -value
Entrepreneur (main)	.9037	.2951	.0144	.1194	(<0.01)	.9096	.2875	.0043	.0659	(<0.01)	
Salaried (main)	.0616	.2407	.9652	.1831	(<0.01)	.0451	.2083	.9752	.1554	(<0.01)	
Salaried	.0827	.2756	1	0	(<0.01)	.0564	.2315	1	0	(<0.01)	
Entrepreneur	1	0	.0530	.2242	(<0.01)	1	0	.0145	.1198	(<0.01)	
Self-employment earnings	1029.7	4117.6	46.07	725.7	(<0.01)	412.03	1642.1	1.778	46.62	(<0.01)	
Wage	247.82	1035.8	3029.7	4394.1	(<0.01)	64.11	354.34	1591.6	1227.9	(<0.01)	
Total earnings	1277.5	4246.9	3075.8	4459.6	(<0.01)	476.18	1667.5	1593.4	1227.7	(<0.01)	
Household income	17430	44847	7906.5	29789	(<0.01)	14867	63919	4576.9	5547.6	(<0.01)	
Household expenses	2433.2	3796.8	1561.2	1269.3	(<0.01)	1884.1	2452.0	1247.0	905.05	(<0.01)	
Home Ownership	.9593	.1975	.9189	.2729	(<0.01)	.8983	.3031	.8791	.3261	(0.443)	
Age	55.24	10.99	49.13	10.15	(<0.01)	51.82	10.92	46.70	9.619	(<0.01)	
Age^2/100	31.72	12.14	25.17	9.837	(<0.01)	28.04	11.55	22.73	8.903	(<0.01)	
Family size	3.198	1.334	3.145	1.260	(0.450)	2.915	1.300	2.895	1.236	(0.815)	

Living as a couple	.8330	.3731	.7849	.4110	(<0.01)	.6214	.4863	.5254	.4997	(0.020)
Good health	.8090	.3933	.8746	.3312	(<0.01)	.8135	.3905	.8602	.3469	(0.113)
Basic education	.1909	.3933	.1494	.3567	(0.054)	.1920	.3950	.1382	.3454	(0.068)
Sec. education	.3203	.4669	.4445	.4971	(<0.01)	.3898	.4890	.4643	.4990	(0.072)
Univ. education	.4872	.5002	.4011	.4903	(<0.01)	.4124	.4936	.3930	.4887	(0.637)
Age of business	18.75	13.08	-	-	-	16.44	14.58	-	-	-
Experience (p.s.)	1.908	.3890	17.39	12.31	(<0.01)	.6610	.2411	12.74	10.89	(<0.01)
Long-term contract	-	-	.8833	.2311	-	-	-	.8034	.3976	-
Full-time contract	-	-	.9324	.2510	-	-	-	.7423	.4376	-
Entrepreneurs working hours	43.25	16.82	1.314	6.729	(<0.01)	37.81	19.57	.3595	3.345	(<0.01)
Salaried working hours	2.357	8.982	40.13	10.12	(<0.01)	1.276	5.690	34.18	10.63	(<0.01)
Total working hours	45.61	16.33	41.45	10.53	(<0.01)	39.09	19.40	34.54	10.70	(<0.01)
Mortgages	10150	50396	4943	10546	(<0.01)	4793.2	10094	4977.9	24089	(0.911)
Household vehicles value	2714.5	8808.3	1359.6	2189.4	(<0.01)	1437.0	2237.3	906.01	1454.4	(<0.01)
Household real-estate value	173703	515277	55884	110650	(<0.01)	94087	166910	41111	126153	(<0.01)
Other property value	4433.0	20359	1017.2	7474.1	(<0.01)	1437.3	4659.5	505.49	4330.9	(0.011)
Debts	18113	311605	1620.5	17517	(0.092)	2334.8	12022	525.58	3351.5	(<0.01)
Assets	79739	2757656	443076	3152419	(0.013)	402989	2132587	68646	292650	(<0.01)
N. obs.	665		1037			177		687		

Note that employed and entrepreneur individuals do not necessarily have a single employment. Observing the number of individuals in our sample and the number of employed and entrepreneurs, we find that some must, by necessity, combine both types of labour status. 8.2% (5.6%) of entrepreneur men (women) in our sample are also salaried workers, and 5.3% (1.4%) of the employed men (women) also have their own business.

Earnings densities are shown in Figure 1. We see a strong presence of null or almost null declared earnings for entrepreneurs (remember that those individuals who report having a self-employment loss have been coded as having zero earnings). These individuals are an important part of our analysis (85.6% of the entrepreneurs from the sample declare zero or negative self-employment earnings) and we do not consider eliminating them to be an option, due to the fact that they reflect an important part of our sample and, thus, the reality of entrepreneurship and self-employment in Spain. Although salaried workers also present a density concentrated around low values, the mean is significantly higher than that of entrepreneur workers, as mentioned above.

Figure 1
DENSITIES OF EARNINGS

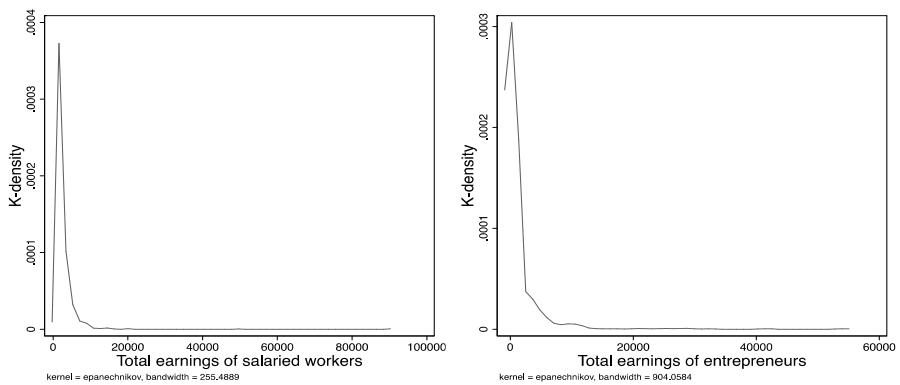


Figure 2 shows the relationships between total earnings, total time devoted per week to work, and educational level, for both salaried workers and entrepreneurs. We see a relationship between a high educational level and higher earnings in the employed workforce, although there is no clear relationship to market work time. Regarding the entrepreneurial workforce, we see that education and earnings do not appear to be related, but the higher the educational level, the lower the market work time. Figure 3 shows the relationships between experience and earnings. For salaried workers, we take their experience directly from the EFF; for entrepreneurs, we approximate it based on the age of their business. Although it appears that earnings increase slightly with experience for salaried workers, we cannot conclude that there is a positive relationship, either for those who are employed or for entrepreneurs. Thus, we find no clear evidence, in the case of Spain, of the importance of technical and managerial abilities as inputs for the entrepreneurship production function. Moreover, the temporal input also does not appear to play a determinant role.

Figure 2
RELATIONSHIPS BETWEEN EARNINGS, EDUCATION LEVEL AND MARKET-WORK TIME

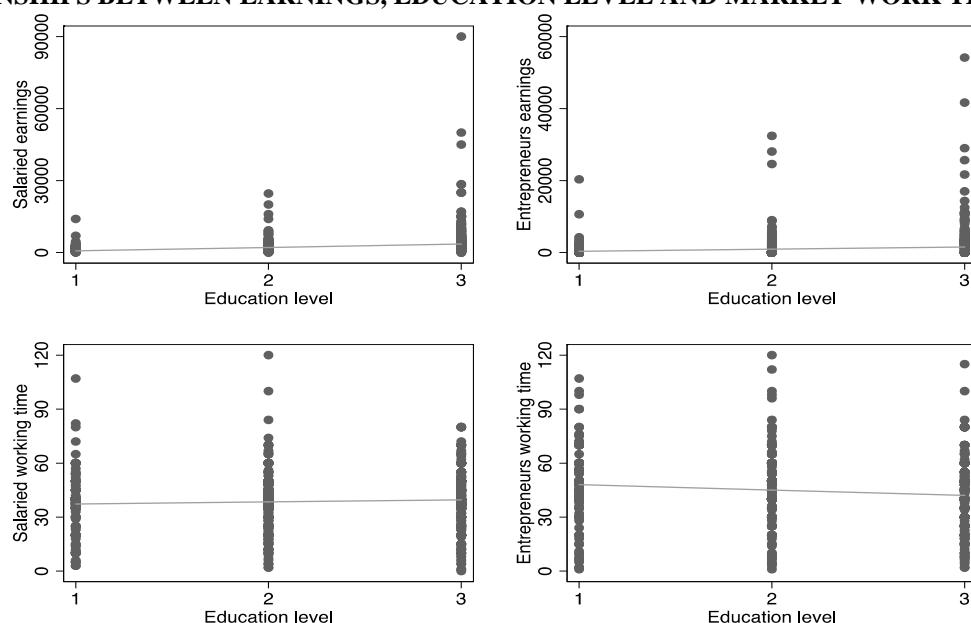
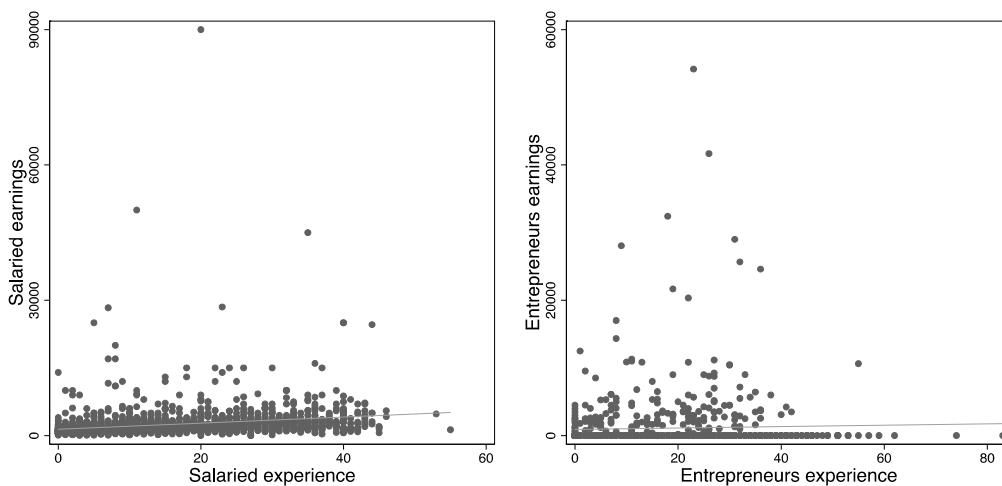


Figure 3
RELATIONSHIP BETWEEN EARNINGS AND EXPERIENCE



Analysis Strategy

We propose two empirical models, one for the earnings analysis and another for the study of household finances and entrepreneurs. The former, which we call the “earnings model”, is proposed as a linear regression model whose parameters will be estimated by Ordinary Least Squares, OLS. We regress earnings for salaried workers and entrepreneurs from a series of variables. These variables are work-related (experience, market-work time, and type of contract, for salaried workers), educational, household (living as a couple, family size, ownership of the home, monthly expenses, and debt), personal (age, gender, and health), and labour status variables, all as shown in Table 1. Estimates of these parameters will be interpreted as the average variation of earnings between individuals, according to their labour status (for salaried workers, the entrepreneurship parameter reflects the earnings differences, *ceteris paribus* and are not measured by the rest of the variables, between an individual who only works in a salaried position and an individual who is also an entrepreneur). We also include age squared, to measure the presence of non-linear relationships.

The second model we propose refers to household finances, and we call it the “entrepreneurship model”. We intend to show the relationships between certain financial variables, such as value of assets, household property, and debt, and being either an entrepreneur or salaried. In doing this, we propose two binary models, Logit and Probit. Since both models behave similarly, we expect that they will offer robust comparative estimates, in the sense that the significance and sign of the coefficients do not vary from one to another. The dependent variable of these models is thus the dummy variable “entrepreneur”, because we want to compare the financial situation of salaried and entrepreneur families. We include not only financial variables in the model (mortgages, vehicle value, real estate value, other property value, debt, and assets), but also personal factors (gender, age, age squared, and health), household (expenses, living as a couple, and family size), labour (time worked, experience, and being unemployed in 2010) and education (using basic education level) variables. We use the weights collected in the EFF for both the Earnings and the Entrepreneurship model.

We can write the earnings models as follows:

$$W_i = \beta_0 + \beta_1 SE_i + \boldsymbol{\beta}_2 \mathbf{X}_i + \varepsilon_i \quad (5)$$

$$W_i = \alpha_0 + \alpha_1 AS_i + \boldsymbol{\alpha}_2 \mathbf{Y}_i + \epsilon_i \quad (6)$$

where W is the earnings of salaried workers and entrepreneurs, respectively, SE is the dummy “entrepreneur”, AS is the dummy “salaried”, \mathbf{X} and \mathbf{Y} are the remaining dependent variables for the salaried workers and the entrepreneurs, respectively, and ε and ϵ are standard robust error terms. We expect to find that $\beta_1 < 0$ and $\alpha_1 > 0$ are both meaningful, according to the notion that salaried workers earn more than entrepreneurs.

The Entrepreneur binary models can be written as:

$$SE_i = \delta_0 + \delta_1 \mathbf{Z}_{1i} + \delta_2 \mathbf{Z}_{2i} + \delta_3 \mathbf{Z}_{3i} + u_i \quad (7)$$

where \mathbf{Z}_1 are personal, family, labour and education variables, \mathbf{Z}_2 are debts and \mathbf{Z}_3 is property value; u is the standard robust error term. The coefficients must be interpreted as the change in the probit/logit function of being an entrepreneur (versus a salaried worker) when the corresponding dependent variable increases by one unit (the probit/logit function is directly related to the probability of being an entrepreneur, so it increases or decreases with increases or decreases in the probability of being an entrepreneur). We expect that $\mathbf{Z}_2 < 0$ and $\mathbf{Z}_3 > 0$, i.e., high wellness value, will encourage individuals to become entrepreneurs, and high debt will discourage them.

EMPIRICAL FINDINGS

Table 2 shows the results of the earnings models. Column 1 is restricted to individuals who are salaried and Column 2 is restricted to individuals who are entrepreneurs (again, not necessarily as their main job). We see that, for salaried workers, entrepreneurship implies, on average, a meaningful loss in earnings (-656€/month). On the other hand, the entrepreneurs who also work as salaried workers experience, on average, a meaningful increase in earnings (+1,295€/month).

Table 2
EARNINGS RESULTS

Variables	(1) Salaried	(2) Entrepreneur
Entrepreneur	-659.456** (305.214)	
Salaried		1,295.558*** (302.154)
Working hours	24.667*** (9.267)	4.709 (6.818)
Male	509.114*** (70.859)	-117.346 (273.505)
Age	12.796 (28.650)	18.160 (37.798)
Age^2/100	-18.869 (32.552)	-19.188 (33.214)
Good health	-243.912 (230.074)	94.847 (125.483)

Home ownership	-118.408 (199.143)	123.383 (183.979)
Debts	0.006 (0.006)	-0.001 (0.000)
Living as a couple	70.766 (78.823)	-35.461 (111.840)
Family size	-149.251*** (40.186)	-20.495 (81.070)
Monthly expenses	746.675*** (143.793)	660.066** (259.883)
Sec. education	157.291* (89.085)	-28.331 (126.153)
Univ. education	1,097.100*** (141.638)	156.624 (204.091)
Experience (p.s.)	21.059*** (4.829)	
Full-time contract	205.148 (179.770)	
Long-term contract	257.303*** (90.179)	
Age of business		5.092 (8.626)
Intercept	-760.962 (484.416)	-1,160.756 (860.462)
Observations	1,724	842
R-squared	0.415	0.200

It is also shown that market-work time is significantly related to earnings, but only for salaried workers. The greater the amount of market-work time, the higher their monthly salaried earnings, and vice-versa. For entrepreneurs, this relationship is not meaningful, indicating that, while salaried workers are encouraged to work more time for a higher wage, or that they receive higher earnings by working more hours, these factors do not hold for entrepreneurs. Moreover, family size has a negative relationship with earnings for salaried workers, but not for entrepreneurs. Gender is also related to salaried earnings (men earn about 500€/month more than women), but not for entrepreneurs. Age is not related to either condition.

We find that level of education and experience are not related to entrepreneurs' outcomes, which surprises us. Thus, we find no evidence, in this Spanish case study, of the importance of the hypothesis of Blau (1985), who discusses managerial abilities, measured as experience. Nor do we find evidence of the importance of technical abilities (measured as education level). However, we can conclude with certainty that the personal, family, and socio-demographic factors that are usually related to earnings are meaningful in the case of Spanish salaried workers, but not for entrepreneurs. Only monthly expenses show a positive relationship to entrepreneurs' outcome.

We now address the previously-mentioned importance of unobservable heterogeneity, i.e., factors for which data is not available (e.g., laws, taxes, evasion, differentiation between firm-owner, employer, or freelance worker, type of business, ideas behind business, innovation...). When we look at the R^2 of the models, we see that it is higher in Column 1, reflecting that the Earnings model of the entrepreneurs is less well-adjusted than the model for the salaried workers. Other variables that may affect entrepreneurs' earnings are individual expectations and entrepreneurial spirit. Dawson et al. (2015) maintain that pessimism and

realism imply success for self-employment because they do not raise expectations too high, but optimistic entrepreneurs do, and thus it is more difficult for them to fulfill those expectations.

Table 3 displays the estimates of the Entrepreneurship models. Columns 1 and 2 refer to Probit models and Columns 3 and 4 to Logit models. We obtain qualitatively similar results in both cases, so results do not depend on the statistical model chosen. Furthermore, we have eliminated certain non-meaningful variables of Columns 1 and 3 in Columns 2 and 4. The variables retain their significance, and the relationships do not change. Across household, personal, and labour variables, we see how market-work time is positively related to entrepreneurship, so the more time that is devoted to work, the greater likelihood of entrepreneurship, and vice-versa. Age is also, quadratically and positively, related to the probability of becoming an entrepreneur. It displays a U-shaped relationship, with a minimum around the 50s, indicating that middle-aged individuals are less likely to initiate a business, relative to both younger and older individuals. The pattern regarding the case of education variables is as follows: when we control for basic education level, a secondary education level is positively related to salaried employment. A university education level does not have a meaningful relationship with entrepreneurship or salaried employment. Health, gender, living as a couple, and family size do not affect the probability of becoming an entrepreneur. Regarding financial factors, it is shown that mortgages and debt are not related to the probability of being an entrepreneur; therefore, they do not affect entrepreneurs. Having been unemployed during the previous year is negatively related to entrepreneurship, while real estate, vehicles, and other valuable assets are positively related to entrepreneurship.

**Table 3
ENTREPRENEURSHIP RESULTS**

Variables	(1) Probit (1)	(2) Probit (2)	(3) Logit (1)	(4) Logit (2)
Working hours	0.030*** (0.006)	0.030*** (0.006)	0.052*** (0.013)	0.030*** (0.006)
Male	0.181 (0.142)	0.185 (0.142)	0.212 (0.258)	0.185 (0.142)
Age	-0.149** (0.065)	-0.149** (0.065)	-0.176 (0.109)	-0.149** (0.065)
Age^2/100	0.207*** (0.071)	0.209*** (0.071)	0.264** (0.121)	0.209*** (0.071)
Good health	-0.061 (0.217)	-0.059 (0.216)	0.105 (0.392)	-0.059 (0.216)
Living as a couple	0.039 (0.150)	0.036 (0.149)	0.033 (0.282)	0.036 (0.149)
Family size	0.035 (0.065)	0.033 (0.065)	0.088 (0.118)	0.033 (0.065)
Sec. education	-0.434** (0.193)	-0.437** (0.196)	-0.789** (0.332)	-0.437** (0.196)
Univ. education	-0.180 (0.209)	-0.187 (0.210)	-0.399 (0.369)	-0.187 (0.210)
Experience (p.s.)	-0.149*** (0.020)	-0.149*** (0.020)	-0.379*** (0.068)	-0.149*** (0.020)
Unemployed in 2010	-0.944*** (0.255)	-0.944*** (0.256)	-1.974*** (0.544)	-0.944*** (0.256)
Monthly expenses	0.170* (0.087)	0.169** (0.086)	0.187 (0.193)	0.169** (0.086)

Mortgages	-0.057 (0.070)		-0.048 (0.132)	
Household vehicles value	0.793* (0.468)	0.809* (0.470)	1.828* (1.050)	0.809* (0.470)
Household estate value	0.044** (0.021)	0.042** (0.017)	0.118* (0.067)	0.042** (0.017)
Other property value	0.144 (0.431)		0.624 (0.800)	
Debts	0.174 (0.131)		0.358 (0.415)	
Assets	0.000 (0.001)	0.001 (0.001)	0.002 (0.002)	0.001 (0.001)
Intercept	0.891 (1.417)	0.856 (1.419)	-0.036 (2.366)	0.856 (1.419)
Observations	2,501	2,501	2,501	2,501

CONCLUSIONS

This paper analyses the differences between salaried and entrepreneur earnings; not only quantitative differences, but also the factors that determine them. We also study how household finances are related to entrepreneurial activity. To do so, we use the Bank of Spain's "Encuesta Financiera de las Familias", EFF, from 2011. Our main objective is to empirically study entrepreneurship in Spain, and examine the concept as a potential alternative to being an employee, with certain advantages, such as better time management.

Our empirical results show that salaried workers obtain significantly higher earnings than their entrepreneur counterparts. Furthermore, the average work time of entrepreneurs is notably higher than that of employed workers. We find evidence of the importance of the usual factors that determine wages, but these variables are not related to entrepreneurship outcomes. Moreover, the R^2 statistics appear to indicate that unobservable heterogeneity, possibly variables related to legal issues or a sense of calling, have a strong effect on entrepreneurs' income. We also find that debts and mortgages are not particularly related to entrepreneurial activity, in comparison with salaried employment, but the prior experience of unemployment discourages entrepreneurship and a good household financial situation encourages it. This leads us to conclude that entrepreneurship, and therefore self-employment, is not an activity exclusively derived from needs, but often arises from entrepreneurial spirit, desire, and innovation. Under these circumstances, we could add to the 'necessity vs. opportunity' classification of entrepreneurial activity (Reynolds, Bygrave, Autio, Cox & Hay, 2003) a new 'desire or calling' category.

Our empirical results show that salaried workers' wages are higher than entrepreneurs' earnings. Furthermore, factors that traditionally determine wages in a significant way do not have the same effect in the case of entrepreneurship outcomes. We also find that debt does not have a significant impact on the decision to become an entrepreneur, although the pessimism arising from unemployment does, discouraging that decision. Household assets (vehicles, real estate, and investments) and the financial security that they provide also affect entrepreneurship by encouraging people to become entrepreneurs. A need for income derived from high average household expenses also affects entrepreneurship in a negative way.

One limitation of our analysis comes from the nature of the data used. Since it is cross-sectional, we cannot determine causes and effects, we can only find relationships between variables. In our case, the causal relationships involved are not at all clear. The financial situation may determine entrepreneurial activity, or perhaps it is the fact of being self-employed, in comparison to being an employee, that determines the household financial situation.

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APPENDIX

Table A1
EFF2011 VARIABLES CORRESPONDENCE

EFF2011 Variable Codes	Set up variables	Kind of variable
P1_1_1=1 (I am required to ask you for your gender; that is to say, man or woman?)	Male	Continuous, head of household
P6_1c2_1=1 (What is your current employment situation?)	Entrepreneur	Dummy, head of household
P6_1c1_1=1 (What is your current employment situation?)	Salaried	Dummy, head of household
P6_32_1_1=1 (Is this your main job?)	Entrepreneur (main)	Dummy, head of household
P6_10_1_1=1 (Is this your main job?)	Salaried (main)	Dummy, head of household
P6_102_1_1 (How much do you receive monthly?) + p6_104_1_1 (How much do you personally receive from the business, apart from the regular wage, in annual terms?) /12	Self-employment earnings	Continuous, head of household
P6_14_1_1 (What are the regular gross monthly earnings this job brings you?)	Wage	Continuous, head of household
-	Total earnings	Continuous, head of household
mrenthog	Household income	Countinuous, all household
P9_1 (What is your household's total average spending on consumer goods in a month?)	Household expenses	Continuous, all household
P2_1=2 or 3 (What is the ownership status of your main residence?)	Home Ownership	Dummy, head of household
P1_2d_1 (Therefore, [name] is [calculated age] years old, correct?)	Age	Continuous, head of household
-	Age^2/100	Continuous
P1 (number of household members)	Family size	Continuous
P1_4_1=2 or 3 (What is your current marital status?)	Living as a couple	Dummy, head of household
P1_7_1=1 or 2 (What is the general state of health of the household members?)	Good health	Dummy, head of household
P1_5_1=1,2 or 3 (What is the highest educational level reached?)	Basic education	Dummy, head of household
P1_5_1=4, ..., 9 (What is the highest educational level reached?)	Sec. education	Dummy, head of household
P1_5_1=10, 11 or 12 (What is the highest educational level reached?)	Univ. education	Dummy, head of household
2011-p4_107_1 (In what year did the business begin?)	Age of business	Continuous, head of household
P6_17_1_1 (How long have you worked for this company?)	Experience (p.s.)	Continuous, head of household
P6_13_1_1 (What type of employment contract do you have?)	Long-term contract	Dummy, head of household

P6_11_1_1 (Do you work full or part-time?)	Full-time contract	Dummy, head of household
P6_33_1_1 (How many hours do you usually work each week?)	Entrepreneurs working hours	Continuous, head of household
P6_12_1_1 (How many hours a week do you devote to this job?)	Salaried working hours	Continuous, head of household
-	Total working hours	Continuous, head of household
p2_12_1+...+p2_12_4+p2_55_1_1+p2_55_1_2+p2_55_1_3+p2_55_2_1+p2_55_2_2+p2_55_2_3+p2_55_3_1+p2_55_3_2+p2_55_3_3+p2_61_4	Mortgages*	Continuous, all household
P2_75+P2_79	Household vehicles value*	Continuous, all household
P2_5+P2_39_1+...+P2_39_4	Household real-estate value*	Continuous, all household
P2_84	Other property value*	Continuous, all household
P3_6_1+...+P3_6_8	Debts*	Continuous, all household
P4_24+P4_15+P4_7_1+P4_7_2+P4_7_3+P4_2_8a+P4_35+P4_43+P5_7_0	Assets*	Continuous, all household
P6_63c3_1=1 (What was your employment situation in 2010?)	Unemployed in 2010	Dummy, head of household

* Codes can be consulted in the questionnaire. Questionnaire is downloadable from
http://www.bde.es/f/webbde/SES/estadis/eff/ficheros/en/questionnaire_2011.pdf

FACTOR ANALYSIS OF IMPEDIMENTS FOR MICRO, SMALL AND MEDIUM ENTERPRISES IN BIHAR

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ABSTRACT

Micro, Small and Medium enterprises constitutes largest share of total entities doing business in India. MSME sector employs the largest workforce, after agriculture in India. This sector has been identified as the priority Sector. In Bihar owing to absence of large industries, Micro, Small and Medium enterprises have been the mainstay of private investments. The state being landlocked and regular floods have been detrimental to attracting large Investments. Although the state's industrial policy has been hailed as one of the best, the results are missing. This is mainly due to other factors working against the policy. Hence these factors become important and were studied. Factor analysis of twenty five factors under thirteen functional areas which impacts MSMEs of Bihar have been analysed, reduced and grouped under three headings namely Taxation, Regulatory and Political Framework, Entrepreneurial Support towards Competition and Law and Order. The Government should align its resources to eliminate these three factors to enhance the prospects of MSME in Bihar in Manufacturing Sector.

Keywords: MSME Units, MSMED Act 2006, Factor Analysis, District Industries Centre (DIC)

INTRODUCTION

Micro, Small and Medium Enterprises have remained key drivers for growth for economies across the world. Both entrepreneurship development and MSMEs have been globally acknowledged as instruments for achieving economic growth and development as well as employment creation (Rebecca, 2009). Micro, Small and Medium Enterprises comprises of more than 90% of total entities in most of the economies. However, apart from the opportunities for growth, this sector also has unique problems. One such factor which impacts this sector is the high degree of mortality index. This problem gains even more relevance for the state of Bihar. A major factor for mortality, large scale industries are absent. MSME sector is the flag bearer for reflection of entrepreneurship and has been the driving force for the state economy (Agrawal, 2014). The Indian governments, both at national and state level have recognised the importance of this sector. Currently there are eighteen ministries from Agriculture to ministry of culture and ministry of finance to ministry of commerce who are designing schemes programmes suitable to growth and development of Micro, small and medium enterprises in India. Altogether there are around 125 schemes and programmes spread over eighteen ministries dedicated for development of MSME sector (GOI- Handbook on MSME Schemes, 2014). The main focus for this study has been to determine the impediments that impact this sector in Bihar. This, despite so much support. It also remains high on agenda of government and policy makers.

CONCEPTUAL FRAMEWORKS

The conceptual framework of this study concerns two key conceptual ramifications. The first being the definitional aspect of MSME in India as per MSMED act 2006 and the second being the policy framework in Bihar under which MSMEs are subjected to act and operate.

Definition of Micro, Small and Medium Enterprises as Per MSMED Act 2006

As per the provisions of Micro, Small and Medium Enterprises Development Act, 2006 enterprises, whether proprietorship, Hindu undivided family, association of persons, co-operative society, partnership or undertaking or any other legal entity, by whatever name be called: In case of Enterprises engaged in manufacturing or production of goods pertaining to any industry specified in the first schedule of the Industries (Development and Regulation) Act, 1951, as-

1. A micro enterprise, where the investment in plant and machinery does not exceed twenty five lakh rupees;
2. A small enterprise where the investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees.
3. A medium enterprise, where the investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees.
4. In case of enterprises engaged in providing or rendering of services, as-
 5. A Micro enterprise, where the investment in equipment does not exceed ten lakh rupees;
 6. A Small enterprise where the investment in equipment is more than ten lakh rupees but does not exceed two crore rupees
 7. A Medium enterprise where the investment in equipment is more than two crore rupees but does not exceed five crore rupees.

Policy Framework for Msmesin Bihar

In the light of the dynamic global Industrial environment, Bihar government reviewed its Industrial policy 2006 and henceforth brought about some pertinent changes. New changes were brought about to attract domestic and foreign investments while reviving the existing industrial unit operations. In drafting new Industrial policy of Bihar 2011 suggestions from Industry associations were also taken into account besides studying policies of other states.

Strategy adopted by State Government for Industrialization:

1. Main thrust area was established for development of Sectors related to Food Processing, Agriculture based industries, Super specialty Hospitals, Higher/Technical educational institutes, Electronic Hardware industry, Textile industry and Energy including Non Conventional energy.
2. Land Bank: In view of land requirement for setting up of industries provision for creating Land Bank in the state was evolved.
3. Provide Marketing avenues for Products manufactured by Micro, Small and Medium Enterprises especially Handlooms, Khadi and other products.
4. In order to prevent industrial sickness of MSMEs a district level monitoring system needs was developed.
5. BIADA was assigned to develop industrial Parks for establishment of Industries.
6. Single window system was set up for speedy approval of Projects and creating necessary infrastructure like Road, Water and Power.

LITERATURE REVIEW

Sharma and Pallavi, (2015)

They have applied factor analysis of five main financial obstacles of great concern to meet financial obligation; Prices of raw materials, Setup and Plant Cost, Financial Charges and other charges. Through the study of the parameters, it has been concluded that companies should try to plan their budget by keeping the above problems in mind, so as to deal with them. The results also suggest that perhaps the government should play the role of a facilitator. This will improve access to finance by encouraging more banks and other financial institutions to enter the local market. The government need not become an active player. Also, some other measures like Factoring, venture capital, strategic investors etc. are suggested which should be taken by the government in order to make the SME's business more competitive and profitable.

Biswas (2015)

He has focused on opportunities and constraints for Micro, Small and Medium Enterprises in current period. Most of the economies have MSMEs constituting more than 90 percent of the total enterprises. One of the most important contributions of MSME sector in India has been its vital contribution in social inclusion. As per estimates it is observed that more than 50 % of the enterprises are owned and managed by underprivileged group. Citing some problems which have an impact on this sector, it has been reported that one of the major constraints has been availability of credit. In this context it is observed that due lack of transparency on financial reporting, adequate net worth for suitable collateral and poor debt amortization record is further aggravating the problem. Difficulty in modernization, availability of raw material, lack of information, inability to access capital markets are some of the key constraints facing this sector.

World Bank Group Report, (2015)

As per the World Bank group report, (2015) impediments for MSMEs in Bihar have been low implementation of reforms in the state. According to the report there has been only 16.41% implementation of reforms which has pushed the state at 21st position among all states of India as far as ease of doing business is concerned. Some of the key initiatives that have been implemented in the state are procedural requirements for starting Business. The provision for online filling of Entrepreneurs memorandum has been allowed. Easing the Tax compliance procedures like online filling tax returns and claiming refunds, online assessment of Tax returns etc, have been created. The state government has also laid down procedures and provisions for land allotment criteria.

Kumar (2014)

He stressed that recent policy adopted by Bihar Industrial Area Development Authority (BIADA) regarding allotment of land in Industrial areas has an impact on the new MSMEs. Through the new provisions BIADA has brought the price of land allotment in industrial areas at par with commercial rates. This has hiked the rate of acquiring land upto 165 percent. The government's vision to bring equitable distribution of manufacturing units in underprivileged areas of the state is also getting affected as allotment of land in districts like Munger, Saharsa has

increased has high as 100 percent. The viability of projects, after spending huge sum just for acquisition of land, is doubtful.

Gupta, et al, (2013)

They discussed problems for Micro, Small and Medium Enterprise in light of Economic liberalization, globalization, privatization, disinvestments and deregulation. Up to mid- 1990s, MSMEs sector in India had operated under a much-protected economic regime characterized by limited competition and a highly regulated business environment. This business atmosphere had resulted in limited focus on process efficiencies, centralized control structures, highly formalized business settings and lack of professional business. The structural shift brought about by government in the Indian economy exposed MSMEs to face fierce national, regional and international competition from large enterprises, particularly, translation companies (TNCs) and multi-nation companies (MNCs), whilst required to improve competitiveness and operating efficiency. In a bid to enhance competitive advantage, Indian MSMEs can seek ways to reduce costs, improve efficiency and customer services through efficient supply chain management, price, and quality of goods.

Awasthi (2013)

He has interrogated and promulgated for OTOP Model of Thailand and OVOP model of Japan for development of MSME sector in Bihar. According to report, reorganization of the erstwhile Bihar into two states (i) Bihar and (ii) Jharkhand, in the year 2000, reshaped its economy. The state lost its large industrial base and mineral resources to Jharkhand. Most of the key industrial hubs, equipped with infrastructure facilities also became part of Jharkhand. There is a vast scope to replicate OTOP/OVOP model. It might, of course, need some adaptation to suit local context. An attempt could also be made to marry OTOP/OVOP and Group Entrepreneurship Development Strategy to garner better results and involve more people. Pottery, Carpentry, Black smithy, Leather work, wood Pottery, Carpentry, Black smithy, Leather work, wood Craft, metal craft, Lacquer work, weaving, tailoring, Beedi work, Madhubani painting, basket making and bamboo work etc; are the diverse kinds of trades wherein a sizable proportion of work force, particularly in Rural Bihar, is engaged.

Brief Industrial Profile of Patna District by MSME-DI, Patna, (2012)

It has identified agro based industries generating highest employment and Investment in Patna Division. Further it has identified maximum growth potential for Food Processing and Packaging Industries for the state of Bihar. There are nine Clusters in the Patna District. Out of nine Clusters, Six Clusters are identified by DIC, Patna. Out of nine clusters, three clusters are identified as major Clusters by MSME-DI, Patna. They are Pareo bell metal Cluster, Leather Footwear Cluster & GLS Lamp Cluster. It also enlists improvement of infrastructure facilities, Power and fundflow in MSME sector are priority areas for the growth.

RESEARCH METHODOLOGY

Research design involves exploratory study. Quantitative research tools have been employed to accomplish research objectives. This type of research is based on research tools

used by Ahmed *et al* (2015) to study determinants of online Buying behaviour of social media users in Saudi Arabia.

Research Objective:

1. Identify the Factors impacting MSMEs in Bihar.
2. Reduction of the factors to identify key factors impeding growth of MSMEs of Bihar.

Sampling

The Population of study encompasses Manufacturing Units of Bihar categorised as Micro,Small and Medium enterprises as per the provisions of Micro,Small and Medium Enterprises Development act 2006.Sampling frame for analysing impediments for Micro, Small and Medium Enterprises of Bihar constituted:

1. Food Processing Units comprising of Rice mills engaged in production and packaging of variants of milled rice like polished rice, unpolished rice, puffed rice, pressed rice, rice flour, broken rice, and Bran.
2. Maize processing Units engaged in maize processing and packaging of corn flakes, corn flour.
3. Poultry feed and animal feed manufacturing units.
4. Pulses Modern mills, Mango Pulp, juice, pickle, jam, jelly, juice, candies and Units engaged in Processing of Vegetable items like Tomato Juice, paste, puree, ketchup & soup Potato Chips, stacks, snacks, Chili Paste, dry chilly, chili powder, and other spices.
5. Electrical products engaged in installation of stabilizers, wires and other electrical appliances like switch, switch board etc.
6. Timber Units Manufacturing products of timber like Plywood, Hardboard, including fibre-board, chip-board and the like, Matches and Miscellaneous furniture components.
7. Ceramics products including Fire bricks, Furnace lining bricks - acidic, basic and neutral, China ware and pottery , Tiles and Sanitary ware and Insulators.
8. Iron and Steel MSME units engaged in manufacture of Iron bars, rods, iron sheets, angles besides units engaged in fabrication of Iron and Steel products.
9. Plastic products manufacturing units.

Data Collection

For the purpose of study Primary data was collected by conducting field survey of owners of 150 MSME units with a structured questionnairebased on Numerical scale statements involving directional movement of the degree of attitude in ascending manner. Questionnaire was developed by incorporating the factors acting as impediments for MSMEs of Bihar. Factors as demonstrated in Table 1 comprised from the functional areas constituted as per guidelines of World Bank's Enterprise Survey Manual, Understanding the Questionnaire January, 2011 for conducting such survey.

Data Analysis

Factor analysis of impediments impacting overall sustainability of MSMEs of Bihar has been conducted. Principal component method has been used for dimension reduction of the factorsbased upon factor loadings. Principal component analysis is the most frequently used method which transforms a set of variables into new set of variables called principal

components. These new set of variables are not correlated and their correlation coefficient are called loadings (Cooper and Schindler 2006).

Table 1 FACTORS (IMPEDIMENTS) CONSTITUTED FROM FUNCTIONAL AREAS	
Functional Area	Factors
I)Infrastructure and Services	1.Power 2.Water 3.Transport and 4.Information communication technologies(ICT)
II)Capacity	5.Raw Material 6.Demand 7.Skilled Manpower
III)Degree of Competition	8.Unregistered Units 9.Large MNCs 10.Chinese Products
IV)Labor	11.Labour Regulations
V)Land	12.Allotment of Land
VI)Finance	13.Access to finance
VII)Crime	15.Theft 16.Robbery 17.Vandalism 18.Arson
VIII)Business Government relation	19.Tax rate, 20.Tax Administration, 21.Business Licensing, 22.Political Instability 23.Responsiveness of officials 24.Corruption 25.Courts

Source: Prepared as per guidelines of World Bank's Enterprise Survey Manual, Understanding the Questionnaire January, 2011.

Factors concerning eight functional areas namely Infrastructure and Services, Obstacles in reaching Capacity output, access to Finance, Degree of Competition, access to Land, Labor regulations, Crime and Business-Government Relations which impacts Micro, Small and Medium enterprises have been considered as per Table 1.

Table 2 KMO AND BARTLETT'S TEST		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.882
Bartlett's Test of Sphericity	Approx. Chi-Square	7868.913
	df	300
	Sig.	.000

The KMO statistic is a Measure of Sampling Adequacy, both overall and for each variable (Kaiser 1970; Dziuban & Shirkey, 1974; Cerny and Kaiser 1977.) KMO values greater than 0.8 is considered good, i.e. an indication that component or factor analysis will be useful for these variables. (<http://www01.ibm.com/support/docview.wss?uid=swg21479963>). The KMO value of .882 as per Table 2 indicates the factors are significantly strong for conducting this type of study.

**Table 3
COMMUNALITIES**

	Initial	Extraction
Allotment of Land	1.000	.855
Raw Material	1.000	.922
Demand	1.000	.869
Skilled Manpower	1.000	.910
Access to Finance	1.000	.835
Electricity	1.000	.835
Telecommunication	1.000	.923
Water	1.000	.920
Transport	1.000	.855
Labour Regulations	1.000	.774
Skilled Workforce	1.000	.739
Unregistered Units	1.000	.922
Large MNCs	1.000	.869
Chinese products	1.000	.959
Theft	1.000	.873
Robbery	1.000	.915
Vandalism	1.000	.910
Arson	1.000	.746
Tax rate	1.000	.889
Tax Administration	1.000	.870
Business Licensing	1.000	.928
Political Instability	1.000	.893
Responsiveness of officials	1.000	.881
Corruption	1.000	.897
Courts	1.000	.712
Extraction Method: Principal Component Analysis.		

The results of the Principal Component Analysis presented in Table 3 also confirms discriminant validity as most of the extracted communalities is more than 0.5 indicating strong significance of factors framed for study. The communalities indicate the estimates of variance in each factor that is explained by two factors (Cooper and Schindler 2006).

The Rotated component matrix as per table 4 showed that attributes converged on 21 iterations which can be grouped under three headings or factors.

Table 4 ROTATED COMPONENT MATRIX^A			
	Component		
	1	2	3
Taxation, Regulatory and Political Framework			
Allotment of Land	.885		
Corruption	.870		
Chinese products	.837		
Skilled Manpower	.863		
Vandalism	.794		
Business Licensing	.773		
Tax rate	.719		
Telecommunication	.701		
Access to Finance	.674		
Theft	.623		
Entrepreneurial Support and Competition			
Unregistered Units		.937	
Transport		.848	
Tax Administration		.811	
Political Instability		.871	
Large MNCs		.787	
Electricity		.773	
Raw Material		.767	
Demand		.638	
Water		.649	
Responsiveness of officials		.669	
Law and Order			
Robbery			.882
Courts			.824
Arson			.677
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 21 iterations.			

CONCLUSION

Over hundred schemes and programmes spread over eighteen ministries are currently undertaken by the Government (NI- MSME Schemes 2014). However these schemes and programmes need to be aimed towards providing better facilities to MSMEs of Bihar in providing optimum Taxation, Regulatory and Political Framework in the state. Attributes of Taxation, Regulatory and Political framework identified are Allotment of Land procedures, Business Licensing procedures, Access to Finance, Corruption, and government ability to control the flow of Chinese products. Attributes of Entrepreneurial Support and Competition identified has been Transport facilities, Tax Administration, Political Instability, competition from Large MNCs and Unregistered Units, procurement of Raw Material and Responsiveness of officials towards eliminating the problems of Micro, Small and Medium Enterprises. Micro, Small and Medium Enterprises of Bihar should also be protected with adequate law and order

cover to facilitate MSME sector in drawing incremental Investments so that they set up new units diversify to meet other requirements.

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APPENDICES

Abbreviations used for Impediments of Micro, Small and Medium Enterprises

S.No	Abbreviation	Factor(Impediment)
1	Land	Allotment of Land
2	RM	Raw Material
3	D	Demand
4	SM	Skilled Manpower
5	F	Access to Finance
6	E	Electricity
7	Te	Telecommunication
8	W	Water
9	T	Transport
10	L1	Labour Regulations
11	SW	Skilled Workforce
12	Ur	Unregistered Units
13	LMnc	Large MNCs
14	CPr	Chinese Products
15	Th	Theft
16	Ro	Robbery
17	Va	Vandalism
18	Ar	Arson
19	T1	Tax rate
20	T2	Tax Administration
21	T3	Business Licensing
22	T4	Political Instability
23	T5	Responsiveness of officials
24	T6	Corruption
25	T7	Courts

STRATEGY FOR INCREASING INNOVATION AT POST-IPO FIRMS

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ABSTRACT

This paper presents the strategic approach for increasing the innovation performance at post-IPO firms through a literature review. The ways in which this approach increases the innovation performance and the effects of this approach on post-IPO firms are explored, followed by a discussion on the implications. The key for my strategic model is that it focuses on the innovation trade-off specified by Bernstein (2013), but it does not employ any sort external mergers or acquisitions, which public firms often rely on to innovate. By adopting the strategic model, post-IPO firms may obtain outcomes that are advantageous to innovation, including: discouraging the exodus of key inventors and innovators, affecting positively the CEO's job security and compensation by making him or her the chairman of the board, encouraging new ideas and methods, inspiring employees and helping them develop entrepreneurial intentions and mindsets, giving advice, direction, and counseling to innovators, and possessing implicit knowledge to provide the best oversight of the firm.

Keywords: Innovation, Innovation Performance, Initial Public Offering (IPO), Mergers, Acquisitions.

INTRODUCTION

Innovation is a key factor to success for many businesses. As businesses seek to improve their productivity and ensure sustained growth, they will need to boost their capacity to innovate (OECD, 2010). Innovation is also essential for private firms to go public and obtain investments and resources from public markets. These investments and resources can help firms grow and prosper, ultimately increasing their profitability. But, is there a trade-off to going public? And if so, what is that trade-off? Bernstein's (2015) research shows that the trade-off is actually innovation itself. It turns out that, once a firm goes public, the internal innovation performance at that firm decreases. The firm also experiences substantial employee turnover and the key inventors, who received higher returns and incentives for their innovation prior to the IPO, leave after it goes public. In addition, the productivity of inventors who choose to remain at the public firm declines.

Such indications point toward a need to adopt an effective strategic approach that would retain the key inventors and increase innovation among those who choose to stay with the public firm. So what does the strategic approach that enables public firms to maintain the innovative success that they had previously enjoyed before going public look like?

By organizing, integrating, and evaluating previously published materials and identifying them in a comprehensive literature review, we aim to discover strategies that could be utilized to increase a firm's internal innovation performance and the relationship between strategic innovation practices and the post-IPO firm's internal innovation performance. We argue, first, that post-IPO firms have a responsibility to practice these innovative strategies. Though obtaining external mergers and acquisitions may be more cost effective and may compensate for the decline in the internal innovation performance, the employees and health of the firm as a whole would benefit if the firm adopts our strategies aimed to increase internal innovation performance. Such strategies include but are not limited to: developing an incentives scheme to reward innovative employees, appointing the CEO as the chairman of the company, hiring new employees, and providing an entrepreneurial environment, which thus provides employees training and development opportunities. Additional strategies include ensuring the line managers' commitment and involvement and arranging the board composition of original top management team members.

That is not to say that firms have not been utilizing these strategies prior to going public; in fact, some may already have been using them. We are simply stating strategies that could enhance a firm's internal innovation performance, exploring how these strategies could be implemented, and researching the effects these strategies could have on the post-IPO firm.

PROBLEM STATEMENT

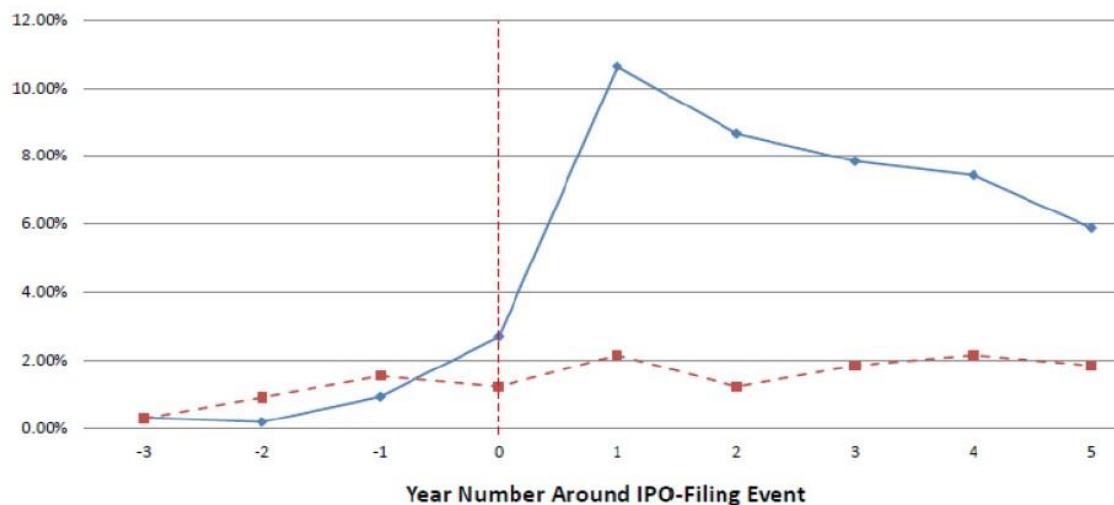
The concepts of innovation and innovation strategies have been explored by many authors (Brunswicker & Vanhaverbeke, 2015; Cassiman & Veugelers, 2006; Chaston & Scott, 2012; Christensen, Baumann, Ruggles, & Sadtler, 2006; Cormican & O'Sullivan, 2004; Dodgson, Gann, & Salter, 2008; Drucker, 2014; Li & Atuahene-Gima, 2001; Oke, 2007; Polley, Garud, & Venkataraman, 1999). Several authors have also defined reasons for the decline in the internal innovation performance at post-IPO firms (Bernstein, 201; Ferreira, Manso, & Silva, 2010). One reason is the fact that, once a firm goes public, managers within that firm can choose to employ capital gained from the IPO to buy technologies that are already on the market, patents, and even other firms instead of using that capital to focus on internal innovations. Another reason for the innovation trade-off is ownership dilution. The incentives inventors receive for pursuing innovative projects may be less compared to when the firm was private. This mitigation may be

caused by the dilution of claims or by increases in wealth which could lead to the possibility of cashing out (Bernstein, 2015). Some other reasons include the disparities in the level of wealth between employees, which could subsequently lead to the exodus of some key inventors, who might leave to establish a new firm, and the high turnover rates of innovative employees at public firms may compel managers to choose incremental projects that are more appealing to stock-market investors (Ferreira, Manso, & Silva, 2010; Minton & Kaplan, 2012).

To subsidize the changes stated above, post-IPO firms oftentimes rely on external technologies, which are attained through mergers and acquisitions. Bernstein (2015) demonstrates this trend in Figures 1 and 2. He demonstrates that, in the five years after going public, external patents and individual firms acquired by a public firm increase dramatically. Although external mergers and acquisitions is one way public firms can gain innovation, there is a need to develop strategies that would increase the innovation performance within post-IPO firms. There is a need to develop strategies that focus on acquiring internal patents rather than external technology acquisitions.

The need for internal innovation exists for a variety of reasons. Internal innovation enables public firms to stay competitive in the marketplace. It also allows firms to respond quickly to competitors, thus producing newer and better products that tailor to the needs of the consumers and society. In addition, internal innovation can open new horizons of opportunity for both the firm and the society (Simanis & Hart, 2009). It can open new avenues for research and development.

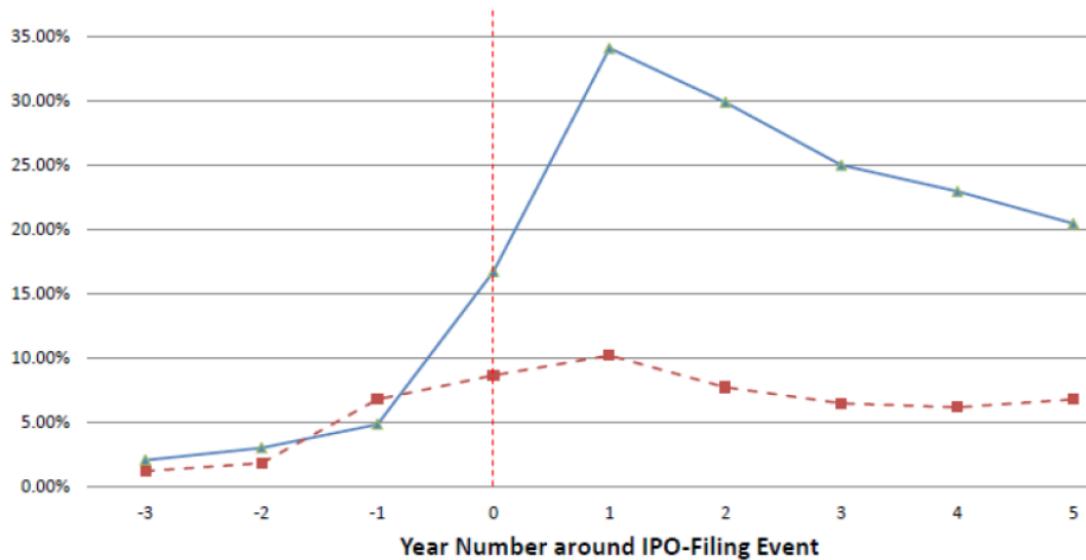
Figure 1
MERGERS AND ACQUISITIONS OF EXTERNAL PATENTS



Note. From "Does going public affect innovation?" page 67 by S. Bernstein, 2015

The figure 1 presents the annual probability to acquire at least a single external patent through M&A in the three years before and five years after the IPO filing. The solid line describes firms that completed the IPO filing, and the dashed line corresponds to withdrawn filers.

Figure 2
ACQUISITION LIKELIHOOD OF EXTERNAL FIRMS



Note. From "Does going public affect innovation?" page 66 by S. Bernstein, 2015

The figure 2 presents the annual probability to acquire at least a single firm in the three years before and five years after the IPO filing. The solid line describes filers that completed the IPO filing, and the dashed line corresponds to withdrawn filers.

RESEARCH QUESTIONS AND THE SIGNIFICANCE

This research clarifies the relationship between innovation strategies and post-IPO internal innovation performance by exploring the following three research questions:

1. What are key factors that influence internal innovation performance at post-IPO firms?
2. What is the relationship between innovation strategies and post-IPO internal innovation performance?
3. What are the implications of innovation strategies for business development?

The management within post-IPO firms has a need to develop approaches that would assist the firm in attaining its business and development goals without relying on external mergers and acquisitions. These approaches must focus on strategic innovation practices used within the firm and the key factors that they influence. Furthermore, in order to fully understand the innovation strategies and their influence on the post-IPO firm's internal innovation performance, clarifying the relationship between the strategic implementation process and subsequent effects on post-IPO firms is necessary as well. Therefore, the above research questions have demonstrated the significance of this literature review.

THEORETICAL BACKGROUNDS AND DEFINITIONS

Theoretical backgrounds and definitions are provided below for innovation, Initial Public Offering (IPO), innovation performance, and mergers and acquisitions.

Innovation

Several definitions have been provided for innovation during the past few decades. (Baregheh, Rowley, & Sambrook, 2009; Drejer, 2004; Hurley & Hult, 1998; Johannessen, Olsen, & Lumpkin, 2001; Drucker, 2014) There are four areas of innovation. These areas include ideas, people, transactions, and institutional context. For example, Drucker (2014) defines innovation as the act that endows resources with a new capacity to create wealth (p. 36). Van de Ven (1986) defines innovation as the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order. In addition, Kuratko (2009) defines it as the process by which entrepreneurs convert opportunities into marketable ideas.

Furthermore, the five types of innovation suggested by Rogers (1998) are: 1) introduction of a new product or a qualitative change in an existing product; 2) process innovation new to an industry; 3) the opening of a new market; 4) development of new sources of supply for raw materials or other inputs; and 5) changes in industrial organization.

Initial Public Offering (IPO)

Ellis, Michaely, and O'hara (2000) describe an IPO as both the "conduit for new capital to flow to fledgling companies and the mechanism for the existing owners to realize a return for their efforts." Maug (2001) also defines an IPO as a practice of the decision to go public for venture capital backed companies. Furthermore, Pagano, Panetta, and Zingales (1998) defines IPO with the ex-ante and ex-post characteristics: 1) the likelihood of an IPO is positively related

to the market-to-book ratio prevailing in the relevant industrial sector and to a company's size, 2) IPOs are followed by an abnormal reduction in profitability, 3) the new equity capital raised upon listing is not used to finance subsequent investment and growth, but to reduce leverage, 4) going public reduces the cost of bank credit; 5) it is often associated by equity sales by controlling shareholders, and is followed by a higher turnover of control than for other companies.

Innovation Performance

Innovation performance is a topic that has been widely discussed in innovation research (Ahuja & Katila, 2001; Laursen & Foss, 2003; Laursen & Salter, 2006; Prajogo & Ahmed, 2006). The two dimensions that define innovation performance, agreed upon by multiple scholars, are innovation efficacy and innovation efficiency. By definition, innovation efficacy is the degree of success an innovation enjoys and innovation efficiency is the effort put forth to accomplish the degree of success (Wheelwright & Clark, 1992; OECD-EUROSTAT, 1997; Griffin, 1997; Zhan & Doll, 2001; Valle & Avella, 2003; Alegre, Lapiedra, & Chiva, 2006).

Innovation efficacy and innovation efficiency, when analyzed together, can give an accurate measurement of innovation performance. One well-known method for measuring innovation efficacy is OECD's *Oslo Manual*, which provides a detailed measurement scale for collecting and interpreting innovation data (OECD-EUROSTAT, 1997). According to Alegre, Lapiedra, and Chiva (2006), this measurement scale was created to "give some coherent drivers for innovation studies, thereby achieving a greater homogeneity and comparability among innovation studies." Innovation efficiency, on the other hand, is measured differently. Many scholars concurred that innovation efficiency is determined by the cost and time of the innovation and that it can be measured both objectively (Griffin, 1993; Hoopes & Postrel, 1999; Pisano, 1994; Wheelwright & Clark, 1992) and subjectively (Griffin, 1997; Griffin & Page, 1993; McEvily & Chakravarthy, 2002; Valle & Avella, 2003; Zhan & Doll, 2001).

Mergers and Acquisitions

Mergers and acquisitions have been defined in many journals and reports. Raquib, Musif, and Mohamed (2003) define mergers and acquisitions as corporations that come together to combine and share their resources to achieve common objectives. The shareholders of the combining firms often remain as joint owners of the combined entity. The motives of using mergers and acquisitions range from attempting a revolutionary change in both of their operating performance, by way of making stronger competitive strengths and synergy, to cutting costs and establishing economies of scale and economies of scope. Ross, Westerfield, and Jaffe (2002)

define mergers and acquisitions as the absorption of one firm by another. The acquiring firm retains its name and its identity, and it acquires all of the assets and liabilities of the acquired firm. After a merger, the acquired firm ceases to exist as a separate business entity.

Gaughan (2011) contends that there are two types of mergers. The first type, a statutory merger, is when the acquiring company assumes the assets and liabilities of the merged company and the merged corporations go out of existence. The differing type of mergers is a subsidiary merge, where one company becomes a subsidiary of the other. Therefore, mergers and acquisitions mean an effort to turn two different, distinct companies into one entity and one corporation.

Integrating the above definitions from the literature, we conclude that implementing innovation is an important process in order to acquire and improve business performance.

RESEARCH METHODS

For this research, we first identified key words to use in the literature search: innovation, IPO, innovation performance, and mergers and acquisitions. Second, we identified the databases to search; all of the several electronic databases available, including Stanford University's electronic library, including both journal and book sources, were used, as well as Google Scholar and online library resources.

Bernstein's (2015) paper was used as the foundation of this study, with additional input emerging from the search to provide information on strategies that would increase the innovation performance at post-IPO firms. The literature enhanced our understanding of the relationship between going public, internal innovation performance, and the ways innovation can be increased without external technologies, mergers, and acquisitions. The literature also helped us enhance our understanding of how mergers and acquisitions affect a company's innovation performance after going public. In addition, Merx-Chermin and Nijhof, (2005) provide factors crucial to innovation in both large and small companies, which are used in this study. The study supports strategies that we formulated for helping post-IPO firms increase internal innovation without external patents and technologies. Kroll, Walters, and Le's (2007) findings were applied to the discussion of innovation strategies to provide the relationship between board composition and post-IPO business performance.

OUTCOMES OF THE LITERATURE REVIEW

To achieve the desired outcomes, innovation strategies need to be well organized, planned, and integrated into every aspect of a post-IPO firm. The impact of innovation strategies practiced in post-IPO firms may not be easily analyzed as the results may not be easily observed.

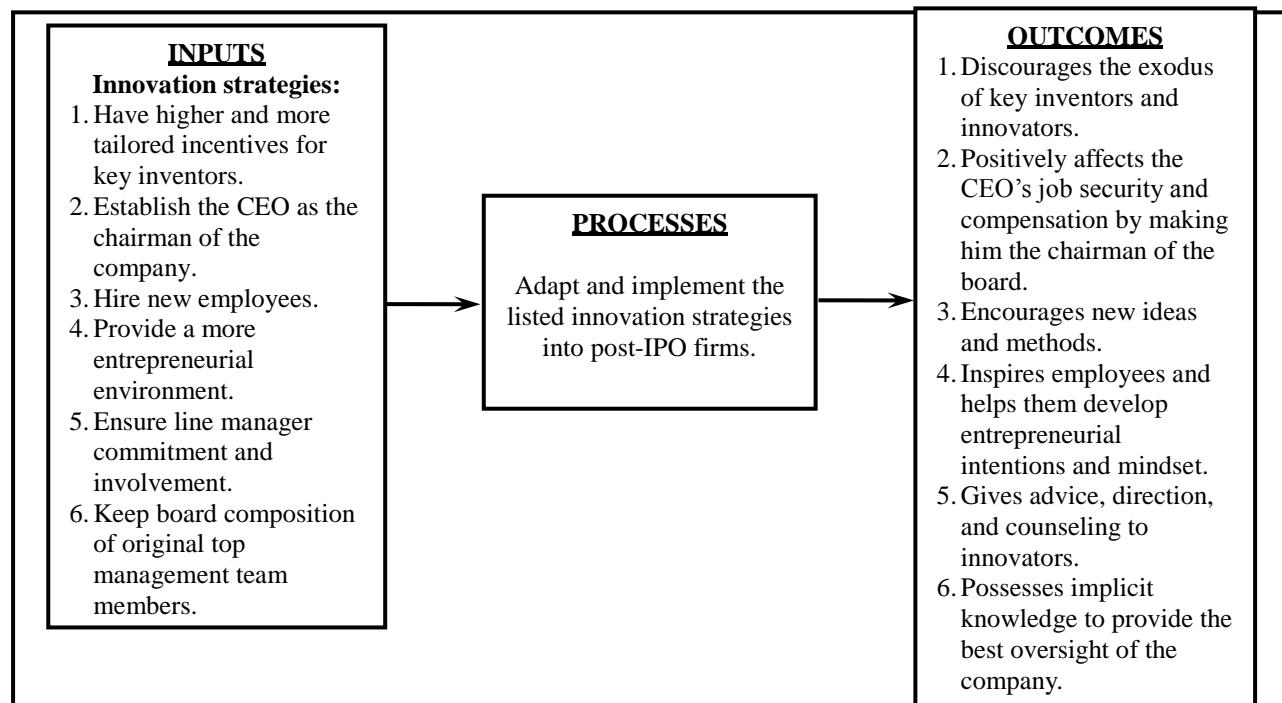
Thus, a process model looking at inputs, processes, and outputs may be helpful in understanding these relationships, with innovation strategies as the inputs, systemic implementation of the innovation strategies as the process, and effects of the innovation strategies as the outputs. From the literature, we conclude that there are innovation strategies that can have an influential and beneficial effect on the innovation performance at post-IPO firms. This leads to a proposal for a framework in which innovation strategies serve as key factors in the increase of innovation performance at post-IPO firms, detailed in Figure 3.

Outcomes of the Innovation Strategies

According to the literature, facilitation of such strategies can only take place in firms where there is a clear link between an IPO and a firm's internal innovation performance. Facilitation of such strategies can occur when firms implement the strategies shown in Figure 3. The strategies we proposed may reduce the decline of innovations at post-IPO firms and may be able to increase innovation as well. These strategies and processes are not mutually exclusive but are interrelated in such a way that if more of the strategies are used, then an increase in a post-IPO firm's innovation performance is more likely.

Figure 3

**FRAMEWORK FOR STRATEGIES USED TO INCREASING INNOVATION PERFORMANCE AT
POST-IPO FIRMS**



Relationships between Innovation Strategies and Post-IPO Innovation Performance

Accordingly, the six inputs in Figure 3 used as innovation strategies are examined below.

1. Have higher and more tailored incentives for key inventors: By giving key inventors specifically tailored benefits, there is less reason for them to leave. Bernstein (2015) points out that:

The dilution in ownership claims of future innovations may lead inventors to pursue less ambitious projects, or alternatively the inventors may leave the firm to implement their ideas in a private firm setting where they can capture a larger fraction of the returns for their innovation.

Thus, incentives that raise ownership claims and give inventors a larger fraction of returns for their innovation may prevent them from leaving.

2. Establish CEO as the chairman of the board: Hanley (1993) states that if the CEO also acts as the chairman of the board, he or she can directly affect their job security and compensation. Also, they would be in a better position to respond to takeover threats. Bernstein (2015) discovers that when the CEO is the chairman of the board, the likelihood of inventors leaving the post-IPO firm is less than when the CEO does not serve as the chairman of the board. He also discovered that when the CEO is not the chairman, inventors are 10.8 percent more likely to leave. Hence, there is a positive correlation between the CEO that is also the chairman and the effect on innovators' decision to stay at the firm.
3. Hire new employees: By hiring new employees, a firm can find new inventors. These inventors can have an immense impact on the innovative capabilities of that firm. Hiring new employees may also reduce the risk of a firm growing dull with its old methods and ideas. Therefore, hiring new employees can be very beneficial to a firm's innovation performance.
4. Provide a better entrepreneurial environment: Grundst  n (2004) defines entrepreneurial environment as the regional, physical, psychological, and social environment of the developing entrepreneur. Gartner (2004) characterizes entrepreneurial environment with factors including accessibility of suppliers, proximity of universities, accessibility to customers or markets, technically skilled labor force, presence of experienced entrepreneurs, and venture capital availability. "Entrepreneurial threshold companies may offer an environment where founders or managers have a clear vision for the firm but cannot communicate it clearly..." (Zahra & Filatotchev, 2004) Having an entrepreneurial

environment will establish a firm in which managers, founders, and employees can communicate freely to one another. This will, as a result, help employees communicate with their employers and will benefit post-IPO innovation performance. In addition, an entrepreneurial environment not only inspires employees to innovate, it also motivates them to develop an entrepreneurial mindset, one that is needed to innovate.

5. Ensure line manager commitment and involvement: Tseng and Mclean (2008) write that, “the line manager is best placed to assess, on an ongoing basis, the training and development needs of subordinates and can facilitate identifying development routes for subordinates and is ideally placed to provide advice, direction, and counseling to subordinates.” Therefore, the abilities of line managers are crucial to successful implementation of innovation strategies and to the innovation performance at post-IPO firms.
6. Keep board composition of original top management team members: Finkelstein and Hambrick (1996) assert that the most effective way to a successful post-IPO firm is by generating a tenacious board made up of original insiders who share a common vision. Carpenter et al. (2004) state that the organization is a reflection of its top management team members and that the TMT will likely have extensive knowledge and commitment to the shared vision of the firm. Kroll, Walters, and Le (2007) argue that,

“Young, entrepreneurial firms that can implement strategies sufficiently articulated to induce others to support their going public have higher post-IPO performance.”

Thus, we believe that this strategy is important to the increasing of innovation performance at post-IPO firms.

Relationships between the Process of Innovation Strategy Implementation and Outcomes

Although innovation strategy implementation and practice have been clarified by practitioners and scholars over the past several years, there is much to be explored regarding interactions between innovation strategies and implementation and performance outcomes for post-IPO firms (Klein & Sorra, 1996). Repenning (2002) points out that the process of innovation implementation is done when participants in an organization develop commitment to using a newly adopted innovation. He suggested a simulation-based approach to understanding the dynamics of innovation implementation. Based on Bernstein (2015) and Repenning (2002), six levels of outcomes for post-IPO firms are created:

Discourages the Exodus of Key Inventors and Innovators

By giving key inventors higher incentives, it can prevent them from leaving the company if they feel that they are not getting enough returns for their innovation or if there is a dilution in ownership claims. If the key inventors are less sensitive to financial incentives, then firms could consider more tailored incentives, for example, a promotion. Such incentives may decrease key inventors' urge to leave.

Positively Affects the CEO's Job Security and Compensation by Making Him or Her Chairman of The Board

Bernstein's (2015) research suggests that making the CEO the Chairman of the board decreases the likelihood of inventors leaving the firm. In addition, his research indicates that if the CEO is the chairman, it will be 10.8 percent more likely that key innovators remain at the firm.

Encourages New Ideas and Methods

Having new ideas and methods is crucial to firms that have gone public. By hiring new employees, new ideas and methods may be introduced, which could, as a result, increase the innovation performance. In addition, the chances of finding and developing a key inventor will also increase, which can be very beneficial to a firm.

Inspires Employees and Helps Them Develop Entrepreneurial Intentions

Having an entrepreneurial environment is a key to a business's success. It encourages innovation and helps employees enhance entrepreneurial intentions. Having an entrepreneurial environment allows post-IPO firms to shape many other aspects as well, including management and innovation.

Gives Advice, Direction, and Counseling to Innovators

Innovation success relies on, to some degree, the commitment and involvement of line managers. Line manager's ability to give counsel, direction, and suggestion to employees could help firms identify correct development routes and facilitate the implementation of innovation strategies. This may, in turn, expand the post-IPO firm's innovation performance.

Possesses Implicit Knowledge to Provide the Best Oversight of the Company

Having original top management team members serve as the board can increase a post-IPO firm's innovation performance dramatically. Top management team members have usually stayed with a firm long enough to be able to provide the best oversight. They share a common vision and work together towards a common goal to ensure the success of the company. Hiring new top management or board members could be disadvantageous because the familiarity of these members to the firm may be limited. Thus, hiring new top management or board members may hinder a firms' innovation performance.

CONCLUSION AND RECOMMENDATION

Berstein (2015) documents that innovation deteriorates in firms after they go public. In this paper, I survey the innovation literature and identify strategies and practices that, if applied by firms after the IPO, could reduce this deterioration.

In order to implement innovation strategies, the firm must have recently gone public and must have a measurable innovation performance. Strategies used to increase innovation at post-IPO firms, modeled in Figure 3, include having higher and more tailored incentives for key inventors, appointing the CEO as the chairman of the company, hiring new employees, providing a better entrepreneurial environment, ensuring line manager commitment and involvement, and keeping the board composition of original top management team members.

This research recommends that organizations take an initiative to learn and develop these innovative strategies and to obtain the general outcome of implementing these strategies, which is increasing the innovation performance. More specifically, though, the outcomes of the six innovation strategies are cultivated through: discouraging the exodus of key inventors and innovators, affecting positively the CEO's job security and compensation by making him or her the chairman of the board, encouraging new ideas and methods, inspiring employees and helping them develop entrepreneurial intentions and mindsets, giving advice, direction, and counseling to innovators, and possessing implicit knowledge to provide the best oversight of the company. Therefore, post-IPO firms can enhance their ability to innovate when they implement the innovative strategies and aim to increase their innovation performance upon going public.

CONTRIBUTIONS AND IMPLICATIONS

It would be worthwhile to note additional innovation strategies for post-IPO firms. If additional strategies were implemented, it would be helpful to many post-IPO companies. Such

strategies may not only help to increase the innovation performance of post-IPO firms, but they may also develop their performances in productivity, marketability, and management. Providing a more entrepreneurial environment could also be beneficial. Such implications encourage employees to innovate more.

Future research should verify and define the factors and directions of the strategic innovation practices suggested in Figure 3. Another approach for future research is the examination of strategies that could be used to increase the innovation performance of private firms. For industrial implications, our propositions mirror the ones stated earlier, that instilling innovative strategies in different industries could lead to desired outcomes such as an increase in innovation. Identifying factors that could decrease innovation in other industries would be an important topic for future research as well, given that the research done in this literature review is based on firms in the technology industry. We believe that our innovation strategies will have varied effects on the performance of businesses in other industries.

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ENTREPRENEURIAL ORIENTATION, AGGLOMERATION, NETWORKS AND FIRMS' PERFORMANCE - EMPIRICAL EVIDENCE FROM THE ITALIAN WINE SECTOR

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ABSTRACT

This paper contributes to literature on entrepreneurship, by providing insights on the impact of Entrepreneurial Orientation (EO) on the performance of Small and-Medium-sized Enterprises (SMEs). Particularly, the study explores to what extent agglomerations of firms (i.e., firm clusters) can influence SMEs performance, as well as being part of a territorial network, in which firms can exchange resources and knowledge.

EO can be conceived as a general attitude of entrepreneurs in managing their firms (e.g., strong orientation to innovate and take risks, Morris and Paul, 1987). Analyzing EO can be helpful in understanding the agglomerating, and networking patterns of firms, as well as their performance (e.g., Acs and Armington, 2004; Acs and Varga, 2005; Aghion et al., 2009; Fritsch and Mueller, 2008; Acs et al., 2010; Bosma et al., 2011).

Albeit literature has recognized agglomerations as surely having an impact on firm performance, it is not clear whether this impact is positive (e.g., Harrison, 1992; Krugman, 1991; Marshall, 1920), or negative (e.g., Buenstorf and Guenther, 2011). Although in recent years there was an increasing academic attention in understanding differences in performances between agglomerating and non-agglomerating firms, results of research still appear fragmented and inconsistent (e.g., Klumbies and Bausch, 2011).

Research has long recognized the importance of networks in fostering innovation. However, interest in understanding their complex evolutionary dynamics is relatively recent (Martin and Sunley, 2006; Glückler, 2007; Giuliani and Bell, 2008; Boschma and Frenken, 2010; Martin, 2010; Menzel and Fornhal, 2010; Boschma and Fornahl, 2011; Martin and Sunley, 2011; Staber, 2011; Ter Wal and Boschma, 2011; Balland, 2012; Balland et al., 2012; Li et al., 2012). Contributions on this topic suggest that, changes in the evolutionary patterns of networks can be considered as predictors -at least partially- of the likely future success or failure of an agglomeration (i.e., cluster). Hence, networks and their evolutionary patterns appear to have an impact on the performance of single participating firms.

According to the above considerations, this paper provides an exploration of the impact of EO on firm performance, considering agglomeration and network (i.e., the firm being part of a network) as moderating variables in the relationship EO-performance. The paper focuses on the Italian wine industry, one of the most important sectors in agri-food production in Italy, and one of the most recognizable Italian excellences. The wine industry is considered as an emblematic case study for agglomerating effects, given that a similar firm clustering is present

among wine industries all over the world (hence, with comparable characteristics, e.g., Cusmano et al., 2010; Bell and Giuliani, 2007).

After providing some measurement of agglomeration (using Moran's LM_i statistic), the paper presents the moderate regression that has been performed on data from a sample of 234 Italian wine firms (collected through the administration of a structured questionnaire). Results confirm the importance of agglomeration and entrepreneurial risk taking attitude on performance, but providing no significant evidence on the role of networks.

INTRODUCTION

The wine industry in Italy, more specifically in the North Eastern Italian Regions, can be considered one of the most important sectors for national economy. Over the past two decades, Italian winemakers, (for the vast majority small, independent producers) have experienced a number of economic, social and political challenges. These include, for example, changes in worldwide production and consumption patterns, fiercer competition, (particularly from the "New World" producers), and an increasing number of regulations. The Italian wine industry is now characterized by high competition, high barriers to entry, sophisticated consumers and overproduction (Beverland and Lockshin, 2006; Montaigne, 2010; Terblanche et al., 2008). The implications of these trends are of particular significance for the Italian wine sector, given the crucial role of winemaking for the Italian agricultural economy.

The Italian wine industry comprises a number of regional clusters, i.e., groups of firms from the same or from related industries, located in geographical proximity (Bell, 2005). Networks can be established as a form of entrepreneurial marketing cooperation, in the attempt to acquire social capital within industry clusters (Casson and Guista, 2007; Felzensztein and Gimmon, 2009).

As it is well pointed out in literature firms in territorial-based networks develop a set of relationships in the form of "untraded interdependencies" which benefit their innovation and improved exploitation of knowledge as it is transferred more easily through proximity where these local firms are embedded (Bell, 2005; Shaw, 2006; Suire and Vicente, 2008). However, more recently, it has been suggested that entrepreneurial marketing cooperation might transcend regional clusters to tap industry-specific knowledge at the international level (Felzensztein and Gimmon, 2009; Morrison and Rabellotti, 2009). Given the current context of the Italian wine industry, the challenge for small wineries is therefore double-sided: to defend current positioning through brand differentiation, and the exploitation of product-market development opportunities, through engaging in cooperative business relationships and networks.

This study contributes to research on the effect of Entrepreneurial Orientation (EO) on business performance, by investigating the integrative mechanisms that ensure complementarity among a firm's various aspects (Black and Boal, 1994; Miller, 1996).

Literature on EO, which has confirmed the positive relationship between EO and firm performance, depends on several contingencies (e.g., Ireland et al., 2003).

EO addresses entrepreneurial strategy making, and focuses on the extent to which firms are characterized by a decision-making style that is proactive, risk taking and innovative, as they pursue business opportunities (Miller, 1983; Covin and Slevin, 1989, 1991). Regarding the determinants of EO, research has revealed the importance of both the environment in which the firm operates (i.e., external factors, e.g. Lumpkin and Dess, 2001; Zahra, 1991) and organizational variables (i.e., internal factors, e.g. Wiklund and Shepherd, 2003).

This suggests a configurational approach that involves the simultaneous and joint consideration of strategy, organizational and environmental characteristics. From this perspective, the present research tries to provide a better understanding of the EO-performance link, by considering simultaneously agglomeration and network as moderators. The findings of this first analysis make several contributions to the entrepreneurship literature, by investigating together the role of agglomeration and network in a configurational model, for small firms in the wine sector.

Following Lumpkin and Dess (1996), the aim of this paper is to empirically verify the relevance of the configurational approach by comparing a configurational model of EO and performance to contingency models and a universal (direct effect) model. The research questions can be summarized as follows:

1. Does an EO affect small business performance?
2. Is the relationship between an EO and small business performance moderated by agglomeration?
3. Is the relationship between an EO and small business performance moderated by the existence of networks?

To answer these questions, first the independent effect of these variables was assessed, and then two-way interaction effects were assessed, analyzing a sample of 234 small Italian micro and small wine firms. Firstly, taking in to account consideration the findings of Dess *et al.* (1997) and other configurational research, this paper incorporates resources and the environment into a configuration, in order to test how EO affects small business performance, contributing in this way to research on the value of entrepreneurial-type strategies. Secondly, single indicators have typically been used to operationalize small firm performance (Wiklund, 1998). However, a multidimensional approach to capture performance should be used when investigating the effects of EO, as outcomes may be favorable in some dimensions, but not in others (Lumpkin and Dess, 1996).

Most studies on EO and performance use cross-sectional designs. However, it may take considerable time for the effects of EO to materialize (Lumpkin and Dess, 1996). Specifically, Venkatraman (1989) argues that longitudinal designs are needed in configurational studies. To empirically test whether an EO actually leads to better performance, longitudinal data are necessary. For these reasons, this paper adopts a longitudinal design.

WINE INDUSTRY AND CLUSTER

In 2012, the total world area planted was 7528 mha (Thousands of hectares) including areas planted with vines not yet in production or collections, with a slight decrease of 1% if compared to 2011 data (-20 mha), as it is shown in table 1. This decrease was mainly due to the reduction of European vineyards. There was a high expansion of vineyards in Asia, which accounted more than one-fifth of the total planted area in 2012 (22.7%). China, whose vineyards almost doubled in the past decade, owned the vast majority of Asian planted areas (+ 90%). In the United States, and in the Southern Hemisphere, the new vine-plant continued with a moderate increase of 0.3% (compared to 2011).

Table 1 WORLD VINEYARDS							
Year	2000	2001	2002	2003	2004	2005	2006
Word Surface area	7.847	7.873	7.877	7.884	7.829	7.805	7.797
Year	2007	2008	2009	2010	2011	2012*	
Word Surface area	7.772	7.732	7.639	7.645	7.547	7.528	

Source: OIV (Organisation Internationale de la Vigne et du Vin; International Organization of Vine and Wine),

*Forecast

In 2012, world wine production (excluding juice and musts) stood at 252 Mhl (Millions of hectoliters). With respect to 2011, production decreased, especially in Europe. European 6% decrease was mainly due to a reduction in the number of vineyards, and bad weather conditions. Europe still accounts for almost two thirds of the world's production of wine (62.3%), (representing 73 % of the total in 2001) compared to American competitors (20% in 2012), Asian competitors (6.9% in 2012 against 4.5 % in 2001), Oceanian (5.9%), and African (5%) competitors (figure 1).

With 44.4 million hectoliters produced in 2014- 60% of which over came from the 521 wines with denomination of origin (330 DOC wines - Denominazione d'Origine Controllata; Controlled Designation of Origin; 73 DOCG - Denominazione d'Origine Controllata e Garantita; Controlled and Guaranteed Designation of Origin; 118 IGT -Identificazione Geografica Tipica. Typical Geographical Indication) Italy is one of the most important wine producers in the world. The contemporary key trends in the Italian wine industry can be summarized as follows:

1. An increase in the production of quality wines (DOC/DOCG), and a decrease the production of table wines;
2. an increase in the production of white wine;
3. A decrease in the production of wine in all Italian regions.

The Italian domestic consumption has fallen below the threshold of 40 liters per capita per year: export keeps high the turnover of Italian vineyards. In fact, according to ISTAT (Istituto Nazionale di Statistica. Italian National Institute of Statistics), data about the first 11 months of 2012 (Federvini, 2014), show that Italian wine on international markets has increased of about 7.5% in the same period in the previous year - bringing the export turnover to 4.66 billion euro.

Friuli-Venezia Giulia is a North-Eastern Italian Region. With its ancient winemaking traditions, and its wide variety of wines, the region produces some of the best wines in Italy. The region is represented by 3 DOCG, 9 DOC and 3 IGT wines (nearly all of the wine products are considered as protected varieties).

WINE CLUSTER

The international wine market has been characterized by growing competition, especially in recent years (International Organisation of Vine and Wine - OIV, 2013). Wine is one of the most important agri-food products for Italian export.

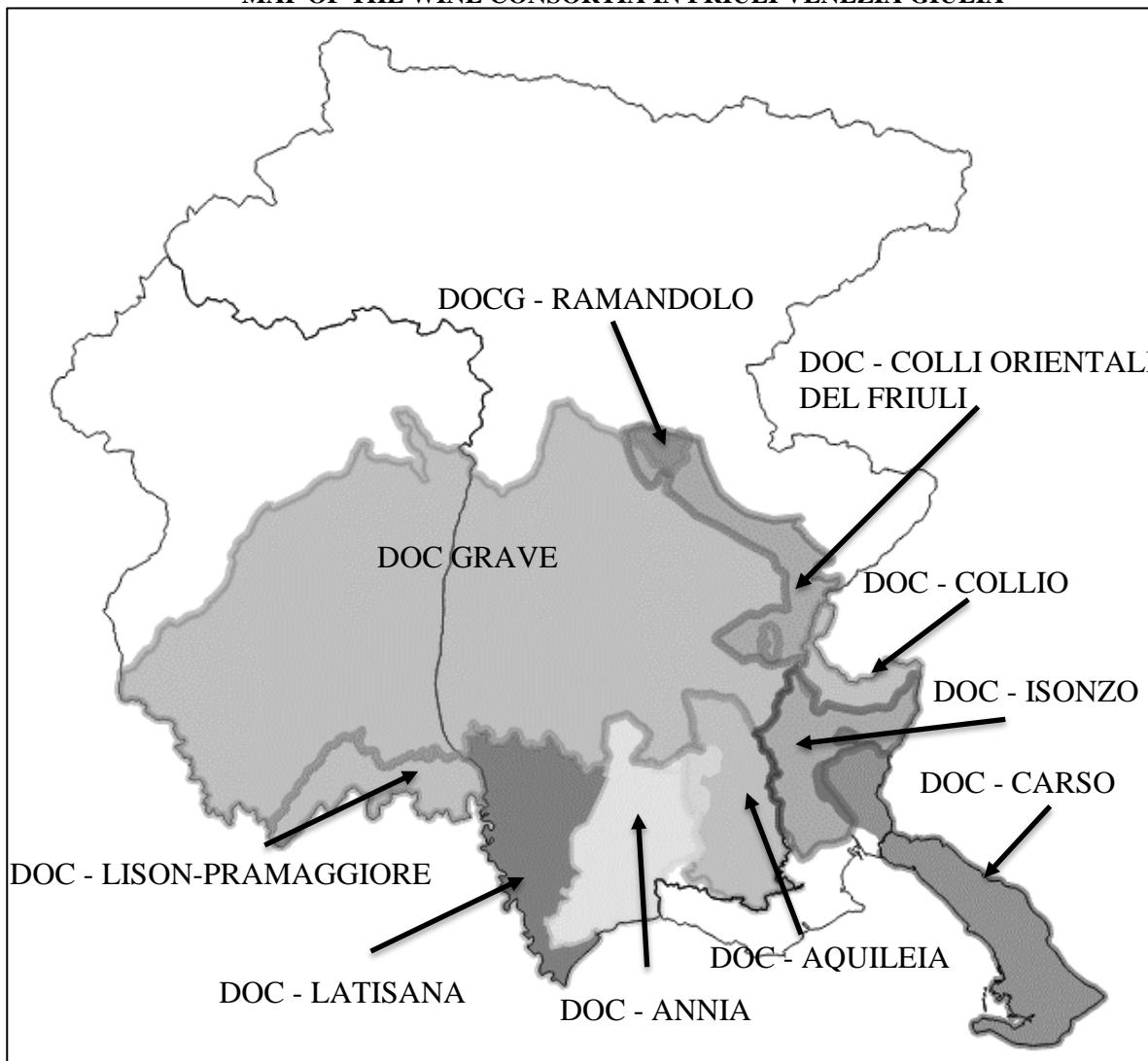
As far as exports are concerned, Friuli Venezia Giulia is the tenth wine exporting region in Italy. In this region, the local system of viniculture production is historically recognized as a *wine cluster*, characterized by many micro and small firms, most of them being grape growers. In general, local firms cultivate autochthonous vines and produce local wine varieties: the local *terroir* is one of their key competitive assets. However, during the last two decades, there was a reduction in the area dedicated to vines. The average size of the wineries in the region is very small, even smaller than the national average winery dimensions. Despite the very small average size of the firms, many of them seem to have taken measures designed to increase efficiency, improve the quality of wines, adopt new technologies and introduce business innovations.

The regional consortia play a leading role in encouraging modernization. The consortium is a local association, which provides technical assistance to producers in viticulture and related fields. As discussed in Morrison and Rabellotti (2007), the consortia are key players in the *Friuli-Venezia Giulia Wine Regional Research System*, connecting small and marginal producers to several sources of knowledge, such as the University of Udine, and other regional and national research institutions. These boards contribute to diffusing knowledge on the cutting-edge technological advancements and best practices, which otherwise would not be accessible to small producers. Such knowledge diffusion is mainly carried out through demonstrations to farmers, or through a direct consultancy activity. In a global market, characterized by a shift in demand from bulk to quality wines, and by an increasing number of competitors from the “new world”, access to knowledge is a key competitive asset. This emphasizes the importance of investigating how knowledge circulates among firms, through intra-cluster linkages, and linkages with actors external to the clusters, in a wine local system (the one of Friuli-Venezia Giulia).

CONSORTIA FOR THE PROTECTION OF THE WINES

In Friuli-Venezia Giulia, there are currently nine protection consortia that aim to regulate, promote and support the regional wine tradition in Italy and abroad. The nine active protection consortia in Friuli Venezia Giulia are Friuli Annia, Friuli Aquileia, Carso, Collio, Colli Orientali del Friuli, Friuli Grave, Friuli Isonzo, Friuli Latisana and Ramandolo. Moreover, the interregional Lison-Pramaggiore consortium is active in the provinces of Venice and Treviso (Veneto), as well as Pordenone (Friuli Venezia Giulia) (figure 1). These consortia represent over 2,500 wine producers, accounting for over 75% of regional DOC wine production.

Figure 1
MAP OF THE WINE CONSORTIA IN FRIULI VENEZIA GIULIA



Source: our Elaboration with QGIS

AGGLOMERATION AND NETWORK: THE CASE OF THE WINE SECTOR

This paper argues that the current geographic distribution of production places important constraints on the link between EO and performance. The large and growing literature on the agglomeration effect suggests that firms seek locations that provide localization economies (benefits from having common buyers and suppliers, a specialized or skilled labor pool, and informal knowledge transfers). Many scholars have accepted the notion that the agglomeration benefits derived from being in a cluster lead to superior firm performance (Harrison, 1992; Krugman, 1991; Marshall, 1920). In contrast to the positive, empirical effects reported by those studies, other studies could not confirm any influence and some authors even found a negative relationship, seriously questioning the existence of positive agglomeration effects (e.g., Buenstorf and Guenther, 2011; Shaver and Flyer, 2000). Only recently researchers started to identify the contributing factors to performance differences, between agglomerated and non-agglomerated companies. So far, the results provided by research, appear fragmented and

inconsistent (Klumbies and Bausch, 2011). In addition, it is apparent that some fundamental issues remain unresolved. One of these concerns the link between entrepreneurial orientation and performance comparing agglomerated and non-agglomerated firms. In this study, the first group refers to companies which are located in areas of high agglomeration of wine farms.

Additionally, are often seen on a broad scale as a foundation for economic growth, this can also be evaluated at the level of the regional economy (Brusco 1982; Brusco and Righi 1989) where promotion of geographically-based entrepreneurial networks and clusters often occurs (Kinsella 1989), suggesting a particular importance for proximity in these processes.

The wine industry can be considered as an almost ideal context in which to study agglomeration effects, because these clusters are present in the wine industry all over the word, and have comparable characteristics (*e.g.* Cusmano *et al.*, 2010; Bell and Giuliani, 2007).

This study therefore examines the interrelationships between small firms' growth and the impact upon these of collaborative relationships between SMEs and institutional stakeholders (*i.e.* *wine consortia*) at local level, exploring the importance of these relationships in the complex processes of growth.

The purpose of this analysis is to offer a multi-dimensional view of wine firms, which are embedded in a context of supply or value added chains, relating them to wine farms' agglomeration. The methodological approach for measuring agglomeration refers to the widely used *local Moran's statistic-LMi* (Anselin, 1995) and the subsequent improvement of the analysis by adding a clustering of the wine firms. The case of the wine sector represents a linkage between secondary manufacturing industry (wine firms) and a downstream primary sector (wine farms) where the firms have connected their supply chains from a relational standpoint. The aim of this paper is to analyze whether entrepreneurial orientation develops in a better way its potential contribution to firm performance inside agglomerations rather than outside, and in presence of local linkages between SMEs and consortia, rather than in absence of such linkages. The main research question can be thus formulated as follows:

Does entrepreneurial orientation contribute to business performance more in agglomerated and networked SMEs rather than in non-agglomerated and non-networked ones?

This paper considers entrepreneurial orientation as the “(...) inclination of top management to take calculated risks, to be innovative, and to demonstrate proactiveness” (Morris and Paul, 1987); cluster/agglomeration is defined as a “geographically proximate group of firms and associated institutions in related industries, linked by economic and social interdependences” (Rocha, 2002). EO captures an organizational decision making attitude favoring entrepreneurial activities, strategic decisions, and managerial philosophies (Covin and Slevin, 1989; Simsek, *et al.*, 2010).

Consistent with recent literature, this work focuses on the mechanisms embedded in entrepreneurial process that represent an additional explanation to analyze firm agglomeration, network and performance (Acs and Armington, 2004; Acs and Varga, 2005; Aghion *et al.*, 2009; Fritsch and Mueller, 2008; Acs *et al.*, 2010; Bosma *et al.*, 2011). This study looks beyond the entrepreneurial orientation - performance link, and focuses on a particular class of agglomerations (*i.e.*, the spatial concentrations of connected firms) and network (*i.e.* local linkages with consortia).

Friuli-Venezia Giulia is a fundamental area for *Made in Italy*, with a large presence of small innovative firms which are often organized in industrial districts, specialized in the

traditional core productions of the Italian industrial model (*i.e.* agri-food, textiles, clothing, machinery and mechanical equipment, Corò and Grandinetti, 1999).

The main reasons that led to the choice of the Italian wine sector as a case study is that, as in other countries, this sector can be seen as a good example of how agglomeration economies exist, and work in real life (Rosenthal and Strange, 2004), enforcing in some cases already existing, natural advantages (Glaeser, 2008).

This regional context has been chosen due to its uneven distribution of entrepreneurial activities that leads to the conclusion that some regional factors influence these activities, thus leading to region-specific entrepreneurial behaviors (Fornahl, 2003).

Four dimensions of EO (*i.e.* risk taking, proactiveness, innovativeness and competitive aggressiveness); different clusters of wine firms (*i.e.* agglomerated firms and non-agglomerated ones); networked firms and non-networked ones and firm performances constructs are operationalized in the study.

The paper is structured as follows. First, a summary of relevant theories on agglomeration, network, entrepreneurial orientation and business performance is provided. Then, the issue of empirical measurement of firm agglomeration in a specific sector (*i.e.*, wine sector) is discussed. Subsequently, the paper examines the relationship that exists between EO and firm performance. A moderated regression was performed on a sample of regional wine firms, with agglomeration and network as moderating variables.

Networks and Performance

Notwithstanding the widespread consensus on the importance of local networks for promoting innovation in regional clusters, few scholars have analyzed their dynamics. Interest in understanding *how* and *why* networks in regional clusters change over time is relatively recent and is in line with a new stream of research, that investigates cluster evolution processes more generally (Martin and Sunley, 2006; Glückler, 2007; Giuliani and Bell, 2008; Boschma and Frenken, 2010; Martin, 2010; Menzel and Fornhal, 2010; Boschma and Fornahl, 2011; Martin and Sunley, 2011; Staber, 2011; Ter Wal and Boschma, 2011; Balland, 2012; Balland *et al.*, 2012; Li *et al.*, 2012).

Work on network dynamics is motivated by an interest in their influence on the development trajectories of clusters. The drivers and directions of network changes are likely to condition the modes knowledge is shared (or other valuable assets) among cluster firms, which, at least in part, might be a predictor of the cluster's future success or failure. To explain how networks evolve over time, scholars have borrowed some concepts and ideas from established organizational sociology and network theories.

For instance, Glückler (2007) suggested that cluster evolution is likely to be path-dependent and mainly a result of retention mechanisms in ties formation, "that cause new ties to reproduce and reinforce an existing network structure". Among these retention mechanisms the author included "preferential attachment" -which reflects the tendency of central actors to become even more central over time (Barabasi and Albert, 1999)-, and "embeddedness", referred to the tendency towards network closure and clique-like network structures (Granovetter, 1985).

Boschma and Frenken (2010) suggested that, in addition to geographical proximity, different forms of inter-organizational proximity are more likely to influence how firms become connected in clusters. In other words, in order to connect, firms need to be closely related in one or more dimensions. The authors further posited that, if the retention and proximity mechanisms of new tie formation are in place, the "density of network relations in geographical clusters is

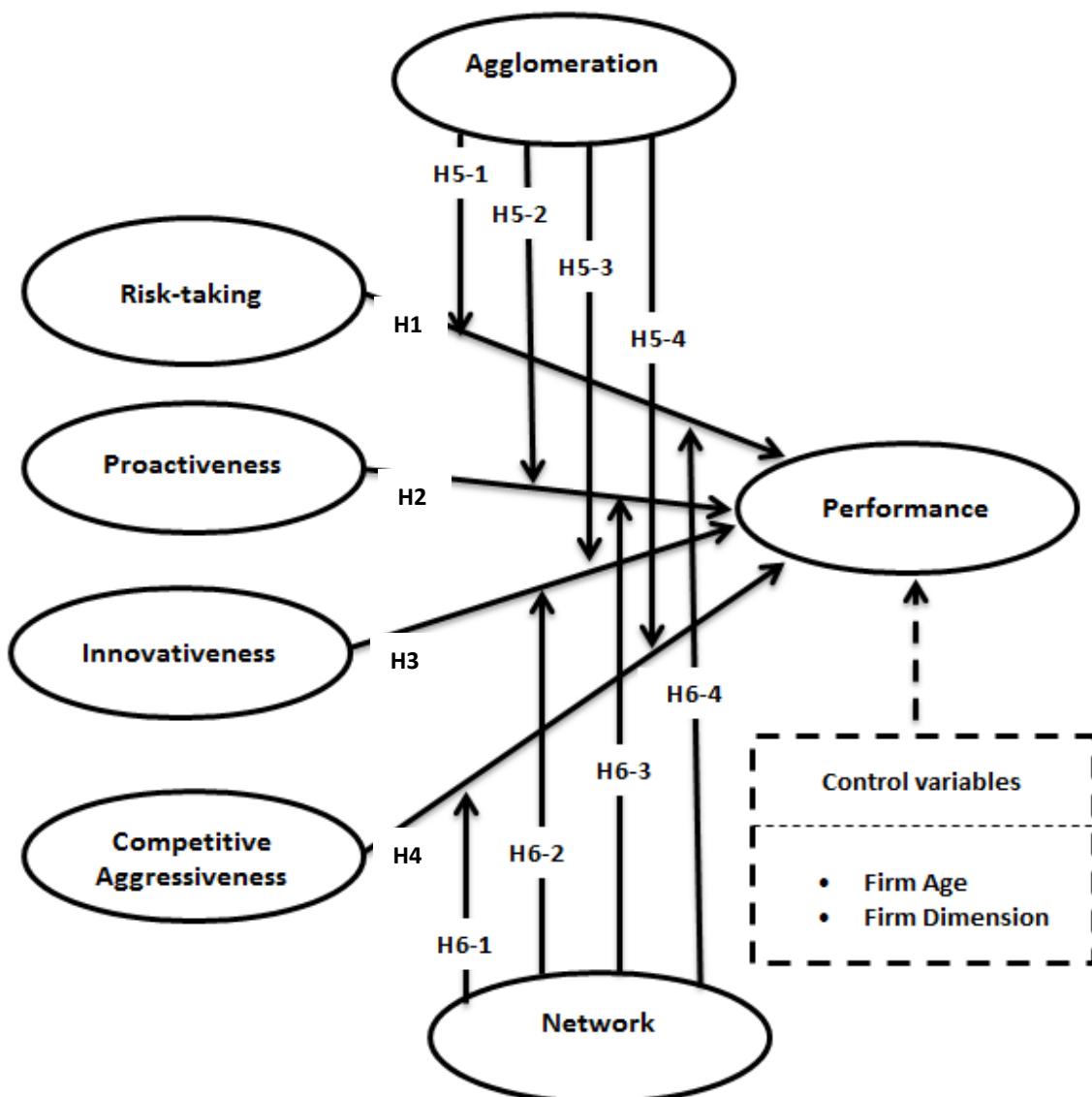
likely to increase over time”, which would be undesirable because it could prevent cluster renewal, and might feed lock-in processes.

Therefore, in investigating the effect of entrepreneurial orientation on business performance, the interacting effects between entrepreneurial orientation, agglomeration, and social networks represent important research points.

This study therefore aims to extend the research corpus by examining the effects of entrepreneurial orientation, agglomeration, and social networks on business performance.

The research framework is summarized in figure 2.

**Figure 2
PROPOSED MODEL**



INFLUENCE OF CLUSTER ON WINE SECTOR

Sample and Data Collection

As its empirical context, this study focuses on wineries in Friuli-Venezia Giulia. The firms considered in the study were located in nine sub-regional areas (figure 1) with a strong vocation for winemaking -both classified as DOC zones and DOCG zones. The wines produced in these areas are of high quality, well known and appreciated in Italy and abroad. These areas enjoy a particularly favorable set of climatic and production conditions, and present a marked concentration of wine-makers and other firms and institutions active in the wine sector, giving rise to a cluster *à la Porter* (1998). Similar areas have been widely studied in various parts of the world (Harfield, 1999; Aylward, 2004; Zanni, 2004; Giuliani and Bell, 2005; Dana and Winstone, 2008; Morrison and Rabelotti, 2009).

A preliminary version of the research questionnaire was devised building upon extant literature. Then it was reviewed by experts in the field, and tested on a group of four firms randomly extracted from a sample of 234 firms. During this pilot study, interviews were conducted with the firms' CEOs and export managers, in order to check for any issues or problems in the questionnaire. Basing on the feedback collected during the pilot study, some interventions were performed in order to improve questionnaire design. Companies selected for the pilot study were not considered in the definitive sample.

Data were collected between November 2012 and November 2013 through the definitive, structured questionnaire, and through in-depth personal interviews with the CEOs. It is generally accepted that the entrepreneurial orientation of a firm is typically operationalized from the perspective of its CEO (Covin and Slevin, 1989). In this particular case, usually the CEO was also the owner of the firm, and always had a key strategic role in the firm's establishment and/or development. All respondents were assured about the confidentiality of the data they provided. Initially, the CEOs of 550 wine firms were asked to complete research questionnaires for this study. Three weeks after the initial mailing, telephone calls were made to all non responding firms in an attempt to improve the response rate. Of the 550 firms initially selected, 234 completed and returned the research questionnaire (a response rate of 42.50%).

Measurement of Local Clustering

Clustering is best understood in the context of *spatial autocorrelation*, a term that describes conditions where the attribute values being studied are correlated, according to the geographic ordering of the objects. When the location of firms is spatially auto correlated, it implies that the geographic distribution of economic activity is not random, and it is likely to be determined by some underlying political, economic, or physical factors attributable to each geographical unit. Hence, strong, positive spatial autocorrelations mean that the attribute values of adjacent geographical units are more than closely related.

One of the most important measures of spatial autocorrelation is Moran's Index. Particularly, in this work the Local Moran's (LMi) algorithm was elaborated using the ArcGIS software (v9.0) to compute a Local Moran value for the region under investigation. This spatial statistical technique, in a geographic information system, was used to quantify significant spatial patterns, such as concentrated wine production rates, and spatial outliers. Inverse distance weighting, with row standardization of the spatial weights -in which each weight is divided by its row sum- was selected; this type of weighting permits comparability among areas with different

numbers of neighbors (Waller and Gotway, 2004). The resulting Local Moran indices were transformed into z scores, to indicate whether the similarity or dissimilarity in values between each area and those of its neighbors, exceeded the value that would be expected, due to chance. Following Moran (1948) and Waller and Gotway (2004), the *Univariate Global Moran's Index* (M_i) is defined as follows:

$$M_i = \frac{n \cdot \sum_{j=1}^n w_{ij}(x_j - \bar{x})(x_i - \bar{x})}{\sum_{i=1}^n \sum_{j=1}^n w_{ij} \cdot \sum_{i=1}^n (x_i - \bar{x})^2}. \quad (1)$$

Where:

- a) n is the number of wineries;
- b) x_i is the wine production in terms of vineyards areas (hectares) of the i^{th} farm;
- c) $\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i$ is the average vineyards areas (hectares) of the n wineries;
- d) $w_{ij} = (1/d_{ij})$ is the *spatial proximity index*, that is, the inverse of the distance (kilometers) d_{ij} , in which d_{ij} represents the *Cartesian distances* between i^{th} winery and j^{th} winery.

A spatial weight matrix can be defined either by contiguity (whether polygons share common boundaries or vertices), or by distance (whether polygon geometric centroids are within certain distance thresholds). If distance is used, the spatial weight matrix can be calculated using either a distance banding algorithm, such as inverse distance or inverse distance squared, or a fixed distance band.

To localize the presence and magnitude of spatial autocorrelation, a measure such as Anselin's Local Indicator of Spatial Association (LISA) is necessary (Anselin, 1995). LISAs are simply local derivations or disaggregation of global measures of spatial autocorrelation. For this study, the Local Moran index used is defined for each i^{th} location as follows:

$$LM_i = \frac{n \cdot (x_i - \bar{x})}{\sum_{i=1}^n (x_i - \bar{x})^2} \sum_{j=1}^n w_{ij}(x_j - \bar{x}). \quad (2)$$

To each municipality was then assigned a categorical value, depending on its LM_i z score, so that each municipality was either:

1. part of a concentration of municipalities in which similar levels of production in terms of clustered vineyards areas; or
2. A spatial outlier (*i.e.*, the production in terms of vineyard areas was much different from the one of nearby or surrounding municipalities).

These categorical assignments were combined with a ranking into categories of wine production in terms of vineyards areas, based on a comparison between winery and mean wine production in the region under investigation (Table 2). These bivariate categorical values were mapped (Figure 3).

The 234 wine firms were classified into *agglomerated firms* and *non-agglomerated firms* who were clustered basing on their location in one of the two groups described above. Specifically the first group (*agglomerated firms*) included 114 wineries located in areas with high or strong value of the *Local Moran's Index - LM_i z score* (group 1 with $LM_i > 2$ and COType HH); the second group (*non-agglomerated firms*) included 120 wineries located in areas

where the value of the *Local Moran's index z score* was either no significant or weak (group 2 with $LMI \leq 2$ and COType NULL).

Modeling and Measuring a Social Network

Networks may be modeled using dots or “nodes” to represent actors in the network, and lines between the dots to represent the relationships or “ties” between actors. Actor attributes are measures associated with the nodes, and the full set of actor attributes is the network composition (Wasserman and Faust, 1994). The pattern of all the ties between actors is the network structure (Wasserman and Faust, 1994).

Two actors (nodes) and the relationship (tie) between them form the simplest possible network, known as a *dyad*. It is possible to measure the structure of a network from the perspective of a single actor: this perspective is known as an *ego network*. The actor at the center of this perspective is called the “ego”, while all the actors with which he or she is connected are referred to as “alters.” Ego networks may also be referred to as “personal communities” (Wellman, 1999). A subtle but important point is that while network measures of ego networks produce values that may be analyzed in combination with actor attributes (for example, as found in econometric models), they do not become actor attributes. Rather, they remain descriptions, or “snapshots”, of the network from the perspective of each individual actor. Moving from picturing a social network as a graph made up of nodes and lines, to relational data that can be analyzed using matrix algebra techniques, requires the construction of an adjacency matrix. The row and column headings for an adjacency matrix are identical, listing the names of the actors involved in the network. In the simplest case, the cells of the matrix are coded with “1” if a tie exists between the actors and “0” if no tie exists. Ties may also be “valued”. Values indicate a characteristic of the relationship that the specific research has quantified (for example, measurements of the intensity of interaction). Ties may also be “directed”. For example, the relationship “lends money to” is a directed relationship. Graphically, this could be depicted using arrowheads on the lines connecting nodes. In matrix form, row actors “send” ties to column actors. Thus, if Jill lends money to Jen, the (Jill, Jen) cell would be set to “1” while the (Jen, Jill) cell would be set to “0”. Social network analyses tend to follow one of two different models of organization (architectural models and flow models, Borgatti, Mehra, Brass, and Labianca, 2008), depending on the goal of the analysis. Architectural models tend to focus on the structure of the network, seeking to discern whether specific structures lead to similar outcomes, or whether actors in similar network positions behave in similar ways. Planning applications related to the social and spatial structure of “community” tend to be organized and analyzed as architectural models. Flow models, instead, view the network as a system of pathways along which things flow between actors. Analysis of flow models can, for example, identify which actors in the network are more active, or which ones are more powerful.

Figure 3
MUNICIPALITIES BY WINE PRODUCTION AND SPATIAL SITUATION

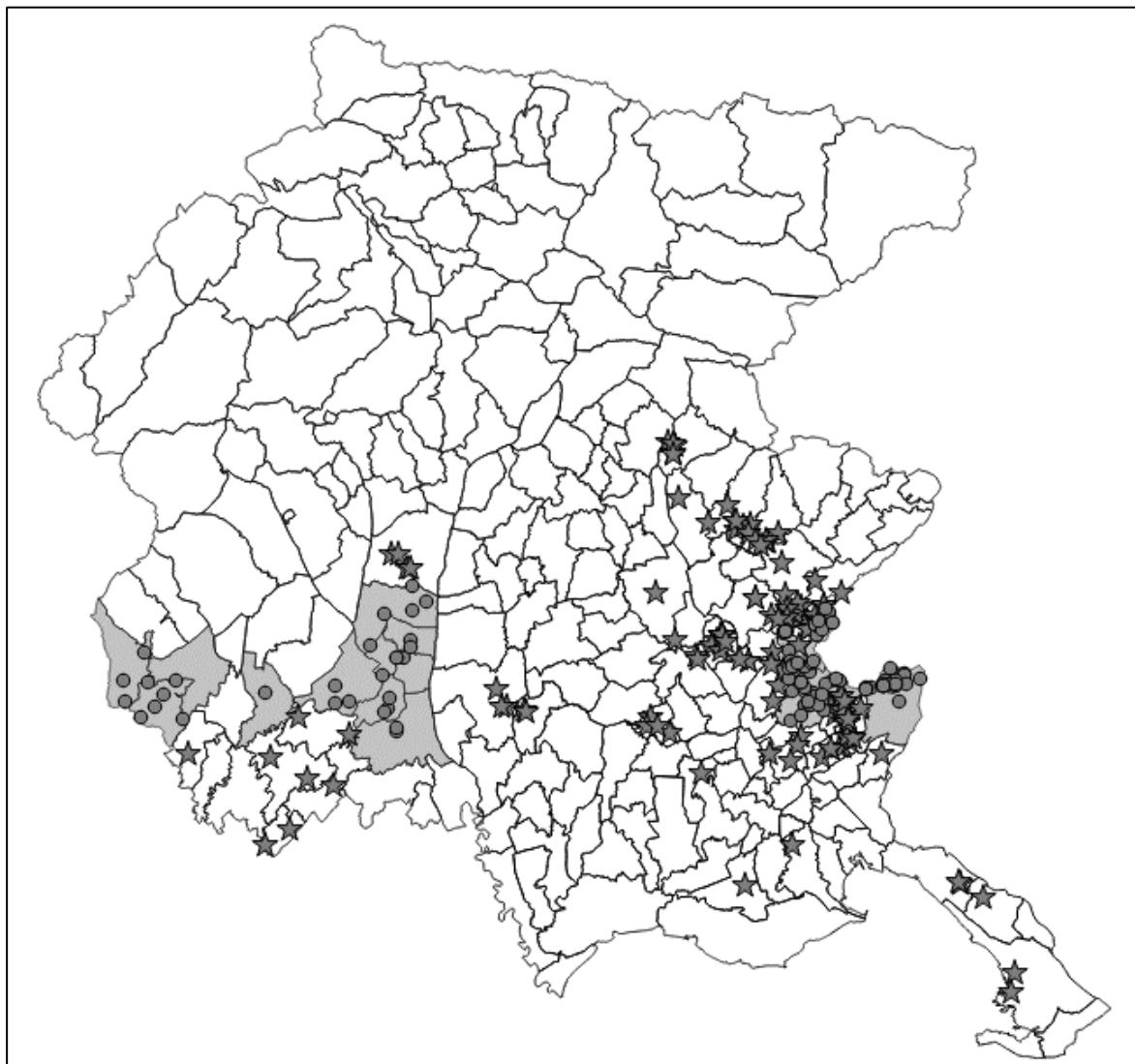


Table 2
FIRMS CLASSIFIED ACCORDING TO MORAN INDEX

	Category	Number of firms
●	Agglomerated firms	114
★	No agglomerated firms	120
	Agglomeration zone	
	No agglomeration zone	
	Total firms	234

Source: our elaboration with ArcGis 9.0 and Q-Gis 2.0

Table 3 ASSIGNMENT OF CATEGORICAL VALUES TO DIMENSIONS OF WINE PRODUCTION AND SPATIAL CONCENTRATION				
Production	Category	LMi's z score	Agglomeration	Number of firms Friuli Venezia Giulia
Extremely high production	HH	$z > 2$	yes	114
Low production	NULL	$z \leq 2$	no	120
No production	NULL			
TOTAL				234

Source: Our elaboration in ArcGis 9.0

Measures of the Constructs

The items used to measure constructs, except the leverage construct, were all based on seven-points Likert scales (with 1 representing “*Strongly disagree*” and 7 “*Strongly agree*”). The choice and definition of the items followed prominent studies and included modifications developed during pre-test phases. Particularly, scales for EO dimensions were based on Lumpkin and Dess (1996). Major sources for *Risk-taking* (3 items) measures were the studies by Hornsby *et al* (2002), Morgan and Strong (2003), and Acedo and Jones (2007). *Innovativeness* (4 items) measures were based on Calantone *et al.* (2002). Acedo and Jones (2007), Hult and Ketchen (2001), and Morgan and Strong (2003) were considered in order to develop measures for *Proactiveness* (8 items). Lumpkin and Dess (2001) was the main reference for *Competitive aggressiveness* (4 items) measures.

Given the complexity of evaluating the dependent variable *firm performance*, multiple measures of performance were employed, as suggested by extant literature (Westhead *et al.*, 2001; Kalleberg and Leicht 1991; Birley and Westhead 1990). In fact, it has been widely recognized that the use of only a single measure, such as profit, does not necessarily reflect organizational reality, but rather, only a situation in the short run. Furthermore, this measure does not necessarily reflect the organization’s ability to survive and prosper in the long run (Barney 1997).

Theoretical approaches to organizational performance and effectiveness include the goal approach and the system resource approach. The *goal approach* measures progress toward attainment of organizational goals. The *system resource approach* assesses the ability of the organization to obtain resources to maintain the organizational system itself (Yuchtman and Seashore, 1967). Both approaches focus solely on a single dimension: attainment of goals or resources.

The goal approach is widely used, given that the output goals can be readily measured. The current study focuses on the goal approach, which reflects the owner–manager point of view (Pfeffer and Salancik, 1978), and is most relevant to small ventures because of the dominant role of the entrepreneur in determining the performance of the venture. Furthermore, the goal approach seems to better fit small entrepreneurial ventures, with a significant representation of

self-employed entrepreneurs or lifestyle family-owned businesses-as in the case of the wine sector. Accordingly, the present study used subjective measures, including indicators such as perceived profitability related to competitors; perceived change in cash flow; perceived growth in market share; perceived customer satisfaction and perceived success in generating profits in times of geopolitical crisis.

Two independent moderator variables were employed:

1. Agglomeration: this independent moderating variable was measured dichotomously, basing on whether (1) or not (0) the firm was located in an agglomerate or non-agglomerate area;
2. Network: this independent moderating variable was measured dichotomously, based on whether (1) or not (0) the firm was networked in a firm-consortium cooperation (*i.e.* a mutual cooperation within a wine consortium), with the aim to improve/maintain production quality and achieve more successful marketing, also with respect to foreign market entry.

Firm's age and size were selected, as the two independent control variables considered minimizing any spurious results. The firm's age was the number of years elapsing since its establishment. The firm's size was obtained from the natural logarithm of the total number of its employees (Casillas *et al.*, 2010; Covin *et al.*, 2006).

In order to represent these interaction terms, the variables were first mean-centered to reduce multicollinearity, and then multiplied together. A reliability coefficient (Cronbach's alpha) was computed for each factor, to estimate the reliability of each scale. It is generally accepted that a Cronbach Alpha above 0.6 is satisfactory for a data set (Malhotra and Peterson, 2006) (Tables 4-8).

The reliability (Crombach's alpha) coefficients of each of the above mentioned coefficients of each factors, were reported to be satisfactory (tables 4-8)

Factor analysis with varimax rotation yielded factors in agreement with EO literature, and a fifth factor reflecting firm performance. The factors were identified as risk taking, proactiveness, innovativeness, competitive aggressiveness and performances.

Table 4 FACTOR LABELS AND STATEMENT (RISK TAKING)					
Factor labels and statement	Factor loading	Eigenvalues	% Of variance	Alpha coefficient	Test KMO
Risk taking		1.89	62.84	0.69	0.63
the uncertainty surrounding my firm prevents me from doing my best	0.82				
I often get irritated when unexpected events ruin my plans	0.85				
I enjoy working in uncertain situations	0.70				

Source: our elaboration with SPSS 20 program

**Table 5
FACTOR LABELS AND STATEMENT (PROACTIVENESS)**

Factor labels and statement	Factor loading	Eigenvalues	% of variance	Alpha coefficient	Test KMO
Proactiveness		3.44	43.01	0.80	0.69
I am always at the lookout for things that will improve my life	0.60				
Nothing is more exiting than seeing my ideas turn into reality	0.67				
If I see something I don't like, I fix it	0.61				
No matter the odds, if I believe in something I will make it happen	0.74				
I am very good at identifying opportunities	0.71				
I always look for better ways of doing things	0.62				
If I believe in an idea, no obstacle will prevent me from implementing it	0.60				
I can see opportunities way before others do	0.67				

Source: our elaboration with SPSS 20 program

**Table 6
FACTOR LABELS AND STATEMENT (INNOVATIVENESS)**

Factor labels and statement	Factor loading	Eigenvalues	% of variance	Alpha coefficient	Test KMO
Innovativeness		2.50	62.55	0.79	0.72
I'm always looking for innovative ideas	0.78				
Always accept innovative ideas	0.86				
People are penalized for new ideas that do not work	0.74				
They are always the first to adopt innovations	0.78				

Source: our elaboration with SPSS 20 program

Table 7
FACTOR LABELS AND STATEMENT (COMPETITIVE AGGRESSIVENESS)

Factor labels and statement	Factor loading	Eigenvalues	% of variance	Alpha coefficient	Test KMO
Competitive Aggressiveness		2.03	50.70	0.64	0.53
My firm makes no special effort to take business from the competition	0.87				
Typically seeks to avoid competitive clashes, preferring a “live and-let-live” posture	0.75				
Typically adopts a very competitive “undo-the-competitors” posture	0.63				
My firm is very aggressive and intensely competitive take business from the competition	0.56				

Source: our elaboration with SPSS 20 program

Table 8
FACTOR LABELS AND STATEMENT (FIRM PERFORMANCE)

Factor labels and statement	Factor loading	Eigenvalues	% of variance	Alpha coefficient	Test KMO
Firm Performance		2.65	53.04	0.76	0.66
A firm that is more profitable than its main competitors.	0.64				
A firm that has more cash flow	0.76				
A firm that satisfies its customers' needs	0.83				
A firm that achieves a balance between its financial health, its social involvement and its respect for the environment	0.76				
A firm that survives through economic crises.	0.63				

Source: our elaboration with SPSS 20 program

HYPOTHESES DEVELOPMENT

Despite the fact that previous studies report a negative relationship between risk-taking and performance, it is in the nature of entrepreneurship to engage in risk-taking activities in return for expected rewards (Gebreegziabher and Tadesse, 2014; Jalali *et al.*, 2014; Segal,

Borgia, and Schoenfeld, 2005). It appears also that entrepreneurs are more eager to take risks than non-entrepreneurs (McClelland, 1961). Risk-taking orientation has also been regarded as having a direct relation with the likelihood of seizing beneficial deals and, in general, is positively related to success (Frese, Brantjes, and Hoorn, 2002). Basing on these considerations, the following hypothesis is formulated:

H1 The greater the entrepreneur's risk orientation, the greater the performances of SMEs.

Proactiveness is another relevant dimension of entrepreneurship. Indeed, it is a fundamental attitude for firms achieving competitive advantage and innovation (2001; Jalali *et al.*, 2014). It has been argued that proactive firms are far ahead of their competitors in finding profitable opportunities, and taking initiatives that enhance advantage, allowing to charge higher prices than their rivals (Craig *et al.*, 2014; Zahra and Covin, 1995). Wiklund and Shepherd (2005) posited that, proactive firms better govern the market, by capturing the dispensation channel and establishing brand recognition. Thus:

H2 The greater the entrepreneur's proactiveness, the greater the performances of SMEs.

Several studies pointed out a positive relationship between innovativeness and firms' performance (*e.g.* Soininen *et al.*, 2012). Basing on such results it follows that:

H3 The greater the entrepreneur's innovativeness, the greater the performances of SMEs.

The relationship between competitive aggressiveness and firms' performance seems to be quite controversial. Some authors proved a positive link between these two dimensions (*e.g.*, Madhoushi *et al.*, 2011), others found a null relationship (*e.g.*, Casillas and Moreno, 2010) between competitive aggressiveness and firms' performance. According to previous studies, this research suggests that competitive aggressiveness might entail a tendency to challenge competitors to achieve entry or improve their competitive position to outperform industry rivals in the marketplace (Lumpkin and Dess, 2001; Monsen and Boss, 2009). In an open market economy a competitive aggressive posture might be relevant to protect and attain a competitive market position (Le Roux and Bengesi, 2014). Hence:

H4 The greater the entrepreneur's aggressiveness, the greater the performance of SMEs.

According to past literature, there is a positive relation between EO's dimensions and performance. Moreover, to the extent that agglomeration and network positively affect performances, it is expected these elements to strengthen the positive link between EO's dimensions and performance, due to their positive impact on firms' performance.

Therefore, this research proposes that agglomeration and network play a positive role in the relationship between EO's dimensions and firms' performance. Thus, the following hypotheses are formulated:

H5 Agglomeration has a moderating role between the entrepreneur's risk-taking orientation (or proactiveness, or innovativeness, or competitive aggressiveness) and firm's performance.

H6 Network has a moderating role between the entrepreneur's risk-taking (or proactiveness, or innovativeness, or competitive aggressiveness), and firm's performance.

DATA ANALYSIS AND RESULTS

Following the procedures suggested by Cohen and Cohen (1983), a Hierarchical Moderated Regression Analyses (HMRA) was performed to test the hypothesized relationships. The hierarchical approach is appropriate when analyzing multiplicative terms in regression analysis, or, more generally when analyzing highly correlated independent variables (Bagozzi, 1984; Cohen, 1978; Cohen and Cohen, 1983).

The validity of the procedure has been shown mathematically (Arnold, 1982; Cohen and Cohen, 1983), as well as in computer simulations (Stone and Hollenbeck, 1984). In each step of the hierarchical analysis, the next higher order of interaction is added (two-way interactions), and incremental R^2 and F tests of statistical significance are evaluated (table 9). An interaction effect exists if, and only if, the interaction term gives a significant contribution over and above the direct effects of the independent variables (Cohen and Cohen, 1983). As shown in table 9, to test the hypotheses, first the control variables were added (results reported, model 1), then the independent variables (main-effects-only, model 2), the interaction terms (model 3), and finally the two-way interaction terms (model 4). The control variables of firms' age and firms' dimensions explain 0.2 % of variation in performance.

The next step of the analysis addressed the main dimensions of EO, risk-taking, proactiveness, innovativeness, and competitive aggressiveness on business performance over and above the base model. These variables accounted for an additional 37.4% of the variation in performance, as shown in the second column of Table 9. Proactiveness, innovativeness, and competitive aggressiveness have a statistically significant, positive relationship with business performance (0.336, 0.163 and 0.282 respectively): *i.e.*, higher business performance is associated with greater proactiveness, competitive aggressiveness ($P < 0.01$), and greater innovativeness ($P < 0.05$). This latter finding provides support for hypotheses 2, 3 and 4.

The third model significantly increased the amount of explained variance (47.2%), and five of the two-way interactions were statistically significant ($P < 0.01$ and $P < 0.05$). Thus, hypothesis 5 is partially supported by the data (*i.e.*, risk-taking and proactiveness). However, a statistically significant, negative contribution was noted for competitive aggressiveness (-0.164). This suggests that hypothesis 5 is not supported for competitive aggressiveness. Regarding network, this variable does not act as a moderator: therefore, this does not support H6 (all $p > 0.1$).

Results in Table 9 indicate that its standard regression coefficient ($\beta = 0.062$, ns) was not significant in model 3, and did not remain significant in model 4 ($\beta = 0.076$, ns). With respect to the interaction effects of network, none of these was significantly related to intention to business performance. Thus, this did not support H6 for network.

Collinearity diagnostics were also provided. Specifically, Variance Inflation Factor (VIF) scores, which measure the extent to which collinearity among the predictors affects the precision of a regression model, in each step. All the VIF scores were less than 10: thus, they were all considered acceptable (Hair, Anderson, Tatham and Black, 1998).

	Table 9 STANDARDIZED REGRESSION ESTIMATES			
	MODEL 1	MODEL 2	MODEL 3	MODEL 4
		β		
Control Variables				
Firm's age	0.025	-0.026	-0.022	-0.007
Firm's dimension	-0.028	0.020	0.008	0.041
Main Effects				
Risk-taking		0.034	0.070	-0.173
Proactiveness		0.322**	0.336**	0.254*
Innovativeness		0.108†	0.163*	0.065
Competitive Aggressiveness		0.330**	0.282**	0.480**
Moderator				
Agglomeration (Agg.)			-0.108	-0.020
Network (Net.)			0.062	0.076
Interactions				
Risk-taking x (Agg.)				0.282**
Proactiveness x (Agg.)				0.269**
Innovativeness x (Agg.)				0.034
Competitive Aggressiveness x (Agg.)				-0.164*
Risk-taking x (Net.)				-0.009
Proactiveness x (Net.)				-0.093
Innovativeness x (Net.)				-0.085
Competitive Aggressiveness x (Net.)				0.091
F	0.199	22.087**	17.774**	12.148**
R²	0.002	0.376	0.387	0.472
Adjusted R²	-0.007	0.360	0.365	0.434
ΔR²	0.002	0.374	0.011	0.085

**p < 0.01 *p < 0.05 †p < 0.10 (two-tailed)

Source: our elaboration with SPSS 20 program

The test for interaction was carried out using the ModGraph program (a MS Excel version program, Jose, 2008), which is based on the works of Field (2006) and Aiken and West (1991). Interaction graphs were generated using the mean values and standard deviations of both main effects (centered variables), as well the unstandardized regression coefficients so as to confirm the existence of interaction effects (Jose, 2008).

The plots were constructed by plotting low, medium and high scores of the variables. For this, Jose's (2002) Excel version of ModGraph program for categorical variables was used. Following the recommendations of Aiken and West (1991), simple effects tests were conducted, to determine whether the slopes differed significantly from zero.

For each significant interaction, Jose's (2008) ModGraph program was used to generate figures describing significant interaction. These plots are shown in figures 4-6.

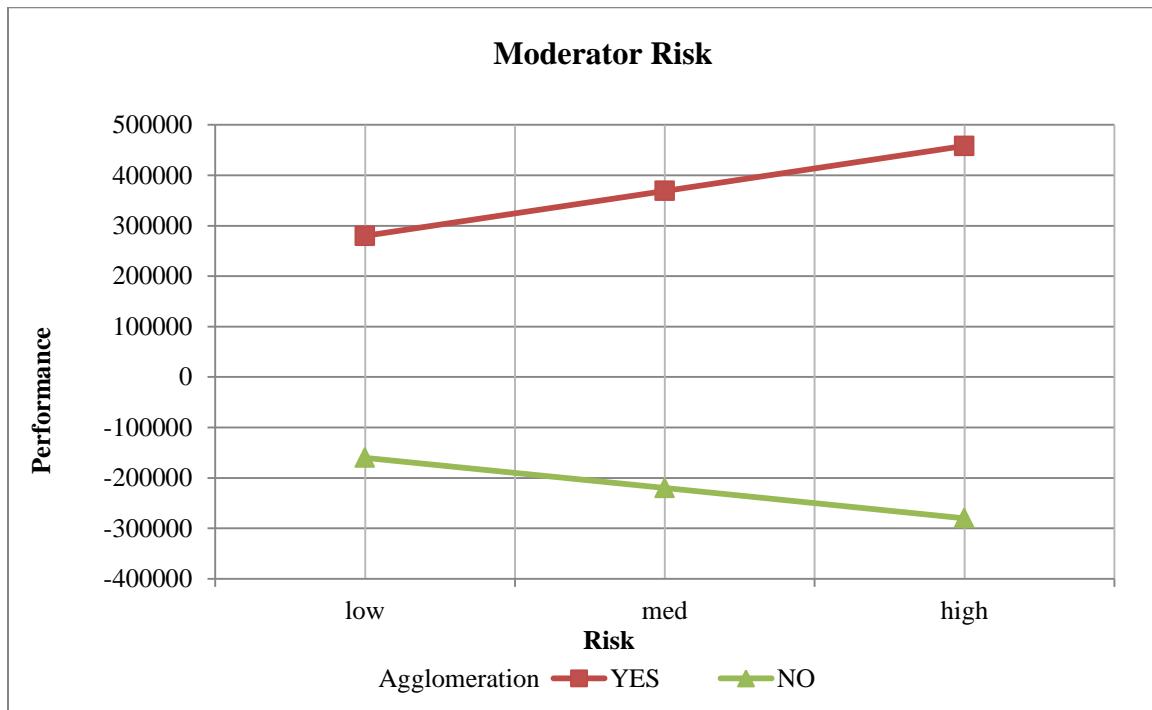
Figure 4 shows that performance significantly increased as risk taking increases when agglomeration was low.

Figure 5 and 6 reveal that agglomeration was significantly and positively related to performance.

In other words, as agglomeration increased, performance increased for high levels of innovativeness and aggressiveness.

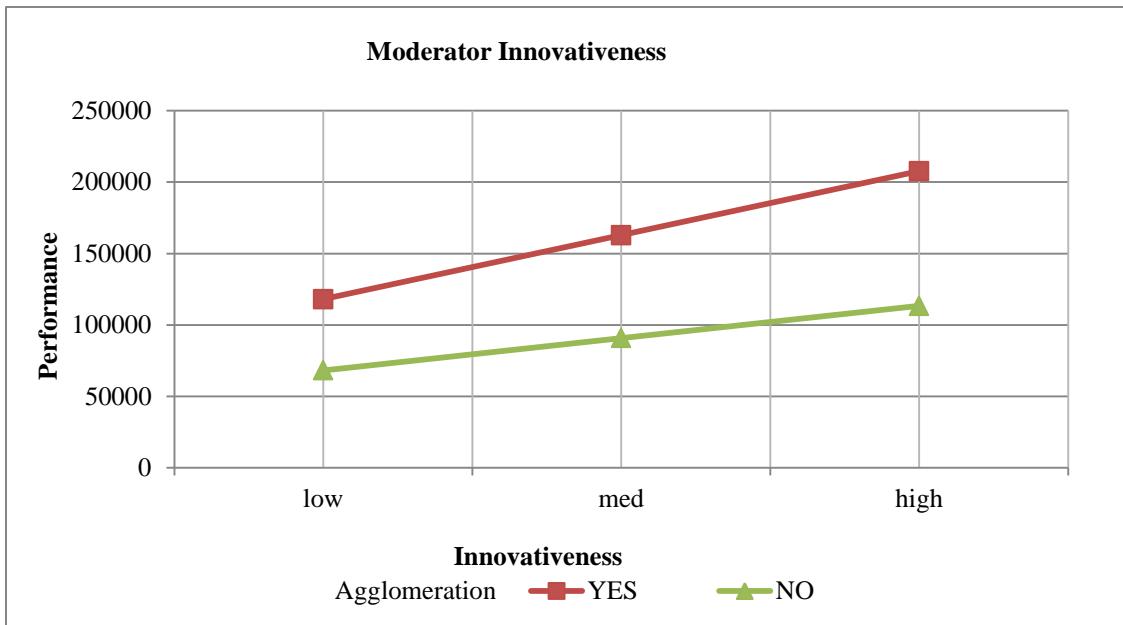
Figure 4

MODERATING EFFECTS OF THE PERFORMANCE ON THE RELATIONSHIP BETWEEN RISK AND AGGLOMERATION



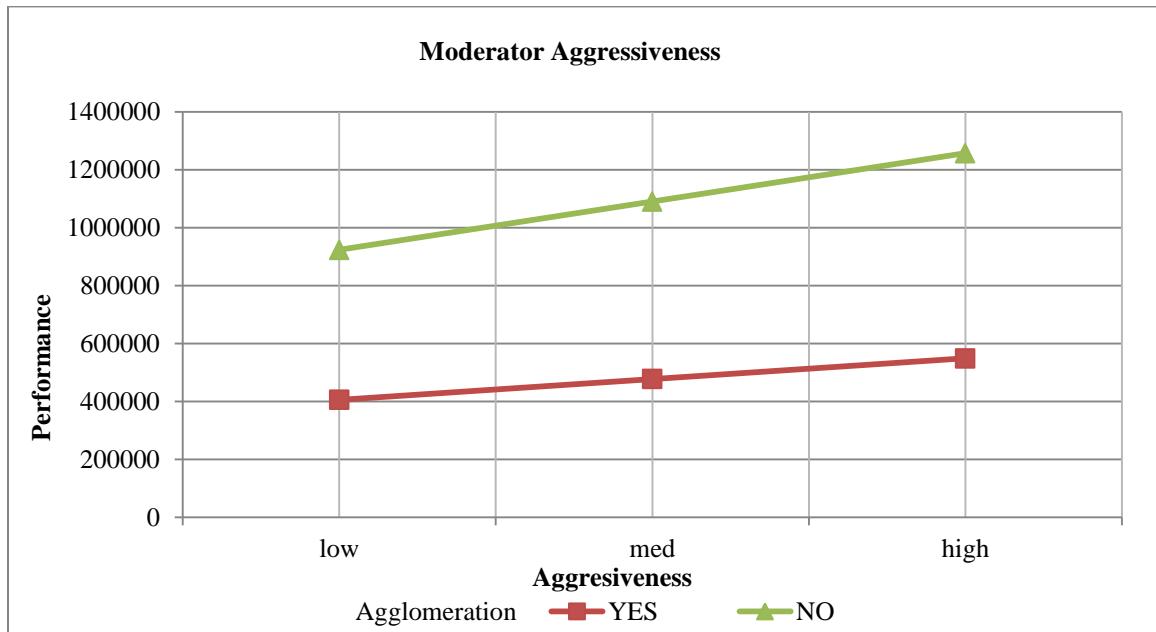
Source: our elaboration with ModGraph V3-1 program.

Figure 5
MODERATING EFFECTS OF THE PERFORMANCE ON THE RELATIONSHIP BETWEEN INNOVATIVENESS AND AGGLOMERATION



Source: our elaboration with ModGraph V3-1 program.

Figure 6
MODERATING EFFECTS OF THE PERFORMANCE ON THE RELATIONSHIP BETWEEN AGGRESSIVENESS AND AGGLOMERATION



Source: our elaboration with ModGraph V3-1 program.

CONCLUSIONS

This research investigated the EO-performance link taking into account agglomeration and networks. The present paper contributes to the discussion concerning how firms (i.e. SMEs) can find new opportunities for growth and better performances. Contemporary business environment shows a shortening of product and business model life cycles (Hamel, 2000), implying that, the future profit streams from existing operations are uncertain, and businesses need to constantly seek out new opportunities. Therefore, they may benefit from adopting an entrepreneurial orientation. This involves a willingness to innovate to rejuvenate market offerings, take risks to try out new and uncertain products, services, and markets, and be more proactive than competitors toward new marketplace opportunities (Covin and Slevin, 1991). This conceptual argument raised by Covin and Slevin (1991) has received empirical support in literature. Studies have found that those businesses that adopt a more entrepreneurial strategic orientation perform better (*e.g.*, Wiklund, 1999; Zahra, 1991; Zahra and Covin, 1995).

However, these findings are not uncontested. Conceptualizing the relationship between EO and performance, Lumpkin and Dess (1996) note the complexity of this relationship, suggesting that the performance implications of EO are context specific. That is, the strength of the relationship between EO and performance depends on the characteristics of the external environment, as well as internal organizational characteristics. Therefore, the relationship between EO and performance may apparently be more complex than a simple main-effects-only relationship. The important question, then, is how to best capture the complexity in the EO-performance relationship. To date, the dominant approach was the universal effect approach, assuming that EO is universally beneficial. An equally popular approach was relying on contingency models that capture the two-way interaction between EO and a characteristic of the external environment, or between EO and an internal organizational characteristic. Configurational models represent alternatives to the universal effect and contingency models mostly used in research. The configurational approach argues that in organizations, certain elements of strategy, structure, process, and environment tend to cluster together forming configurations (Meyer *et al.*, 1993). Thus, the goal of this work was to identify and examine theoretical factors of EO that may promote business performance. This study also contributes to literature by introducing agglomeration and network factors in understanding the EO-performance relationships, offering possible explanations for the inconsistencies reported in past literature. The above considerations suggest that a configurational approach might provide an opportunity to gain a deeper understanding of the link between EO and firm performance. More specifically, this work highlighted two conceptual areas:

1. relationships between risk taking, proactiveness, innovativeness, competitive aggressiveness and performance;
2. Mechanisms of agglomeration and network to support performance.

Consistent with previous studies, the results of the two regression analyses showed that proactiveness and competitive aggressiveness were significantly associated to performance. This result indicates that both proactiveness and competitive aggressiveness are important determinants for EO, in determining its relations with performance. In terms of the relative importance of these two determinants of EO, competitive aggressiveness was a stronger predictor than proactiveness. With respect to the interaction effect of agglomeration, the results

indicated that the relationship between risk taking and agglomeration was stronger among firms with low levels of agglomeration.

These results are in line with previous studies highlights a negative relationship between risk-taking and performance, (Gebreegziabher and Tadesse, 2014; Jalali *et al.*, 2014; Segal *et al.*, 2005). The findings also demonstrated that the relationships between innovativeness and competitive aggressiveness were stronger among firms with high levels of agglomeration. In a few words, agglomeration, risk taking, innovativeness, and competitive aggressiveness are important factors in analyzing the EO-performance link. However, as mentioned earlier, there is no significant moderating effect of network.

While this paper offers many insights for advancement of the knowledge related to the impact of Entrepreneurial Orientation, agglomeration, network on firms' performance, it is not without its limitations. Primarily, the findings of this study are contextualized to the wine sector in one Italian Region. Additionally, further testing the proposed theoretical model in different sectors and different territories is required. These shortcomings also point to opportunities for future research.

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THE ROLES OF INTERNATIONAL ENTREPRENEUR ORIENTATION AND GEOGRAPHICAL SCOPE LEVEL TO DETERMINE INTERNATIONAL PERFORMANCE: A CASE IN THE MALAYSIAN HALAL FOOD INDUSTRY

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ABSTRACT

The purpose of this paper is to investigate the role of geographical scope level as a moderator on the relationship between international entrepreneurial orientation and the international performance of small and medium enterprises (SMEs) in the Malaysian halal food industry. Most of the previous studies have revealed that there is a positive relationship between international entrepreneur orientation (IEO) and the international performance. Unfortunately, many studies were focused on developed countries and high technology industry. Furthermore, the role of geographical scope as a moderator also been excluded in the majority of studies from both international business and international entrepreneurship. This study offers an alternative in developing countries and other industry settings that influenced through the Islamic religious factor in producing special dietary requirements for Muslim consumers, which is known as the halal food industry. This study is a quantitative research designed using survey method. The result of the survey shows that there is a significant relationship between two groups of small and medium enterprises towards their geographical scope level, international entrepreneur orientation, and international performance. Moreover, SMEs that export to wider geographical scope achieve higher international performance and growth as global exporters compare to those SMEs that operates within a narrow scope only gets to attain lower performance and growth as international exporters.

Keywords: Entrepreneurial orientation. International entrepreneur orientation. International performance. Geographical scope level, Small and medium enterprises. Halal food industry

INTRODUCTION

Falling trade barriers and innovations in information and communication technology (ICT), particularly the widespread use of the Internet and e-commerce, have provided new opportunities for the internationalization of small and medium-sized enterprises (Knight, 2001). One response to this changing environment is an increasing interest in entrepreneurship. The entrepreneurs are the core decision makers and have the greatest influence on their firms, business strategy and roadmaps formulation, setting the firm's goals and steering the firm forward (Masurel et al., 2003). They play an important role in economic growth, innovation, competitiveness and poverty alleviation (Kropp et al., 2006).

At the firm level, the market diversification and exporting become an opportunity for entrepreneurs to be less dependent on the domestic market. By reaching new customers in foreign markets as entrepreneurs may also explore more of the economic scale and to achieve

lower production costs while producing more efficiently for their business growth. It is argued that entrepreneurial orientations (EO) have contributed significantly to the development of the performance of small and medium enterprises (Wang, 2008). Entrepreneurial orientation has been conceptualized as the process and decision-making activities used by entrepreneurs that lead to entry and support of business activities (Lumpkin and Dess, 2001; Kropp et al., 2006). While it is often believed that EO has a universally positive influence on firm performance (Wales et al. 2013).

Although EO has been regarded as a vehicle for success and survival in an increasingly competitive and global economy (Covin and Slevin, 1991), the concept was originally developed in the US and has been used in Europe regions in the high technology industry. Therefore, it may be biased toward Asian regions. Indeed, the concept of EO is relatively broad, as it refers to the decision-making styles, management behavior, and culture of the whole firm. Therefore, some studies have attempted to test the cross-cultural and/or the cross-national validity of EO.

However, research on small firm internationalization has been criticized for the lack of attention given to international entrepreneurship (IE) field of study (Zahra, 1993; Oviatt and McDougall, 1994) and IE is one of the emerging areas of international business research. McDougall and Oviatt (2000) define international entrepreneurship as “a combination of innovative, proactive and risk-seeking behavior that crosses national borders and is intended to create value in organizations” (p. 903). Geographical scope becomes one of the main issues to differentiate between early internationalization of small and traditional SMEs internationalization (Oviatt and McDougall, 1994; Knight and Cavusgil, 1996, Kuivalainen et al., 2007).

SMEs are the backbone of the Malaysian economy and very little research have been conducted from the Asian region and halal food industry, involving religious products based on the Islamic dietary requirements. Hence, it is crucial to understand why some SMEs are successful and others are less successful from the Malaysian business context. Therefore, this study makes a significant contribution to both practitioners and researchers pertaining to this. Research question in this study is how a geographical scope level moderates the relationship between international entrepreneurial orientation and the performance of SMEs in the Malaysian halal food industry.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Theoretical perspective – Resource-Based View

The Resource-Based View (RBV) of the firm argues that firm performance is better explained by differences in firm resources than in industry structure (Wernerfelt, 1984). Resources can be tangible or intangible in nature. Tangible resources include capital, access to capital and location (among others). Intangible resources consist of knowledge, capabilities and reputation among others.

One of the principal insights of the RBV is that not all resources are of equal importance or possess the potential to be a source of sustainable competitive advantage. Barney (1991) proposes that advantage-creating resources must meet four conditions, namely, value, rareness, inimitability, and non-substitutability. It must permit the firm to conceive implement strategies that improve its efficiency and effectiveness by meeting the needs of customers.

Chandler and Hanks (1994a) have argued that firm performance is a function not only of the accessibility to resources but also of an entrepreneur's managerial competence. Few studies

have considered small firms from a RBV (Lerner and Almor, 2002), yet small firms are likely those which must rely heavily on the resource of owner skills. Entrepreneurial characteristics are viewed as resources to the entrepreneur as well as the firm (Alvarez and Busenitz, 2001). For small business owners, EO is involving also management skills, and therefore these resources which lead to competitive advantages. EO describes firm-level strategic processes that firms use to obtain a competitive advantage and it is considered an important driver of firm performance (Rauch et al. 2009). Firms high in EO innovate frequently, make risky decisions, and act proactively on opportunities. Thus, EO focuses on obtaining a competitive advantage by seeking new opportunities, anticipating demands aggressively, taking a risk and positioning new products in markets (Lumpkin and Dess, 1996).

From the above arguments, it is clear that in the halal industry the processing is often unique to fulfill Muslim dietary requirements and offers value creation for both Muslim and non-Muslim consumers through halal certification. Therefore, it is crucial for the owners-managers in this industry to develop their international entrepreneur orientation (IEO) and capability to venture into export markets as a source of their competitive advantage.

Entrepreneurial Orientation

Entrepreneurial orientation (EO) has been suggested as an essential attribute of high performing firms (Covin and Slevin 1989; Lumpkin and Dess 1996; Dess et al. 1997; Lee and Peterson 2000), and the role of culture for strengthening EO has been highlighted in many studies (Lumpkin and Dess 1996; Lee and Peterson 2000; Marino et al. 2002). The concept of EO is relatively broad, as it refers to the decision-making styles, management behavior, and culture of the whole firm. The EO concept suggests that firms should be entrepreneurial in order to achieve superior performance (Dess et al. 2011).

The original framework of EO was introduced by Miller (1983) who used the dimensions of innovation, proactiveness, and risk-taking to measure entrepreneurship. These three dimensions were also adopted by subsequent studies (Covin and Slevin 1989; Lumpkin and Dess 1996; Lee and Peterson, 2000). Covin and Slevin (1989, 1991) expanded upon the idea that engaging in product-market innovation, being the first to enter new markets (proactiveness), and undertaking risky ventures are at the heart of entrepreneurship. Their conceptualization of EO as the concurrent exhibition of risk-taking, proactiveness, and innovativeness has become widely accepted in the scholarly community (Bhuian et al. 2005).

Lumpkin and Dess (1996) and Lee and Peterson (2000) described EO as the process, practice, and decision-making activity that leads to new entry into the market. They also distinguished between EO and entrepreneurship. They characterized EO as the entrepreneurial process that managers use to act entrepreneurially, whereas entrepreneurship can be defined as new entry into the market. According to Lumpkin and Dess (1996), the essential quality of entrepreneurship is based on new entry or newly established markets with new or existing products, as well as the launch of new ventures. In short, EO has been used to refer to the strategy-making processes of firms engaged in an entrepreneurial activity (Lumpkin and Dess, 2001).

Lumpkin and Dess (1996) argued that the relationship between EO and firm performance is context specific. They stressed the need for investigating the role of environmental and organizational variables to enhance the understanding of how EO contributes to performance. They included organizational culture as one of the key contingencies that are associated with the EO-performance relationship. Some studies also emphasize the role of national culture as a

stimulator for strong EO. Lee and Peterson (2000) proposed that only countries with specific cultural tendencies will stimulate strong EO and therefore experience more entrepreneurship and global competitiveness. Their model emphasized the importance of a national culture's ability to produce a strong EO within entrepreneurs and firms.

However, the results concerning this relationship are not conclusive (Rauch et al. 2009). Theory posits that EO enhances performance (Lumpkin and Dess 1996), but existing empirical evidence does not fully support this assumption. For example Lee et al. (2001) find only a weak evidence of the positive relationship between EO and performance in the case of new ventures, while Slater and Narver (2000) find no relationship between EO and profitability. Moreno and Casillas (2008) also suggest that the direct influence of EO on firm growth is not significant. In view of similar results, several studies suggest that the link between EO and performance is likely more complex than a simple main-effects-only relationship and that this link can vary depending on both the context in which firms act and several internal characteristics (Chaston and Sadler-Smith 2011; Rauch et al. 2009; Wiklund and Shepherd 2003).

International Entrepreneur Orientation

In the international business context, the term International Entrepreneurial Orientation (IEO) is adopted by extending the conceptual EO domain to the processes and activities across national borders (Coviello and Jones, 2004; Knight and Cavusgil, 2004, 2005). Studies within the field of IE further emphasize the importance of the decision-makers and show that decision-makers' attitudes towards internationalization (e.g., Oviatt and McDougall, 1994), as well as their ability to discover, evaluate and exploit business opportunities across national borders (e.g. Oviatt and McDougall, 2005), impact SMEs' internationalization patterns. Other scholars in IE, for example, Knight (2001), Jantunen et al. (2007) also have suggested that EO can be meaningfully extended to the field of IE as a way of examining and explaining the cross-border internationalization of firms.

Another reason is the development of internationalization studies with a focus on the increasingly active role played by international entrepreneurs of SMEs (Bell et al., 2003; Johanson and Vahlne, 2003). This is because decision-making power within SMEs and the impetus for a firm's internationalization often lies with the international entrepreneur, opposed to the management team, which are responsible for decision-making in larger multi-national firms (Bhuian et al., 2005). A firm's IEO can also enable the business to identify and exploit these internationalization opportunities.

IEO is a multi-dimensional concept (Covin and Slevin, 1991), reflecting the firm's overall pro-activeness and aggressiveness in its pursuit of international markets (Knight, 2000; 2001). The concept of IEO incorporates three dimensions drawing from the work of Miller (1983). These three dimensions reflect the firm's propensity to engage in international innovative, proactive and risk-taking behaviors in order to achieve the firm's competitive and internationally oriented goals (Knight, 2001).

In these circumstances, EO can boost firms' profitability by ensuring that they constantly seek new opportunities which enable firms to create first-mover advantages, charge premium prices, and skim the top of the market ahead of their competitors. The ability to respond quickly to customer needs may also have a positive impact because it provides the firm with a first-mover advantage. First-mover advantage refers to being the first firm to enter a given foreign market with a particular product or process (Knight et al., 2004). According to these authors, advantages may accrue to the pioneering firm for several reasons. First, for a time at least, the

firm enjoys a monopoly in the given product market. Second, the first mover has a better chance to establish a propitious market position. Third, it advances early up the relevant product-market learning curve. Finally, first movers are better positioned to influence initial consumer preferences regarding the features and benefits of the pioneering product.

Thus, firms with a strong IEO create a substantial advantage and differentiation over their competition, facilitating both market share and profitability. A strong degree of IEO also brings new customers to the firm and helps the firm to retain existing customers by providing new products. Customers are often willing to pay premiums for innovations and improved products, especially when the competition does not provide similar offerings (Robinson and Min, 2002). Additionally, in order to address customer needs that may not yet be known, firms must engage in new exploration, support new ideas, experiment, and stimulate creativity, all of which are essential elements of EO (Covin et al. 2006).

Past studies revealed that firms which have IEO tend to be more successful compared to other firms (Lee and Peterson, 2000). In fact, IEO was found to be positively associated with performance (Zahra and Covin, 1995; Wiklund and Shepherd, 2005), although the empirical findings are not altogether consistent. For example, Lee et al., (2001) found only weak evidence of a positive association with the start-up's performance, while Slater and Naver (2000) found that there was no relationship between EO and business profitability. Lumpkin and Dess (1996) considered the relationship with performance to be context-specific. Zhou (2007) in his study found that foreign market knowledge leads to early and rapid internationalization and more importantly; this effect is driven by international entrepreneurial orientation. His findings corroborate the entrepreneurial nature of smaller and younger international firms (Oviatt and McDougall, 1995; Knight and Cavusgil, 2004). Acedo and Jones (2007) argue that entrepreneurial characteristics such as innovative, proactive, risk-seeking behavior, suggest that a particular mindset or cognition may play a part in internationalization and its speed that relate with early internationalization.

International Performance

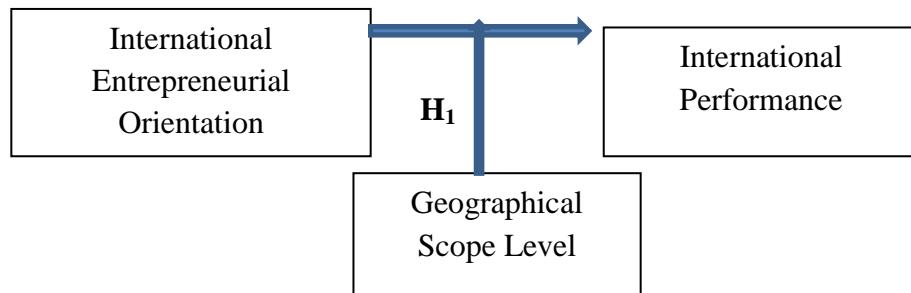
International performance is usually measured as a financial and non-financial performance measure. It has also been generally recognized as objective measures of performance are more appropriate than subjective evaluation of performance by owners-managers of firms. However, collecting objective data is very difficult largely because owners-managers are generally not willing to release confidential company information to outsiders (Dess and Robinson, 1984; Jantunen et al. 2007). On the other hand, owners-managers of firms are generally willing to provide a biased evaluation of their firm's performance (Sapienza, et al., 1988). Therefore, this study used subjective performance based on Crick et al. (2006) that argues that a single criterion to measure international performance is inappropriate and more comprehensive subjective measurement is needed.

Geographical Scope level as Moderator

For the moderator variable (foreign market scope) this study used as a dummy variable with which SMEs were divided into those which have either narrow or wide geographical scope. These firms were classified as follows: (i) narrow scope for those firms that exported to three regions or less (these firms can be considered 'international' firms), and (ii) wide scope for those firms that exported to at least four regions and more simultaneously as 'global' firms. Based on

previous studies, the scope will give some indications of whether or not SMEs have global reach in their operations based on the number of countries or regions or where they are located (Kuivalainen et al., 2007, Crick, 2010). The summary of the proposed conceptual framework and hypothesis are shown in the diagram below.

**Figure 1
PROPOSE CONCEPTUAL FRAMEWORK**



The present study takes an exploratory view and anticipates that the geographical scope level will moderate the relationship between IEO and international performance. The existence of a moderating effect implies that the relationship between two variables (e.g. X and Y) varies as a function of the value of a third variable (e.g. Z), labelled as a moderator (Zedeck, 1971). A moderator explains when or under what conditions X affects Y, or when the relationship is likely to be stronger. Therefore, this study proposes the following hypothesis:

Hypothesis 1: Geographical scope level moderates the relationship between SMEs' international entrepreneurial orientation and international performance. The correlation in between them is stronger for a wide scope than for narrow one.

METHODOLOGY

Data and Sample Collection

This study follows a quantitative research design using a survey method combined with a statistical treatment. The firm is classified as micro, small and medium-sized when its number of full-time employees is less than five, between five and 50, and between 51 and 150, respectively, for the manufacturing sector (SME, Annual Report, 2007). The sample thus comprised producers and at the same time, exporters, drawn from the SME exporters listed with the Malaysia Exporters of Halal Products directory (MATRADE) and Halal Development Corporation directory (HDC). These databases yielded 400 export firms and all are SMEs. However, only 300 companies were available as the respondents for this study after confirming the current status of their business. From the 195 questionnaires returned, the usable questionnaires were only 174. Hence, the response rate was 58% (174 firms).

Measurements

All measurement items in the questionnaire were adopted and adapted from published works that were relevant to this study. The independent variable is IEO which comprises

proactiveness, innovativeness, and risk-taking adopted from Jantunen et al. (2007). The construct consists of nine items measured by 5-point Likert Scale anchors of 1 = strongly disagree to 5= strongly agree. The Cronbach's Alpha value of the scale was $\alpha = 0.88$ based on reliability test. The dependent variable International performance (INT) was measured with a 5-point Likert scale on three items of subjective measurements, namely overseas sales volume, sales growth (turnover), and profitability adopted from Crick et al. (2006) using the 5-point Likert scale of 1=very badly to 5=very well. The Cronbach's Alpha value of the scale was $\alpha = 0.93$ based on reliability test. For the moderator, scope level, the scope measurement was adapted from the studies conducted by Zucchella (2002) and Chetty and Hunt (2003, 2004). They recommended the use of a number of regions as a basis for scope level. This paper classified low scope (regional firm) as those that export to between one and three regions, and high scope as those that export simultaneously to four regions and more (global firm) based categorically.

Data Analysis

The analysis of quantitative data was based on a parametric method using the Moderated Multiple Regression (MMR) analysis (Cohen and Cohen, 1983) to introduce the moderating effects in multiplicative ways. MMR is an extension of multiple regression equations that includes additional predictors carrying information regarding the moderating effect (Aguinis, 2004). Before creating the multiplicative terms, there is a need to centre both the independent variables and the moderating ones, thus avoiding the problem of multicollinearity (Venkatraman, 1989). The scope is hypothesized by a binary grouping of moderator variables in which each moderator has two categories for the product term. The coding scheme used was the dummy coding for each level of scope (0 = low, 1 = high). The specific test was used to examine whether all the sub-group variances were equally based on Levene's Test of Homogeneity of Variance. Based on the results of Levene's Test, the observed significant level for international performance was more than alpha level of 0.05. The result indicates the sub-group variances of these two variables are based on the low and high scope which is equal.

RESULTS AND DISCUSSION

Geographical Scope Level Moderates the IEO-Scope Relationship

Table 1 shows the results of the moderating effect of geographical scope level in the relationship between international entrepreneurial orientation (IEO) and international performance (INT). Specifically, the Table 1 shows Model 1, $R=.434$ $R^2=.189$, and $F(2, 171)=19.863$, $p=.000$. Thus R^2 means that 18.9% of the variance in INT increase is explained by IEO and scope. The interaction effects of the scope are differentiated into those of narrow scope and wide scope. Model 2 shows the results after the product term has entered the equation. As shown in Table 1, the addition of the product term results in R^2 change to 0.218, $F(1, 170)=4.202$, $p=.013$. The significant difference between $R^2 = 0.189$ in Model 1 and $R^2 = 0.218$ based on F statistic is identical to t statistic for the regression coefficient, for the product term (i.e. $p=.013$) in Model 2 supports the presence of a moderating effect. In other words, the moderating effect of scope explains 2.9 % of variance in INT increases above and beyond the variance explained by IEO and scope.

Table 1
MODEL SUMMARY FOR INT ON IEO FOR SCOPE

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change		Statistics			
					R^2 Change	F Change	df1	df2	Sig. Change	F
1	.434 ^a	.189	.179	.81873	.189	19.863	2	171	.000	
2	.467 ^b	.218	.204	.80620	.029	6.359	1	170	.013	

- a. Independent variables: (Constant), scope, IEO
- b. Independent variables: (Constant), scope, IEO, IEO.Scope
- c. Dependent variable: INT

Table 2, the resulting regression unstandardized coefficients equation for Model 1 is as follows:

Table 2
COEFFICIENTS FOR INT ON IEO FOR SCOPE

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.366	.431		3.170	.002
	IEO	.434	.117	.270	3.711	.000
	Scope	.495	.136	.264	3.627	.000
2	(Constant)	2.071	.508		4.075	.000
	IEO	.240	.139	.149	1.731	.085
	Scope	-1.947	.977	-1.038	-1.992	.048
	IEO.Scope	.629	.249	1.357	2.522	.013

- a. Dependent variable: INT

$$\text{INT} = 1.366 + .434 \text{ IEO} + .495 \text{ Scope} \quad \dots \dots \text{E1}$$

The coefficients for both IEO and scope in Model 1 are statistically significant at $p=0.0001$ level. Equation shows that for 1 point increase in IEO, INT is expected to increase by 0.434, given that scope is held constant. On the other hand, the regression coefficient associated with scope indicates the difference in INT increase between wide and narrow scope is 0.495 given that IEO is held constant. Table 2 also includes information regarding the regression unstandardized coefficients after the product term has entered the equation. The equation is as follows:

$$\text{INT} = 2.071 + .240 \text{ IEO} + -1.947 \text{ Scope} + 0.629 \text{ IEO. Scope} \quad \dots \dots \text{E 2}$$

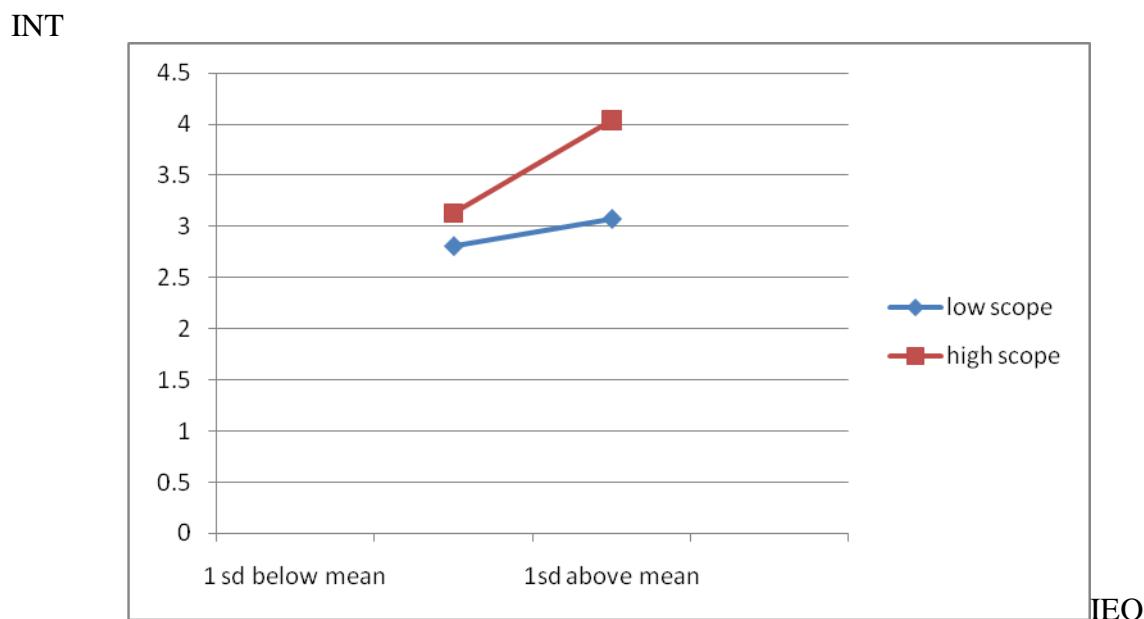
Results from the equation 2 lead to the conclusion that there is a moderating effect of geographical scope level on IEO-INT relationship. Indeed equation 2 further demonstrates that there is a 0.629 difference between the slope of INT increase on IEO between the narrow scope and the wide scope. This result indicates that the slope regressing INT on IEO is less steep for narrow scope compared to wide scope. For further descriptions on the moderating effect, the regression equation for each group is constructed to produce the graph of the IEO-INT relationship for each of the scope level. Based on the code assigned for geographical scope (0=narrow scope, 1=wide scope), the following equations are produced:

$$\begin{aligned} \text{IEO (Narrow scope)} &= 2.071 + 0.240 \text{ IEO} - 1.947 \text{ Scope} + 0.629 \text{ IEO.Scope} \quad \text{----E-3} \\ &= 2.071 + 0.240 \text{ IEO} - 1.947 (0) + 0.629 (0) \\ &= 2.071 + 0.240 \text{ IEO} \end{aligned}$$

$$\begin{aligned} \text{IEO (Wide scope)} &= 2.071 + 0.240 \text{ IEO} - 1.947 \text{ Scope} + 0.629 \text{ IEO.Scope} \quad \text{----E.4} \\ &= 2.071 + 0.240 \text{ IEO} - 1.947 (1) + 0.629 \text{ IEO} (1) \\ &= 0.124 + 0.869 \text{ IEO} \end{aligned}$$

Using the values of IEO ($M= 3.759$, $SD=.562$), the values of 4.32 (1SD above the mean) and 3.20 (1SD below the mean) produce the graph shown in Figure 2. As expected, the examination of Figure 2 showing the IEO-INT relationship for each of the SMEs group separately indicates that the relationship is stronger (i.e. steeper slope) for SMEs from the wide scope compared to the narrow scope. Based on this result, this study found support for H_1 that is the correlation between IEO and INT is stronger for wide scope than narrow scope SMEs. Thus H_1 receives full support.

Figure 2
SLOPES FOR INTERNATIONAL PERFORMANCE ON INTERNATIONAL ENTREPRENEURIAL ORIENTATION FOR NARROW AND WIDE SCOPE



The result revealed that SMEs which have wider scope level at global reach, tend to have a high level of IEO and be more successful compared to other SMEs at narrow scope or operating in fewer regions (1-3 regions) in their international performance achievements. While all firms surveyed display some degree of IEO differences, it appears that those firms who were more proactive, innovative and risk taking-oriented had greater levels of international performance success (and to some degree, greater levels of predictable future export success). It is expected that the owners-managers who were able to export to global scope having a high level of IEO capability to respond quickly to customer demand, resulted in better international performance, benefited from first-mover advantage as producers and exporters of the Malaysian halal food industry. The finding suggests that high IEO of owners-managers is more likely to exploit export opportunities until global reach scope. The risk of entering the export market has paid off for proactive-oriented entrepreneurs as they have outperformed conservative-oriented entrepreneurs (low IEO capability). Since the halal industry is one of the emerging industries particularly for Muslim consumers, it offers added value to the consumers mainly from Islamic "shariah" compliance by the authority (government and relevant agencies) to produce quality halal food that is wholesome and safe for human health and well-being. Indeed for Muslims, buying and consuming only halal food is compulsory and this involves all Muslims worldwide. Today, Muslims account for a quarter of the world's population and they are expected to reach 30% by 2025 (Roberts, 2010). Producers and exporters also stand to benefit since halal certification provides an independent third-party quality assurance step valued by conscientious consumers, which leads to worldwide acceptance of their products and services. Thus, there is a growing need to increase consumers' awareness of the benefits of halal certification and educating entrepreneurs on utilizing this tool (Rajagopal et al., 2011). Also, communicating it to the consumer as their "focused differentiation" (Porter, 1980), whereby, there is a perceived added value to a particular consumer segment. One may argue that owners-managers' decision to enter the global market rather than the international market, helps them to enhance their international performance.

On the other hand, the lower relationship between conservative (narrow IEO capability) and international performance indicates that the owners-managers actions are not just reactive, but are detrimental to international performance and overall success of the firm in the long run. There is a possibility that firms that operate in narrow scope consist of those that are concentrating on one or a few regions or some newly-established firms. They may have faced with the risk factor and the lack of expertise in export markets.

This current result supports past studies indicating that firms which have IEO tend to be more successful compared to other firms (Lee and Peterson, 2000). In fact, IEO has been found to be positively associated with performance (Zahra and Covin, 1995; Wiklund and Shepherd, 2005). The findings are in line with McDougall et al. (1994) who argued that entrepreneurs are people who "are alert" about potentially profitable resource combinations while others are not. The findings also support the study by Crick and Spence (2005) which showed that high-performing SMEs are characterized by owners and managers who can identify and exploit international opportunities. The findings also corroborate some of the findings by Zhou (2007) and Knight et al. (2004) who proposed high IEO and international performance for the global firm. However, the findings contradict the Acedo and Jones (2007) argument that entrepreneurial characteristics such as innovation, proactiveness, risk-seeking behavior, suggest that a particular mindset or cognition may play a part in internationalization and its speed but their study does not focus on scope level. Therefore, it can be speculated that firms who aggressively pursue wider

geographical scope level would perform better, and expect to perform better in terms of their IEO and international performance compared to narrow geographical scope firms. In other words, entering the global market is seen as accountable for their growth.

CONCLUSION

IEO has been described as an important factor for a SME's success. A review of the relevant literature shows that the majority of the literature on IEO, geographical scope and international performance has been conducted in developed countries and high technology industries. However, little research has been done on this topic in Malaysia and the halal food industry. The results obtained in this research indicate that there are significant relationships among IEO, geographical scope level and international performance based on subjective measurements. The findings revealed that there are significant differences in terms of geographical scope level as a moderator among SMEs in the Malaysian halal food industry based on the number of regions. As a result, there exist differences in terms of the level of owners-managers' IEO capabilities and international performance among these two group of SMEs.

These findings suggest that SMEs in developing countries like Malaysia can rapidly export their halal products in the global market, searching for the opportunities of halal foods and niche market, by entering export markets as first mover advantage. Entrepreneurial-oriented firms have a tendency to be an industry leader with proactive, innovative and risk takers. They should also take advantage of resources provided by various external sources and government programs designed to promote Malaysian halal to foreign markets such as HDC, MIHAS, MATRADE, MITI, and JAKIM. The other ways are through using communications technology such as the Internet and e-commerce as a platform to market the halal food products worldwide and also develop networking to reach consumers beyond their own national borders.

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