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# ENTREPRENEURIAL ORIENTATION, BUSINESS PERFORMANCE AND THE MODERATING ROLE OF FIRM LIFE CYCLES

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## Abstract

This study looks at SME's currently operating in Sweden and examines the relationship between EO and business performance with a moderating role of firm life cycles. Based on a quantitative study of 370 SME's in Sweden the empirical research results suggests a broad use of EO in SME's as well as identifying a multidimensional perspective towards EO. Some EO dimensions showed promising relationships towards performance in certain life cycle stages whilst others did not strengthening the argument that EO is multidimensional. In brief, the study contributes with further knowledge and further valuable findings were found within the construct of EO and business performance in SMEs.

## Keywords

Entrepreneurial Orientation, Business performance, firm life cycle, Entrepreneurship, SME

# Introduction

Entrepreneurial orientation has recently become a very popular research field (Wales, et al., 2013). Wales, Gupta & Mousa (2013) provide a graph where they show that from 2004 a dramatic increase in published papers about EO has occurred, starting from 5 papers in 2004 to 26 papers in 2010. One could argue that this vast recent popularity of EO is based on the environment being described as complex and uncertain (Dreyer & Grønhaug, 2004; Slater & Olson, 2002). In order for firms to compete in such conditions, further knowledge within entrepreneurship is needed (Wiklund & Shepherd, 2005).Researchers such as Lumpkin & Dess (1996) define EO as decision-making styles, processes, and methods. In addition, Wiklund & Shephard (2003; 2005) describe EO as a form of strategic orientation while other researchers suggest that EO should be considered more as an attitude within the firm rather than being product oriented (Renko, et al., 2009). Thus, there are different views on EO in the literature. However, most of the research done on EO has been based on Lumpkin & Dess, (1996) and Miller, (1983). Furthermore, based on Lumpkin & Dess (1996) work on EO, five dimensions have been identified: risk taking, innovativeness, competitive aggressiveness, proactiveness, and autonomy. Several studies report a positive relationship between the five EO dimensions and performance (Wiklund, 1999; Wiklund & Shepherd, 2003; Wiklund & Shepherd, 2005; Zahra, 1991; Zahra & Covin, 1995). However, there are also studies that contradict this statement, saying that some EO dimension even had a negative impact or no impact at all on performance (Matsuno, et al., 2002; Morgan & Strong, 2003).

Each dimension can vary independently and have different outcomes on performance depending on what life cycle stage and state of the firm (Lumpkin & Dess, 1996). Since firms differ from one another, so does their life-cycle stage. Morgan & Hughes (2007) suggested that studies should be made to identify these different effects of the five dimensions on performance at different stage-levels of a firm's life cycle. In a study made by Casillas, Moreno & Barbero (2010), the authors indicated that EO had different outcomes on performance in family firms depending on if they were in an early or a late stage of their family business. The authors also found that bigger and older companies have higher growth rates. In addition, depending on which lifecycle a firm is present it, it will be characterized by a specific size, meaning that in order for a company to go from one stage to one higher up the ladder, it has to expand its business and grow in size. Since EO has been proven to have a positive effect on growth (Casillas, et al., 2010), and growth can be associated with moving

up the ladder of a lifecycle stage (Churchill & Lewis, 1983), one can assume that there might be a connection between EO, performance and lifecycle stages. Morgan & Hughes (2007) found that only two of the five EO dimension affected a firm's performance positively, looking at the embryonic stage of a firms life cycle, where two dimensions were found to be indifferent and one dimension even had a negative effect on performance. In addition, looking at Wales, Gupta & Mousa's (2013) work where they analyzed papers on EO, there still is no paper that identifies the life cycle issue, thus creating a research gap in the field. To quote Morgan & Hughes (2007):

*"It is conceivable that all five dimensions may be beneficial but it is equally plausible that only a sub-set of dimensions may be valuable."*

Thus, it is of great importance to understand what specific EO dimensions affect performance in a certain stage of a firm's life cycle in order for managers and owners to understand what EO dimension is most favorable in their current firm stage (Hughes & Morgan, 2007; Lumpkin & Dess, 1996).

Based on future research suggestions and of past literature, we seek out to explore and contribute with further understanding within the area of EO and performance with consideration to the moderating effect of a firm's life cycle. However, as far as the literature goes, no research has been made on different life cycle stages looking at SME's (Wales, et al., 2013). This leads us to the research question:

*"The relationship between entrepreneurial orientation, performance, and the moderating effect of firm lifecycle stages"*

The relevance of looking at SME's is without a doubt interesting in Sweden since approximately 99.9% of the Swedish economy consists of SME's and the majority of 99.4% have 0-49 employees (Ekonomifakta.se). Thus, it is of great importance for the overall Swedish economy as well as for Swedish entrepreneurs to gain further understanding in this area of research. By identifying different life cycle stages of SME's it may be possible to distinguish what specific EO dimensions affect performance in that given stage. The categorization of firm life cycles is based on Churchill & Lewis (1983) work where they present firm life cycles as five different periods of a firm life span.

The practical contributions are thus to help firm owners that are currently in a specific stage of their firm life cycle, to focus and understand what specific EO dimensions are most

valuable to their specific firm, and what dimensions only drain resources without contributing to performance. Moreover, the scientific contribution is to gain further understanding of the five EO dimensions individually, performance, and the possible moderating effect of SME's firm life cycle.

# Literature Review

## Entrepreneurial Orientation

Usually, when discussing entrepreneurship in both research and societal context, there is a lack of agreement on many key issues regarding what actually constitutes entrepreneurship (Shane & Venkataraman, 2000). Many researchers tend to fail within the field of entrepreneurship since they fail with building upon each other's results and because the key variables used in the research are too weak (Davidsson & Wiklund, 2001; Rauch, et al., 2009). However, the development has been more promising in areas such as in EO and it has become a central concept in the field of entrepreneurship with more than 100 studies conducted (Rauch, et al., 2009).

According to Mintzberg (1973), entrepreneurial orientation is imbedded within strategy making processes. Strategy making incorporates planning, decision making, analysis, and many other aspects of an organizations value system, mission, and culture. It refers to as Lumpkin & Dess (1996) explain as a strategic organizational attitude that captures different aspects such as processes and practices that enables firms to create value when engaging in entrepreneurial activities (Lumpkin & Dess, 1996). In order for a firm to think entrepreneurially, they have to have a basis for entrepreneurial decisions and actions (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). As such, EO represents the processes and practices that provide this basis of decision-making and action taking for firms (Rauch, et al., 2009). Scholars within EO suggest that EO leads to higher performance since firms need to innovate frequently while taking risks, anticipating demand, aggressively position themselves, their products, and their services (Rauch, et al., 2009; Hughes & Morgan, 2007; Churchill & Lewis, 1983; Mintzberg, 1973; Wales, et al., 2013).

Lumpkin & Dess (1996) based their work on previous EO literature including (Miller, 1983; Covin & Slevin, 1991) that provided three dimensions of EO: *Innovativeness*, *Risk taking*, and *Proactiveness*. Drawn upon Miller's conceptualization and prior research of EO, Lumpkin & Dess (1996) suggested two additional dimensions, *Autonomy*, and *Competitive aggressiveness.* In order to understand the EO construct, all five dimensions are explained as

followed: (1) Autonomy refers to independent actions of individuals or teams. This means that the individuals can bring forth an idea or a vision and carry it through without any organizational constraints. One can argue that in order for Autonomy to be applicable, the organizational structure should be relatively flat (Lumpkin & Dess, 1996). (2) Innovativeness brings forth the creativity of a firm and their ability to come up with new ideas and creative processes. This will eventually lead to new products, services or increased quality in technological processes (Lumpkin & Dess, 1996). (3) Risk Taking is the third dimension and it can refer to several contexts including strategy and finance. In addition, since all businesses involve some degree of risk, when measuring risk in entrepreneurial context, people in these organizations can be either "safe" risk-takers all the way to being high-risk takers. One can argue that if there is no risk, there is simply nothing or very little to be gained. (4) Proactiveness can be defined as processes aimed at anticipating and acting on future needs or opportunities. A proactive firm as described by Lumpkin & Dess (1996) is not a follower but a leader because *"it has the will and foresight to seize new opportunities, even if it is not always the first to do so"* (Lumpkin & Dess, 1996). (5) Finally, Competitive Aggressiveness is the last of the five EO dimensions and is similar to Proactiveness since it refers to a company's ability to outcompete its rivals in any given marketplace. If a firm is good at challenging its competitors it is highly likely that they will achieve first-mover entry or improve their current positions. Thus, Competitive Aggressiveness is similar to Proactiveness since it is characterized by responsiveness but captures other important aspects as well (Lumpkin & Dess, 1996)

Past research of the EO dimensions has shown high intercorrelations with each other (Bhuian, et al., 2005; Richard, et al., 2004; Stetz, et al., 2000; Tan & Tan, 2005). This led to scholars combining the dimensions into one single factor (Covin, et al., 1994; Lee, et al., 2001; Naman & Slevin, 1993; Walter, et al., 2006; Wiklund & Shepherd, 2003). However, there is strong disagreement between scholars (Knight, 1997) who argue that EO is best viewed unidimensionally. In addition, more recent studies including (Lumkpin & Dess, 2001; Covin, et al., 2006) shows that the dimensions each have a different and independent aspect of a combined multidimensional concept making it similar to performance which is also a multidimensional concept (Lumpkin & Dess, 1996). Recent studies have concluded that the use of a multidimensional measurement on EO is being more accepted among researchers (Wales, et al., 2013) though few papers have actually implemented it. Furthermore, even fewer papers have implemented all five dimensions of EO. Although, there is a strong belief

that using all five dimensions provides a broader understanding of the EO-concept (Lumpkin & Dess, 1996; Rauch, et al., 2009; Wales, et al., 2013). Therefore, this paper will investigate all five dimensions since it covers a broader scope of the EO-concept.

Usually when measuring performance, it is divided into financial (e.g. Sales growth, ROI) and non-financial (e.g. satisfaction) measures. Rauch, et al. (2009) argue that there is little direct effect on non-financial goals from EO as they explain that the *"relationship is tenuous"*.

The relationship between performance and EO seems to vary across studies. Some argue that firms perform better with a high EO (Zahra, 1991; Wiklund, 1999; Wiklund & Shepherd, 2003; Wiklund & Shepherd, 2005; Zahra & Covin, 1995) while other studies report lower correlations between EO and performance unable to find a significant relationship between the two variables and in some cases even a negative relationship (Matsuno, et al., 2002; Smart & Conant, 1994; Hart, 1992). Potential control variables such as industry may explain the diversity of the relationship that seems to vary across studies.

Though, previous studies in the field of EO and entrepreneurship have looked at firms at specific stages, we intend to look at firms in different stages of their firm life-cycle and pinpoint what EO dimensions affect performance at a specific stage of a firm life-cycle.

## Firm life cycle

The concept of organizational life cycles has been widely employed by scholars, within the literature, and at the same time accused for being controversial (Churchill & Lewis, 1983; Scott, 1970; Kazanjian, 1988; Smith, et al., 1985; Tornatzky, et al., 1983; Quinn & Cameron, 1983). The concept of phases or "life cycles" within organizations based on growth has not yet been universally shared, instead, scholars argue that they have unfolded discrete periods also known as phases (Scott, 1970; Kazanjian, 1988; Smith, et al., 1985; Quinn & Cameron, 1983), whilst others mean that it is an overly simplistic view of reality (Tornatzky, et al., 1983).

Churchill & Lewis (1983) brought forth two fundamental questions regarding firm life cycle and the importance of understanding them as an entrepreneur.

(1) *Why is it that some business owners must work 15 hours a day to keep their business operating while others owners can go off and, say, run for political office as the business goes*

*happily along on its own?* (2) *How is it that some owners manage without any formal systems or overall strategies while others are driven to devote much attention to such approaches?*

The very idea of measuring and categorizing the problems and growth patterns of SME's systematically seems a hopeless task or as Tornatzky et al (1983) explain it, overly simplistic. Given that almost every SME vary in size, organizational structure, growth capacity and management styles it seems that this idea is far from reality.

However, Churchill and Lewis (1983) argue that the problems and growth patterns of SME's share common experience at similar stages of their development. Thus, they organized the similar problems and growth patterns into a framework. Such a framework is highly relevant to the entrepreneurial literature and for entrepreneurs and managers in general. If managers have a framework of their firm life cycle it can for example aid them in assessing current challenges, anticipate key requirements, and potential governmental evaluation of present and proposed regulations and policies applied for their firm (Churchill & Lewis, 1983).

Within Churchill & Lewis's (1983) framework, they divide small companies in five different life cycle stages:

1. The first of which is *Existence.* Companies that are in this stage are in a start-up phase and face similar problems or features that involve obtaining new customers and delivering products or services. The very organization is simple where the owner primarily does everything and is in short, *the business.* The company's strategy, systems and formal planning are very simple and are based on keeping the business alive.

2. The second stage is *Survival.* In order for a company to reach this stage, it must first surpass the *Existence* stage. By doing so, it has proven to be a working business entity with enough customers to keep the business going. The key problems shift from obtaining new customers to handling revenues contra expenses. For example, is the business able to generate enough cash flow to break even? Can it generate enough cash flow to break even and at the same time finance growth under its current business and market conditions? The main goal is thus still to stay alive and survive the market conditions whilst trying to grow. In addition, the owner is still the key figure in the company but with the exception of now having a manager or supervisor that carries out the owner's orders.

3. Next to *Survival* is *Success.* When the company survives the second stage, the owner faces decisions that involve expansion or maintaining a stable, profitable business, in order to

provide for alternatives. Thus, the owner(s) are facing two possible outcomes: (1) Use the company as a platform for growth (sub stage G) or (2) maintaining the business in the status quo whilst pursuing different challenges or hobbies (sub stage D). Owners at sub stage D can choose to re-delegate responsibilities to their managers as they increasingly move apart from the business. The business will maintain a low growth pattern as long as they are adaptable to environmental change and if not, fold or drop back to the *Survival* stage. In addition, owners that choose sub stage G marshal resources for growth. Moreover, an important task of the owner is to acquire managers that are in for the long run and with ambitions to keep the company profitable and in a growth stage.

4. If a company and its owner(s) are successful in the *Success* stage, it is very likely to enter the next stage, which is *Take-off*. In this stage there arises two main questions including delegation (how to grow rapidly) and cash (how to finance that growth). Looking at the different stages, this is perhaps the central period of a firm's life cycle. If the owner(s) are competent, entrepreneurially active, and financially capable enough to face the challenges, it can become a big business. However, if not, as businesses at this stage often tend to lean towards, are sold for a profit.

The most common reason for businesses that are unsuccessful in this stage is that by trying to grow too fast fail, because they run out of funds or ineffectively delegate work tasks and responsibilities.

5. Upon surpassing the fourth stage, the greatest concerns of a company entering *Resource Maturity* is to control financial gains and to retain entrepreneurial spirit. By using tools such as budgeting, standard cost control systems, and strategic planning, the company is able to eliminate inefficiencies that come with rapid growth. In order to do so, the company must expand the management force by hiring professionals, decentralizing the organization and somewhat separate the owner from the business. The company has now the advantages of financial resources, size and managerial experience.

It is at this stage where EO has its biggest influence. Churchill & Lewis's (1983) explain that in order for companies at this stage to become a formidable force in the market, they have to preserve their entrepreneurial spirit. If not, Churchill & Lewis's (1983) describe another stage called Ossification, which is characterized by a lack of innovative capability and avoidance of risk taking and is most common if there occurs environmental change. As mentioned earlier, in order for firms to survive in an environment of rapid change, businesses need constantly

seek out new opportunities. Moreover, as suggested, EO leads to higher performance since firms need to innovate frequently while taking risks, anticipating demand, aggressively position themselves, their products, and their services (Rauch, et al., 2009; Hughes & Morgan, 2007; Churchill & Lewis, 1983; Mintzberg, 1973; Wales, et al., 2013).

Churchill & Lewis, 1983 work has been widely recognized by scholars (e.g., Hite & Hesterly, 2001; Zahra, Sapienza & Davidsson, 2006; Low & MacMillan, 1986; and Kazanjian & Drazin, 1989) and used in attempts to further broaden the knowledge of firm life cycles and entrepreneurial research. This approach is useful in framing the different stages of firm evolution over time in terms of progress, growth, similarities, etc (Hite & Hesterly, 2001).

While we recognize the full spectrum of life cycle stages based on Churchill & Lewis (1983) conceptualization of firm life cycles, we aim to find a potential connection between the five dimensions of EO and in what specific life cycle stage of a firm it functions as a hindrance or as an catalyst to higher performance. Thus, this paper will look at each dimension separately and try to determine which specific EO dimension affects performance in a given life cycle stage of a firm. We propose a model (see Figure I) that measures all of the five EO dimensions individually and the effect it has on performance whilst using Churchill & Lewis (1983) firm life cycle model as a moderating approach.

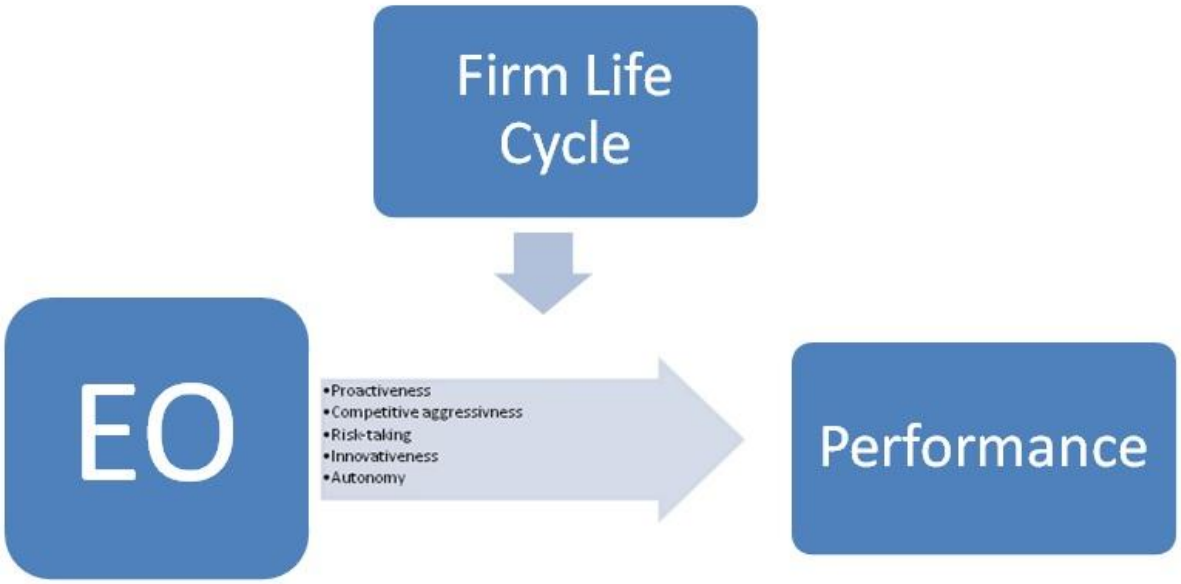


**Figure I.** Structured model of EO and the moderating role of firm life cycle stage on performance.

## Hypothesis Development

Hughes & Morgan (2007) wrote one of the few papers that look at EO from a multidimensional point-of-view and its effect on performance (Wales, et al., 2013). It is also one of few papers that use all five dimensions of EO (Wales, et al., 2013).

According to a review paper by Wales, et al (2013), out of 123 articles about EO, 98 of them used only three dimensions, those being innovativeness, risk taking, and proactiveness, while only 4 papers out of 123 used all 5 dimensions. Looking at Hughes & Morgan's (2007) findings, one can find that proactiveness and innovativeness is associated with higher levels of performance, while competitive aggressiveness and autonomy had no influence, risk taking had a negative effect on performance. While Hughes & Morgan's (2007) study was conducted on firms in an early stage, this study aims to look at SME firms in all stages.

Casillas, Moreno & Barbero (2010) have in their study found a direct relationship between EO, looking at it unidimensionally, and growth among SME's. Their results showed that EO had different outcomes on performance in family firms depending on if they were in an early or late stage of their family business. In addition, their study also shows that bigger and older companies have higher growth rates. Depending on which lifecycle a firm is present in, it will be characterized by a specific size, meaning that in order for a company to go from stage I, existence, to stage V, resource maturity, it has to expand its business and grow in size and revenue. EO has been found to have a positive effect on growth (Casillas, et al., 2010) and growth can be associated with moving up the ladder of lifecycle stages (Churchill & Lewis, 1983).

The key issues in life cycle stages 1-2 according to Churchill & Lewis (1983) is for firms to be able to generate customers, expand their pilot production process and finance growth. As explained by Lumpkin & Dess (1996), a company that is proactive and innovative has the will and foresight to seize new opportunities (customers), to come up with innovative ideas and streamline processes. Moreover, in order for firms to stay competitive they need to constantly seek out new opportunities and be innovative (Lumpkin & Dess, 1996). Thus:

*H1: Proactiveness and innovativeness will have a positive effect on performance in any given firm life cycle.*

System development and formal planning is minimal and the major goal is still survival making *risk taking* an unsuitable option for the owner in stages 1-2.

Thus, *risk taking* may not suit a firm that is in the *existence* or *survival* stage of firm life cycle but may instead lead to positive performance outcomes when firms face increased competition, environmental change and growth as in stages *success, take-off & resource maturity* (Churchill & Lewis, 1983).

Furthermore, the same assumption can be made towards *autonomy* where firms in early stages only have one key decision maker, the owner him/herself, making independent actions of individuals or teams nonexistent (Churchill & Lewis, 1983). When firms grow and move on to later stages such as *success, take-off & resource maturity,* the number of employees will increase. The owner will gradually move away from the firm, making delegation of responsibilities and enabling independent actions of individuals becoming a crucial part of the firm's success or downfall. Since firms in early stages are not facing the same risk and complexity conditions as in later stages, as explained by Churchill & Lewis (1983), we believe that risk taking and autonomy are in fact two dimensions unsuitable for firms in early stages of development. Thus:

*H2: Risk taking will have a negative effect on performance depending on the moderating role of firm life cycle stages 1-2.*

*H3: Risk taking will have a positive effect on performance depending on the moderating role of firm life cycle stages 3-5.*

*H4: Autonomy will have a negative effect on performance depending on the moderating role of firm life cycle stages 1-2.*

*H5: Autonomy will have a positive effect on performance depending on the moderating role of firm life cycle stages 3-5.*

Finally, in order for firms to outcompete their rivals, gain or maintain market share, and move from one stage to another, they need to be successful in challenging their rivals (Churchill & Lewis, 1983; Lumpkin & Dess, 1996). According to Lumpkin & Dess (1996), competitive aggressiveness covers the areas that are considered as market threats and opportunities. Thus:

*H6: Competitive aggressiveness will have a positive effect on performance in any given firm life cycle.*

Based on the above-mentioned hypotheses, we argue that firms will have different EO-performance outcomes depending on the moderating role of firm life cycle. Since firms grow from one stage to another, it is highly likely that some EO dimensions are more favorable in the earlier stages whilst others are favorable in the later stages.

# Method

## Operationalization

The research method is based on a questionnaire containing a combination of the five EO dimensions; Proactiveness, Innovativeness, Risk taking, Competitive Aggressiveness & Autonomy, with a total of 18 questions combined making it multidimensional (Appendix. 1).

The Dimensions are combined with two specific performance measures; Product performance and Customer performance containing five questions total (Appendix. 1). These questions were drawn from Hughes & Morgan's (2007) study of EO and performance in firms at the embryonic stage. All questions are based on a 7-point Likert scale where 1 implies the answer "totally disagree" and 7 "totally agree". Furthermore, in order to add the moderating effect of firm life cycles, we added five distinct questions based on the conceptualization made by Churchill & Lewis (1983) about firm life cycles in which the respondents had to choose one out of five statements that fit their organization profile most accurately (Appendix. 2). By categorizing the firms into each life cycle, it enabled us to create a link between EO, performance and the moderating effect of firm life cycle.

## Sample and data collection

The goal of this study was to target SME's and therefore a contact with the national association network (NAN) for SME's in Sweden was made. Through NAN's client channel, we targeted our sample group with our questionnaire. Approximately 15,000 firms were sent the questionnaire through a weekly email from the NAN for SME's in Sweden, where 381 questionnaires returned answers. Out of these 381 answers, 11 of them believed they found themselves in life cycle 5, which is resource maturity. The low amount of answers in this category made it difficult to argue for the validity of the findings for those 11 answers, and thereby we removed stage 5 from our research, which left us with a sample size of 370 respondents. Perhaps the low response rate is due to the fact that questionnaires are sent almost weekly through NAN. Personally, we had to wait 2 weeks before the questionnaire was sent out due to other researchers using NAN as a primary resource as well. To try and get

as many responses as possible NAN offered the respondents a chance to win an IPad if they participated in the questionnaire, financed by NAN themselves. However, as emails are sent to managers weekly, who most likely are very busy already, we managed to get 381 responses from the original sample size of 15,000.

## Control variables

Two control variables were selected in this study, one being gender, and the second if the firm is product oriented, service oriented, or both. Dummy variables were created for product oriented firms and service oriented firms, taking both types of firms as a comparative base industry.

Out of these 370 respondents, 107 were firms owned by women, while 263 firms where owned by men. Furthermore, the respondents were asked to categorize their business into product oriented, service oriented, or both. The majority of the owners replied service oriented (169), whilst the second largest segment of firms were found to be both product and service oriented (147) leaving owners with only production orientation (54) a minority in the sample.

## Measures and data analysis

NAN's huge network of SME's in Sweden (15.000) made it possible for this study to target a large sample of business owners. This in turn reduces the possibility of sampling error.

In order to distribute a questionnaire with low biased responses we consulted with representatives from both NAN and the University of Kristianstad. Thus, we eliminated the absence of leading questions by mixing the order of all of the questions. Moreover, the survey was structured in a way that the life cycle questions were at the end in order to minimize biases. In addition, in order to further minimize respondent errors, the respondents were surveyed at a time of their convenience, reducing the level of stress. Finally, the respondents were all business owners, possessing experience in their business operations and entrepreneurship as such, allowing for well-informed and reliable answers.

# Results and discussion

## Pearson Correlation

Table 1
Scale properties, descriptive statistics, and correlation matrix of constructs

| Scale Label | Mean (S.D.) | Gender | Industry | Risk taking | Innovativeness | Proactiveness | Comp. Agg | Autonomy | Performance |
|---|---|---|---|---|---|---|---|---|---|
| Gender | 1,29(0,45) | - | | | | | | | |
| Industry | 2,25(0,69) | ,018 | - | | | | | | |
| Risk taking | 4,39(1,40) | ,054 | ,037 | *,731* | | | | | |
| Innovativeness | 5,33(1,11) | -,001 | ,039 | ,575** | *,809* | | | | |
| Proactiveness | 4,63(1,17) | ,015 | ,016 | ,470** | ,673** | *,702* | | | |
| Comp. agg | 4,81(1,07) | -,022 | ,035 | ,479** | ,627** | ,772** | *,626* | | |
| Autonomy | 5,61(1,12) | ,111* | ,006 | ,591** | ,607** | ,471** | ,465** | *,886* | |
| Performance | 4,89(1,22) | ,057 | *,034* | ,420** | ,615** | ,746** | ,732** | ,462** | *,823* |

**Correlation is significant at the 0.01 level (two-tailed)
*Correlation is significant at the 0.05 level (two tailed)
Note: Cronbach Alphas are shown on the diagonal of the correlation matrix in italics

Table 1 is a correlation matrix of all the constructs in order to illustrate the inter-relationship among these constructs. By looking at the table, we can see that in all life cycles, the EO-dimensions are all significantly correlated to performance. This strengthens belief that the EO-dimensions contribute to performance. Furthermore, looking at the Cronbach alpha values a number of above .6 was desired and reached in all cases. Though, according to Pallant (2010) it is common to receive low Cronbach alpha values when the model consists of less than 10 variables, in this case we used 8 variables including performance, two control variables and the five EO dimensions, which may be why it showed low Cronbach alpha values. However, these are only bivariate relationships. In table 2, we present a multiple regression analysis to further demonstrate our results.

## Control Variables

We used two control variables, gender (male/female) and industry (product, service, or both) whereas industry was tested as a dummy variable consisting of product and service, with both types of industries behind the comparative base.

Our regression analysis show that none of the industry variables were significantly related to performance in any life cycle stage. However, female owners in the existence stage showed a significant relationship towards performance compared to men ($\beta = .288$, $p < .05$).

## The moderating role of firm life cycle

Table 2
Multiple regression analysis results

| Life Cycle | Existence | Survival | Success | Take-Off |
|---|---|---|---|---|
| | Stand. β | Stand. β | Stand. β | Stand. β |
| *Controls* | | | | |
| Gender | ,288*** | ,038 | ,043 | ,015 |
| Product (dummy) | -,135 | ,042 | ,002 | -,051 |
| Service (dummy) | ,045 | -,052 | -,005 | ,031 |
| *Direct effects* | | | | |
| Risk taking | -,049 | ,155 | -,109*** | -,139 |
| Innovativeness | ,103 | ,036 | ,179** | ,167 |
| Proactiveness | ,590* | ,399* | ,340* | ,356** |
| Competitive aggressiveness | ,162 | ,345** | ,333* | ,494* |
| Autonomy | -,017 | -,127 | ,167* | ,011 |
| $R^2$ | ,715 | ,579 | ,629 | ,667 |
| *Adjusted* $R^2$ | ,620 | ,541 | ,613 | ,605 |
| *F-value* | 7,529 | 15,122 | 37,999 | 10,771 |

*p≤0.01; **p≤0.05; ***p≤0.1.

Regarding multicollinearity, all VIF values where under the recommended cut off point of 4 (Pallant, 2010). In the existence and the survival stage, competitive aggressiveness showed the highest VIF-value of 3,522 and 3,691 respectively. In the success stage as well as take-off stage, proactiveness proved to have the highest VIF-value with 2,691 and 2,924.

Looking at our regression analysis in table 2, our results show a number of important findings within the EO construct. Firstly, we agree with Hughes & Morgan (2007) that the belief of EO being universally beneficial to business performance is false. Secondly, our results show that all EO dimensions vary with their relationship to performance depending on what life cycle stage they currently are present in, except for one dimension that shows a positive relationship towards performance in all life cycle stages, which is in accordance to Lumpkin & Dess (1996) assumption that that not all EO dimensions are equally valuable to prove increased business performance depending on in what stage the business currently is in. Thirdly, our results show the importance of not excluding any EO dimension since not all EO dimensions guarantee improved performance. Thus, we urge firms to take on a cautious approach towards implementing EO, depending on what life cycle they currently reside in.

In the existence stage, only proactiveness showed a significant relationship towards performance ($\beta = .590$, $p < .01$). Looking at the survival stage, proactiveness ($\beta = .399$, $p <$

.01) and competitive aggressiveness (β = .345, p < .05) are the two dimensions that show a positive relationship towards performance, the rest are not significant. Life cycle stage success is the stage that proves to be the most related to performance. Innovativeness (β = .179, p < .05), proactiveness (β = .340, p < .01), competitive aggressiveness (β = .333, p < .01), and autonomy (β = .167, p < .01), are all positively related to performance. However, risk taking (β = -.109, p < .1) is significantly negatively related to performance, meaning firm owners in the success stage should not be having a risk taking mindset. Finally, in the life cycle stage take-off we found proactiveness (β = .356, p < .05) and competitive aggressiveness (β = .494, p < .01) to be the two dimensions with a positive significant relationship with performance. Our results have added further strength to the argument made by Covin, et al. (2006) and Lumpkin & Dess (2001), that EO is in fact multidimensional.

## Hypothesis outcome

When we analyze our hypothesis outcomes the result shows as followed:

*H1: Proactiveness and innovativeness will have a positive effect on performance in any given firm life cycle.* – Proactiveness proved to have a positive effect on performance in all life-cycle stages, however innovativeness only had a positive effect on performance in the life-cycle stage success, and therefore H1 is only partly accepted.

*H2: Risk taking will have a negative effect on performance depending on the moderating role of firm life cycle stages 1-2.* – Risk taking showed no significant effect on firm life cycles in stages 1-2, making H2 a rejected hypothesis.

*H3: Risk taking will have a positive effect on performance depending on the moderating role of firm life cycle stages 3-5.* - Since life cycle five (resource maturity) was removed because of a non-sufficient sample size, we only conduct this hypothesis on stage 3-4. Risk taking proved to have a significantly negative effect on performance in stage 3 as well as no significant effect on stage 4. Therefore, H3 is rejected.

*H4: Autonomy will have a negative effect on performance depending on the moderating role of firm life cycle stages 1-2.* – Autonomy did not show a negative effect on neither stage 1 nor 2. Thereby this hypothesis is rejected.

*H5: Autonomy will have a positive effect on performance depending on the moderating role of firm life cycle stages 3-5.* – As mentioned earlier, life cycle stage 5 was removed, though for stage 3, autonomy proved to have a positive effect on performance, whilst stage 4 showed no

significant effect on performance regarding autonomy, thereby this hypothesis is partly accepted.

*H6: Competitive aggressiveness will have a positive effect on performance in any given firm life cycle.* - H6 is also partly accepted. Competitive aggressiveness showed a significantly positive effect on performance in all life cycle stages except the existence stage.

3 out of 6 hypotheses were partly accepted. Since our hypotheses were taken from previous research it is interesting to see that none were fully accepted. This proves that the five dimensions of EO cannot be explained as positively related to performance in all cases. Depending on business and stage of a firm, the five dimensions can react differently to performance, and that is what this paper has set out to prove.

## Conclusions

In this paper, we have talked about how EO has become a central part of entrepreneurial research, how EO has become a part of owners and manager's mindsets in entrepreneurial activities. Moreover, we have discussed the different EO dimensions, clarified them individually and why this paper, based on previous research (Covin, et al., 2006; Hughes & Morgan, 2007; Lumkpin & Dess, 2001; Lumpkin & Dess, 1996), argues that EO should be viewed multidimensionally. Furthermore, as far as we know, this is the first study that considers the moderating effect of four firm life cycle stages whilst linking the EO dimension individually towards performance. Hughes & Morgan (2007) looked at firms at the embryonic stage, though; we built this research upon their results and added more life cycles in order to gain further knowledge and validity to the subject.

One of the reasons why some young firms, especially SME's struggle whilst others thrive could be the misuse of certain EO dimensions. Nevertheless, this is only a mere assumption, not a conclusion since there are infinite ways of explaining why a firm is successful or not. We strongly believe that if managers and owners would gain further knowledge about firm life cycle stages, they would be able to identify themselves with a specific stage, and what EO dimension they should focus on in their firm and thus leading to increased performance.

The use of each EO dimension in our sample showed to be intensive whilst examining the frequencies of risk taking (4.38), innovativeness (5.33), proactiveness (4.63), competitive aggressiveness (4.8), and autonomy (5.6). This shows that the issue of misuse in resource allocation, as explained by Hughes & Morgan (2007) is highly relevant, even in our case. In

addition, this study shows that not all EO dimension have a positive effect on performance. Therefore, SME's should strategically implement the different dimensions carefully suited to their current situation and resource capacity.

Our results demonstrate what previous research (Covin, et al., 2006; Hughes & Morgan, 2007; Lumpkin & Dess, 1996) has assumed; that depending on stages of development, the EO dimensions will affect firm performance differently. For example, the one dimension that always had a positive effect on performance in all cases is proactiveness. This dimension is something that firms should put resources in strengthening, as it will lead to higher performance according to our studies. Another dimension that often proved to have a positive effect on performance is competitive aggressiveness. This is another variable that SME's should invest in as having a competitive edge leads to higher performance levels. Risk taking was the only dimension that showed significant negative effects on performance in one life cycle stage, the success stage. Perhaps this means that firms residing in the success stage of their life cycle should be more cautious with risk taking and focus more on their competitors and being active on the market.

This again, strengthens our argument that EO should not be seen as one dimension, as it would not only be misleading, but also a waste of resource. Even though in general, there is only one dimension that showed a negative significant relationship towards performance and that was risk taking in success stage of a firm, it does not mean firms should implement all five dimensions of EO into their firm for a positive result.

Nevertheless, these suggestions are solely based on our given results. Implementing the EO dimensions should be handled cautiously, strategically and selectively in order to emerge as beneficial to the strategy, stage of development, and industry of the firm. If implemented at the correct time, an EO dimension can be used as powerful processes in the pursuit of increased performance and business development of SME's in Sweden.

## Implications of the study

This research is important for academics, firm owners and managers. For academic researchers venturing into the field of EO, this research provides them with a view on EO that has not been widely used by previous EO research. It builds upon the studies of Hughes & Morgan (2007) as well as Lumpkin & Dess (1996) who were the pioneers of using EO as a multidimensional construct.

We urge researchers to continue on this multidimensional path as it has proven to be the most accurate description of EO and the most helpful for business considering the resource savings possibilities and performance gains. For firm owners and managers this study is important as it shows the possible gains and losses of the five EO dimensions depending on specific life cycle stages. We urge managers as well as owners to reevaluate their use of EO as a construct and try to find which EO dimensions drain resources and which EO dimensions that create value for the firm. This requires review of policies and procedures in addition to benchmarking these activities. As we mention in our findings, each dimension can vary independently. This indicates that firms can identify and manipulate only those dimensions that add value and use them as a competitive advantage in the market. As any firm grows, its human capital grows as well, meaning that in order for firms to be effective in implementing their EO dimensions they have to educate and invest in their employees accordingly.

It is important to realize that Entrepreneurial Orientation is a day to day activity, and a part of a firm's entrepreneurial spirit. This requires extensive commitment and motivation from owners, managers, and from employees. Conclusively, although our results show that some EO dimensions are not significantly affecting performance in certain stages, does not mean that they are invaluable. These dimensions are still correlated with performance and thus they still hold some value for the firm. Our results merely implicate which dimensions that firms should focus on the most in different stages and with different background. Whilst also proving that EO should not be seen as one dimension, but rather five with different characteristics.

## Limitations of the study

This study is limited to SME's in Sweden. Thus, one must take into consideration not to generalize these findings as market conditions, firm structures, and firm culture vary across nations and continents.

In addition, this is a cross-sectional study, which means that if a longitudinal design would have been implemented, one could have reached a more precise result. Moreover, it would be interesting and valuable to follow up on each business as they evolve individually and see if there is an individual potential discrepancy between research phase 1 and 2. Furthermore, the goal was to reach at least 30 samples per life cycle to have a sufficient amount in the test, however we only managed to receive 11 samples from life cycle 5 which resulted in us removing it from the tests. A larger sample would have been preferable considering that we

had 5 categories and only 381 respondents. Finally, as explained by Lumpkin & Dess (1996), each EO dimension may not be equally valuable or necessary depending on stages of development and different performance measures. This study covers the first issue of stages of development, however it is constrained by only one performance measure consisting of product- and customer performance metrics. Again, because of the frequent e-mail questionnaire sent to these firm owners, we only managed 381 respondents out of around 15,000. With more respondent's further strength and depth would have been added to this paper.

### Future research

Firstly, stages of development and EO is a complex area of research. As any complex issue, it is highly relevant and important to gain further insight in order to understand this issue. A lot of studies have been made on EO, though few using it as a multidimensional construct. This paper contributes by adding this multidimensional concept further strength, as well as an expansion of examining EO in different stages of development and how it affects performance. In addition, further research should focus on developing a proper tool to investigate different stages of development that suits our present business environment. Our life cycle construct derives from Churchill & Lewis (1983) which can be considered as rather seasoned. However, it is still identifiable with SMEs of today but not optimal. We also urge researchers to look at SMEs across nations and compare if and why some EO dimensions are more favorable in certain areas of the world with the moderating effect of life cycles. Again, as Lumpkin & Dess (1996) suggests, one should also look at the EO dimensions effect on different constructs of performance as customer and product performance may not be an optimal measure in all firms.

This paper truly shows that EO should be further researched as a multidimensional construct. As mentioned above, a generalization of performance should be removed from these type of studies. Instead each industry and each type of firm should first determine what kind of performance they want, and from there measure EO against that type of performance to determine the real effect of EO on performance in each specific stage of firm and type of firm.

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# Appendix

## Appendix 1

| Scale Composition | Item-total scale correlation [a] |
|---|---|
| *Entrepreneurial orientation* | |
| Risk Taking | |
| The term 'risk taker' is considered a positive attribute for people in our business | .828 |
| People in our business are encouraged to take calculated risks with new ideas | .843 |
| Our business emphasizes both exploration and experimentation for opportunities | .750 |
| Innovativeness | |
| We actively introduce improvements and innovations in our business | .848 |
| Our business is creative in its methods of operation | .827 |
| Our business seeks out new ways to do things | .879 |
| Proactiveness | |
| We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others) | .846 |
| We excel at identifying opportunities | .723 |
| We initiate actions to which other organizations respond | .805 |
| Competitive Aggressiveness | |
| Our business is intensely competitive | ,747 |
| In general, our business takes a bold or aggressive approach when competing | ,762 |
| We try to undo and out-maneuver the competition as best as we can | ,767 |
| Autonomy | |
| Employees are permitted to act and think without Interference | .846 |
| Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks | .832 |
| Employees are given freedom and independence to decide on their own how to go about doing their work | .853 |
| Employees are given freedom to communicate without Interference | .800 |
| Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business | .794 |
| Employees have access to all vital information | .661 |
| Performance | |
| Relative to competing products, those of our business have been more successful in terms of sales | .803 |
| Relative to competing products, those of our business have been more successful in terms of achieving and establishing market share | .832 |
| We have been able to attract totally new customers this year | .788 |
| We have been able to expand our existing customer base this year | .784 |

| | |
|---|---|
| We have succeeded in sustaining our customer base and achieving repeat orders | .594 |

Correlation is significant at the 0.01 level (2-tailed).

[a] Pearson correlation coefficients

## Appendix 2

***Firm life cycle definitions***

*Existence* - We are in a start-up phase and face problems or features that involve obtaining new customers and delivering products or services. Our organization is simple where the owner primarily does everything and is in short, *the business.* Our strategy, systems and formal planning is very simple and is based on keeping the business alive.

*Survival* - We are in a stage where we have to look at generating enough cash-flow to be able to break-even or cover the costs of our assets. We are unsure but hopeful that we can generate enough cash to stay in business and finance growth sufficiently, given our industry and market niche. The employees answer directly to the owner and are given tasks by the owner.

*Success* - We are in a stage where we are trying to either expand, or keeping the company stable and profitable. We have obtained true economic health and have sufficient size and product market penetration to ensure economic success. There are now more than one person making strategic decisions in the company, for example managers in different areas.

*Take-off* - We are in a stage where we are mainly thinking about rapid growth and how to finance it. We feel we are mature enough to delegate responsibility to our employees to work more efficiently. We feel we have enough cash-flow to finance the demands of growth, even if it means having a high debt-equity ratio.

*Resource Maturity* - Our company has the staff and financial resource to engage in detailed operational and strategic planning. The management is decentralized, adequately staffed, and experienced. Our systems are extensive and well developed. Our owners and the business is separated both financially and operationally.

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