

The Entrepreneur in the Market Orientation: An Exploratory Research on how Entrepreneurial Attributes influence Market Orientation

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ABSTRACT: This paper seeks to address the relationship between entrepreneurial attributes and market orientation. First, an analysis has been made to identify the level of market orientation of a specific group of entrepreneurs. Then, the appearance of several entrepreneurial attributes has been studied and compared between respondents with a high – and respondents with a low level of market orientation. The results suggest that there is a positive relationship between an entrepreneur's self-efficacy, open-mindedness, self-regulation and linear thinking style and the level of market orientation. An entrepreneur's locus of control, by contrast, shows a negative relationship.

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Entrepreneur, market orientation, entrepreneurial attributes, market engagement,

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1. INTRODUCTION

The concept of market orientation is a concept widely discussed in the current scientific literature (Kohli & Jaworski, 1990; Chen & Myagmarsuren, 2012). However, till now there has been little attempt to describe the relationship between an independent entrepreneurs attributes and characteristics and the concept of market orientation. Many scientists have contributed to the area mainly based on Kohli and Jaworski's (1990) and Narver and Slater's (1990) work, who created a first framework of the concept by offering initial antecedents, creating a new construct in the marketing discipline and analyzing the relationship between market orientation and business profitability.

Different authors have discussed the influence of entrepreneurship and market orientation on the innovation and customer value of enterprises (Nasution et al., 2011; Atuahene-Gima & Ko, 2001; Frishammer & Hörte, 2007) or their relationship with a firms overall performance (Bhuiyan & Habib, 2008). Most of those researches show a mainly positive relationship between either the level of entrepreneurship and the firm's performance or the market orientation and the firms performance.

As Kohli and Jaworski (1990) show in their conceptual framework of the market orientation, senior management factors are, besides the interdepartmental dynamics and the organizational systems, a major antecedent of a company's level of market orientation. Therefore, they also have an impact on the business' performance as a consequence of the market orientation. While there is a lot of attention paid to the consequences of the market orientation (e.g. Cervera, Mollá & Sánchez, 2001; Ghani & Mahmood, 2011; Kok & Driessen, 2012), little consideration is given to the antecedents. Besides that, there is a particular lack of research on the antecedents of market orientation in the entrepreneurial area. While the interdepartmental dynamics and the organizational systems, as introduced by Kohli and Jaworski (1990) seem less relevant, the senior management factors typify a particular significant topic in the entrepreneurial market orientation research. Therefore, this research seeks to explore, which attributes of the entrepreneur, in an early stage business, serve as an antecedent, and thus, have an influence on the market orientation of the entrepreneur. The research question therefore is: *Which attributes have an influence on the market orientation of the entrepreneur?*

This approach will contribute to the existing literature in two ways. First of all, it adds a new topic to the existing literature by identifying different types of entrepreneurs based on their psychological and managerial attributes and related to their level of market orientation. As the literature, so far, has mainly discussed the difference between entrepreneurs and other executives on a psychological level, this research forms a basis for a new field. Market orientation alone is discussed as an antecedent of a firm's performance. Delving into the causes of a specific level of market orientation might open up new reasons for a firm's/entrepreneur's performance.

Furthermore, the concept of market orientation will also be connected with the existing literature on entrepreneurial attributes. Combining the psychological and behavioral research on entrepreneurs with the current research on market orientation might not only show relevance in the academic area but also practical importance. In the end, leading to practical implication which might have an impact on the entrepreneur's performance.

This exploratory study, starts with a review of the existing literature on market orientation and entrepreneurial characteristics and antecedents, both independent from each

other. To learn about a potential dependence of the two concepts, qualitative data from young entrepreneurs gathered by the Venture Lab Twente program will be analyzed on both topics. Finally, a conclusion about a possible relationship between entrepreneurial attributes and the entrepreneurs' attributes will be given.

2. LITERATURE REVIEW

The first basis for research on market orientation was built by Kohli and Jaworski (1990). They define market orientation as 'the organizationwide information generation and dissemination and appropriate response related to current and future customer needs and preferences.' (p. 6). Based on their conceptual framework on market orientation, including antecedents and consequences of market orientation many academics have done research on the consequences of market orientation. Narver and Slater (1990) examined the effect of a market orientation on a business' profitability and found out that there is a positive relationship between the degree of market orientation and the profitability of various business types. Numerous other academics have also discussed the concept of market orientation and its influence on a business performance (e.g. Bhuiyan & Habib, 2008; Subramanian & Gopalakrishna, 2001; Chung, 2011; Murray, Gao & Kotabe, 2011; Yannopoulos, Auh & Menguc, 2012; Chen & Myagmarsuren, 2012) and found a usually positive relationship between both.

Equal findings could be shown by Kirca, Jayachandran and Bearden (2005) while also strengthening Kohli and Jaworski's hypothesis of a positive relationship between the antecedents, shown by Kohli and Jaworski, and the level of market orientation. Furthermore, several studies have shown, that the assumed relationship between the antecedents (discussed in the following paragraph) and the market orientation can indeed be seen as a positive one (e.g. Cervera, Mollá & Sánchez, 2001; Ghani & Mahmood, 2011; Kok & Driessen, 2012).

The major antecedents proposed by Kohli and Jaworski (1990) and seized and mainly confirmed by numerous other authors are the senior management factors, interdepartmental dynamics and organizational systems of a business. As this research seeks to integrate this framework into an entrepreneurial perspective, interdepartmental dynamics and organizational systems are not subject to be discussed as they are insignificant, or non-existent in those foremost early stages of a business.

The senior management factors, introduced by Kohli and Jaworski (1990), in contrast are from major importance as they represent the entrepreneur himself. Covering Kohli and Jaworski's construction of the senior management factors, they consist mainly out of characteristic attributes of the top management, like the risk aversion of the top management, which refers to their willingness of taking risks and accepting incidental failures as being a natural minor matter of business success. The upward mobility and education is another factor mentioned by the authors, referring to the top management's level of education and their former career path as it has a major impact on the individuals character and perception on business matters. Next to these two concepts their attitude towards change is highlighted as a different characteristic which determines the level of market orientation and indicates the top management's attitude towards a changing environment as well as inner firm changes. Besides the three aforementioned factors, Kohli and Jaworski also refer to the gap between communication and actual action as well as the marketing managers' ability to win the trust of the other top management, as being of significant antecedents of market orientation. Both of them are not of major significance in small entrepreneurial ventures, where there are most of the

time no other employees than the entrepreneur himself. However, also the other attributes are mainly directed at the senior management level of existing bigger corporations, but fail to be adapted to the entrepreneurial area.

Taking attributes into consideration which distinguish entrepreneurs from others, one of the main concepts or qualities are their entrepreneurial intentions (e.g. Hmieleski & Corbett, 2006; Zhao, Seibert & Hills, 2005). The phrase entrepreneurial intention refers to a state of mind that people wish to create a new firm or a new value driver inside existing organizations (Wu & Wu, 2008; Guerrero, et. al., 2008; Nabi, et. al., 2006). These intentions are a given for most entrepreneurs, however the factors which influence the intention are those which differ between different entrepreneurs.

The scale of the entrepreneurial intention is, according to Hmieleski and Corbett (2006) mainly dependent on the individual's ability to improvise, their personality and their motivation. They found out that some attributes of the personality of an individual have a bigger influence on the entrepreneurial intention as others, among them are: agreeableness, extraversion, conscientiousness, openness and emotional stability. Besides that, they discuss that the high degree of motivation, which also has a positive influence on an individual's entrepreneurial intentions, is mainly defined by attributes such as locus of control, which is a combination of the individual believes about the impact of their own actions in a business environment and their persistence to outside recommendations regarding their business. Need for autonomy is also a characteristic mentioned by different authors, referring to the individual's independency.

Another often mentioned attribute that distinguishes entrepreneurs from senior managers is called tolerance for ambiguity or risk propensity (Zhao, Hills & Seibert, 2005; Rauch & Frese, 2007; Teoh & Foo, 1997). Although it is often referred to by different terms it mainly directs at the risk willingness and the risk enjoyment of an individual and is seen as one of the main characteristics of a successful entrepreneur.

Not only an entrepreneurs level of risk avoidance is an often discussed topic in the entrepreneurial literature, but another highly discussed subject is an individual's level of self- efficacy, which is discussed to have a major impact on the entrepreneurial intentions of an individual and therefore on the entrepreneur himself. Generalized self-efficacy is an individual's believe in its abilities to successfully perform specific tasks (Pihie & Bagheri, 2013; Krueger, Reilly & Carsrud, 2000). Zhao, Seiber and Hills (2005) ascertained that the level of self-efficacy is mainly dependent on the perception of formal learning, the entrepreneurial experience and the risk propensity.

In addition to discussing self-efficacy as one of the personality traits which distinguish a successful entrepreneur from other executives and senior managers, Rauch and Frese (2007) also put a focus on their need for achievement, innovativeness, stress tolerance, need for autonomy (which is also mentioned by Hmieleski and Corbett (2007)) and their proactive personality. Which are all, according to Rauch and Frese (2007), characteristic for an entrepreneur.

Not only, have entrepreneurial characteristics been identified which distinguish them from others, but there has also been research on different attributes which differentiate different sorts of entrepreneurs. Vance et. al. (2007) discussed the difference between a linear and a non-linear thinking style of entrepreneurs which might have an impact on the success of an entrepreneur. Non-linear and linear thinking and decision-making, therefore refers to the way an individual thinks and makes its decisions. An individual shows, according to Vance et. al. (2007), a non-linear thinking style when it weighs mainly qualitative factors when

making decisions and relies on intuition and feelings over analysis. A linear thinker, by contrast, prefers quantitative data and a prior analysis before coming to conclusions and making decisions.

The characteristics of opportunity search was the subject of a study by Kaish and Gilad (1991) where they did not only identify differences between entrepreneurs and executives but also among entrepreneurs. The characteristic of opportunity search is not only determined by the time an entrepreneurs spends on looking for opportunities, but also where. They suggest Business related sources of information, the personal environment and specific literature as the main sources for information and types for opportunity search.

Another important attribute is analyzed by Sinkula, Baker and Noordewier (1997) – the learning orientation, which differs by the commitment to learning and the open-mindedness of distinguishable groups of entrepreneurs. An entrepreneur, which shows a high level of commitment to learning sees learning as their key to improvement of themselves and also the business and therefore also show an eagerness to learn about all issues regarding their business. The open-mindedness of an individual is as per Sinkula, Baker and Noordewier high if a person reflects critically on assumptions, actions or key characteristics of their product/service or customer needs as well as if the person keeps questioning their perception of the market and its environments continually.

The exploratory nature of this research allows to include most of the above discussed concepts on entrepreneurial attributes distinguishing them from executives but also from each other, in the analysis of the data. Other determinants which might have an effect on the market orientation of the participants, as for instance demographical characteristics, are not considered during this research as the data does not provide any information on these topics.

By analyzing the data of young entrepreneurs, who took part in the Venture Lab Twente program, those characteristics and psychological attributes will be analyzed and assessed on their effect on the entrepreneur's level of market orientation.

3. METHODOLOGY

In order to gather an insight in how entrepreneurial attributes might be related to the entrepreneur's market orientation, data, which has been gathered during a program of the Venture Lab Twente will be analyzed. This data was collected in the form of a 4-monthly monitor survey and entrepreneurial diaries which both have been regularly filled out by more than 210 participants of the program. The 4-monthly monitor survey, which followed a participant profile survey conducted at the beginning of the program, was conducted three times every four months. The survey addressed open ended questions about the learnings and the associated results of the participants, their partners and ambitions as well as issues and further steps the participants needed to take. Besides the survey, each participant of the Venture Lab Twente program was asked to keep a diary about their experiences during the year of the program, which should be updated once a week. This included the participants' learnings, results and issues during the weeks as well as next steps they planned.

The goal of this research is to identify entrepreneurial attributes which have a relationship with the entrepreneurs' market orientation. Therefore, a general division between cases/participants with a high market orientation and those with a low level has to be made to be able to see difference between the distributions of several attributes among these two groups. To approach the data gathered during the program and two

distinguish between subjects with a high and a low level of market orientation, a prior analysis (Kreimer, 2014) has been used in order to identify those cases/participants which show a high degree of market orientation and those with a low degree of market orientation. The prior analysis analyzed the role of market orientation activities for entrepreneurs in the process of starting a business.

In order to guarantee an in-depth analysis of the data only a few number of cases (20) have been selected based on their market orientation score in the prior analysis and the availability of sufficient data, as many participants did not provide sufficient information. While the prior analysis identified the level of market orientation only based on the 4-monthly monitor survey, this research will first reassess the market orientation level based on the data from the entrepreneurial diaries to ensure a wider approval of the market orientation level. Therefore 20 cases have been selected based on the aforementioned criteria – 10 cases with high market orientation and 10 with a low level of market orientation.

After the analysis of the market orientation, both groups will be divided and each case will be examined for their entrepreneurial attributes based on both, the 4-monthly survey as well as the entrepreneurial diaries. After identifying the distribution of those attributes both groups will be compared in their results in order to identify differences in the allocation of the attributes between both groups and a hypothesis will be made about the relationship between specific entrepreneurial attributes and the level of market orientation.

3.1 Coding

The coding procedure has been, due to the exploratory nature of the research, an ongoing process. Before, the data was actually analyzed a rough coding scheme, based on prior literature study, has been made. During the analysis of the data however, the coding has been adjusted to enable a thorough in-depth analysis. Therefore, some aspects, which have been in the coding scheme at the beginning have been discarded as they were not applicable to the data and other aspects have been added as the analysis showed that they were aspects with came up regularly and seemed to have an impact on the entrepreneur, respectively the business and therefore might also have an effect on the entrepreneurs market orientation.

3.1.1. Market Orientation

The coding scheme for the market orientation has been mainly adopted from Kohli and Jaworski (1990) and Kreimer (2014) and partly adjusted after analyzing the cases, as some aspects were not covered in the prior coding scheme. The research by Kreimer (2014) set its focus on developing a suitable scale of the level of market orientation for early stage entrepreneurial ventures rather than on big, established companies with a certain bureaucratic and power-structure. The scale developing process taken by Kreimer started with a qualitative inquiry for the content analysis and coding followed by the definition of categories. The next step was the scale refinement – consisting out of a factor analysis and an assessment of the reliability and validity of the factors. This research uses an adopted form of the developed scale by Kreimer in order to present a first validation of the scale.

Eventually, based on the developed scale, the market orientation of each case has been identified by assessing the participant's responses on the basis of four categories: market engagement, customer orientation, competitor orientation and product orientation. Whereby the product orientation serves as an antonym.

The level of market orientation according to Kohli and Jaworski (1990) depends on whether the participant gathers data about the

market, defines or segments the market, creates products or services bases on the market's needs, recognizes environmental changes which will affect the market and whether he does any marketing activities. A high customer orientation is based on the general awareness about the customer needs, making contact with (potential) customers, asking for feedback from the customers, spending efforts on creating customer value and building customer relationships (Kohli & Jaworski, 1990; Narver & Slater, 1990). The competitor orientation is assessed by the amount of information the participant gathers about his competitors, the uniqueness identified in comparison to the competitors as well as the appropriateness of the response to a competitor (Kohli & Jaworski, 1990; Narver & Slater, 1990). Finally, the product orientation or technology focus serves as an antonym to the market orientation and occurs in the form of a focus on the product itself, the emphasis on pushing a product to the market, regardless of the markets needs and the emphasis on the creation and innovation of the product without consideration of the market's needs (Lewrick et al., 2011).

The coding scheme for the level of market orientation therefore results in the following:

1. Market engagement
 - a. Market research
 - b. Market definition
 - c. Market based creation
 - d. Environmental influences
 - e. Marketing activities
2. Customer orientation
 - a. General Awareness
 - b. Customer contact
 - c. Feedback/testing
 - d. Customer value
 - e. Customer relationship
3. Competitor orientation
 - a. Information gathering
 - b. Uniqueness
 - c. Response to competitor
4. Product orientation
 - a. General concern
 - b. Emphasis on pushing
 - c. Emphasis on creation

Each case was assessed on each of those attributes, specifically looking for a distinguishable pattern between those respondents which have been categorized as individuals with a high market orientation and those who have been categorized to have a low level of market orientation. The approach taken in analyzing those characteristics is an explorative. It was therefore analyzed if the respondents show those characteristics in their answers and how elaborate and frequently they show those characteristics. Based on the findings the two groups (high & low level of market orientation) have been allocated again, to base the analysis of the entrepreneurial attributes on this categorization.

3.1.2 Entrepreneurial Attributes

The coding scheme for the entrepreneurial attributes has been developed from scratch, mainly based on the existing literature. Due to the exploratory nature of this research other attributes have been added during the analysis. Based on a frequent appearance and their alleged significance for this research.

The approach taken to develop different attributes which have been analyzed started by an extensive literature research. The literature gathered was mainly concerned with two types of attributes: (1) attributes having an impact on the strategic orientation and the venture's performance, and (2) attributes distinguishing entrepreneurs from tier-top managers, which are no founders or owners of a business. Hence, after the first stage

of literature gathering the data of the entrepreneurs has been scanned roughly to see if there is any accordance between the characteristics suggested in the literature and those shown by the respondents. In the next step several attributes discussed in the literature did not seem to be of high significance while other attributes – not mentioned in the literature – appeared more frequently and seemed to be more significant and have been added as part of the analysis. One example is the stage in firm gestation, which is definitely no attribute of the entrepreneur but appeared more frequently during the analysis and also seemed to have a significant connection with the attributes and the market orientation.

In the end, several attributes have been analyzed, starting with the type of information sources suggested by Kaish and Gilad (1991) which can be either business related, emerging from the personal environment or come from literature or online sources.

An attribute discussed in many researches on entrepreneurs is the generalized self-efficacy. The degree of generalized self-efficacy is shown by the participant's confidence about his capabilities, his hope for success (Rauch & Frese, 2007), the degree of personal initiative taking (Hmieleski & Corbett, 2006) and the eagerness to search for information (Zhao, Seibert & Hills (2005). Another attribute is the need for autonomy which is another factor discussed by many authors and is shown by taking actions independently or in contrary to other suggestions, and setting goals by itself (Teoh & Foo, 1997).

The locus of control occurs mainly if the participant shows that he believes that his actions will have the highest impact on the business outcomes and if he is persistent to outside recommendations which might have an impact on the business outcomes (Wu & Wu, 2008; Nabi, et. al., 2006). Being able to direct ones motivation, thoughts and behavior towards a certain desired goal is called self-regulation and is shown if one makes progress towards achieving a certain goal and accomplished important tasks which might have seemed hard in the beginning. Commitment to learning is according to Sinkula, Baker and Noordewier (1997) another important characteristic of a successful entrepreneur, which is often seen when the entrepreneur thinks that learning is the real key to improvement and when he is eager to learn more about business and customer related topics. Furthermore, they discuss open-mindedness being key to an entrepreneur, as he reflects critically on assumptions, actions or key characteristics of his product/service and continually questions his perception of the market and its environment.

Whether an entrepreneur relies more on his intuition and qualitative data than on quantitatively founded reasoning is a characteristic which defines if he has a linear- or non-linear thinking style as defined by Vance et al. (2007). Additionally, entrepreneurs often show a high willingness or even a tendency to take risks with highly uncertain outcomes, known as tolerance for ambiguity. As entrepreneurs tend to take high risks, they also have a certain need for achievement, which they generally show by comparing their achievement with others and by criticize their achievement if there are not exactly in line with the targeted goals (Hmieleski & Corbett, 2006).

Hmieleski and Corbett (2006) also argue that to achieve those goals entrepreneurs need a certain proclivity for improvisation, which seems inevitable to have the ability to produce novel solutions under constrained conditions by recombining available resources and doing so in the moment or as fast as possible without further analysis.

Lastly, entrepreneurs tend, as argued by Kaish and Gilad (1991) to focus more on opportunities than on problems. Generally, they

tend towards finding opportunities to improve rather than reactively showing efforts in solving current problems.

Additionally, it appeared that the stage of development in which the entrepreneurs venture was in, was also an important factor. Therefore, the stages of the ventures were assessed on Reynolds' (1997) characteristics of a firm gestation. Reynolds introduced a couple of events which will happen during the firm gestation. In this research the participants will be analyzed on these events. Among these events are, the search for facilities and equipment, the initiation of saving to invest or investment of own money, the formulation of a business plan, the employment of employees, the application for license, permit or patents, the construction of a first prototype, the generation of first income and the actual incorporation of the venture.

Consequently, the entrepreneurial attributes and the factors analyzed are the following:

1. Preferred Information sources
 - a. Business related
 - b. Personal environment
 - c. Literature
2. Stage in firm gestation
 - a. Financial backup
 - b. Facilities/equipment
 - c. Business plan
 - d. Workforce
 - e. Licensing
 - f. Prototype
 - g. Marketing
 - h. Income
 - i. Incorporation
3. Generalized self-efficacy
 - a. Confidence with capabilities
 - b. Hope for success
 - c. Personal initiative
 - d. Search for information
4. Need for autonomy
 - a. Independency
 - b. Goal setting
5. Locus of control
 - a. Impact believes
 - b. Persistence
6. Self-regulation
 - a. Progress
 - b. Performance
7. Commitment to learning
 - a. Key to improvement
 - b. Attitude
8. Open-mindedness
 - a. Reflection
 - b. Continuing questioning
9. Linear decision making
 - a. Quantitative factors
 - b. Reasoning
10. Non-linear decision making
 - a. Qualitative factors
 - b. Intuition
11. Risk propensity
 - a. Risk willingness
 - b. Risk enjoyment
12. Need for achievement
 - a. Comparison of achievement
 - b. Criticism of achievement
13. Proclivity for improvisation
 - a. Produce novel solutions
 - b. Speed of solution
14. Focus on Opportunities

a. Opportunity search

Similar to the assessment of the market engagement, the analysis of the entrepreneurial attributes is subject of exploratory nature. Therefore, the data given was analyzed on the frequency and significance of the appearance of the different attributes.

4. ANALYSIS

4.1. Market Orientation

To start the analysis an investigation of the level of market orientation of the chosen participants has been made. In order to give a better insight into the confirmation or deviation of the results compared to the prior analysis by Kreimer (2014), the participants have been analyzed ordered by their score of market engagement according to the prior analysis. The focus in this analysis was, next to the groups (high and low market engagement) put on the subjects themselves to assure a valid classification of their level of market engagement.

Generally speaking the results mainly confirmed the prior analysis with little differences in the degree of market orientation resulting in a low market orientation classification of one participant (R9). The other nine participants (R1 – R8, R10) which were analyzed only deviated slightly from the prior analysis.

The level of market orientation of the participant (R1) ranked with the highest level in the prior analysis was confirmed in this analysis. His level of market engagement however, was compared to the other participants medium. He showed high awareness about the market segmentation and defined his target market and also spend effort on market research.

“...generalizing the (applicability of the) product: this turned the potential market from a niche market (with hard to identify customers) into a market covering most software developers (and their organizations).” (R1)

“...try to concentrate more on a specific market, so that I can find one consistent message...” (R1)

He did not seem to consider other market engagement factors as important. His customer orientation was nevertheless high with a definite focus on most factors while only missing to build relationships with customers.

“...potential customers; formed a few concrete ideas, but the eventual success may very well come from another, unexpected direction! – by talking to many people.” (R1)

“if I want to explain the benefits of my Innovation; I can only do it concisely by targeting a specific customer role. (of course this raises the question when to use which explanation..)” (R1)

In terms of competitor orientation as well as product orientation this participant's awareness and efforts were relatively low as for most of the high scoring subjects. He only showed awareness about the competitive advantage through the program itself:

“...reinforced by the Sustainable Competitive Advantage training last week, where I learned how various

activities can contribute to your competitive advantages.” (R1)

And thought about minor efforts regarding the development and innovation of his product:

“...since my product requires changes in the way of working, if a potential customer does not feel a pain, he is unlikely to be interested.” (R1)

In general, the level of market orientation and customer orientation was evenly spread among the high scoring participants with a clear focus on the customer orientation and specifically the customer contact:

“Learned a bit more about customer drive. And how to address them with our products/solutions.” (R7)

“Some interesting appointments with potential customers.” (R7)

“Held panel presentation. Felt good. Finally terminated development of product and issued at Apple. Waiting for approval. Keeping contact with (potential) launching customers.” (R8)

“Potential customers show great interest in product but have limited budgets. Nevertheless we're convinced to be on the right track.” (R8)

Only one participant (R9) showed relatively low levels on all three market relevant categories but scored high in the product orientation. A clear emphasis on general product orientation and specifically in the creation and development of the products could be found.

“We were busy finding a product to develop. This will be the first and only goal until we can go on” (R9)

This specific focus on the product creation might result from the early stage of the entrepreneurs venture, however he neglects a market oriented approach in the creation process and mainly focusses on the product itself. Therefore, this participant has been relocated to the group of entrepreneurs with a low level of market orientation.

Examining the low scoring subjects from the prior analysis (R11-R20) a similar confirming picture derives from the analysis. Most cases show relatively low degrees of market, customer or competitor orientation, while sometimes focusing more on the product orientation:

“We had an order withdrawn by customer because he thought we couldn't get it ready on time. We got the drawing 2-3 days to late and we didn't say to him that the delivery of the product would also be 2-3 days later.” (R18)

“We are trying to get a better price for the products we make.” (R18)

Besides the focus on the product itself, many of the subject were also focusing on other business related matters, mainly creating and developing their business model and workforce recruiting issues.

Among those low scoring cases, there were two exceptions which showed a, compared to the high scoring cases, high level of

market and customer orientation. Both cases (R12 and R17) have been relocated into the group with a high level of market engagement. Which leaves eleven cases with a high- and 9 cases with a low level of market engagement for the analysis of the entrepreneurial attributes.

4.2. Entrepreneurial Attributes

After the analysis of the level of market engagement the entrepreneurial attributes have been analyzed. Therefore each subject has been, as grouped in the analysis before, examined on the different entrepreneurial attributes. While the focus in the analysis of the market orientation has been put on the subject itself, the focus is now set on the distribution of the attributes among the subjects in the two different groups. However, to come to those results each subject was analyzed individual to be able to make a statement about the actual distribution of the entrepreneurial attributes. Those attributes have been analyzed for both groups.

4.2.1 Cases with a high Market Orientation

Starting with the sources of information the subjects showed a tendency towards business related contacts with a major focus on customers and trainers from the Venture Lab program. Besides the business related contacts, some cases seemed to regularly seek for information in literature such as special interest magazines or even newspapers, while the personal environment did not seem to have a big influence on any of the participants regarding their information search habits:

“...analysis of newspapers and special interest magazines and how many of them use already a state-of-the-art job board after this survey we want to now the needs and pains of this target group and prepare a proposal as an answer.” (R5)

“I have done a good literature (market and patent) research I can distinguish the new idea from the state of the art.” (R3)

The category which was highly distinctive between the cases was the stage of their firm gestation, which starts by some participants already having an income through sales and already looking for facilities while others are still busy with their financial back up of the venture. However, most cases showed already having a major business plan and in a later stage of the development of a prototype or a model in order to show to customers.

The general self-efficacy is one of the highest scoring attributes among the participant with a high level of market engagement. In this category especially the hope for success of the entrepreneurs stood out, which showed a focus on the success side of actions rather than on the failing side:

“The approach is not so much to 'sell' our (university-developed) prototype solution, but to present the overall philosophy, hoping that this will catch on (which if successful, creates academic competition...)” (R1)

“I am confident that we will run into somebody that will complete the team” (R2)

“I am glad that we can start with the pilot phase of the welder job portal in April. My expectations are that we publicly announce it at ViennaTec 2012 in

October and launch it in the Netherlands in early 2013” (R5)

“I will do whatever it takes JUST DO IT!” (R12)

Furthermore, also the confidence about their capabilities stood out for many of the cases:

“The internationalization feature of our software must be improved. I am confident that we can manage that until August.” (R5)

The need for autonomy was found on a medium basis throughout the analysis, which might be the case due to the early stage in which most of the entrepreneurs are, so they do not have to rely on others in this stage:

“...especially since I do not want to become a general manager, do want to keep control, and I may be more successful if I can focus more on where my strength are.” (R10)

The degree of self-regulation has been shown by several cases, especially in the form of registering progress, which is also based in the form of the diaries, which are actively directed at keeping track of the results and therefore also regulate the motivations towards the progress.

While not many participants saw their learnings as a key to the improvement of their performance, although this was also a key in the surveys and the trainings, most of the entrepreneurs clearly had a strikingly positive attitude towards learning. Which might also be related to the fact that they decided to attend the Venture Lab program.

“More working together with other participants, to learn from each other (different markets)” (R8)

“Jim is very to the point, explanations very clear, and his training of great help to fill important gaps in your business model.” (R17)

One of the most salient attributes was the open-mindedness of the participants. Characterized by the reflection on their own performance and their progress and by the continuous questioning of themselves and their abilities, the reflection was the one found by every participant, sometimes more often and as a key attribute, sometimes a bit less but still with an awareness about the significance of regular self-reflection.

Examining the thinking style of the entrepreneurs the linear thinking style showed itself to be more than the non-linear thinking style. Most of the participants relied on data based information and logical reasoning instead of intuition:

“...there has to be more research on the camera acoustics to find a pattern. The acoustics are really important to ensure optimal performance.” (R6)

“Analyze all the companies we have approached so far and try to draw conclusions on what can be changed” (R10)

In opposite to the learning commitment, the risk propensity is a characteristic which was not found for most of the participants,

only 3 cases showed little signs of risk willingness but none was likely to enjoy the risk.

“we need more information than ever to prevent all risks” (R2)

Similar to the risk propensity, the need for achievement was also an attribute which did not happen to occur for too many participants. Only a couple of entrepreneurs were critically questioning their current achievements, however those cases also scored relatively high on the reflection of their performance, whence it can be deduced that those two attributes might affect each other.

“We need to be able to grow and keep performing the high level of service” (R2)

The proclivity for improvement showed a higher presence than the two before mentioned attributes, still medium. Both, the presence of new solutions as well as the speed of new solutions are evenly spread among the cases.

“... and the product has to be adjusted in order to get a better performance for our client.” (R10)

“... the improved product meets our customers expectation...” (R10)

The last attribute analyzed was the degree of opportunity search of the participants, which was relatively high. Most of the analyzed entrepreneurs showed a distinct awareness and many put plain efforts in the search for opportunities.

What this all amounts to, is that the attributes which were found at most entrepreneurs and which were also found to a medium to high degree are the general self-efficacy, a positive attitude towards learning, the open mindedness, the linear thinking style as well as a focus on opportunity search.

4.2.2. Cases with a low Market Orientation

In the group of the entrepreneurs with a low level of market orientation the information sources were mainly from business related contacts while the same amount of sources was formed by personal contacts and literature together.

“... as mentioned in an industry paper a colleague gave me.” (R17)

“Then on the other hand, I read some interesting articles in journal, which indicated the leadership and teambuilding theme...” (R19)

The stage of the firm gestation was relatively low for most of the participants. None of the entrepreneurs had a financial backup, facilities or an income from sales and only in a few cases there was talk of a business plan or a prototype product or service.

Compared to the stage of the firm, the general self-efficacy among the low scoring group was at a medium level, with a focus on the hope for success, whereas the personal initiative was surprisingly low in the form of only one entrepreneur showing real actions without the direct or indirect influence of others.

“... introducing the new updated version it is likely that we will get some customers to try our new product. Hopefully, they will like it.” (R12)

“... which will work out in the end, if there's enough of them. But I am in cheerful spirit” (R15)

Besides that, the need for autonomy also occurred to a medium degree. The independency as well as the own goal setting was evenly averagely spread among the entrepreneurs.

“To get at least some clients in the next month to be sure the platform works for them.” (R12)

In contrast to the general-self efficacy, most of the cases showed a strong believe that their actions have the highest impact on the firm's success and that they were persistent to outside recommendations regarding the change of plans which affect the business outcomes.

“... said we should rethink the structure of the product, but when I improve my sales techniques it will already improve our business performance in terms of clients” (R20)

The degree of self-regulation seemed relatively low for most of the participants as they did not show a large progress during the year of the program and failed to accomplish important tasks which seemed to be hard in the beginning.

However all participants showed that they are eager to learn as their attitude is straight away positive throughout all of the entrepreneurs with a low level of market engagement, whereas they did not mention that learning might be the key to improvement.

“...gave us some good insights in the processes that we will definitely have a second thought about” (R14)

“This time I really learnt a lot.” (R13)

“He showed us how important this is and it was a good thing, I did not think about before” (R20)

The participants also show a low to medium level of open-mindedness. The reflection as well as the continuous questioning can be found at some cases. Although they show the awareness, the actual questioning and reflection on their actions seems relatively low.

Analyzing the decision-making and thinking style, most of the participants heavily rely on their intuition and qualitative and only a few prefer logical reasoning based on quantitative data.

“So beginning next year we will be looking for customers again is my guess” (R9)

“I've been thinking about a business concept with projection, but did not do any research so far” (R18)

The willingness to risk as well as its enjoyment is an attribute which can be found among some of the entrepreneurs, however only to a medium degree.

Among the cases, there seems to be a total lack of need for achievement and no proclivity for improvement, while have of the group showed a general awareness and positive attitude towards active opportunity search.

5. DISCUSSION / RESULTS

Table 1. Results showing the characteristic of the attributes

Characteristic of the Attributes among the two Groups		
Attribute	Cases with a High Level of Market Orientation	Cases with a Low Level of Market Orientation
Self-Efficacy	high	low
Need for Autonomy	low	medium
Locus of Control	low	high
Self-regulation	high	low
Commitment to Learning	high	high
Open-mindedness	high	low
Linear Decision-Making	high	low
Non-Linear Decision-Making	low	high
Risk Propensity	low	medium
Need for Achievement	medium	low
Proclivity for Improvisation	medium	low
Focus on Opportunities	high	medium

To answer the research question the results of the two groups – the entrepreneurs with a high level of market engagement and those with a low level of market engagement – have been compared. The analysis shows that there are, as expected some similarities but also some attributes which seem to strengthen or weaken the level of market engagement of the entrepreneurs.

The first attribute, which seems to make a difference for the two groups of the participants is the self-efficacy. In the group of the entrepreneurs with a high level of market orientation the self-efficacy is an attribute reoccurring for almost every subject in an extensive way. The group of entrepreneurs performing low in market orientation however only show a medium to low level of self-efficacy. In accordance to the scientific literature self-efficacy relates to an individual's ability to believe in its abilities to successfully perform specific tasks (Rauch & Frese, 2007; Pihie & Bagheri, 2013; Krueger, Reilly & Carsrud, 2000).

Another attribute being mainly showed by entrepreneurs with high market engagement are open-mindedness and self-regulation. For the low performing participants however, those attributes were hardly recognized. Those findings seem reasonable, while a real focus on the market, the customers and the competitors, requires a good amount of open-mindedness. Additionally, self-regulation was a reoccurring attribute, which entrepreneurs with a low market engagement were lacking.

Most other attributes were found to be evenly spread among both groups – there were differences within the groups though, which implies that there might be differences between the two groups if a larger scale of participants was analyzed.

Besides self-efficacy, open-mindedness and self-regulation being indicators or antecedents of a high level of market orientation, there were also attributes which seemed to be predominant among the group of entrepreneurs with low market engagement.

Locus of control was a major attribute in the low scoring group focusing more on their own strengths than on the market's needs. While the high scoring group did not show a high or medium

level of the need for locus of control. Another point where the two groups where highly distinguishable is the thinking style of the individuals. While a linear thinking style, based on data and well-reasoned decisions, was predominant in the high scoring group, the respondents with a low level of market engagement mainly showed a non-linear thinking style – making decisions more on intuition than on data or research. Entrepreneurs who are more relying on numbers and research are more likely to conduct market research and to defer the markets needs and the importance of customers and competitors.

6. CONCLUSION

The research showed that there are some attributes which might have an impact on the level of market orientation of an entrepreneur. The identified attributes are the self-efficacy, open-mindedness, self-regulation and linear thinking style of an entrepreneur, which are found to have a positive influence on the market engagement of an entrepreneur. Locus of control was a characteristic found to be detrimental for a low level of market engagement.

6.1 Limitations

There are a few limitations to this research. First of all, the research was conducted with data collected by the Venture Lab Twente and all participants took part in the offered program, which in its nature already guides the young entrepreneurs into a specific way of thinking and acting. This might have an impact on the results as some of the attributes might have been developed during the run of this program. For example the attitude towards learning and self-reflection was clearly addressed by filling out the entrepreneurial diaries.

Furthermore, most of the participants of the program are from a specific, mainly natural sciences, background and few of them have for example a business related background which might also have an impact on the outcomes.

The findings in this research are all based on the open-ended questions of the survey's and entrepreneurial diaries collected by

the Venture Lab Twente. The surveys, however also included many closed questions asking the participants about different attributes and characteristics which also might have an impact on the market engagement level. Analyzing this quantitative data might lead to other conclusions not discussed in this research.

Focusing only on a few respondents a broad analysis and testing the findings was not possible. Additionally, focusing on only open-ended questions and qualitative data, leaves the question of the quantitative data and if it shows different results.

6.2 Future Research

The conducted research serves as a first step to combine entrepreneurial attributes and the entrepreneur's level of market orientation. The nature of this research was of exploratory matter and therefore only suggests specific correlations. Also due to the small number of respondents analyzed, the findings are not representative and further research has to be done. It is suggested that future research has to be done on a larger scale introducing also quantitative data in order to check the reliability and validity of the outcomes. Next to the characteristic entrepreneurial attributes, future research should also focus on quantitative aspects as demographics, etc. to get a broad view on possible antecedents of high market engagement in an entrepreneurial environment.

Lastly, the sample for future research should be widened and should not only include respondents from a Venture program with a limited diversity in participants. A larger sample has to be analyzed which is able to represent the wide range of entrepreneurs there is.

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