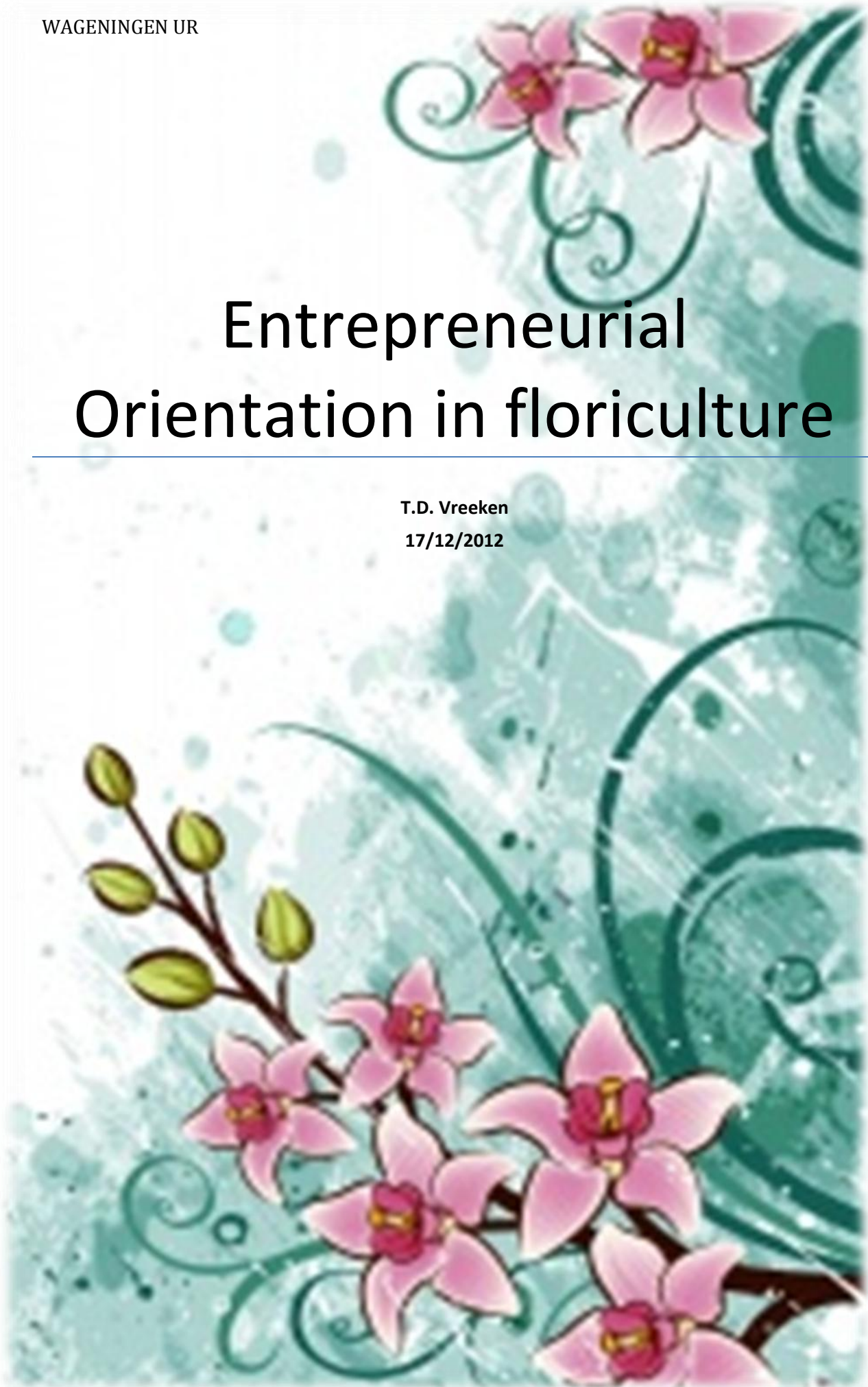


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Entrepreneurial Orientation in floriculture

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Abstract

This research paper examines how Entrepreneurial Orientation of floriculture growers increases their performance. After examining a dataset obtained from a questionnaire completed by 65 floriculture growers results show that growers have chosen different strategies to adapt to the market and there are two clear strategic groups of entrepreneurs. All stakeholders, such as growers' associations, governmental organisations, suppliers and customers should take these differences into account because it influences growers' interests in and responses to product offers, recommendations, communication, legislation and customer needs. This study fills the gap between entrepreneurial orientation in agriculture and the literature.

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Introduction

Studies have found that businesses that adopt a more entrepreneurial orientation perform better (Wiklund & Shepherd, 2005). It is important to know how an entrepreneurial orientation (EO) of farmers increases their performance. First, different elements of EO, i.e. taking risks, innovativeness, and proactiveness, have different influences on performance. Second, EO has a universal positive influence on performance, but the influence for each element varies between countries (Verhees, Klopčič, & Kuipers, 2008). However, the reasons for these different influences are not clear. Finding out how an EO influences performance may reveal the reasons for these different influences. Third, understanding how an EO influences performance offers guidelines to support entrepreneurship and improves decision-making (Zahra & Covin, 1995). Moreover, EO firms may require different support and information, from the government for example, from firms which are less involved in EO. Fourth, stimulating innovation is an important policy issue and an EO influences innovation. Thus it is important for policy makers to understand how they can stimulate and support an EO to stimulate innovation (Mueller & Thomas, 2001). Fifth, the effect of EO on performance varies across industries. Finding out how an EO influences performance may reveal the reasons for these differences in effect (Rauch, Wiklund, Lumpkin, & Frese, 2009). Finally, understanding how EO influences performance can signal successful strategies and tactics to firms which are less entrepreneurial.

The aforementioned is discussed in the literature for businesses in general. However there is also a need for a more entrepreneurial culture in the specific farming industry (McElwee, 2006). Farmers and horticultural growers are expected to simultaneously increase production to meet the demand for food and other agricultural produce, and reduce its negative effects on the physical and social environment (i.e. more sustainable production) (Van Latesteijn & Andeweg, 2011). Moreover, entrepreneurial farmers are expected to stimulate the economic vigour of rural areas (Carter, 1998; Knudson, Wysocki, Champagne, & Peterson, 2004; Phillipson, Gorton, Raley, & Moxey, 2004; Pyysiäinen, Anderson, McElwee, & Vesala, 2006).

Aims and objectives

This paper addresses how EO increases performance in relatively small firms in floriculture. This research can provide useful (additional) information to important stakeholders in floriculture.

Literature review

There is a difference between entrepreneurship and entrepreneurial orientation. In the early literature entrepreneurship was equated with going into business and the “entrepreneurial problem” was to address the question “what business should we enter?” (Miles, Snow, Meyer, & Coleman, 1978). “EO represents key entrepreneurial processes that answer the question of how new ventures are undertaken, whereas the term entrepreneurship refers to the content of entrepreneurial decisions by addressing what is undertaken” (Lumpkin & Dess, 1996a).

Entrepreneurial orientation (EO) consists of three dimensions that have been identified and used consistently in the literature; innovativeness, risk taking and proactiveness. Miller (1983), and later Covin & Slevin (1989) operationalised these three dimensions and found them central to EO.

EO can be approached from many different perspectives. First, the most common way of EO will be discussed; the business/corporate perspective. Second, a more individual view of EO will be discussed, the social psychological perspective. In this perspective the focus is on the personal traits and characteristics of the entrepreneur as an individual. The next section, from an educational perspective, is focused on the capabilities that an entrepreneur should have. Lastly, the mechanisms of EO are explained by means of how EO could positively influence performance.

Business perspective

EO is more specific to firms than individuals. Firms that are capable to apply more resources to innovation are more entrepreneurially oriented (Schumpeter, 1952). From a business perspective, the term “entrepreneurial orientation” refers to the strategy-making processes and styles of firms that engage in entrepreneurial activities (Rauch, et al., 2009). As mentioned before, firms that are more entrepreneurially orientated take risks, innovate, and they are proactive with respect to their overall business operations, product offerings and technologies and interactions with competitors (Covin, Green, & Slevin, 2006).

Innovativeness refers to a willingness to support creativity and experimentation in introducing new products/services, as well as technological leadership and R&D in developing new processes. It also represents a basic willingness to depart from existing technologies or practices and venture beyond the current state of art (Lumpkin & Dess, 1996a). Besides toward production and technology, innovation can also be geared toward people, for example by introducing professionals, specialists, engineers and scientist in the organisation. Innovation is needed to survive in a changing environment (Shane, 1994). However, innovation is uncertain. Therefore entrepreneurs and managers in organisations need resist breaking norms, rules and procedures because this is necessary for succesful innovation. The uncertainties of the innovation process suggest that the likelihood of a manager’s decision turning out wrong is non-trivial (Shane, 1994). The decision to innovate also has consequences for the income statement of the firm. For instance, overhead has to be made available to make innovation possible. Because of this not every firm is in a position to innovate. (Lyon, Lumpkin, & Dess, 2000). In either case, innovativeness is an important component of EO because it reflects an important means by which firms pursue new opportunities.

The concept of risk taking is frequently used to describe entrepreneurship (Lumpkin & Dess, 1996a). Risk taking means a tendency to take bold actions such as venturing into unknown new markets, committing a large portion of resources to ventures with uncertain outcomes, and/or borrowing heavily (Baird & Thomas, 1985). Risk taking is about a sense of uncertainty. Financial risk refers to the probability of a loss or negative outcome. Risk taking is defined as “the degree to which managers are willing to make large and risky resource commitments” (Miller & Friesen, 1978). Firms with an EO are often typified by risk-taking behaviour, such as incurring heavy debt or making large resource commitments in the interest of obtaining high returns by seizing opportunities in the marketplace (Lumpkin & Dess, 1996a).

The third component is proactiveness. Proactiveness is an opportunity-seeking, forward-looking perspective involving the introduction of new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment (Lyon, et al., 2000). Proactiveness may be crucial to an EO because it suggests a forward-looking perspective that is accompanied by innovative or new-venturing activity (Lumpkin & Dess, 1996a). Proactiveness is narrowly related to innovativeness. Just like innovativeness, proactiveness can occur in many ways by introducing new products, technologies and administrative techniques (Miller & Friesen, 1978). Proactiveness also refers to anticipating, and acting on future needs by “seeking new opportunities”(Venkatraman, 1989). This first-mover advantage is suggested as the best strategy for capitalising on a market opportunity (Lieberman & Montgomery, 1988). Thus, a proactive firm is a leader rather than a follower (Lumpkin & Dess, 1996a).

Two additional components, autonomy and competitive aggressiveness are also components of EO (Lumpkin & Dess, 1996a). Nevertheless, the usage of the EO model with all the five components is rarely found in EO literature compared to the model with three components (George, Wood, & Khan, 2001). The included components of EO are usually highly intercorrelated, which leads to combining these components into one single component, entrepreneurial orientation (Rauch, et al., 2009).

Organisations that rely on an EO have to foster entrepreneurial behaviour (Lumpkin, Coglisier, & Schneider, 2009). This often involves granting freedom to individuals and teams who can exercise the creativity that is needed for entrepreneurship to occur. Therefore, autonomy is defined as independent action by an individual or team aimed at bringing forth a business concept or vision and carrying it through to completion (Lumpkin & Dess, 1996a). It also means the ability and will to pursue their own possibilities without organisational constraints. Most entrepreneurial firms have the most autonomous leaders (Miller & Friesen, 1983). This type of firm prefers providing people with autonomy from the rules, procedures, and systems of the organisations so that innovators can come up with creative solutions to existing problems (Howell & Higgins, 1990). Autonomy from an EO perspective refers primarily to autonomy (Lumpkin, et al., 2009). In this context, autonomy enables both opportunity seeking and advantage seeking behaviours (Ireland, Hitt, & Sirmon, 2003).

The competitive aggressive component of EO reflects the intensity of a firm’s efforts to outperform industry rivals, characterized by a combative posture and a forceful response to competitors’ actions (Lumpkin & Dess, 1996a). In contrast to proactiveness, competitive aggressiveness refers to how firms relate to competitors, i.e. how firms respond to trends and demand that already exist in the

marketplace. It also reflects a willingness to be unconventional rather than relying on traditional methods of competing. “Doing things differently” is the main message of the three approaches to aggressive competitiveness recommended by Porter (1985); changing the context, redefining the product or service and outspending the industry leader. Competitive aggressiveness, which refers to a firm’s efforts toward achieving competitive advantage, is an important component of an EO (Lumpkin & Dess, 1996a).

Social psychological perspective

In the previous section, the business perspective from EO was discussed. Whereas the business perspective is focused on the strategies of firms to be more entrepreneurially oriented, this social psychological section highlights the decisions and ‘way of thinking’ of the entrepreneur as an individual.

An entrepreneur is a person who has founded his or her own enterprise. In the psychological differences literature it has been shown that individual psychological attributes do not vary significantly between entrepreneurs and managers in large organisations (Begley & Boyd, 1987). There is a difference between individuals who start their own organisations and those who work in large organisations (Carland, Hoy, Boulton, & Carland, 1984). Managers in large firms have been described as risk-averse (Amihud & Lev, 1981). Entrepreneurs have been described as risk-takers and individualists (Busenitz & Barney, 1997). Busenitz & Barney (1997) also examined differences between entrepreneurs and managers in large firms with respect to overconfidence (overestimating) and representativeness (overgeneralizing). They concluded that entrepreneurs and managers in large firms think differently. Entrepreneurs are more overconfident while managers are underconfident. Entrepreneurs are willing to break out of “group think”, be champions and see the value of combining resources in new ways that create value-added for the individual and society (Shane, 1994). Others suggested that the potential entrepreneur analyses carefully the risks associated with his specific business proposal and then determines whether or not he is willing to undertake them (Brockhaus, 1980).

EO, as mentioned before, involves a high level of risk (risk taking) and creative solutions are often required (innovativeness). Moreover, a certain level of ambition is also needed (proactiveness). The descriptions of the demands related to the behaviours all sound like personality traits, the corollary here being that a certain kind of person would be attracted to these behaviours, whereas other people choose safety (Llewellyn & Wilson, 2003).

These aspects of personality have been found stable over time, and have been linked to a wide range of behaviours both in the workplace and other aspects of life (such as sports and relationships). Theorists now agree that there are five fundamental personality dimensions, often referred to as the “big five” or the “five-factor model” (Llewellyn & Wilson, 2003). The five broad dimensions of personality are: extroversion, neuroticism, agreeableness, conscientiousness and openness. First, people who are highly extrovert are outgoing, gregarious, optimistic and sociable. Second, highly neurotic individuals are prone to mood swings, have little emotional stability, and are anxious and prone to depression. Third, highly agreeable people are easy to get on with, and maybe widely liked. Fourth, conscientious individuals prefer to conform with rules and regulations, are reliable and hard-working. Fifth, people who are highly open to experience tend to be liberal and approach problems in new and innovative ways. It is generally assumed that people who start their

own business (being an entrepreneur) have done so willingly, and to a degree at least as a result of their own volition. There is some evidence to suggest a link between entrepreneurship and low neuroticism, conscientiousness and agreeableness, and high openness to experience and extroversion (Brandstätter, 1997). There is a small amount of research that suggests that successful entrepreneurs may be more conscientious than unsuccessful ones (Schmitt-Rodermund, 2004).

Competence perspective

The previous perspectives focused on what an entrepreneur does (the business perspective) and which characteristics an entrepreneur should have (the social psychological perspective). In this section, entrepreneurship is seen as a specific profession. The knowledge and skills needed for successful professional performance is referred to as professional competence (Mulder, Lans, Verstegen, Biemans, & Meijer, 2007).

Being entrepreneurially competent not only means being able to write a business plan, but also being able to recognise and act on opportunities and to take initiative and action, for example by convincing investors to invest money in a project, and relate to potential suppliers and buyers (Lans, Hulsink, Baert, & Mulder, 2008). The competent entrepreneur is actually able to identify and further exploit an opportunity within a specific context. Research into competence development of entrepreneurs in innovative horticulture has been done by Mulder et al. (2007). They argue that since firm expansion is a dominant trend in greenhouse horticulture, the entrepreneurs who want to stay in business have to give more attention to human resource activities, especially from the perspective of corporate social responsibility.

The most important competence an entrepreneur should have is the ability and willingness to learn. Many entrepreneurs are learning from their activities and are good at self-management (Mulder, et al., 2007). A lot of learning takes place by looking at examples (Shane, 2003). When entrepreneurs see a successful innovation of one of their colleagues they tend to imitate. For that reason, there is also a need for role models (Mulder, et al., 2007).

From the literature it follows that six domains have been found to explain entrepreneurial competencies; opportunity, relationship, conceptualism, organisation, strategy and commitment (Lans, Verstegen, & Mulder, 2011). Competence in these domains entails the ability to apply clusters of knowledge, skills and attitudes in a certain professional context. This definition of competence follows recent streams of literature in the educational sciences and human resource development (Cheetham & Chivers, 1996; Le Deist & Winterton, 2005) In accordance with Man et al. (2002) each domain will be briefly discussed, starting with a definition and ending with an overview of the underlying dimensions.

The first domain is opportunity. As discussed in the other perspectives, this domain is a recurring concept. Opportunity as a competence can be defined as follows: competencies relating to recognising market opportunities through various means. For example, an individual's superior search and assessment strategy is important, as well as the ability to identify the goods or services that people want and to scan the environment for potential opportunities (Chandler & Jansen, 1992). A more passive, arbitrary view on opportunities refers to the concept of entrepreneurial

alertness as the ability to notice without searching and consequently being able to spot opportunities, for example in business relationships, the market and broader environment (Gaglio & Katz, 2001). Hence, the underlying dimensions for opportunity are proactive searching and alertness (Man, et al., 2002).

The second domain is relationship. This broad concept is defined as: competencies relating to person-to-person or individual-to-group interactions. It refers to the competencies relating to interactions with others. Networks play an essential role in generating and developing new ideas, and in gaining resources and legitimacy (Elfring & Hulsink, 2003). Issues of power and trust are likely to play a role in these interactions while negotiation skills are needed to make successful deals. Teamwork is of increasing importance to both the successful creation of a new business and the development of new innovative practices as the owner of a firm (Cooney, 2005). The underlying dimensions of relationship are teamwork, social perception and negotiating.

Conceptual competencies constitute the third domain of the framework to explain entrepreneurial competencies. These are competencies related to different conceptual abilities reflected in the behaviour of the entrepreneur. Man et al. (2002) have shown that this domain relates to abilities such as problem-solving, separating facts from opinions and seeing the big picture (also known as 'the helicopter view'). A clear link with the opportunity domain seems to exist. It is complementary in the sense that it focuses on the systematic development of solutions of complex problems. Competencies with empirical support associated with this domain include the ability to diagnose problems, connect and rearrange ideas (analysis) and carefully match new ideas with existing knowledge and capabilities (judgement) (Baron & Ensley, 2006; DeTienne & Chandler, 2004; Mitchell, Smith, Seawright, & Morse, 2000)

The fourth domain is organisation and it includes competencies relating to the organisation of different internal, external, human, physical, financial and technological resources. Introducing something new involves different organisational aspects. Internal, external, human, physical, financial and technological resources are involved. This domain relates to general aspects such as planning and organising non-human resources (e.g. financial, physical and technological), and human competence such as delegation and leadership. The literature mentions examples such as the ability to organise and motivate people, organise and coordinate tasks, and delegate effectively (Chandler & Jansen, 1992). The underlying dimension for this competence is personnel management planning and organisation.

Competence number five is strategy, entailing competencies relating to setting, evaluating and implementing the strategies of the firm. This set of competencies focuses primarily on securing the performance of the small firm in the long run. Most important activity in this set is planning for the short and long term. It requires the ability to look ahead and anticipate (Nuthall, 2006). Therefore the underlying dimensions are strategic orientation and vision.

Finally, the sixth domain is commitment. These are competencies that drive the entrepreneur to move ahead with the business. According to Lans et al. (2011) commitment can be defined as 'engagement' and 'drive' but also as 'duty', 'responsibility' and 'the right thing to do'. The optional meanings (volitional connotation) have important links with motivational constructs like self-efficacy

(belief in one's own competence) (Baum & Locke, 2004). The underlying dimension for this competence is self-management.

Mechanisms.

Following the previous sections of this thesis in which three different perspectives on EO were discussed, this section gives an overview of how EO could positively influence performance.

EO is not a luxury which is reserved to firms in high growth industries with abundant financial capital. On the contrary, EO can be used to overcome environmental and resource constraints (Wiklund & Shepherd, 2005). The relationship between EO and performance varies for different types of businesses. Hypotheses about a positive relationship between EO and performance are supported by a wide range of arguments: First, entrepreneurs see opportunities for new products and markets that others do not see (Shane & Venkataraman, 2000; Wiklund & Shepherd, 2003). To recognise an opportunity, an entrepreneur has to have prior information that is complementary with the new information, which triggers an entrepreneurial conjecture (Kaish & Gilad, 1991). Entrepreneurial opportunities exist primarily because different members of society have different beliefs about the relative value of resources (Kirzner, 1997). Because people possess different beliefs (because of a lucky hunch, superior intuition, or private information), they make different conjectures about the price at which markets should enter or about what possible new markets could be created in the future. Second, entrepreneurs see market imperfections and are keen on arbitrage opportunities (Matsuno, Mentzer, & Ozsomer, 2002; Shane & Venkataraman, 2000). It is argued that many well-managed companies fail to become successful innovators because they listen too much to their current customers, invest aggressively in technology, and provide more and better products of the sort the customers say they want (Christensen, 1997). Intensive formal intelligence-related activities are negatively related to performance in a fast-moving environment (Glazer & Weiss, 1993). Third, entrepreneurs act while others hesitate and entrepreneurs are biased towards seeing opportunities and ignoring risks (Shane & Venkataraman, 2000). Entrepreneurs are people who prefer uncertainty (Shane & Venkataraman, 2000). They recognise that challenging the existing order is inherently risky and they engage in entrepreneurial endeavours (Matsuno, et al., 2002). Fourth, EO seems to have a larger positive effect on performance in hostile than in benign environments (Covin & Slevin, 1989). Firms perform stronger in hostile environments where competition for customers is intense and resources are constrained, because of their competitive aggressiveness (Lumpkin & Dess, 2001). Such environments force firms to be more oriented towards conserving limited financial resources (Chakravarthy, 1982). Therefore, firms with an EO can often be typified by risk-taking behaviour, such as incurring heavy debt or making large resource commitments in the interest of obtaining high returns by seizing opportunities in the marketplace (Lumpkin & Dess, 1996b).

Research Method

Data Collection and Sample

A sample of 1,359 firms was drawn from farms participating in the Dutch Farm Accountancy Data Network (FADN). This accountancy network provides a representative sample of all Dutch farmers and horticultural growers. The respondents received a questionnaire by regular mail, including an introductory letter to motivate them to complete the questionnaire. A return envelope was provided with postage and return address. It was also possible to complete the questionnaire via the internet. The questionnaires were sent in April 2010. After one month, 391 questionnaires had been returned. A reminder was sent in June 2010. After three months 621 questionnaires had been returned of which 588 did not have any missing values. Out of these 588 questionnaires 65 were from floriculture growers. These 65 questionnaires were used for analysis.

Measures

The concepts in this report were measured using the above-mentioned questionnaire. The questionnaire was first developed in English because most of the scales used were originally in English. The questionnaire was translated by a native Dutch speaker.

Viable marketing strategies to implement EO were identified via interviews with industry experts. These interviews revealed nine marketing strategies growers use: a reduction of costs, an increase of the scale of the operation, an increase of the quality of the products, an increase of the prices of the products, cooperation with buyers, the start of new activities, involvement in supply-chain integration (forward integration or backward integration) a decrease of debts, and an increase of the firm's sustainability.

Two rounds of personal interviews were conducted to test whether the questions were understandable for farmers and horticulture growers operating in different sectors. Questions were adapted based on remarks from respondents and preliminary quantitative analyses to test for the dimensionality and reliability of the measures. Appendix A gives the statements used for each measure. In this study EO was operationalised and measured using an seven-point Likert scale anchored by (1) 'not agree' versus (7) 'agree'. For all measures average scores are used in further analysis.

A description of the measurement properties is provided in Table 1. Measurement properties are assessed with principal component analysis (PCA) and reliability analysis (Cronbach's Alpha). The PCA of each measure should provide support for a one component solution. Indications for a one component solution are a scree plot with a sharp decrease in Eigenvalue from the first to the second component and a gradual decrease in Eigenvalues of the second component, which is smaller than 1, and a first component that accounts for a minimum of 50% of the variance in the items (Hair, Black, Babin, & Anderson, 2010). Moreover all items should have a loading on the first component (before rotation) higher than 0.6. Finally, the reliability of the scale as indicated by Cronbach's Alpha should be higher than 0.6.

All measures meet these criteria and will not be discussed further, except risk taking. Risk taking has an Eigenvalue of the second component that is slightly above 1. All other criteria, however, are met and thus all items are maintained in the measure.

Table 1. Measurement scale properties

Scale	# of items	Eigenvalue second component	Variance accounted for	Lowest item loading	Cronbach's Alpha
Entrepreneurial Orientation	3	0.38	82%	0.86	0.88
- Innovativeness	6	0.60	67%	0.76	0.90
- Risk taking	9	1.25	57%	0.66	0.91
- Proactiveness	9	0.73	69%	0.78	0.94
Market Orientation	9	0.91	62%	0.61	0.92
Strategy (N = 9x588)	3	0.39	79%	0.86	0.87
- Reduce costs	3	0.53	71%	0.81	0.79
- Increase scale	3	0.25	86%	0.91	0.92
- Increase quality	3	0.57	72%	0.77	0.78
- Increase price	3	0.37	80%	0.87	0.87
- Cooperative with buyers	3	0.49	77%	0.80	0.84
- Start new activities	3	0.35	82%	0.88	0.89
- Supply-chain integration	3	0.43	79%	0.84	0.87
- Decrease debts	3	0.63	59%	0.76	0.66
- Increase sustainability	3	0.27	89%	0.91	0.92

Analyses

These analyses were conducted with the given data from the questionnaires. The answers (scores) per respondent were standardised per respondent, because the aim is to identify strategic groups based on the relative importance of strategies. The concomitant finite mixture model (CFMM) is used to identify the strategic groups (Kornelis, Herpen, Lans, & Aramyan, 2010; Wedel & Kamakura, 2000). These scores represent their preference for, capability in, and focus on specific strategies (See Appendix A). The CFMM is a segmentation procedure that identifies groups of growers with similar scores for the nine strategies (so called core variables). To determine the number of strategic groups ten alternative models were estimated, which allowed for one up to ten segments. Each model was re-estimated ten times to minimise the risk of sub-optimal solutions. The model with the lowest Consistent Akaike's Information Criterion value was chosen, which thus reveals the optimal number of segments. Moreover, the CFMM identifies these groups under the assumption that a grower's membership depends on his or her MO, EO, and industry membership (so called concomitant variables). This approach thus reveals possible relations between EO, MO, industry and strategic marketing choices.

Results

Table 2 shows the two strategic groups identified with the concomitant finite mixture model. The results show that increasing quality (1) is important for both strategic groups. For both groups is increasing price (3) important, on the third place. However, for other elements of strategy there are clear differences between groups.

Table 2. Strategic groups of floriculture growers

	Strategic group 1	Strategic group 2
Entrepreneurial Orientation	3.52	5.06
Market Orientation	3.70	5.30
Increase quality	0.97 (1)	0.60 (1)
Decrease debts	0.42 (2)	-0.28
Increase price	0.41 (3)	0.41 (3)
Reduce costs	0.31 (4)	-0.15
Increase sustainability	0.01	-0.38
Start new activities	-0.41	0.15 (4)
Supply chain integration	-0.54	-0.15
Cooperate with buyers	-0.66	0.46 (2)
Increase scale	-1.10	-0.64
N	39	26

Strategic group 1

At first segment 1 will be discussed. The growers in this segment can be described, in comparison to the growers in segment 2, as less entrepreneurial and market oriented. This is reflected in the strategic direction which these growers follow. The first strategic group emphasises decreasing debts (2), after increasing quality (1), as important strategy. *Increasing* debts means increasing loans and increasing the ability to invest but it costs money (Subramaniam, 1998). Make a long story short; increasing debts means more financial measures to invest (innovate, being proactive) but takes a risk. The entrepreneurs in this segment are not increasing their debts but just *decreasing*. So, they are not taking the risk to loan money (e.g. for investments). Finally, reducing costs (4) is the fourth important strategy for this group of growers.

Strategic group 2

A great difference in between segment 2 and the first segment is the strategy cooperation with buyers (2). This strategy is important for the second strategic group of growers and not that important for the first group.

Conclusions

This report researches how an entrepreneurial orientation (EO) of floriculture growers increases their performance. Entrepreneurs or firms which are entrepreneurial oriented are taking risks, innovative and proactive. The empirical results are in line with the present literature. Floricultural growers develop their business in different ways. For example, the first strategic group, which is determined as less entrepreneurial oriented, focuses on decreasing their debts and reducing costs, but the other group focuses on cooperate with buyers and starting new activities.

Discussion

Limitations

The dataset was obtained by the Dutch Farm Accountancy Data Network (FADN) which provides a representative sample of all Dutch farmers and horticultural growers. The questionnaire to receive the data was send in 2010. In this time the economic crisis was upcoming in The Netherlands. Therefore the data used in this study can be influenced. As a matter the figures of the participants in this dataset are not open for public. Only a few people from the LEI (Landbouw Economisch Instituut) can review this data. For that reason it is not that easy to do all the analysis.

Because the strict time limit to accomplish this report, this research is incomplete due to the goal of this report in the first place. The main goal of this research was compare the outcomes of this report (two clearly different segments in floriculture) with the bookkeeping data from the growers and figure out how this difference is shown in the incomes and expenses of the floriculture firms. This whole set of information can fill the gap in the literature about the effect of EO on performance of agricultural firms.

Relationship with the literature

Whereas the literature discuss the different perspectives of the firms behaviour as well as the individual on EO, the results show the translation of these perspectives to strategies. Certainly the strategy making processes and styles of the firm (Rauch, et al., 2009) are derived from the perspectives of an entrepreneur as individual or the behaviour of the firm. Starting new activities (important for the entrepreneurs in the second strategic group) for example is narrowly related to innovativeness, risk taking and proactiveness, which are the three specific components that determine EO according to Miller (1983).

Possible reasons according to the literature mentioned earlier could explain these differences. First, small firms survive by having a close relationship with a relatively small number of customers who account for a very large portion of their sales volume (Covin & Slevin, 1989). Second, investing in a good relationship with buyers in order to assure themselves of this (long-term) relationship (Bidault, Despres, & Butler, 1998). Therefore cooperation with buyers could be an important strategy for the segment 2. Third, firms with an EO are often typified by risk-taking behaviour, such as incurring heavy debt (Lumpkin & Dess, 1996a). This is a reason why the entrepreneurs in the first segment are less entrepreneurial oriented. They choose the strategy for reducing debts. Fourth, being an entrepreneur will be assumed as the choice someone have made (Llewellyn & Wilson, 2003). It could

be that entrepreneurs in segment 1 would not have chosen to start their own business but owned or inherited it by family. Therefore it is clear that these are less entrepreneurial oriented. Fifth, starting new activities only can occur when an entrepreneur or its firm's behaviour is based on innovativeness, proactiveness and risk taking (Miller, 1983). Finally, Mulder et al. (2007) argue that entrepreneurs who want to stay in business have to give more attention to human resource activities, especially from the perspective of corporate social responsibilities. Starting new activities could be a part of this.

Managerial implications

Results show that growers have chosen different strategies to adapt to the market and the wider business environment. All stakeholders, such as grower's associations, governmental institutions, suppliers and customers should take these differences into account, because it influences growers' interests in and responses to product offers, recommendations, communication, legislation and customer needs. Entrepreneurs in the first segment for example, who actually want to be more entrepreneurial but do not exactly know how, can learn from the entrepreneurs in the second segment.

Results provide insight for policy makers, because it shows the two segments of growers and which segment are in favour to certain policies. For example, growers in the second group are focused on starting new activities, while strategic group 1 will not be in favour of this policy. Policy makers trying to influence the strategic direction of floriculture can stimulate growers' EO and thus influence the strategic direction of this industry in The Netherlands.

Research implications

Some mechanisms in this research cannot be tested with the available dataset. A) it is possible that the entrepreneurs felt ashamed for the questionnaire fill in truthfully. Or find it difficult to face themselves and their strategic choices. It is also possible that they, for example, out of a sense of shame, give so-called "socially desirable" answers. In this context the entrepreneurs give answers where they think of these are the 'right' answers, even if they do not exist. B) as mentioned before, the relationship between EO and performance is different for different types of businesses. C) from this data it was not possible to typify the firms and entrepreneurs to find out how big the effect of EO is on their performances. D) the actual debts the firms have or financial risks the entrepreneurs take are not possible to test with this data. The strategy decreasing debts could be interpreted different if there are a lot of debts or if there not. E) seeing arbitrage opportunities of entrepreneurs is also not possible to test with this data. F) from this dataset of 65 respondents two clear strategic different segments exists. If there is a dataset with more respondents, more segments can be exist, which leads to more information about the 'grey' area between the two segments discussed in this report. G) this research can be completed with additional data such as bookkeeping data to research the specific differences in incomes and expenses of the segments. H) this research can be used for further research about EO in agricultural firms and compare the outcomes of the floriculture firms with the outcomes of other agricultural firms to fill the gap in literature and provide managerial implications to stakeholders of the agricultural sector.

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Appendix A

Innovativeness

- If I see opportunities, I am willing to start activities that are new to me
- I look for opportunities to work on something new
- If I see opportunities, I am good at starting activities that are new to me
- I see opportunities to work on something new
- If I see opportunities, I start activities that are new to me
I am always working on something new

Risk taking

- If I see opportunities, I am willing to take great risks (with chances for very high profits)
- I want to have the courage to seize opportunities
- If I see opportunities, I am good at taking great risks (with chances for very high profits)
- I believe I have to take great financial risks to seize opportunities
- If I see opportunities, I am starting to take great risks (with chances for very high profits)
- I have the courage to seize opportunities
- I take great financial risks to seize opportunities.

Proactiveness

- I am willing to start activities that other firms do not do, yet
- If I see opportunities, I like to respond before other firms do
- If there are opportunities, I believe I have to be one of the first firms to use them
- I am good at starting activities that other firms do not do, yet
- If I see opportunities, I can respond before other firms do
- If there are opportunities, I know how I can be one of the first firms to use them
- I start activities that other firms do not do, yet
- If I see opportunities, I respond before other firms do
- If there are opportunities, I am one of the first firms to use them

Market orientation

- I regularly ask my customers whether they are satisfied
- I regularly check whether my products correspond with what my customers want
- I understand my customers' problems
I know what other customers than my current customers (i.e. potential customers) want
- I know where and to whom my customers sell their products
- I have information about the consumers of my products
- I know how societal trends influence my firm
- I regularly check whether it's better to sell my products to another customer than my current customer

Strategy

Cost reduction

- I like to look for possibilities to reduce costs for my firm
- I am good at reducing costs for my firm
- I am more busy with reducing costs than colleagues are.

Increasing scale

- I like to look for possibilities to increase the scale of my firm
- I am good at increasing scale of my firm
- I am more busy with increasing scale of my firm than colleagues are

Increase sustainability

- I like to look for possibilities to adapt my firm to the needs of society
- I am good at adapting my firm to the needs of society
- I am more busy with adapting my firm to the needs of society than my colleagues are