

The relationship between entrepreneurial proclivity, business strategies and performance of small business owners in agriculture and horticulture

Introduction

The term 'entrepreneur' is often used as a substitute for business owner, starter, someone who is self-employed, sole-trader, or farmer, thereby confusing status (a position in society) with someone's role (showing entrepreneurial behaviour in a particular position) (McClelland, 1967). Over the years there has been a growing consensus that a fundamental and distinctive feature of entrepreneurship is the identification and pursuit of business opportunities (Ardichvili et al., 2003; Gaglio & Katz, 2001; Shane, 2003; Shane & Venkataraman, 2000, Lans, 2009). Although conceptually right, it does not give much insight into the business strategies that entrepreneurial business owners choose compared with less-entrepreneurial business owners.

The aim of this paper is to empirically investigate the relationship between entrepreneurial proclivity of small business owners and the business strategies that they choose. By making use of an existing accountancy data network, self-reported questionnaire can be related to real entrepreneurial behaviour (e.g. investments) and business performance.

Conceptual framework

Entrepreneurial proclivity includes three basic elements: risk attitude, innovativeness, and proactiveness (Matsuno, Mentzer, and Ozsomer, 2002; Wiklund and Shepherd, 2005). In this study each element is measured as a personal trait, a capability, and a behaviour. Expert interviews revealed nine viable strategies for small business owners in agriculture and horticulture: to reduce costs, to increase the scale of the operation, to increase the quality of the products, to increase the price received for the products, to cooperate with buyers, to start new activities, to be involved in supply-chain integration (forward integration or backward integration), to decrease debts, and to increase the firm's corporate social responsibility (CSR).

Sample

A sample of 1359 firms was drawn from firms participating in the Dutch Farm Accountancy Data Network (FADN). This accountancy network provides a representative sample of all Dutch farmers and horticultural growers. A major advantage of making use of the FADN is that the self-reported data on entrepreneurial proclivity and strategy can be related to several hundreds of other firm-specific items such as firm investments, firm growth, gross turnover, and (absolute and relative) economic and environmental performance. The respondents received by regular mail the questionnaire, including an introductory letter to motivate them to complete the questionnaire. A return envelop was provided with postage and return address. It was also possible for them to complete the questionnaire via internet. The questionnaires were sent in April 2010. After one month, 391 questionnaires were returned and 377 questionnaires did not have any missing values. These 377 questionnaires will be used for further analyses.

Measures

The questionnaire was first developed in English because most scales used were originally in English. Then the questionnaire was translated by a native Dutch person. Two rounds of personal interviews were conducted to test whether the questions were understandable for farmers and horticultural growers operating in different sectors (such as greenhouse horticulture, arable farming, dairy farming and intensive livestock farming). Questions were

adapted based on remarks from respondents and preliminary quantitative analyses to test for the dimensionality and reliability of the measures.

Respondents rated the statements on a 7-point Likert scale anchored by ‘not agree’ (1) versus ‘agree’ (7). For all measures average scores are used in further analyses.

A description of the measurement properties is provided below. 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 from the second component onwards; an Eigenvalue of the second component, which is smaller than one, and a first component that accounts for a minimum of 50% of the variance in the items (Hair, Anderson, and Tatham, 1992). 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 (see Table 1). Risk taking has an Eigen of the second component that is slightly above one. All other criteria, however, are met and 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
<i>Entrepreneurial proclivity</i>	3	0.50	78%	0.80	0.86
• Innovativeness	6	0.60	65%	0.76	0.89
• Risk taking	9	1.34	57%	0.64	0.90
• Pro activeness	9	0.70	69%	0.78	0.94
<i>Strategy</i>	9	0.37	81%	0.87	0.88
• Reduce costs	3	0.48	76%	0.84	0.83
• Increase scale	3	0.22	88%	0.92	0.93
• Increase quality	3	0.47	77%	0.82	0.84
• Increase price	3	0.32	84%	0.89	0.90
• Cooperate with buyers	3	0.45	80%	0.83	0.87
• Start new activities	3	0.33	84%	0.89	0.90
• Supply-chain integration	3	0.45	79%	0.83	0.86
• Decrease debts	3	0.62	64%	0.76	0.72
• Increase CSR	3	0.28	87%	0.90	0.92

Three reversed items for innovativeness were excluded from the measure because the scree plot in the PCA did not support a one component solution and these three items loaded high on the second component.

The scale for entrepreneurial proclivity (EP) is based on the scales for its three underlying dimensions: innovativeness, risk taking and proactiveness. Average scores across these subscales are used instead of the individual dimensions because they are manifestations of EP (Matsuno, Mentzer, and Ozsomer, 2002; Wiklund and Shepherd, 2005). To stay close to the original conceptualization of EP we used the average scores across these subscales, i.e.

innovativeness, risk taking and proactiveness, as our measure for EP. The scree-plot obtained in the PCA suggested that a one-component solution was appropriate; all items had a loading higher than 0.80 on the first component, which accounted for 78% of the variance. The reliability (Cronbach's Alpha) was 0.86.

Also for each strategy, average scores across the three items were calculated. Subsequently these scores for the nine strategies were standardized for each respondent because we want to measure the extent to which each small business owner pursues a certain strategy relative to other strategies that it could pursue.

Analyses and preliminary results

Data analysis has just started since data collection was done until two weeks ago. In the final paper we will present all results but for this abstract we conducted some preliminary analyses to get a feeling for the types of results that will be obtained. Correlation coefficients were estimated between entrepreneurial proclivity and strategy. Table 2 shows the results of these analyses.

Table 2 relationship between entrepreneurial proclivity, strategy and performance

	Correlation with entrepreneurial proclivity
Reduce costs	-0.31 (p < 0.01)
Increase scale	0.20 (p < 0.01)
Increase quality	-0.17 (p < 0.01)
Increase price	0.12 (p = 0.02)
Cooperate with buyers	0.10 (p = 0.06)
Start new activities	0.46 (p < 0.01)
Integration	0.12 (p = 0.03)
Decrease debts	-0.44 (p < 0.01)
Increase CSR	-0.11 (p = 0.04)

These results indicate that entrepreneurial small business owners in agriculture and horticulture are significantly more focused on increasing the scale of their operations and starting new activities than their less entrepreneurial colleagues. At the same time, they are less likely involved in reducing their costs, increasing the quality of their products, and decreasing their debts.

In the final paper we will show whether these strategic choices mediate the relationship between entrepreneurial proclivity and performance and whether context-specific relationships can be found, for instance in branches that suffered more from the economic crisis than other branches.

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