

Thesis

E-Scan Ondernemerstest (Entrepreneur Scan)

Assessment and development entrepreneur competence

Summary

Chapter 1 describes the growing interest in entrepreneurship and the importance of its effect on employment in the Netherlands. As a result of this increase in popularity, the demand for an instrument that measures the necessary traits and capabilities for entrepreneurship has also increased. This holds true for people who wish to start a business of their own, and also for students who are preparing for working in a business environment. Entrepreneur Scan is such an instrument and offers entrepreneurs and their coach / advisors an objective tool for self-reflection. The purpose of this thesis is to develop and validate the Entrepreneur Scan (E-Scan). With E-Scan entrepreneurship can be assessed and developed. Four issues are formulated that will be explored in later chapters, but firstly definitions of entrepreneurship and entrepreneur will be given in chapter 2.

Chapter 2 describes visions and perspectives on entrepreneurship. Entrepreneurship is defined as seeing and pursuing opportunities by having and running a privately owned company or within a (larger) company, as a result of which value is created for the individual and the community. This chapter concerns the entrepreneurial attitude and historical and modern perspectives on the entrepreneur. An entrepreneur is defined as someone who owns and runs a business. Given this definition, an entrepreneur isn't necessarily entrepreneurial, neither is someone who is entrepreneurial an entrepreneur.

Chapter 3 answers the question: What are the important factors for the competence of entrepreneurship? The Entrepreneur Competence Model is composed on the basis of the competence theory. Competence is defined as a combination of motivation, characteristics, capabilities and knowledge for successfully conducting a task. The task of an entrepreneur is (at least) to let the company exist.

The first element, Motivation, can be divided into internal and external motives. Internally driven motives come from within and form the internal drives for someone to start a business of their own. The three most important motives are a need for: Autonomy, Achievement and Power. The choice for business ownership can be exhorted by externally driven motives that lie outside the person. For example, unemployment can 'force' someone to start a business.

The second element, Characteristics, consists of traits and thinking styles that are necessary for the continuity of a company. The most important traits, besides the three mentioned internally driven motives, are: Social orientation, Self-Belief, Endurance and Risk taking propensity. Thinking styles originate from the structure of the brain, they influence behaviour in certain way. Four thinking styles are recognised: Pioneer, Salesperson, Manager and Specialist. Every entrepreneur has all thinking styles, but with a stronger preference for one or more. Thinking styles also have a relation with the phases of a company; the company life cycle. The Pioneer is at his best in the early phase, the Salesperson in the expansion phase, the Manager in the mature phase and the Specialist or Business consultant in the contraction phase.

Capabilities, as the third element of a competence, differ per phase of the company life cycle. The pioneer phase, which is a combination of the early phase and the expansion phase, has another task; making turnover. It requires capabilities like; Market awareness, Creativity and Flexibility, while in the mature phase capabilities like; Leadership, Organising and planning, Motivating and Financial controlling are more important for optimising profits.

Knowledge is the fourth and last element. It relates to areas that are of importance for managing a business. Those areas are: knowledge of the Market, the Environment, People, Production and Finance. The way knowledge is learned and used plays a role as well, knowledge is the outcome of a thinking and learning process. Learning styles, which

can be compared to thinking styles, play a role in the learning process. Four learning styles are distinguished: Accomodator, Diverger, Converger and Assimilator. For this thesis the Entrepreneur Competence Model is delimited to two elements because the elements Knowledge and Motivation can be assessed on the basis of the business plan. The two elements that are subject for further research are: Characteristics and Capabilities.

Chapter 4 answers the second question: How can the entrepreneurial competence be measured? Firstly, general personality tests are taken into consideration. Two tests that measure the general personality are selected; these are the Big Five test and the MBTI test. These are described in this chapter and it is concluded that they are not suited for measuring the entrepreneurial competence. They are too general of nature and give insight into the basic personality, but not the insight that is needed to measure the specific traits, thinking styles and capabilities of the entrepreneurial competence. In addition these tests are not specifically developed for entrepreneurship; to measure the entrepreneurial competence other instruments that are developed for entrepreneurship are viewed as well. Two Dutch instruments were found, the 'Beoordelingschaal voor Ondernemers Kwaliteiten' (BSOK) and the 'Management Beoordelingssysteem' (MBS). Despite their specific harmonisation for entrepreneurship these tests also not suited for measuring entrepreneurship objectively. The most important objection that can be made here is that the measurement is too subjective of nature and also not all traits, thinking styles and capabilities are measured that have been distinguished in the Entrepreneur Competence Model. It is concluded that a more objective way of measuring is needed, not only for the advisor (of the bank) who can base his subjective decision on an objective outcome, but also for the entrepreneur who can assess himself on a more objective output. Self-knowledge is vital to successful entrepreneurship, however, due to the fact that about 80% of the business starters don't need money from the bank, the legitimation for self-assessing on entrepreneurship is lacking. That is why it so important to develop an objective instrument with which people can obtain the necessary self-knowledge in an accessible, easy and anonymous way and more importantly show how stronger and weaker points can be developed. For measuring entrepreneurial competence a start is made with the development of an objective instrument. Items have been formulated for the recognised traits, thinking styles and capabilities, these are being measured on a seven point Likert scale. Next, the items are disposed to a pre-test with entrepreneurs and the face validity is determined. A pre-validation is also conducted on the basis of correlation and factor analyses, together with convergent and discriminant validity analyses with the NEO FFI (Big Five test). Furthermore, the influence of culture on the results on the Entrepreneur Scan is described in this chapter. With the cultural dimensions of Hofstede (1991) it appears that cultures other than the Dutch can be of influence to the output and therefore cannot be interpreted without any consequence. Moreover a start is made with the development and exploitation of a software program for automatic distribution and reporting of the Entrepreneur Scan.

Chapter 5 describes the sets of data that have been used to determine reliability and validity of the Entrepreneur Scan. Three sets of data are selected. The first dataset is obtained from the website that is part of the television program '100% ondernemer' of RTL5; this lead to 385 usable respondents. The second set of data is obtained from the website on which the Entrepreneur Scan runs; this lead to 1622 'clean' respondents. The third dataset is based on the SME panel of EIM and lead to 243 respondents.

In Chapter 6 the third question is answered: How to validate an instrument for the entrepreneurial competence? By following a certain model and method the reliability and validity are determined.

Reliability is determined by looking at the internal consistency of each variable per dataset. For the internal consistency the Cronbach Alpha analysis and the principal components analysis are used. All variables in the Entrepreneur Scan are reliable and some fall apart in several factors. In total 16 internal consistent factors have been found.

The validity is then determined, this is done by three sorts of validity: content, criterion and construct validity. The content validity of E-Scan is determined by asking the judgement of experts in the field of entrepreneurship, but also by asking the judgement of (starting) entrepreneurs who completed the Entrepreneur Scan. Both groups find the Entrepreneur Scan valid, with the majority of the latter group recognising themselves in the automatically generated entrepreneurial profile of E-Scan. Moreover a principal components analysis is conducted on all items and all variables in E-Scan are found except one; Market awareness.

The criterion validity could not be determined. Criterion validity consists of confirmatory and predictive validity. For confirmatory validity a criterion is needed with which entrepreneurship can be assessed at the same time. It is concluded that someone can be entrepreneurial, but is not an entrepreneur or doesn't want to become one. The opposite is also true, someone who is an entrepreneur does not have to be entrepreneurial. Possibly the judgement of closest friends and family is useful as a criterion, although this is a subjective one.

The predictive validity could also not be determined. For the prediction of business success more factors are important and these factors have to be measured as well. However, for the prediction of business start-up it could be that someone has an entrepreneurial attitude but decides not to start a business of his own due to private circumstances, further research is needed.

Construct validity can be divided into three sorts: Convergent, Discriminant and Nomological validity. It is concluded that the convergent validity couldn't be assessed as a good comparable test is lacking and it is for this reason the Entrepreneur Scan is developed. For the stipulation of the convergent validity the scores on the thinking styles are used. Every thinking style refers to at least one trait or quality of the entrepreneurial competence, the expected positive correlations occur and are not high as expected. For the Discriminant validity the expected negative correlations occur and are also not high as expected. With the Nomological validity the positive and negative correlations according to theory occur, but not always. Further research is needed.

In Chapter 7 the last question is taken into consideration: How can entrepreneurship be assessed and developed? Firstly, the assessment of the entrepreneurial competence and the necessity of a norm against which profiles can be measured are bespoke. A norm profile has been put together by professionals who assess (starting) entrepreneurs on a daily basis. The average entrepreneurial profiles are shown for the different groups that have used the Entrepreneur Scan. Profiles are shown of people who used E-Scan as a self-assessment tool, starting entrepreneurs who completed E-Scan via the Rabobank for setting up their business plan and older starters who used E-Scan. Furthermore, the way Entrepreneur Scan can be used for the development of entrepreneurship is also described. The instrument is not only suited as a starting point, but also as a roadmap for the development of certain weaker points. It describes how student companies employ E-Scan as a starting point after which a specially designed online module helps them to develop their own entrepreneurial competences, helps them to assess other students within the company and helps teachers to easily follow the entrepreneurial development of each student. It is also described how E-Scan is being used for starting entrepreneurs with certain disabilities in the labour market and how students for a school assignment use E-Scan for the coaching of entrepreneurs. Finally a cross section survey is conducted on the basis of the dataset from the RTL5 television program '100% ondernemer'. Two groups have been formed, one group that did not grow in terms of turnover and another group that did grow. Four variables were selected in the Discriminant Function, these are: 'Customer orientation', 'Will power', 'Impact strength' and 'Independence'. The distinctive power of the latter is not certain.

Chapter 8 contains conclusions and recommendations. The most important conclusion is that the Entrepreneur Scan is reliable and valid and has been of great value for the (starting) entrepreneurs for which this instrument is developed. The theoretical recommendation is to conduct further research to determine the predictive validity;

longitudinal research is most suited for this type of validity. It is suggested to do this by using a certain conceptual model which is described and discussed in the chapter and takes in account other relevant factors that influence business success. Furthermore, the practical recommendation is to reorganise the institutions in the Dutch market for (starting) entrepreneurs, for example, Chambers of Commerce and Syntens, and to switch to the distribution of Entrepreneurial Competence Vouchers (OCV). With these vouchers the (starting) entrepreneurs regain the right and freedom to buy knowledge and expertise at commercial business advice companies.