

# MASTER THESIS

Course code:

BE307E Master's Thesis

Candidate name:

ELENA HOFF

Title

**What is the effect of initial growth intention on subsequent business performance?**

---

Date: 1. December 2017

Total number of pages: 82

## **Abstract**

The focus of the present study is the following research question: “What is the effect of initial growth intention on subsequent business performance?” Business performance is a dependent variable and includes three indicators: sales turnover, employment and profit. Intention is the independent variable of the study. Theoretical framework has been worked out in order to answer the research question. Such concepts as business performance, imprinting theory and intention have been highlighted. As the result, the research model and hypotheses were created.

Businesses that entered a Norwegian business register in May/June 2002 represent the study’s sample. The final sample includes 221 businesses.

Regression analysis is conducted in order to test the hypotheses.

The main general finding of the present study is that business founders, who have stronger growth intention, are significantly more likely to achieve superior subsequent business performance. All hypotheses are supported. Limitations connected with the study are discussed. Practical implications and future research are suggested.

## **Acknowledgements**

This master thesis is a final part of the program Master of Science in Business at Nord University. The thesis is written within the specialisation “Innovation and Entrepreneurship”.

I appreciate all the help and feedback from my supervisor Espen Isaksen, associate professor at Nord University Business School. Our discussions and his comments and suggestions have been decisive for this thesis. He helped me to define the topic of the master thesis and gave me access to a quantitative questionnaire and the answers from respondents that were a part of his doctoral thesis. I always got constructive feedback on my work, help in the choice of relevant literature and in the use of SPSS program.

Bodø, 1. December 2017.

Elena Hoff

## **Executive summary**

Business founders often give the priority to the measurement and analysis of business performance. Since performance represents the quality of firms' activity and, consequently, viability, the concept is one of the most important areas of theoretical and empirical research in economics and management. The relevant question, which this study addresses, is what can influence superior performance.

This research study is based on the possible imprinting effect of initial growth intentions on subsequent business performance, in other words, the link between intention and performance. Imprinting is regarded as “a time-sensitive learning process that initiates a development trajectory” (Mathias et al., 2014, p. 2). Intention is perceived as a reason of particular performance.

Thus, research question is: “What is the effect of initial growth intention on subsequent business performance?”

The originality of the present study includes the created theoretical connection between such concepts as business performance, imprinting and intention.

Based on the literature review, the most appropriate performance measures have been defined: sales turnover, employment and profit. They are considered to be the dependent variables in the study. Corresponding independent variables are discussed as well: intention for sales turnover, intention for employment and intention for profit.

Access to the survey, conducted by researcher Espen Isaksen, made it possible to examine the chosen variables for a representative sample of Norwegian business registrations from 2002. The sample consists of 221 businesses.

As the result, the effect of initial growth intention was positive associated with subsequent business performance in terms of sales, employment and profit. The main general finding of the present study is that business founders, who have stronger growth intention, are significantly more likely to achieve superior subsequent business performance.

These findings can be useful for the practitioners who are interested in increasing the number of superior performing businesses. Now it is possible to identify these businesses by choosing the business founders with stronger growth intentions.

## Table of contents

Abstract .....	i
Acknowledgements .....	ii
Executive summary .....	iii
Table of contents .....	iv
List of tables .....	vii
List of figures .....	ix
List of appendices .....	ix
1.0 Introduction .....	1
1.1 Background .....	1
1.2 Actualization .....	2
1.3 Research question .....	2
1.4 The outline of the thesis .....	3
2.0 Theoretical perspectives .....	5
2.1 Business performance .....	5
2.1.1 Definition .....	5
2.1.2 Measurement of performance .....	7
2.1.2.1 Accounting/financial perspective .....	8
2.1.2.2 Marketing perspective .....	9
2.1.2.3 Operations management perspective .....	9
2.1.2.4 Entrepreneurship perspective .....	9
2.1.3 Choice of dependent variables measures .....	11
2.1.3.1 Sales turnover .....	12
2.1.3.2 Employment .....	12

2.1.3.3 Profit .....	13
2.2 Imprinting .....	13
2.2.1 Definition .....	14
2.2.2 Historical overview .....	15
2.2.3 Sources of imprint/dimensions/factors .....	16
2.2.4 Imprinting effect on performance .....	17
2.3 Intentions and growth aspirations .....	18
2.3.1 Intentions .....	19
2.3.1.1 Definition .....	19
2.3.1.2 “Theory of Planned Behaviour” - Ajzen’s model .....	20
2.3.1.3 Link between imprinting and intentions .....	22
2.3.1.4 Discussions on intentions .....	23
2.3.2 Growth aspirations .....	23
2.3.3 Link between intentions and performance .....	24
2.3.4 Choice of independent variables in research .....	26
2.4 Hypotheses of the research and research model .....	26
2.5 Summary .....	27
3.0 Methodology .....	28
3.1 Philosophical position .....	28
3.2 Quantitative research .....	30
3.3 Research design .....	31
3.4 Data collection .....	32
3.5 Population, sample and representativeness .....	33
3.6 Analysis methods .....	33

3.6.1 Correlation Analysis .....	34
3.6.2 Regression analysis .....	34
3.6.3 Data internal consistency reliability .....	34
3.6.4 Validity .....	35
3.7 Operationalization of variables .....	36
3.7.1 Dependent variable, business performance .....	37
3.7.1.1 Measurement of sales turnover .....	38
3.7.1.2 Measurement of employment .....	40
3.7.1.3 Measurement of profits .....	43
3.7.2 Independent variables .....	48
3.7.3 Control variables .....	53
3.8 Summary .....	56
4.0 Analysis .....	57
4.1 Correlation Analysis .....	57
4.2 Regression Analysis .....	61
4.3 Summary .....	66
5.0 Discussion and conclusion .....	67
5.1 Summary and conclusion .....	70
5.2 Implications .....	71
5.3 Limitations of the study .....	72
5.4 Further research .....	72
References .....	74
Appendices .....	81

## List of tables

Table 1: Contrasting implications of positivism and social constructionism (Easterby-Smith et al., 2012) .....	29
Table 2: Variables .....	36
Table 3: Distribution of dependent variable “Sales turnover after 2 years” .....	39
Table 4: Distribution of dependent variable “Sales turnover after 5 years” .....	39
Table 5: Distribution of dependent variable “Sales turnover after 10 years” .....	40
Table 6: Distribution of dependent variable “Employment after 2 years” .....	41
Table 7: Distribution of dependent variable “Employment after 5 years” .....	42
Table 8: Distribution of dependent variable “Employment after 10 years” .....	43
Table 9: New categories of dependent variable “Profit after 2 years” .....	44
Table 10: Distribution of dependent variable “Profit after 2 years” .....	44
Table 11: New categories of dependent variable “Profit after 5 years” .....	45
Table 12: Distribution of dependent variable “Profit after 5 years” .....	46
Table 13: New categories of dependent variable “Profit after 10 years” .....	47
Table 14: Distribution of dependent variable “Profit after 10 years” .....	47
Table 15: Descriptive statistics of variable “intention for sales turnover” .....	49
Table 16: Descriptive statistics of variable “intention for employment” .....	51
Table 17: Descriptive statistics of variable “intention for profit” .....	52
Table 18: Descriptive statistics of control variable “gender” .....	54
Table 19: Descriptive statistics of control variable “experience” .....	54
Table 20: Descriptive statistics of control variable “industry” .....	55
Table 21: Descriptive statistics of control variable “team” .....	56
Table 22: Descriptive statistics and correlation coefficients for sales turnover .....	58



Table 23: Descriptive statistics and correlation coefficients for employment .....	59
Table 24: Descriptive statistics and correlation coefficients for profit .....	60
Table 25: Regression results on sales turnover .....	62
Table 26: Regression results on employment .....	63
Table 27: Regression results on profit .....	64
Table 28: Summary of results .....	66

## **List of figures**

Figure 1: Extended “Theory of Planned Behaviour” model (Ajzen, 1991) .....	21
Figure 2: Adapted version of the theory of planned behaviour for studying how growth aspirations influence actual growth (Wiklund and Shepherd (2003), p. 1923) .....	25
Figure 3: Research model .....	27
Figure 4: Distribution of variable ‘intention for employment’ .....	49
Figure 5: Distribution of variable ‘intention for sales turnover’ .....	51
Figure 6: Distribution of variable ‘intention for profit’ .....	53

## **List of appendices**

Appendix A: Questionnaire.....	81
--------------------------------	----

## **1.0 Introduction**

The topic of the thesis is: “What is the effect of initial growth intention on subsequent business performance?”

The goal of the first chapter is to explain the significance of the chosen topic. Background, focus and the actualization of the topic are presented. The outline of the study is provided.

### ***1.1 Background***

Since performance represents the quality of firms’ activity and, consequently, viability, the concept is one of the most important areas of theoretical and empirical research in economics and management. Performance is not an easy subject, however, it is widely used among researchers. So, when studying business performance, it is important to consider appropriate theoretical perspectives.

In this research, the effect of the initial growth intentions on subsequent business performance will be studied. To clarify the relevant determinants of business performance is a complicated task.

This chapter aims to provide explanation of the importance of the chosen topic.

Generally, intention of entrepreneurs and their performance are different stages in the entrepreneurial process (Zhao et al., 2009). However, according to the theory, these stages have connection. The task of the study is to find out and clarify what effect intention can have on business performance.

Performance is the productivity of the organization when it comes to the results which are correlated to costs of the organization (Neely, 2004). Since business performance is a multidimensional concept (Murphy et al., 1996), such measures as sales turnover, employment and profit were chosen for analysis. These measures describe performance from several sides.

This study has also focus on the phenomenon “imprinting”. Imprinting is regarded as “a time-sensitive learning process that initiates a development trajectory” (Mathias et al., 2014, p. 2). Since imprinting has effect on performance, consequently, intentions and aspirations, as factors of imprinting, have imprinting effect on performance. In its turn, intention is defined as “a state of mind directing a person’s attention toward a specific object, or a path, in order to achieve something” (Bird, 1988, p. 442).

The lack of relevant studies shows that the topic is understudied and requires more detailed research that can explain the connection of the concepts.

## ***1.2 Actualization***

Business founders and other stakeholders (e.g. government) are interested in superior business performance, since it leads to economic growth, providing new jobs and business development (Anna et al., 2000; Robinson, 1998; Chandler & Hanks, 1993; VanderWerf, 1994; Wong & Autio, 2005).

The role of the topic is significant. Business performance is important and relevant in the entrepreneurship field of research as it appears in many academic studies that will be highlighted in the Chapter 2.

Lack of the research linking growth aspiration to actual growth makes this study more valuable. Among other possible contributions of this thesis can be named the longitudinal design of the research and testing of the theory.

Understanding the nature of the intention and indication of the intention's effect on business performance can help to create new policy measures what will be aimed to change the growth intentions to entrepreneurship. According to the theory of planned behaviour (Ajzen, 1991), intention can be increased by attitude toward the behaviour, subjective norm and perceived behavioural control. Thus, suggestion on policy measures will be primarily directed on these concepts.

If growth intentions are linked to actual growth, it is possible to make suggestions how to make entrepreneurial intention stronger.

## ***1.3 Research question***

The main research question, addressed in this master thesis, is: "What is the effect of initial growth intention on subsequent business performance?" This topic is linked to the entrepreneurship field of research.

Business performance is presented by financial and non-financial measures: sales turnover, employment and profit.

Since business performance in this study embraces several indicators, it is possible to divide the main research question in the following sub-questions:

- 1) What is the effect of business founders' initial sales turnover growth intention on subsequent actual firm performance in terms of sales turnover?
- 2) What is the effect of business founders' initial employment growth intention on subsequent actual firm performance in terms of employment?
- 3) What is the effect of business founders' initial profit growth intention on subsequent actual firm performance in terms of profit?

In order to be able to address the research question, the detailed theory analysis will be provided in Chapter 2 that focuses on such theoretical perspectives as business performance, imprinting theory and intentions. Intention is considered to be the crucial factor predicting subsequent action. Imprinting will explain the intention as a consequence of the imprinting sources – external environment, experience, etc.

Based on the theoretical findings, the hypotheses of this research will be formulated and tested on the sample consisting of 221 Norwegian business registrations from 2002.

#### ***1.4 The outline of the thesis***

The present thesis includes five chapters: introduction (Chapter 1), theoretical perspectives (Chapter 2), methodology (Chapter 3), analysis (Chapter 4) and finally, discussion and conclusion (Chapter 5).

The second chapter highlights the literature review devoted to business performance, imprinting theory and intentions. The conceptual framework is discussed. Furthermore, the choice of different variables is explained. Then the formulated hypotheses and research model will be presented. The research model illustrates the connection between chosen dependent and independent variables.

In the third chapter, the methodology is provided. The study's philosophical position and research design are presented. The process of data collection and the sample are discussed. Analysis methods, which will help to test the hypotheses and answer the main research question, are provided. Concerning the variables, the variables included in the research model as well as control variables are detailed. Variables' distribution is reported; the transformation of dependent variables will be explained.

In chapter four, the actual data analysis is explained. The obtained results will be presented as well. Chapter addresses the research question by testing the hypotheses.

Regression analysis is used in order to test the relationships between independent variables and dependent variables.

Furthermore, in chapter five, the obtained results will be interpreted; it presents summary and important empirical findings. In conclusion, the contribution of the study is described; different implications and suggestions for further research will be discussed. Limitations connected with this study are defined as well.

## **2.0 Theoretical perspectives**

The focus of this chapter is on the theoretical frameworks, which form the basis for choice of variables and formulation of hypotheses.

The research is based on the possible imprinting effect of initial growth intentions on subsequent business performance, in other words, the link between intention and performance. Intention is perceived as a reason of particular performance.

Firstly, business performance, as the dependent variable in this study, is discussed. The concept “imprinting” in entrepreneurial action, imprinting theory and its effect on performance are described as well. Then intention as a dimension of imprinting is discussed. The theory of planned behaviour is presented in order to explain the nature of intention, which is the independent variable in this study. At the end, the hypotheses of the research are formulated and a research model is presented.

### ***2.1 Business performance***

#### ***2.1.1 Definition***

While managing a company, the priority is often given to the measurement and analysis of business performance. Performance is one of the most common terms used in science and in everyday activities of people. In academic research the issues concerning the performance measurement are essential because of the peculiarities of studied fields. Andy Neely argues: “By its nature performance measurement is a diverse subject. Researchers with functional backgrounds as diverse as accounting, operations management, marketing, finance, economics, psychology, and sociology are all actively working in the field of performance” (Neely, 2004, p. 7).

Since performance represents the quality of firms’ activity and, consequently, viability, the concept is one of the most important areas of theoretical and empirical research in economics and management. Performance is also the object of close attention of firms’ management and other stakeholders.

As stated in several academic studies, performance is not an easy subject, however, it is widely used among researchers. As it turned out, it was difficult to find out an appropriate

definition of the concept 'performance'. Many authors of reviewed articles omit this essential detail.

Great variety of published articles concerning business performance has resulted in multiplicity of term's interpretations, methods and measures of its measurement. That is why there is the lack of a clear definition of this concept. It is revealing during the literature review that the ambiguity and differences in the interpretation of the definition found in dictionaries, books, scientific articles.

Moreover, some researchers believe that the concept of performance cannot be defined due to the fact that its content is always context relative to regarded purpose and evaluation model. Lebas and Euske indicate: "Performance is one of those "suitcase words" in which everyone places the concepts that suit them, letting the context take care of the definition" (Lebas and Euske, 2007, p. 126). In other words, performance gets the meaning when it is within a specific context defined by the decision-maker.

Some authors identify performance as effectiveness and efficiency. Effectiveness measures the degree of achievement of goals set by the organization. While efficiency shows how efficiently firm operates in terms of resources costs (Neely et al., 1995).

The most used interpretation of performance is productivity of the organization when it comes to the results which are correlated to costs of the organization. Activity of each firm is characterized by consumption of resources in order to create specific results such as products. So the performance is usually analysed by correlating costs carried out by the organization and obtained results (Neely, 2004).

In addition, Lebas and Euske (2007, p. 126) name several other definitions of performance that can be relevant for this study:

- "Performance is equated with lean production, competitiveness, cost reduction, value and job creation, growth, and long-term survival of enterprises.
- to accomplish something with a specific intention (e.g., create value);
- the result of an action (the value created, however measured);
- the ability to accomplish or the potential for creating a result (e.g., customer satisfaction seen as a measure of the potential of the organization for future sales);
- the comparison of a result with some benchmark or reference selected – or imposed – either internally or externally".

In conclusion, the authors give the following definition: "Performance is the sum of all processes that will lead managers to taking appropriate actions in the present that will create a



performing organization in the future (i.e., one that is effective and efficient). In other words, we define performance as doing today what will lead to measured value outcome tomorrow” (Lebas and Euske, 2007, p. 131).

Since the study has focus on entrepreneurial field, it would be relevant to emphasize performance from entrepreneurial point of view.

Murphy, Trailer and Hill claim that “there has been no consensus in entrepreneurship research on the selection of an appropriate set of measures for assessing organizational performance due to wide range of perspectives and approaches in the study of entrepreneurship” (Murphy et al., 1996, p. 21). They also argue that “it is unlikely that any single performance measure or dimension could appropriately serve the needs of a diverse set of research questions” (Murphy et al., 1996, p. 21). Thus, the main proposition of researchers is that “it might be more useful to recognize the multiple dimensions of performance and allow theory the freedom to guide selection of the appropriate means of addressing performance” (Murphy et al., 1996, p. 21). In other words, the main idea is that performance is considered to be multidimensional. And the reason why performance is multidimensional, can be in the diversity of indicators that are of interest when it comes to performance: sales, survival, employment, etc. All of them are different dimensions and aspects of performance, which are important themselves to focus on.

In addition, Brush and Vanderwerf (1992) argue that the use of the term “performance” by researchers included many constructs measuring alternative aspects of performance.

Worth to mention, in this thesis, such notions as business performance, firm performance, organization performance are treated as synonyms.

### ***2.1.2 Measurement of performance***

The most of discussions concerning business performance lead to its measurement.

As Marshall Meyer claims: “Performance has the potential to become a new management discipline. Performance measurement offers the potential for managers to understand which of the activities undertaken generate revenues that exceed costs” (Meyer, 2002, p. 8).

Measurement of performance is usually carried out according to the nature of the analysed activity on the basis of the relevant models. The contextual nature of determining the performance leads to its subjective assessment. Hofer argues: “...clear that different fields of study should use different measures of organization performance because of differences in their research questions” (Hofer, 1983, p. 44). However, on the other hand, when researchers and

experts, which are committed to the particular perspective/field, limit their opinion within the framework of only one field, it may lead to the contradictions in the general study of business performance. So, it is important to have interconnection between perspectives in order to avoid or weaken the challenges for the academic community in terms of performance measurement.

It is of interest to note that there exist several perspectives that comprehend the concept of performance measurement in their own way (Otley, 2002; Clark, 2002; Neely et al., 2002; Murphy et al., 1996):

- accounting perspective;
- marketing perspective (marketing performance measurement);
- operations management perspective;
- entrepreneurship perspective.

#### *2.1.2.1 Accounting/financial perspective*

David Otley reviews measurement from an accounting perspective and explores the different roles of measurement.

The author allocates three main functions of measurement in terms of financial perspective (Otley, 2002, p. 11):

1. “Financial measures of performance as tools of financial management (effective and efficient use of financial resources).
2. Financial performance as a major objective of a business organization (profit is the central performance indicator for shareholders; accounting measures provide background and confirmatory evidence).
3. Financial measures of performance as mechanisms for motivation and control within the organization (basic accounting approach is to divide an organization into “responsibility centres”).”

Financial measures are important when it comes to achieving the firm’s goals. Otley argues as well that these measures are objective (Otley, 2002). “However, there is no definitive set of financial ratios that can be said to measure the performance of a business” (Otley, 2002, p. 16). The choice of measures usually depends on the decision-maker.

### *2.1.2.2 Marketing perspective*

Marketing performance management is becoming important as well. Bruce Clark has noticed a massive interest in concepts such as:

- marketing orientation,
- customer satisfaction,
- customer loyalty,
- brand equity (Clark, 2002).

Despite the challenges, non-financial measures of performance are a worthy addition to the complex assessment of business performance. These measures, for instance, are considered as component in balanced scorecard approach (Kaplan and Norton, 1992).

Worthy to add that marketing performance measurement is difficult since its conduction depends on many external actors whom is difficult to control. In comparison to simple financial measures, non-financial measures are more sophisticated as practice shows (Clark, 2002). As for the exact set of measures, it is still difficult to define them.

### *2.1.2.3 Operations management perspective*

Andy Neely and Rob Austin identify several phases in this field's evolution:

1. productivity measurement;
2. how to develop measures consistent with modern manufacturing management thinking;
3. key operations management measurement issues are measures for the new economy and for inter- and intra-operational alliances (Neely et al., 2002).

### *2.1.2.4 Entrepreneurship perspective*

While discussing entrepreneurship perspective, it is appropriate to name what is specific with the entrepreneurial content. There is no agreed definition on entrepreneurship, however, it is about discovering opportunities and using resources. By Nielsen et al. (2012, p. 17), entrepreneurship is defined as the “emergence of new opportunities which are evaluated and exploited through organising”. Bygrave & Hofer (1991, p. 15) claim that: “The entrepreneurial process involves all the functions, activities, and actions associated with the perception of

opportunities, and the creation of organizations to pursue them”. Shane and Venkataraman (2000, p. 218) define the field of entrepreneurship as “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited”. Referring to the mentioned effects in the definition of entrepreneurship, authors mean the business performance.

Business performance in entrepreneurship perspective reflects the quality of the achievement of different business goals, which is aimed to get systematically profit (income) in order to meet the needs of entrepreneurs. Entrepreneurial activity is always aimed at achieving the goal and getting result. If the end result is the same as the purpose, the activity can be considered rational, if not - the activity is not rational. Thus, performance reflects the possibility of obtaining the result under certain conditions of activities. This fact helps to highlight the basic principle of measuring the effectiveness - the principle of interrelation between purpose and result of activity (Bagiev & Asaul, 2009).

As mentioned before, Murphy and co-authors claim that performance is considered to be multidimensional in entrepreneurial studies, that is the presence of multiple dimensions of entrepreneurial and small business performance. Their study revealed that a majority of performance measures were related to one of eight performance dimensions (Murphy et al., 1996, p. 16):

- “Efficiency
- Growth
- Profit
- Size
- Liquidity
- Success/Failure
- Market Share
- Leverage”.

Each dimension corresponds to several measures. Venkataraman and Ramanujam provided a framework for classifying performance measures: financial versus operational (nonfinancial) measures. The authors’ suggestion is that “the operational as well as the financial aspects of performance be considered implies that performance measurement could be improved by examining multiple dimensions of performance. Thus, organizational performance is composed of multiple dimensions, where financial measures are necessary but not sufficient to capture total organizational performance” (Venkataraman & Ramanujam, 1986, p. 807).

### ***2.1.3 Choice of dependent variables measures***

In this research business performance is the dependent variable. Since performance is considered to be multidimensional, this is a convincing argumentation to use different measures of performance. Reviewed literature shows that there are several alternatives of appropriate outcome variables of business performance. The task is to choose the relevant variables, in other words, performance measures.

The aim of this study is to analyse the effect of growth intentions on the business performance. Emphasize will be given to the most available, representative and relevant measures. And since financial performance measures have long history of evaluating the performance and are widely used among different firms, they reflect firms' objectives and assess their performance appropriately, thus, the following measures are chosen for the current research: sales turnover, employment and profit. Moreover, Otley mentioned that "financial and accounting measures of performance often appear to have an objectivity" (Otley, 2002, p. 31). Pérez and Canino (2009, p. 993) admit that "the financial measures have, for many years, been regarded as the most trustworthy measures of a company's performance, sometimes on the same level as the concepts of success and economic performance". As for the measure "employment", it can be regarded as non-financial performance measure.

In this study entrepreneurial performance will be surveyed after 2, 5, 10 years after start-up. This is relevant and valuable because the time aspect is of great concern. Longitudinal extent makes it possible to observe the behaviour of different variables.

Since research examines different periods of companies' activity such as 2 years, 5 years and 10 years, it can happen that the role of different chosen measures will differ in each period of analysis. For instance, after first two years of activity profit maybe not very representative, since company plans a break-even point in longer term, however, profit after 10 years can describe and estimate how successful activity is.

Noteworthy, this study focuses on subsequent business performance, which means outcomes observed after a certain time of companies' activity. The three performance dimensions are discussed below.

### *2.1.3.1 Sales turnover*

Sales turnover is an important measure for many entrepreneurs in term of stakeholder perspective, since sales performance is used by them as a criterion of success and achievement when they gain particular goals in this sphere. It is proof for entrepreneurs that they can manage sales as planned. Moreover, government as a stakeholder is interested to get tax revenues that are results of successful sales (Anna et al., 2000; Robinson, 1998).

In case of this research sales turnover is a relevant measure because it makes companies comparable, and sales information is available for the researcher.

This indicator is of the most frequently utilized measures of new venture performance (Perez & Canino, 2009; Murphy et al., 1996).

Treating the measure “sales turnover” as a goal of company leads to the conclusion that it is one of the most important goals and objectives of owners and senior managers of business enterprises (Chandler and Hanks, 1993; VanderWerf, 1994).

Kenneth Charles Robinson defines that “sales growth is necessary for developing new ventures to fund future operations; indicative of increasing customer acceptance of venture’s product/service offerings” (Robinson, 1998, p. 169).

### *2.1.3.2 Employment*

The next chosen measure of business performance is employment. Since financial measures do not reflect the whole situation in companies, this is an advantage to use non-financial measures as well in the research. According to stakeholders’ theory, this indicator is important and relevant for authorities, since employment provides work places.

Wong and Autio (2005, p. 338) claim that “small businesses and newly formed firms create a substantial number of new jobs, with some studies showing that small and new firms are the source for the majority of new jobs created”. Authors also discuss that “numerous studies examine the ambivalent causality between formation of new firms and (un)employment level. New start-up firms provide employment opportunities in themselves and also create employment in existing firms” (Wong et al., 2005, p. 338).

Isaksen (2006, p. 24) pointed out that “Storey (1994) considered employment creation as a key policy objective”.

Since entrepreneurship is a determinant of employment and important indicator for entrepreneurs, it explains the choice of such performance measure.

### ***2.1.3.3 Profit***

The last chosen appropriate performance measure is profit. This measure is important and relevant first of all for entrepreneur as the main stakeholder and also government that is interested in taxes. It is a measure for entrepreneurs that they have surplus in their activity. In addition, profit is an indicator of viability, since aim of each business is to survive and stay afloat.

Kenneth Charles Robinson (1998, p. 169) identifies the following functions of profit as a measure:

- “Profit contributes directly to venture’s ability to fund investment;
- May be related to the caliber of investment opportunities within the venture’s areas of specialization;
- Also a component of bond rating variables which influences borrowing ability”.

Prior studies have found that profit is one of the most important goals and objectives of owners and senior managers of business enterprises (Chandler and Hanks 1993; VanderWerf 1994).

Since study focuses on firms that exist over 10 years, this measure can be representative for these businesses with experience and examined activity.

All three dimensions are relevant for the present study. To focus just on one of them is not optimal in this case since business performance is multidimensional as it was pointed out earlier. The fact, that study concentrates on the different dimensions simultaneously, can be considered as one of the contributions of the master thesis.

## ***2.2 Imprinting***

As it was mentioned above, performance is an important and much discussed concept among researchers. Moreover, researchers are interested to find out which factors can influence performance. In this section some findings concerning this topic will be highlighted.

The next concept that is of interest in this study is imprinting, which has relation to business performance. This connection will be proved theoretically by examples of previous academic researches.

### **2.2.1 Definition**

First of all, it is important to define the term 'imprinting'. Below are presented the interpretations of the concept by several authors.

Mathias et al. (2014, p. 12) define imprinting as “a time-sensitive (i.e., occurs at sensitive stages of life) learning process (i.e., a stamping process whereby the focal entity reflects elements of its environment) that initiates a development trajectory (i.e., produces persistent outcomes)”.

Johnson (2007, p. 98) discusses that “several scholars have noted (Hannan et al. 1996; Sastry and Coen 2000) that the idea of imprinting actually combines two distinct processes under one hypothesis: first, the process by which technological, economic, political, and cultural elements of the founding context shape the characteristics of a new organization; and second, the process by which these founding characteristics are reproduced during the organization’s subsequent history”.

Victoria Johnson (2007, p. 117) presents two important insights into the organizational imprinting phenomenon:

“(1) imprinting is an agency-driven process of cultural entrepreneurship rather than a mechanical and discrete event,

(2) the embedded nature of cultural entrepreneurship means that the imprinting process is crucially influenced by key stakeholders who may reinforce or thwart entrepreneurs’ plans”.

As for agency-driven process, it means that people have direct connection to intentions, it is not mechanical process; the human role is crucial.

Dufays and Huybrechts (2015, p. 9) discuss that “Stinchcombe introduces the following in his seminal essay “Social structure and organizations”: imprinting denotes how organizations embrace elements from their founding environment and how these persist beyond the set-up phase”.

Christopher Marquis and Andras Tilcsik (2013, p. 201) argue that by definition, imprinting has three essential features:



(1) “the existence of a temporally restricted sensitive period characterized by high susceptibility to environmental influence;

(2) the powerful impact of the environment during the sensitive period such that the focal entity comes to reflect elements of the environment at that time;

(3) the persistence of the characteristics developed during the sensitive period even in the face of subsequent environmental changes”.

Eddleston (2008, p. 1056) mentions that according to Schein (1983) and Stinchcombe (1965) “organizational imprinting theory recognizes the lasting effect that founders have on their firms’ structure, operating practices, and strategies”.

DeTienne and Cardon (2008, p. 1) claim that “organizational imprinting indicates that the accumulation of strategic resources and business model design may leave a lasting imprint upon the firm”.

DeTienne (2010, p. 209) says that Kimberly (1979, p. 438) concluded when it comes to imprinting that “the conditions under which an organization is born and the course of its development in infancy have nontrivial consequences for its later life”.

In this study, all found definitions and characteristics of imprinting will be considered since they complement each other.

### ***2.2.2 Historical overview***

It is appropriate to indicate the origins of the concept “imprinting”. As Christopher Marquis and Andras Tilcsik (2013, p. 197) tell “the use of the imprinting concept in organizational studies dates to Stinchcombe’s classic 1965 essay on “Social Structure and Organizations””. Authors discuss that “the notion of imprinting captures the idea that features are built into organizations at foundation and subsequently persist. Stinchcombe emphasized the importance of external environmental forces in shaping firms’ initial structures and the persistence of these patterns over time” (Marquis & Tilcsik, 2013, p. 197).

### *2.2.3 Sources of imprint/dimensions/factors*

There has to be a reason why imprinting effect occurs. This section will propose some factors/sources that appear to be reasons for imprinting.

Actually, everything important that surrounds person, firm, firm's outcomes, all possible type of experience, conditions can generate imprinting effect. Particularly, there exist several sources of imprinting such as family; partners; team; education; work experience; work-related knowledge, skills; technology; the environment, etc. The sources that this study chooses are both related to individuals as entrepreneurs and firms (Mathias et al., 2014).

Blake D. Mathias, David W. Williams and Adam R. Smith, who focus on the imprinting process for individuals—namely, entrepreneurs, allocate in their research the following groups of imprinting sources for choosing to be an entrepreneur and how entrepreneurs think about opportunity:

(1) “family and friends

For these individuals, imprinting often occurs early in life; thus, becoming an entrepreneur occurs intentionally, and being an entrepreneur is a critical part of who they are.

(2) technology and the environment

These individuals are ardent about inventing through meeting unmet needs, solving problems, or making existing products better, and entrepreneurship seems to just happen, often accidentally.

(3) work experience and work-related knowledge, skills and abilities

For these individuals, ‘becoming an entrepreneur’ often occurs as individuals realize that an opportunity exists, and their unique expertise and skills in the field allow them to pursue and develop that opportunity” (Mathias et al., 2014, p. 18).

Lee and Battilana (2013, p. 10) admit that Marquis and Tilcsik (2013) identify “three key factors that are likely to have a lasting influence of individuals’ work behaviour, namely parental work experiences, professional education and personal work experience”.

Judge et al. (2015, p. 8) discuss that “the imprinting framework developed by Marquis and Tilcsik (2013) highlights equally important sources of imprints – economic and technological conditions, institutional factors, and individuals”.

Perkmann and Spicer (2014, p. 1785) say that according to Stinchcombe, “organizations are imprinted with the characteristics of groups, institutions, laws, population characteristics,

and sets of social relationships that form the environment of the organization prevalent at the time of founding”.

In this research special focus is on the intentions and aspirations as the factors of imprinting. Such intentions and aspirations are typically results of learning, socialization, prior experience of entrepreneurs or technology and the environment.

The proposition of this study to look at intentions and aspirations as the factors of imprinting makes this research unique and different from previous studies.

So, imprinting for those, who start up a company, is intentions that will have effect on the company’s development later. Thus, intentions and aspirations can be considered as part of imprinting.

While making this research, entrepreneurs were asked to answer the questionnaire that identifies imprinting factors such as intentions and aspirations. They were asked at the moment when they were starting a business, and this is a sensitive stage in the entrepreneurial process.

As mentioned by researchers, “process through which knowledge is obtained is critical to decision making and opportunity selection” (Mathias et al., 2014, p. 14).

#### ***2.2.4 Imprinting effect on performance***

As it was considered by researchers there are three elements of imprinting: sensitive periods, stamps, and persistence (Marquis and Tilcsik, 2013). In this study, imprinting organization's sensitive period is classified as the founding period. Stamps appear to be decisions and choices taken by entrepreneurs based on their intentions and aspirations. Persistence is related to performance outcomes effected by imprinting.

As highlighted in research of Blake D. Mathias, David W. Williams and Adam R. Smith: “founders' early decisions and the environmental conditions at founding each imprint upon a new venture in ways that affect growth and survival” (Mathias et al., 2014, p. 11). Authors also discuss that according to Bird (1992), Cooper et al. (1994), DeTienne (2010) “entrepreneurs' initial decisions have a lasting impact on future outcomes. Therefore, entrepreneurs imprint their ventures by making important decisions early on in their venture's development” (Mathias et al., 2014, p. 14). DeTienne and Cardon (2008, p. 2) say that “researchers (Boeker, 1989; Doz, 1996; Kimberly, 1979) refer to the impact of founding conditions on future outcomes as organizational imprinting”.

That can be reformulated that imprinting has effect on performance. Imprinting is important in terms of what is going to happen with company in the future. Imprinting effect is reflected in how company will develop itself, in other words how the company will perform.

Thus, in imprinting process it is essential to allocate “founding decisions, that are the choices made at the onset of the firm, influenced by intentions and aspirations, as well as founding conditions—the environmental conditions at the firm inception. Since both factors impact the firm throughout its life. Together, these efforts demonstrate that what happens during venture founding has a persistent impact on the course of that organization” (Mathias et al., 2014, p. 12).

In addition, as proposed by Kriauciunas and Shinkle in their work, “imprinting may contribute to improved understanding of the initiation sources of organizational behaviour. In other words, imprinting may be a helpful causal mechanism to explain observed behaviour and the origins of such behaviour in varied situations related to organizational behaviour, entrepreneurship” (Kriauciunas and Shinkle, 2008, p. 4). It can clarify how intentions of entrepreneurs can affect the outcomes of the business.

Kriauciunas and Shinkle suggest that “imprinting may have long lasting effects upon the strategies, strategic choices, and operating practices of firms. As such, organizational imprints establish powerful behaviour guidelines that affect organizational choices and performance. Interesting to mention that if imprints are critical to firm behaviours and choices, then achieving competitive advantage and above normal returns may be dependent on organizational imprints” (Kriauciunas and Shinkle, 2008, p. 4).

Given arguments once again suggest that imprinting has a crucial effect on business performance.

In the next section, intentions and aspirations will be presented and described as the factors of imprinting that have impact on business performance.

### ***2.3 Intentions and growth aspirations***

Noteworthy, this study considers intentions and aspirations as synonyms. As it was mentioned above, intentions and aspirations represent imprinting. Since imprinting has effect on performance, consequently, intentions and aspirations, as factors of imprinting, have imprinting effect on performance. Concerning the causality of this impact, the cause of the direction is the following - the intentions and aspirations are causing the performance.

Imprinting for those entrepreneurs, who start up business, are intentions and aspirations that have impact on businesses later.

To clarify, imprinting affects intentions/aspirations, which in their turn affect performance. Particularly, imprinting affects attitudes, subjective norm and perceived behaviour control, which in their turn affect intentions that influence performance.

This research focuses on initial intentions and growth aspirations that belong to entrepreneurs who are at the beginning of starting a business.

This study is further research inspired by the doctoral thesis “Early business performance – initial factors effecting new business outcomes” written by Espen Isaksen. Findings of the thesis include a strong positive association that was detected between growth intention and superior early business performance (Isaksen, 2006). This particular finding allows to assert that intention impacts performance and conduct research on this topic in more details.

### ***2.3.1 Intentions***

Firstly, the concept “intention” will be discussed in more details. Even if this study does not test the link among the intention’s determinants such as attitudes, subjective norm and perceived behavioural control (Ajzen, 1991), it is important to understand the nature of the key concept.

#### ***2.3.1.1 Definition***

What is the definition of intention? Several authors propose different versions of definition.

Fini et al. (2009, p. 4) discuss that “Bird (1988) defines it as a state of mind directing a person’s attention (and therefore experience and action) toward a specific object (goal), or a path, in order to achieve something (means). Tubbs and Ekeberg state that an intention can be described as a cognitive representation of both the objective (or goal) one is striving for and the action plan one intends to use to reach that objective”.

Fini and co-authors complement that “central is the role of the objectives (or goals) and their ability to foster and influence intention” (Fini et al., 2009, p. 4).

Zain et al. (2010, p. 36) discuss that according to Douglas and Fitzsimmon, “entrepreneurship intention refers to the action of an individual’s attitudes toward the outcomes of that actions and individual’s self-efficacy”.

Schmidt et al. (2013, p. 4) argue that “intentions are indicators of a person's readiness to carry out a particular action (Fishbein et al., 2010). Starting own business is good example of a planned and intentional behaviour”.

Frazier and Niehm (2006, p. 3) admit that several researchers argue that “intention relates to the perceptions of desirability and feasibility and the propensity to act upon opportunities (Shapero & Sokol, 1982; Peterman and Kennedy, 2003)”.

Ajzen proposes that “intentions are assumed to capture the motivational factors that influence behaviour; they are indications of how hard people are willing to try, of how much effort they are planning to exert, in order to perform a behaviour” (Ajzen, 1991, p. 181).

The nature of intentions can be explained by several models, such as the theory of planned behaviour (Ajzen, 1991) or Shapero and Sokol (1982) “Entrepreneurial Event” model. This research will focus on the theory of planned behaviour as the basis of intention study. As it was mentioned before, this theory will be described only in theoretical part of the research without testing the links of intention’s determinants. However, it is still important to explain the essence of the concept “intention” in order to predict the actual entrepreneurial behaviour. Intentions often transform into action and lead to an increase of entrepreneurial activity.

#### ***2.3.1.2 “Theory of Planned Behaviour” - Ajzen’s model***

The theory of planned behaviour is often used to explain the entrepreneurial intentions and behaviour in recent years. It is a theory which predicts intentional behaviour, since behaviour can be planned.

Ajzen proposes that “intentions to perform behaviours of different kinds can be predicted with high accuracy from attitudes toward the behaviour, subjective norms, and perceived behavioural control” (Ajzen, 1991, p. 179).

In the centre of theory is the individual’s intention to perform a given behaviour. The author defines the rule “the stronger the intention to engage in a behaviour, the more likely should be its performance” (Ajzen, 1991, p. 181).

Figure 1 shows the schematic representation of the theory of planned behaviour including main components added with imprinting component as well.

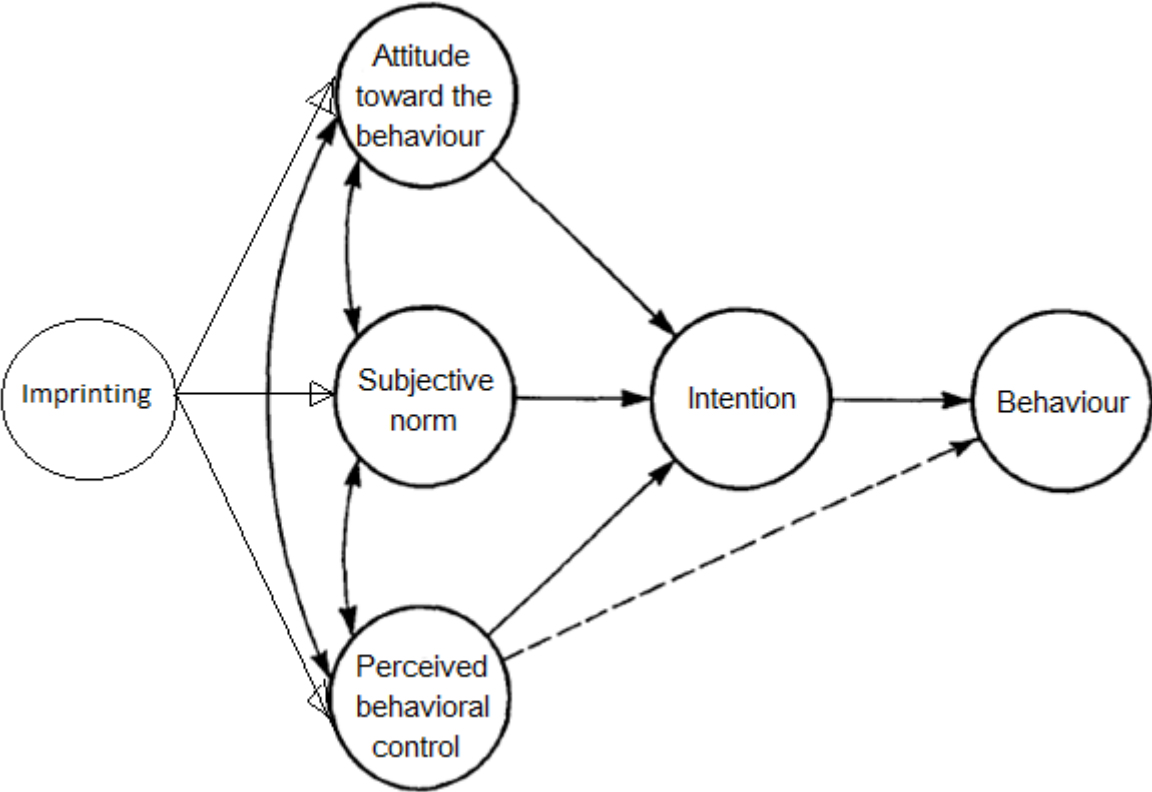


Figure 1: Extended “Theory of Planned Behaviour” model (Ajzen, 1991).

Figure shows that “behavioural intentions are determined by three key antecedents: attitude toward behaviour, subjective norm and perceived behavioural control” (Isaksen, 2006, p.36).

“Attitude refers to the degree, to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. Subjective norm refers to the perceived social pressure to perform or not to perform the behaviour. The degree of perceived behavioural control refers to the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles” (Ajzen, 1991, p. 188).

Thus, intention is expected to influence performance to the extent that the person has behavioural control, and performance will increase with behavioural control to the extent that the person is motivated to try.

When it comes to imprinting component in the Figure 1, imprinting factors will influence attitudes, subjective norms and perceived behavioural control which in their turn affect intention that consequently influences business performance.

Mandal (2013, p. 277) says that according to Ajzen (1991) “as a general rule, the more favourable the attitude and subjective norm with respect to a behaviour, and the greater the perceived behavioural control, the stronger should be an individual’s intention to perform the behaviour under consideration”.

The theory of planned behaviour distinguishes between three types of beliefs - behavioural, normative, and control:

- “Behavioural beliefs. These beliefs are about the probable outcomes of the behaviour.
- Normative beliefs. These beliefs are about the normative expectations of others.
- Control beliefs. These beliefs are about the presence of factors that may support or prevent the behaviour” (Ajzen, 1991, p. 189).

Thus, “behavioural beliefs produce a favourable or unfavourable attitude toward the behaviour, normative beliefs result in perceived social pressure or subjective norm, and so do control beliefs. In combination, attitude toward the behaviour, subjective norm, and perception of behavioural control lead to the formation of a behavioural intention. According to the theory of planned behaviour, perceived behavioural control, together with behavioural intention, can be used directly to predict behavioural achievement” (Ajzen, 2011, p. 74).

### ***2.3.1.3 Link between imprinting and intentions***

This section discusses the link between imprinting and intentions. This can be considered as one of the theoretical contributions of the present study.

Earlier the sources/factors of imprinting were presented. Among them are allocated family and friends, technology and the environment, work experience and work-related knowledge, skills and abilities. These sources are also considered as entrepreneur’s demographics/characteristics. So imprinting influences intentions through these sources. In another words, entrepreneur’s demographics/characteristics influence intentions.

Further, according to the Ajzen’s theory of planned behaviour, such characteristics, for instance external environment, influence intentions through the effect on attitude toward behaviour, subjective norm and perceived behavioural control (Figure 1). In particular,



experience of entrepreneur will affect attitude toward behaviour, which in its turn will influence the intention.

In this way, the link between imprinting theory and intentions originates. Intentions are the result of the environmental influence. Intention can be named as an indication of imprinting which is positive. Intentions are also the consequences of imprinting sources.

Being an entrepreneur and obtaining entrepreneurial characteristics lead to better attitude toward behaviour, greater perceived behavioural control that as the result influence intentions. When the environment is very munificent, it influences the attitude to entrepreneurship which is attractive in this case. All that affect the intention, again through attitude.

#### ***2.3.1.4 Discussions on intentions***

According to Fini et al. (2009, p. 1), “in the entrepreneurship literature many scholars have focused on intentions (Bird, 1988; Krueger et al., 2000). Intentions have been proved to be the best predictors of individual behaviours particularly when the behaviour is rare, hard to observe or involves unpredictable time lags (Krueger & Brazeal, 1994)”.

According to the TPB, it should be possible to predict performance of a behaviour from intentions to perform the behaviour and from perceived behavioural control. Intentions, in turn, should be predictable from attitude towards the behaviour, subjective norm and perceived behavioural control (Ajzen, 2011).

Important conclusion was made by Kolvereid and Bullvåg in their research: “the results indicate that growth intentions may be used to predict actual growth” (Kolvereid and Bullvåg, 1996, p. 13).

#### ***2.3.2 Growth aspirations***

It is appropriate to explain the concept “growth aspiration”, since it is also the factor of imprinting that has effect on business performance.

Bulanova, Isaksen and Kolvereid (2016, p. 187) discuss that “as was mentioned by several researchers, the entrepreneurs’ business growth aspiration is a main predictor of actual business growth (Davidsson, 1989; Delmar and Wiklund, 2008; Kolvereid and Bullvåg, 1996)”.

Speaking about the connection between intention and aspiration, Bulanova et al. (2016, p. 193) say that “Douglas distinguishes between growth intention among intending entrepreneurs and growth aspiration among practising entrepreneurs. Intentions formed in the “exploration stage” of the entrepreneurial process transform into aspirations in the “exploitation stage” of the entrepreneurial process. These aspirations will take form after the launch of the venture (Douglas, 2013)”.

The main characteristics of growth intentions are desirability and feasibility of business growth. In the study of Bulanova, Isaksen and Kolvereid, authors assume that “perceived desirability and perceived feasibility determine growth aspirations. That is, entrepreneurs’ business growth aspirations depend on the extent to which they consider business growth as a desired or not desired outcome. In addition, entrepreneurs need to consider if business growth is something that they actually can accomplish, that is, the extent to which business growth is feasible to them” (Bulanova et al., 2016, p. 195).

The findings of authors indicate that “both growth desirability and growth feasibility are key predictors of women entrepreneurs’ business growth aspirations. Growth desirability is, in the study, referring to the entrepreneurs’ perceptions relating to the stakeholders’ attitude towards business growth. That perceived self-efficacy related to external funding (feasibility) predicts growth aspirations has implications for entrepreneurship research” (Bulanova, Isaksen and Kolvereid, 2016, p. 212).

### ***2.3.3 Link between intentions and performance***

Autere (2005, p. 84) discusses that “there are several studies that investigated the relationship between motivation/intention and growth confirmed a positive relationship between motivation and growth (Bellu and Sherman, 1995; Kolvereid and Bullvåg, 1996; Miner et al., 1994; Mok and van den Tillaart, 1990)”.

In particular, Kolvereid and Bullvåg (1996) found that growth ambitions were positively associated with performance. “Growth intentions are related to actual growth, the past intentions are related to later intentions, and that changes in intentions are related to changes in actual growth. Opportunity influences intentions, which, in turn, influences actual growth” (Kolvereid & Bullvåg, 1996, p. 13). So, implications of authors’ study can be a persuasive argumentation for the hypotheses of this master thesis: “Growth intentions may be used to

predict actual growth; intentions may be used as surrogate measures of actual growth” (Kolvereid & Bullvåg, 1996, p. 14).

Further, Wiklund and Shepherd (2003, p. 1922) found that “small business managers’ aspirations to expand their business activities are positively related to actual growth”. Using the theory of planned behaviour, they argue that “attitude towards the behaviour, subjective norms, and perceived behavioural control explain intentions, whereas perceived behavioural control and intention predict behaviour” (Wiklund and Shepherd (2003), p. 1922). Authors focus on the “variables of growth aspirations (which reflects attitudes towards growth and subjective norms) and perceived behavioural control; they do not directly measure the construct of intentions” (Wiklund and Shepherd (2003), p. 1922).

The authors tested a motivation-based model presented in Figure 2.

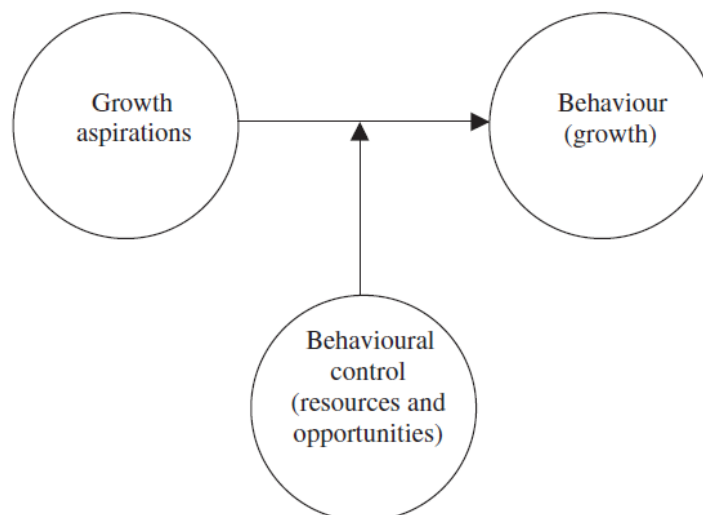


Figure 2: Adapted version of the theory of planned behaviour for studying how growth aspirations influence actual growth (Wiklund and Shepherd (2003), p. 1923).

They found that “the relationship between aspirations and growth appears more complex than stated. It depends on the level of education and experience of the small business manager as well as the dynamism of the environment in which the business(es) operates” (Wiklund and Shepherd (2003), p. 1932).

Again, the imprinting factors (experience, environment) appeared, and as it was clarified before, these factors lead to intention that affect the business performance.

In this master thesis, the same logic and argumentation are used as in previous studies about intentions and their influence when it comes to the formulation of hypotheses. Researchers, using logic of Ajzen’s theory, report and believe that those who have higher

intentions to start business, more likely to do it; in the same way those, who want the growth of businesses, will have greater chance to actually achieve the business growth. The same reasoning about the higher intentions is used in the previous studies and current study.

#### ***2.3.4 Choice of independent variables in research***

As it was mentioned, the aim of this study is to analyse the effect of intentions on the business performance. That is why intention is the independent variable. Since dependent and independent variables have to be in the same dimension (have to link), the choice of independent variable is based on dependent variables. In section “Business performance” the following measures were chosen for the current research: sales turnover, employment and profit. Thus, independent variables are presented by:

- intention for sales turnover,
- intention for employment,
- intention for profit.

#### ***2.4 Hypotheses of the research and research model***

After conducted literature review, it becomes possible to formulate the hypotheses of the research. The hypotheses are based on the theory and earlier studies (Isaksen, 2006; Kolvereid and Bullvåg, 1996; Isaksen & Kolvereid, 2006, etc.)

Hypothesis 1: Business founders’ initial sales turnover growth intention is positively related to subsequent actual firm performance in terms of sales turnover.

Hypothesis 2: Business founders’ initial employment growth intention is positively related to subsequent actual firm performance in terms of employment.

Hypothesis 3: Business founders’ initial profit growth intention is positively related to subsequent actual firm performance in terms of profit.

These hypotheses reflect the core of this study: intentions have imprinting effect on the firm’s performance.

Figure 3 presents the research model of the present study reflecting all necessary aspects and goal that implies to improve empirically the effect of intentions on performance:

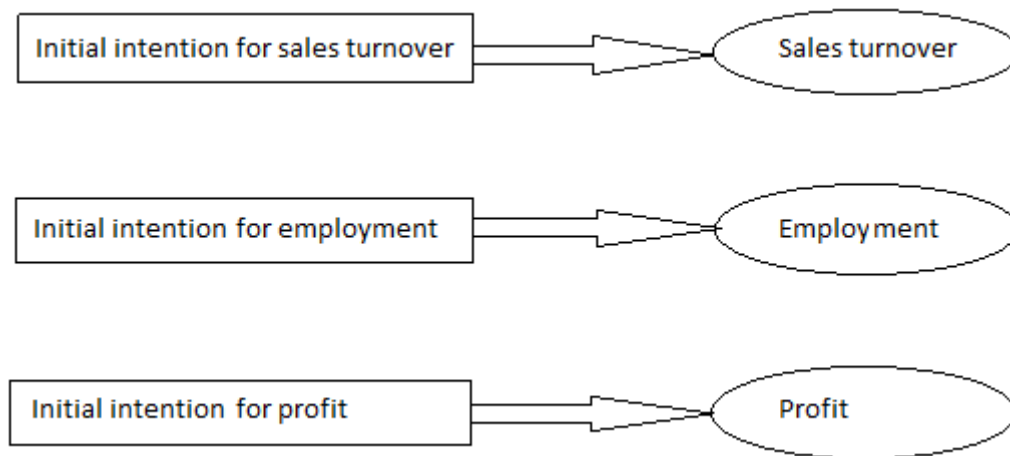


Figure 3: Research model

Noteworthy, two-year, five-year and ten-year performance is investigated in the study.

## 2.5 Summary

In this chapter the dependent and independent variables are discussed. The relevant theoretical perspectives are defined. The main assumption coming from chosen perspectives is that “entrepreneurs and their businesses have the possibility to impact future events and business outcomes” (Isaksen, 2006, p. 93).

The dependent variable, business performance, is multidimensional, that is why it was decided to choose several performance measures: sales turnover, employment and profit.

Business performance is affected by imprinting through intention. The nature of intention is clarified with the theory of planned behaviour. Imprinting factors, for instance external environment and experience, influence intentions through the effect on attitude toward behaviour, subjective norm and perceived behavioural control. Further, intention is expected to influence performance to the extent that the person has behavioural control, and performance will increase with behavioural control to the extent that the person is motivated to try.

Based on the literature review and discussions, hypotheses and research model are presented. Next chapter will address the methodology.

### **3.0 Methodology**

In this chapter the description of methodology and its importance in research study will be provided. The chosen research method that helps to investigate the research questions will be explained. The philosophical position will be discussed. The research design will be introduced. It is also important to define the unit of study, level of analysis and sample. The data collection process will be discussed including the estimation of data quality. In addition, the overview of the dependent, independent and control variables, their measurement and analysis methods are defined.

#### ***3.1 Philosophical position***

Methodology of science is the study about methods and procedures of scientific activities. In other words, the decisions that have to be made while conducting the empirical study.

The philosophy of science studies the concept, boundaries and the methodology of science. According to Easterby-Smith et al., “the understanding of philosophical issues is very useful, and it is important to comprehend how philosophical factors affect research and help to give a better answer to the research question” (Easterby-Smith et al., 2012, p. 17).

Easterby-Smith et al. admit as well that “all researches hold philosophical assumptions, and researchers need to be aware of their own assumptions. Philosophical factors and assumptions influence what type of data should be collected in a research project, how the collected data can be interpreted. The actual methodology and research techniques that are used in a research project depend on assumptions made concerning ontology and epistemology” (Easterby-Smith et al., 2012, p. 17).

It is appropriate to define the main concepts. Ontology means “views about the nature of reality” (Easterby-Smith et al., 2012, p. 344). Epistemology means “views about the most appropriate ways of enquiring into the nature of the world” (Easterby-Smith et al., 2012, p. 341).

There are two main traditions which are positivism and social constructionism.

“The key idea of positivism is that the social world exists externally, and its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition” (Easterby-Smith et al., 2012, p. 22).

“The idea of social constructionism is that ‘reality’ is determined by people rather than by objective and external factors, and hence it is most important to appreciate the way people make sense of their experience” (Easterby-Smith et al., 2012, p. 23).

Below is presented the Table 1 with description of each tradition:

Table 1: Contrasting implications of positivism and social constructionism (Easterby-Smith et al., 2012, p. 24)

	Positivism	Constructionism
<b>The observer</b>	Must be independent	Is part of what being observed
<b>Human interests</b>	Should be irrelevant	Are the main driver of science
<b>Explanations</b>	Must demonstrate causality	Aim to increase general understanding of the situation
<b>Research progresses through</b>	Hypotheses and deductions	Gathering rich data from which ideas are induced
<b>Concepts</b>	Need to be defined so that they can be measured	Should incorporate stakeholder perspectives
<b>Units of analysis</b>	Should be reduced to simplest terms	May include the complexity of ‘whole’ situations
<b>Generalizations through</b>	Statistical probability	Theoretical abstraction
<b>Sampling requires</b>	Large numbers selected randomly	Small number of cases chosen for specific reasons

According to the table, epistemological position of the present research is close to the positivism, characterized by:

- “Aim – exposure
- Starting point – propositions
- Design – large surveys, multi-cases
- Data type – numbers and words
- Analysis/interpretation – correlation and regression
- Outcomes – theory testing and generation” (Easterby-Smith et al., 2012, p. 25).

Moreover, the research model and hypotheses confirm that the study linked to a positivism view. The goal is to propose relationships between variables. Quantitative method is used to test these relationships.

Nevertheless, “in practice of research and when one considers an individual research project, the research can rarely be classified as either taking a pure positivist or a social constructionist view” (Easterby-Smith et al., 2012, p. 28).

In support to close positivism view of the present study, it is possible to observe numbers, however, intentions would be difficult to observe. That is why epistemological position of this study perhaps borders on with scientific realism. “Since scientific realism considers unobservable entities to be relevant objects for scientific inquiry. The scientific realism view loosens some of the stringent assumptions implied by positivism. In particular, this concerns epistemological considerations about how valid knowledge should be established” (Isaksen, 2006, p. 99).

### ***3.2 Quantitative research***

Study of phenomenon can be conducted with the use of qualitative and quantitative methods. The nature of studied subject determines the type of methods. Further, chosen method defines how data will be collected and how it will be analysed.

In a quantitative study statistics and numbers are in focus, they make it possible to test established theory (Johannessen et al., 2011). A qualitative study is well suited to develop new theory, it provides more detailed information and it is suitable when there is lack of knowledge about the phenomenon (Thagaard, 2006).

In this research the quantitative method is implemented in order to gain the goals that are mentioned below.

“Quantitative research is a formal, objective, systematic process in which numerical data are used to obtain information about the world. This research method is used:

- to describe variables;
- to examine relationships among variables;
- to determine cause-and-effect interactions between variables” (Burns et al., 2005, p. 23).

The use of quantitative method is supported by the fact that there are several different hypotheses which have to be tested in this study. Findings from a relatively large number of



entrepreneurs and their firms in Norway will be analysed and generalized. The conclusions will be made about the veracity of studied hypotheses.

### ***3.3 Research design***

This is the planning of research process in order to answer the research questions. “Research designs are about organizing research activity, including the collection of data, in ways that are most likely to achieve the research aims” (Easterby-Smith et al., 2012, p. 43). According to the formulated research questions, the most relevant will be data-gathering process, survey research, quantitative data and use of statistical analysis.

When it comes to effect of initial growth intentions on subsequent business performance, the survey conducted previously by researcher Espen Isaksen in his doctoral thesis was used as a secondary data in this study in order to answer the research question.

Such components of research design as unit of analysis, criteria to select data sites and longitudinal extent of the data collection (Hofer and Bygrave, 1992) will be discussed further.

The unit of analysis is considered to be business registrations represented by founding entrepreneurs or entrepreneurial team.

When it concerns the dependent variable “performance”, research is conducted at the firm/business level of analysis. When it comes to independent variable “intentions”, the level of analysis is the individual.

Concerning the data site and sampling frame of the study, initial information about new business registrations in Norway for 2002 was collected from the Brønnøysund Register Centre in 2004 by previous researcher. The focus is on businesses with unlimited or limited responsibility (AS). The sampling frame consisted of the whole population of new business registrations in Norway during 4 weeks in 2002 that have taken a visible step into the business creation process (Isaksen, 2006). Initially, it was 3,121 new business, however, this number will be corrected because of the additional requirements for business entities.

When it comes to the longitudinal extent of the data collection, the time lag is ten years between initial cross-sectional study in 2002 and follow-up data collection for 2011. The time aspect is of great concern.

### ***3.4 Data collection***

In this study the secondary data is used for the analysis. This data is coming from the survey conducted by previous researcher and received answers from the respondents. The purpose of the survey was to get information about the intentions of entrepreneurs.

The survey was conducted via mail in 2002. This approach to collect data had several advantages. “Its benefit is in reaching many respondents; it is not expensive; it presents the questionnaire in visual manner” (Isaksen, 2006, p. 109). There were included mostly closed questions and several open questions in a structured questionnaire. As for the item-scales, seven-point scales were mostly applied in the survey.

Noteworthy, not all the questions of survey are relevant to this study, since survey was initially composed for other research purposes. Those questions that are related to the topic of this thesis are enclosed in the Appendix A.

The questionnaire went through several revisions before the final version was approved. The list of businesses was purchased from the business register Brønnøysund Register Centre. Information included name, address, legal form and localisation at municipality level. In total 3,121 businesses were approached (743 AS businesses approached). Response rate was 32% (236 answers from AS) (Isaksen, 2006).

Ten years later (in 2012) after the initial study, the second round of data collection (collected annual accounts from surviving AS over a ten-year period) for each past year (2002-2011) was carried out previously by a researcher with the use of database “RAVINFO”. The data collected in the follow-up study was concerned with the dependent variable, the performance of businesses.

Noteworthy, those respondents were included in analysis, who stated in the survey that they either alone or together with someone (in a team) were responsible for starting the new business. This kind of filter has led to 221 companies that were included in this study.

It was chosen to look at both types of companies: start-ups or acquisitions. As was mentioned earlier, the study is focused just on AS (aksjeselskaper) companies, because sales, employment and profit data exists only for them.

### ***3.5 Population, sample and representativeness***

In this study the quantitative data is used, which is derived from a sample in order to draw conclusions about a defined population. The following concepts are relevant for this research:

- Population – the whole set of entities that decisions relate to;
- Sample – refers to a subset of those entities from which evidence is gathered (Easterby-Smith et al., 2012).

It is important decision whom to choose for conducting research. Since it can be difficult to examine all entities in the relevant population for the research, it is more appropriate to define the sample that can represent the whole population.

To be included in the sample, the entities had to fulfil the following requirements:

- to be Norwegian company (AS);
- be registered in business register during weeks 21-24 in 2002;
- have to respond to the postal survey;
- to be founded by entrepreneur or entrepreneurial team.

All mentioned requirements reduced sample to 221 businesses.

In this research, the population consists of businesses in Norway that entered the business register during weeks 21-24 in 2002.

When it comes to representativeness of the sample, according to Isaksen (2006) and conducted tests by him in doctoral thesis, “tests give no reason to suspect that the sample of respondents in the first survey unrepresentative of the population of new business registrations in 2002” (Isaksen, 2006, p. 119).

### ***3.6 Analysis methods***

The measurement (what and how) is usually determined by theoretical framework and research model.

In the present study, several data analyses are implied: univariate, bivariate and multivariate. “Univariate analyses include descriptive statistics, mean and standard deviation for the continuous variables and frequencies for the categorical variables. It will reflect the distribution of variables” (Isaksen, 2006, p. 126). Cronbach’s alpha values will be estimated in order to assess data internal consistency reliability for the composite measures.

In Chapter 4, the hypotheses will be tested with the use of bivariate and multivariate data analysis.

### ***3.6.1 Correlation Analysis***

A correlation analysis can be explained as a measure of correlation. “With regard to the bivariate statistical analysis, correlation analyses are conducted to test associations among variables” (Isaksen, 2006).

There are three methods that can be used when conducting a correlation analysis: Pearson's correlation coefficient ( $r$ ), Spearman's rank correlation coefficient ( $\rho$ ) and Kendall's correlation coefficient ( $w$ ). All these methods have values ranging from -1 to 1. Pearson is a parametric test, while Spearman and Kendall's non-parametric tests. The Pearson test measures the degree of linear relationships between two variables. The most used test is Pearson's correlation coefficient, which prevails in this study (Eikemo and Clausen, 2007).

### ***3.6.2 Regression analysis***

A regression analysis is an analytical method one can use to examine how the average value of the dependent variable varies with the independent variable(s). The variables in this analysis are either dependent or independent, and if there are several independent variables in the analysis, thus it is called a multivariate regression (Eikemo and Clausen, 2007).

In this study, linear regression will be used in order to test the hypotheses.

### ***3.6.3 Data internal consistency reliability***

In the research process, it is important to know if collected data is reliable or not. One of the ways to test the internal consistency reliability is to conduct a Cronbach's alpha test, which was done in this study. This is a measure of internal consistency, which defines how close a set of indicators are linked to each other. There must be at least two indicators in order to conduct Cronbach's alpha test. The aim of this test is to check whether indicators correlate positively with each other. (Ghauri and Grønhaug, 2005). According to Hair et al. (2010, p. 92), “Cronbach's alpha is measure of reliability that ranges from 0 to 1, with values of 0,60 to 0,70 deemed the lower limit of acceptability”.

### **3.6.4 Validity**

Validity is defined as “extent to which a measure or set of measures correctly represents the concept of study – the degree to which it is free from any systematic or non-random error. Validity is concerned with how well the concept is defined by the measures” (Hair et al., 2010, p. 3).

There are different types of validity:

#### 1. Face and content validity

“Face validity is a measure of how representative a research project is “at face value”, and whether it appears to be a good project. Content validity is the estimate of how much a measure represents every single element of a construct” (Shuttleworth, 2009).

In this study, it is about how people understand the survey. During the previous study of Isaksen (2006), “the questionnaire went through several revisions before the final version was approved. It was evaluated by three academics. In order to get the questionnaire pre-tested by practitioners, the preliminary version was mailed to 25 respondents following a training programme for entrepreneurs. The result of the pre-test did not indicate that the questionnaire had to go through major changes” (Isaksen, 2006, p. 111).

#### 2. External validity

“External validity is about generalization: To what extent can an effect in research, be generalized to populations, settings, treatment variables, and measurement variables?” (Shuttleworth, 2009).

As it was discussed before, according to Isaksen (2006) and conducted tests by him in doctoral thesis, “tests give no reason to suspect that the sample of respondents in the first survey unrepresentative of the population of new business registrations in 2002” (Isaksen, 2006, p. 119).

#### 3. Internal validity - causality

“Internal validity is a measure which ensures that a researcher's experiment design closely follows the principle of cause and effect” (Shuttleworth, 2009).

“The following four criteria are generally linked to assertions of causality:

- (1) covariation between the cause and the effect,
- (2) the cause precedes the effect (i.e. a time lag between the independent and the dependent variable),
- (3) the relationship between variables is not spurious,

(4) the relationship between variables as well as the presumed sequence of cause and effect is theoretically based” (Isaksen, 2006, p. 223).

In case of this master thesis, the conditions are complied, so it can be suggested causality. There is a theory that supports the relationship between intention and performance; the correlations between variables are indicated; time layer between independent and dependent variables exists - cause precedes in time the effect, first happens cause (intention), afterwards happens effect (performance), first intention is measured, then performance is measured (straight chronological order); it was tested for spurious relationship with the use of control variables.

When it comes to hypotheses testing and chosen significance levels, the following is defined. “Significance level is commonly referred to as the level of statistical significance, the significance level represents the probability the researcher is willing to accept that the estimated coefficient is classified as different from zero when it actually is not. The most widely used level of significance is 0,05, although researchers use levels ranging from 0,01 (more demanding) to 0,10” (Hair et al., 2010, p. 160). Thus, in this study while testing the hypotheses, the significance level 0,05 is chosen.

### ***3.7 Operationalization of variables***

In this section, different variables used in the analysis are discussed. The variables are divided into three groups: dependent variables, independent variables and control variables. All used variables are presented in Table 2 below:

Table 2: Variables

<b>Type of variables</b>	<b>Name of variables</b>
Dependent variables (formulas are presented below)	- sales turnover, - employment costs, - profit
Independent variables	- intention for sales turnover, - intention for employment, - intention for profit
Control variables	- gender - experience - industry - team

Descriptive statistics and variable distribution will be reported below. By analysing the relationship among independent variables and dependent variables shown in Table 2, it will help to answer research question. In this study the independent variable is the cause of the dependent variable. The effect of intentions on performance will be analysed.

### ***3.7.1 Dependent variable, business performance***

Murphy et al. (1996) argued that performance measures used in entrepreneurship studies have a multidimensional nature. Performance is the dependent variable in this study, which is presented by sales turnover, employment and profit after 2 years, 5 years and 10 years.

A basic assumption in multivariate analyses is normality, referring to the shape of variable distribution. “Normality is a degree to which the distribution of the sample data corresponds to a normal distribution. Normal distribution is purely theoretical continuous probability distribution in which the horizontal axis represents all possible values of a variable and the vertical axis represents the probability of those values occurring. The scores on the variable are clustered around the mean in a symmetrical, unimodal pattern known as the bell-shaped, or normal, curve” (Hair et al., 2010, p. 36). In this case, all dependent variables were not normally distributed from the beginning. That resulted in insignificant correlation and regression between variables. Thus, the transformation of dependent variables was undertaken in order to satisfy normality assumption and since regression analysis assumes that variables are normally distributed.

There are several ways to of performing data transformation in order to accommodate non-normal distribution. Examples of data transformation include calculating the square root, calculating the logarithm (Hair et al., 1998).

When it comes to correlation analysis, parametric Spearman’s correlation does not consider normal distribution, however, Pearson correlation assumes that.

Transformation can help to get reasonable results during the analysis of variables.

Such parameters as skewness and kurtosis indicate the distribution.

“Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and right of the centre point” (NIST/SEMATECH e-Handbook of Statistical Methods, 2003).

“Kurtosis is a measure of whether the data are heavy-tailed or light-tailed relative to a normal distribution. That is, data sets with high kurtosis tend to have heavy tails, or outliers.

Data sets with low kurtosis tend to have light tails, or lack of outliers” (NIST/SEMATECH e-Handbook of Statistical Methods, 2003).

“Both Skewness and Kurtosis are 0 in a normal distribution, so the further away from 0, the more non-normal the distribution is” (NIST/SEMATECH e-Handbook of Statistical Methods, 2003). “Significant skewness and kurtosis clearly indicate that data are not normal. One approach is to apply some type of transformation to try to make the data normal, or more nearly normal. In particular, taking the log or square root of a data set is often useful for data that exhibit moderate right skewness” (NIST/SEMATECH e-Handbook of Statistical Methods, 2003).

In this study, the following assumption will be used according to literature: “The values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution” (George & Mallery, 2010).

#### *3.7.1.1 Measurement of sales turnover*

For dependent variables sales turnover and employment, the following type of transformation will be undertaken - logarithmic transformation. As variables were markedly skewed, the variables were transformed by adding a constant and calculating the logarithm:

$$\text{LN}(150 + \text{variable's value})$$

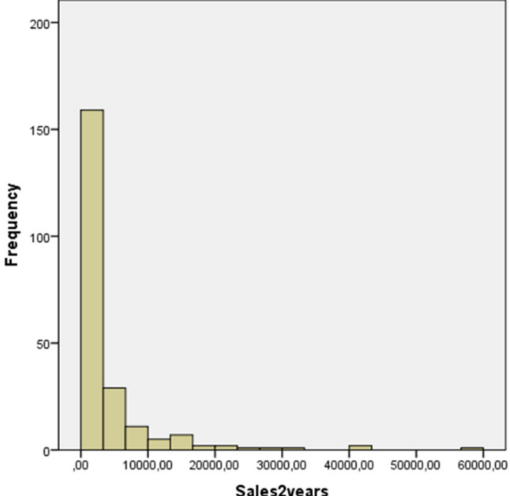
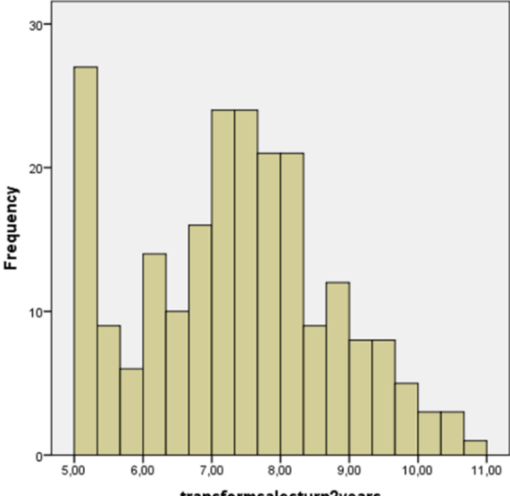
Since some responds in the survey show that sales turnover equals zero, which make it impossible to run LN function, that is why the constant is required in the formula.

Measures of sales turnover are aggregated, and firms that had exited were given a value “0”. This makes it possible to test the hypotheses on all 221 firms.

Table 3 shows old and new distributions of dependent variable “Sales turnover after 2 years”.



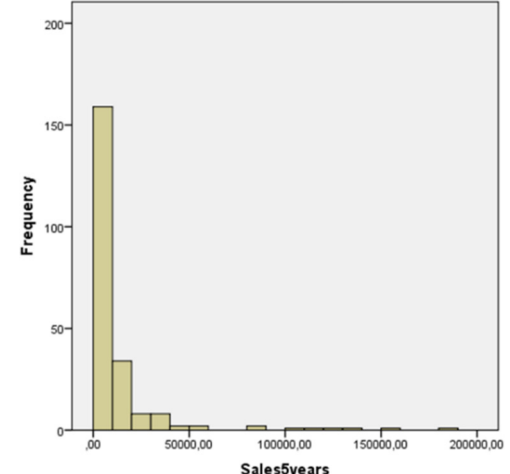
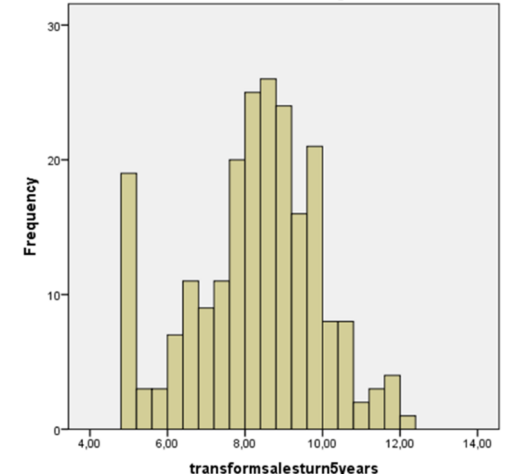
Table 3: Distribution of dependent variable “Sales turnover after 2 years”

Old distribution	New distribution
<p style="text-align: center;">Histogram</p>  <p style="text-align: center;">Sales2years</p>	<p style="text-align: center;">Histogram</p>  <p style="text-align: center;">transformsalesturn2years</p>
<p><b>Statistics:</b></p> <p>Skewness            4,188</p> <p>Kurtosis             22,442</p> <p>Number: valid      221</p>	<p><b>Statistics:</b></p> <p>Skewness            0,059</p> <p>Kurtosis             -0,508</p> <p>Number: valid      221</p>

After logarithmic transformation the figures with regard to skewness and kurtosis were the following: sales turnover after 2 years 0,059 and -0,508 respectively.

Table 4 shows old and new distributions of dependent variable “Sales turnover after 5 years”.

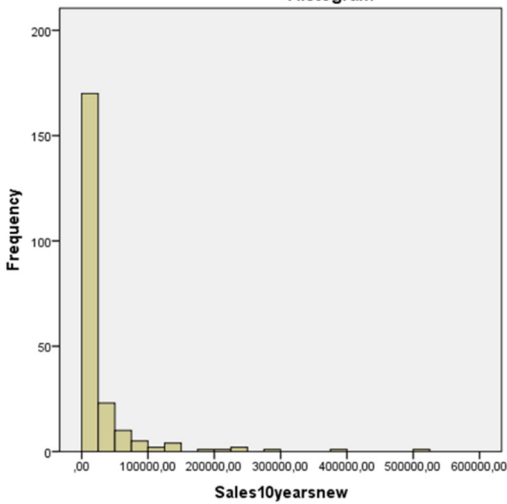
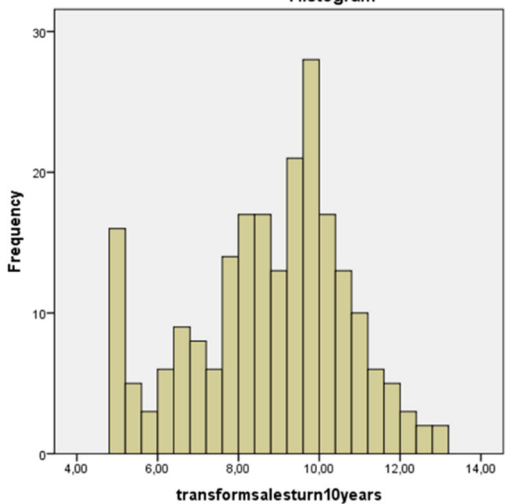
Table 4: Distribution of dependent variable “Sales turnover after 5 years”

Old distribution	New distribution
<p style="text-align: center;">Histogram</p>  <p style="text-align: center;">Sales5years</p>	<p style="text-align: center;">Histogram</p>  <p style="text-align: center;">transformsalesturn5years</p>
<p><b>Statistics:</b></p> <p>Skewness            4,341</p> <p>Kurtosis             21,701</p> <p>Number: valid      221</p>	<p><b>Statistics:</b></p> <p>Skewness            -0,285</p> <p>Kurtosis             -0,269</p> <p>Number: valid      221</p>

After logarithmic transformation the figures with regard to skewness and kurtosis were the following: sales turnover after 5 years -0,285 and -0,269 respectively.

Table 5 shows old and new distributions of dependent variable “Sales turnover after 10 years”.

Table 5: Distribution of dependent variable “Sales turnover after 10 years”

Old distribution	New distribution
	
<p><b>Statistics:</b></p> <p>Skewness            4,933</p> <p>Kurtosis             30,145</p> <p>Number: valid      221</p>	<p><b>Statistics:</b></p> <p>Skewness            -0,347</p> <p>Kurtosis             -0,439</p> <p>Number: valid      221</p>

After logarithmic transformation the figures with regard to skewness and kurtosis were the following: sales turnover after 10 years -0,347 and -0,439 respectively.

**3.7.1.2 Measurement of employment**

Measures of labour costs/employment are aggregated, and firms that had exited were given a value “0”. This makes it possible to test the hypotheses on all 221 firms.

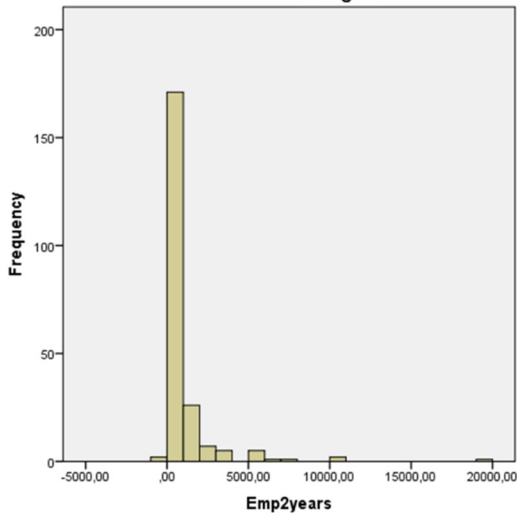
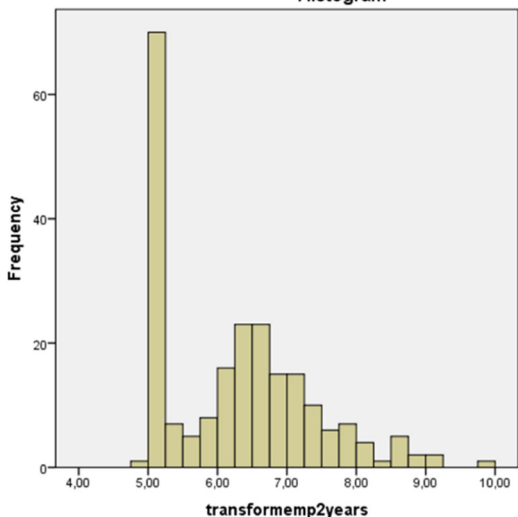
For dependent variable employment the logarithmic transformation is undertaken as well. As variables were markedly skewed, the variables were transformed by adding a constant and calculating the logarithm:

$$\text{LN} (150 + \text{variable's value})$$

Since some responds in the survey show that employment equals zero, which make it impossible to run LN function, that is why the constant is required in the formula.

Table 6 shows old and new distribution of dependent variable “Employment after 2 years”.

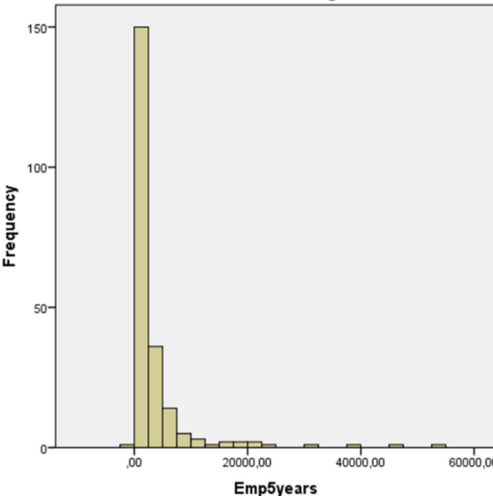
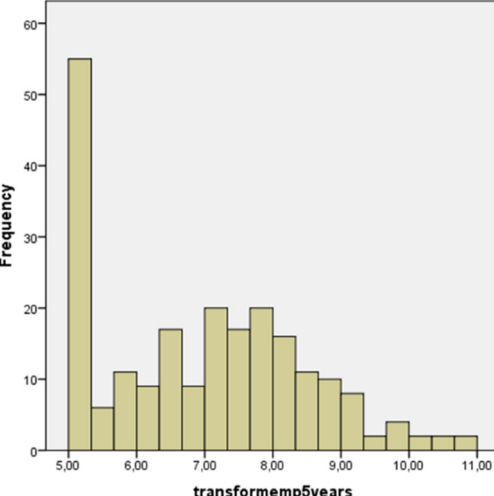
Table 6: Distribution of dependent variable “Employment after 2 years”

Old distribution	New distribution
<p style="text-align: center;">Histogram</p> 	<p style="text-align: center;">Histogram</p> 
<p><b>Statistics:</b></p> <p>Skewness            5,609</p> <p>Kurtosis             42,821</p> <p>Number: valid      221</p>	<p><b>Statistics:</b></p> <p>Skewness            0,601</p> <p>Kurtosis             -0,186</p> <p>Number: valid      221</p>

After logarithmic transformation the figures with regard to skewness and kurtosis were the following: employment after 2 years 0,601 and -0,186 respectively.

Table 7 shows old and new distributions of dependent variable “Employment after 5 years”.

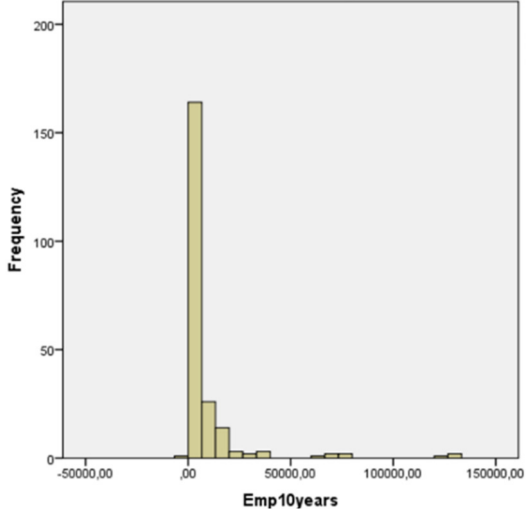
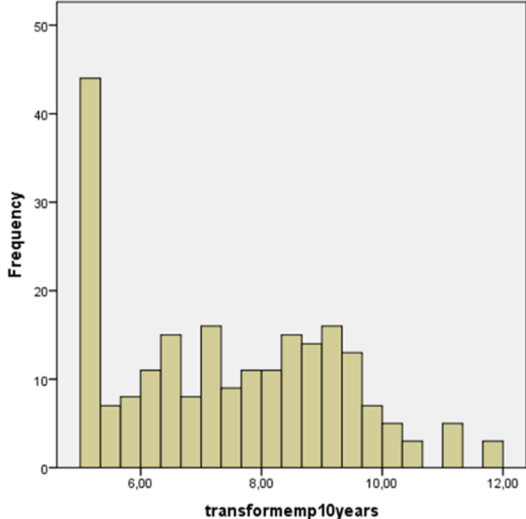
Table 7: Distribution of dependent variable “Employment after 5 years”

Old distribution	New distribution												
													
<p><b>Statistics:</b></p> <table border="0"> <tr> <td>Skewness</td> <td>4,732</td> </tr> <tr> <td>Kurtosis</td> <td>26,923</td> </tr> <tr> <td>Number: valid</td> <td>221</td> </tr> </table>	Skewness	4,732	Kurtosis	26,923	Number: valid	221	<p><b>Statistics:</b></p> <table border="0"> <tr> <td>Skewness</td> <td>0,261</td> </tr> <tr> <td>Kurtosis</td> <td>-0,817</td> </tr> <tr> <td>Number: valid</td> <td>221</td> </tr> </table>	Skewness	0,261	Kurtosis	-0,817	Number: valid	221
Skewness	4,732												
Kurtosis	26,923												
Number: valid	221												
Skewness	0,261												
Kurtosis	-0,817												
Number: valid	221												

After logarithmic transformation the figures with regard to skewness and kurtosis were the following: employment after 5 years 0,261 and -0,817 respectively.

Table 8 shows old and new distributions of dependent variable “Employment after 10 years”.

Table 8: Distribution of dependent variable “Employment after 10 years”

Old distribution	New distribution
<p style="text-align: center;"><b>Histogram</b></p> 	<p style="text-align: center;"><b>Histogram</b></p> 
<p><b>Statistics:</b></p> <p>Skewness            4,729</p> <p>Kurtosis             25,187</p> <p>Number: valid      221</p>	<p><b>Statistics:</b></p> <p>Skewness            0,206</p> <p>Kurtosis             -0,909</p> <p>Number: valid      221</p>

After logarithmic transformation the figures with regard to skewness and kurtosis were the following: employment after 10 years 0,206 and -0,909 respectively.

### 3.7.1.3 Measurement of profits

Skewness and kurtosis of the variable “profit” after 2, 5 and 10 years will be reported in order to indicate the need of transformation of variables.

In case of the dependent variable “Profit after 2, 5 and 10 years”, it was decided to classify the data into broad categories. Each indicator was recoded into seven categories.

Table 9 presents new categories and frequencies for profit after 2 years.

Table 9: New categories of dependent variable “Profit after 2 years”

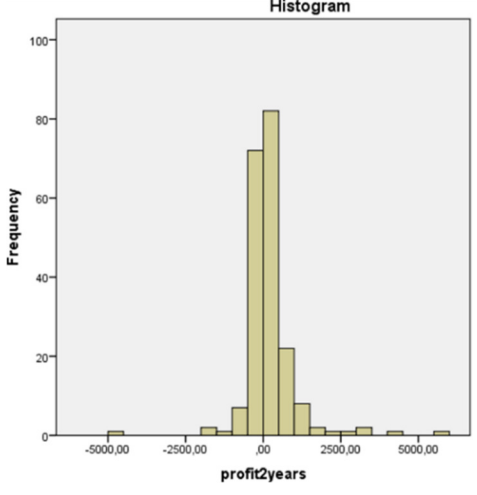
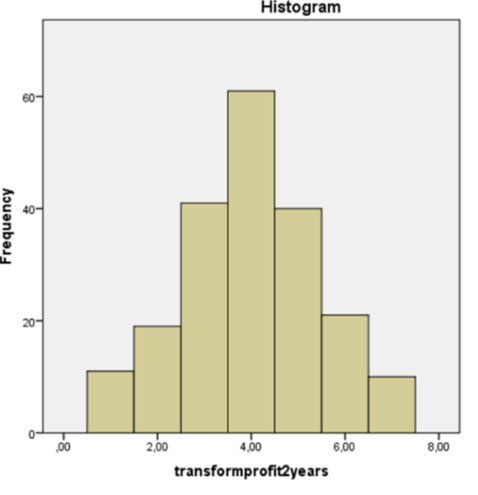
Profit 2 years*	Frequency	Percent	Valid Percent
(1) -4665 - -512	11	5,0	5,4
(2) -511 - -238	19	8,6	9,4
(3) -237 - -26	41	18,6	20,2
(4) -25 - 209	61	27,6	30,0
(5) 210 - 690	40	18,1	19,7
(6) 691 - 1221	21	9,5	10,3
(7) 1222 - >	10	4,5	4,9
Total	203	91,9	100,0
Missing System	18	8,1	
Total	221	100,0	

\* Numbers in 1000kr

After classifying the data into categories, indicator “profit after 2 years” is markedly more normally distributed. Graphical representation of variable is displayed below.

Table 10 shows old and new distributions of dependent variable “Profit after 2 years”.

Table 10: Distribution of dependent variable ‘Profit after 2 years’

Old distribution	New distribution
	
<p><b>Statistics:</b></p> <p>Skewness 1,476</p> <p>Kurtosis 16,148</p> <p>Number: valid 203</p> <p>missing 18</p>	<p><b>Statistics:</b></p> <p>Skewness -0,019</p> <p>Kurtosis -0,319</p> <p>Number: valid 203</p> <p>missing 18</p>

When it comes to profit (after 2 years) distribution before transformation, there is a problem since kurtosis is too large (16,148), as well as skewness (1,476). After recoding the data into categories the figures with regard to skewness and kurtosis were the following: -0,019 and -0,319 respectively.

Table 11 shows new categories of dependent variable “Profit after 5 years”.

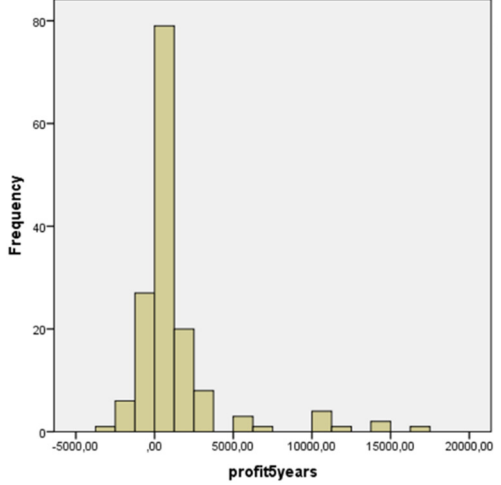
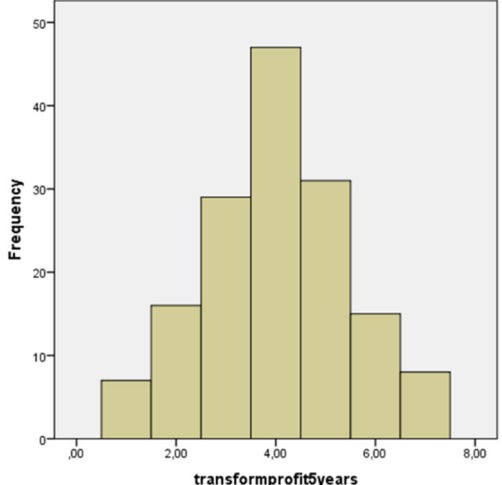
Table 11: New categories of dependent variable “Profit after 5 years”

<b>Profit 5 years*</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
(1) -2976 - -940	7	3,2	4,6
(2) -939 - -237	16	7,2	10,5
(3) -236 - 160	29	13,1	19,0
(4) 161 - 960	47	21,3	30,7
(5) 961 - 2180	31	14,0	20,3
(6) 2181 - 10200	15	6,8	9,8
(7) 10201 - >	8	3,6	5,2
Total	153	69,2	100,0
Missing System	68	30,8	
Total	221	100,0	

\* Numbers in 1000kr

Table 12 shows old and new distributions of dependent variable “Profit after 5 years”.

Table 12: Distribution of dependent variable “Profit after 5 years”

Old distribution	New distribution
<p style="text-align: center;">Histogram</p>  <p style="text-align: center;">profit5years</p>	<p style="text-align: center;">Histogram</p>  <p style="text-align: center;">transformprofit5years</p>
<p><b>Statistics:</b></p> <p>Skewness            3,121</p> <p>Kurtosis             10,784</p> <p>Number: valid       153</p> <p>                  missing 68</p>	<p><b>Statistics:</b></p> <p>Skewness            0,005</p> <p>Kurtosis             -0,309</p> <p>Number: valid       153</p> <p>                  missing 68</p>

When it comes to profit (after 5 years) distribution before transformation, there is a problem since kurtosis is too large (10,784), as well as skewness (3,121). After recoding the data into categories the figures with regard to skewness and kurtosis were the following: 0,005 and -0,309 respectively.

Table 13 shows new categories of dependent variable “Profit after 10 years”.



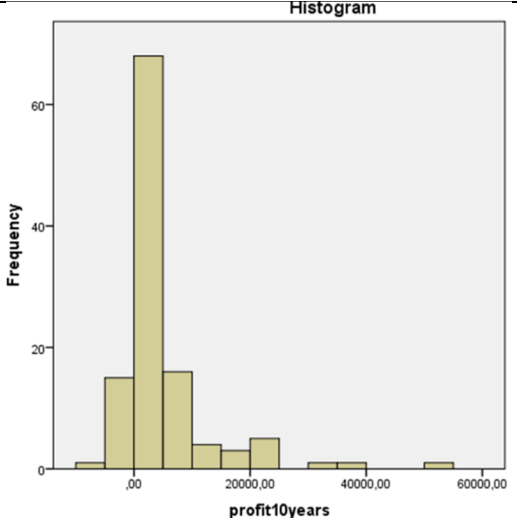
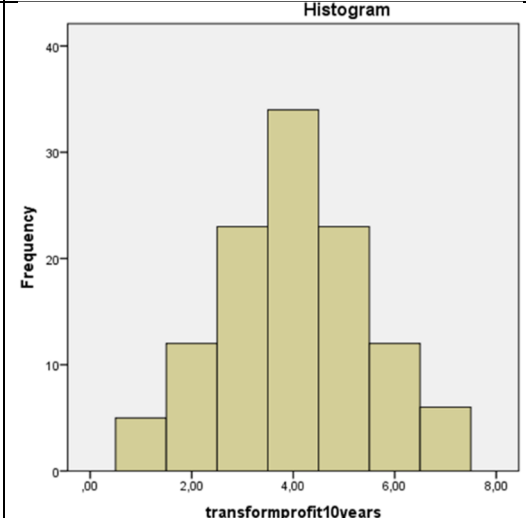
Table 13: New categories of dependent variable “Profit after 10 years”

Profit 10 years*	Frequency	Percent	Valid Percent
(1) -6778 - -700	5	2,3	4,3
(2) -699 - 20	12	5,4	10,4
(3) 21 - 675	23	10,4	20,0
(4) 676 - 3370	34	15,4	29,6
(5) 3371 - 7630	23	10,4	20,0
(6) 7631 - 22150	12	5,4	10,4
(7) 22151 - >	6	2,7	5,2
Total	115	52,0	100,0
Missing System	106	48,0	
Total	221	100,0	

\* Numbers in 1000kr

Table 14 shows old and new distribution of dependent variable “Profit after 10 years”.

Table 14: Distribution of dependent variable “Profit after 10 years”

Old distribution	New distribution
	
<p><b>Statistics:</b></p> <p>Skewness 3,102</p> <p>Kurtosis 12,487</p> <p>Number: valid 115</p> <p>missing 106</p>	<p><b>Statistics:</b></p> <p>Skewness 0,024</p> <p>Kurtosis -0,350</p> <p>Number: valid 115</p> <p>missing 106</p>

When it comes to profit data after 10 years, there is significant lack of information (106 missing responds) due to the closure of the companies' activities. That is why, it is important to

consider that the results of correlation and regression analysis will not be very representative particularly after 10 years. This may introduce survival bias in the analysis. Hence, the results regarding profits can only be generalized to surviving Norwegian AS.

**3.7.2 Independent variables**

Intention is the independent variable in this study. The measure of growth intention consists of five statements (D.1) (see Appendix A). The questions are connected with growth intention in terms of sales turnover, employment and profit. Answers to questions were formed with the use of a 7-point Likert-type scale to assess how unlikely/likely the different outcomes were (1 = very unlikely, 4 = neither likely or unlikely and 7 = very likely).

There was no problem with normal distribution of independent variables, so transformation was not undertaken.

The variable “intention for sales turnover” will be analysed in the statements below. Respondents answered the statement from “very unlikely” to “very likely”.

D1.4 How likely is it that the business in one year has turnover of more than NOK 500,000?

Very unlikely			Neither likely or unlikely			Very likely
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D1.5 How likely is it that the business in one year has turnover of more than NOK 5,000,000?

Very unlikely			Neither likely or unlikely			Very likely
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Responses on the two statements were added together and the total score divided by two.

Here it was possible to conduct a Cronbach's alpha test. Cronbach's alpha is 0,457, which is below what is accepted. This suggests that they are positively correlated and has not good internal consistency reliability.

Descriptive statistics for the intention for sales turnover is displayed in Table 15 below.

Table 15: Descriptive statistics of variable “intention for sales turnover”

“Intention for sales turnover”	Frequency	Percent	Valid Percent
1-1,9	12	5,4	5,5
2-2,9	7	3,2	3,2
3-3,9	23	10,4	10,6
4-4,9	79	35,7	36,4
5-5,9	28	12,7	12,9
6-7	68	30,8	31,4
Total	217	98,2	100,00
Missing System	4	1,8	
Total	221	100,0	

The variable’s distribution is presented in Figure 4 below.

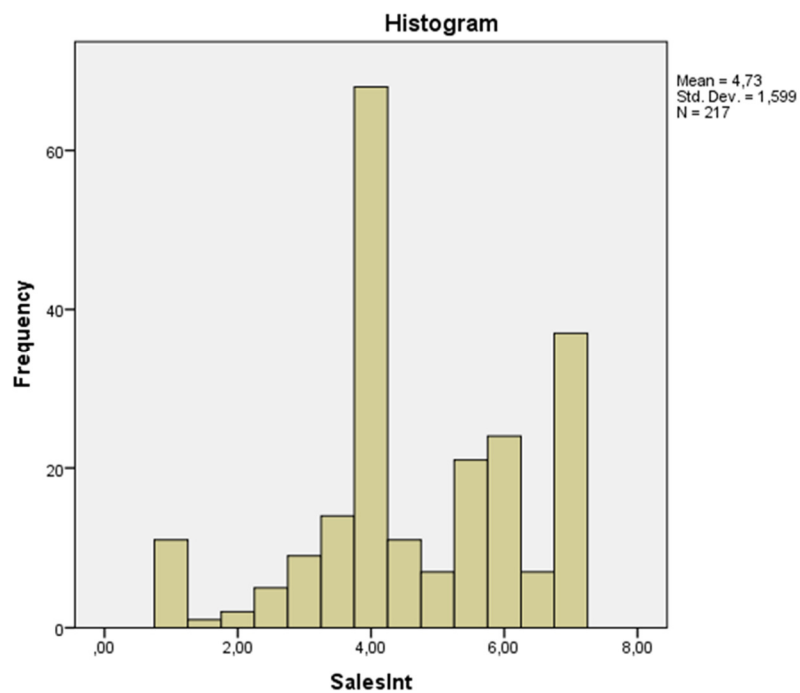


Figure 4: Distribution of variable “intention for sales turnover”

The variable “intention for employment” will be analysed in the statements below. Respondents answered the statement from “very unlikely” to “very likely”.

D1.1 How likely is it that you in one year are working full-time in the new business?

Very unlikely			Neither likely or unlikely				Very likely
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D1.2 How likely is it that the business in one year has employed anyone in addition to you?

Very unlikely			Neither likely or unlikely				Very likely
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To assess the internal consistency reliability of variables in this case, Cronbach’s alphas were calculated. According to Hair et al. (1998) a generally agreed lower limit for Cronbach’s alpha is 0,70.

There are just two chosen questions in survey that describe the intention for employment. The use of the third question would lead to worse internal consistency reliability value. The value would be increased by dropping the third question. Cronbach's alpha is 0,557, which is below the value that is accepted (0,7). This suggests that they are positively correlated, however, has quite low internal consistency reliability (not satisfactory). Nevertheless, it is difficult to improve.

Responses on the two statements were added together and the total score divided by two. Descriptive statistics for the intention for employment is displayed in Table 16 below.

Table 16: Descriptive statistics of variable “intention for employment”

“Intention for employment”	Frequency	Percent	Valid Percent
1-1,9	13	5,9	6,0
2-2,9	10	4,5	4,6
3-3,9	11	5,0	5,1
4-4,9	29	13,1	13,4
5-5,9	36	16,3	16,6
6-7	118	53,4	54,3
Total	217	98,2	100,0
Missing System	4	1,8	
Total	221	100,0	

The variable’s distribution is presented in Figure 5 below.

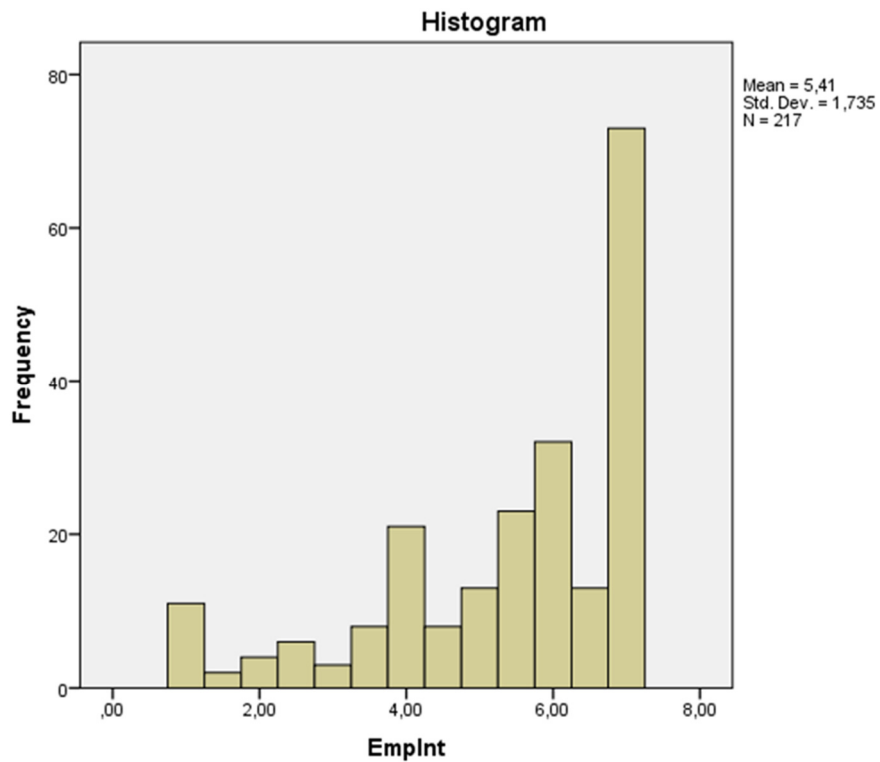


Figure 5: Distribution of variable “intention for employment”

The variable “intention for profit” will be analysed in the statement below. As it was mentioned, item-scales include 7 point-scales. Respondents answered the statement from 1 – “very unlikely” to 7 – “very likely”.

D1.6 How likely is it that the business in one year will yield a profit?

Very unlikely			Neither likely or unlikely				Very likely
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Descriptive statistics for the intention for profit is displayed in Table 17 below.

Table 17: Descriptive statistics of variable “intention for profit”

“Intention for profit”	Frequency	Percent	Valid Percent
1	10	4,5	4,6
2	5	2,3	2,3
3	8	3,6	3,7
4	35	15,8	16,1
5	26	11,8	11,9
6	44	19,9	20,2
7	90	40,7	41,3
Total	218	98,6	100,0
Missing System	3	1,4	
Total	221	100,0	

The variable’s distribution is presented in Figure 6 below.

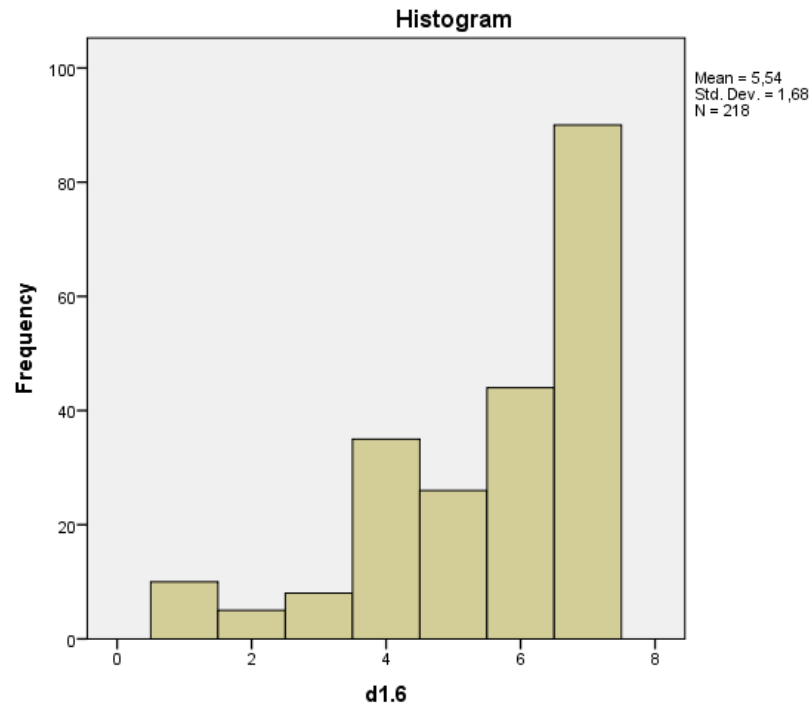


Figure 6: Distribution of variable "intention for profit"

### 3.7.3 Control variables

In this study, the following control variables are used: gender, experience, industry and team. There are several reasons why particular control variables were chosen. Control variables have connection with growth. This can help to identify additional possible effect on the intention and performance variables.

#### **Gender**

The first control variable is gender. Isaksen (2006, p. 165) reported: "Storey (1994) claimed that out of fourteen studies reviewed, only two studies found a significant relationship between gender and firm growth (in terms of employment). According to Storey (1994) in one study, firms owned by females were positively related to the growth of the firm, and in the other study the relationship was reversed. Watson and Robinson (2003) concluded that the majority of the studies found that female-owned SMEs underperform relative to male-owned".

"On average, businesses run by women are reporting higher pre-tax profits than businesses run by men" (Clarkson, without date).

When it comes to employment, “women plan to hire more than men do: 56 percent of women plan to hire more employees this year, as opposed to 50 percent of men, and 68 percent of women expect their business to continue growing over the next five years” (Helmrich, 2014).

The variable “gender” is coded as men = 1, women = 0. In Table 18 the answers of respondents are presented. Table displays that about 10% of the respondents are women.

Table 18: Descriptive statistics of control variable “gender”

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
Men (1)	196	88,7	89,5
Women (0)	23	10,4	10,5
Total	219	99,1	100,0
Missing system	2	0,9	
Total	221	100	

#### **Experience (management experience)**

“On average, both men and women rated their prior industry and work experience as a very important factor in determining their start-ups’ success. Both sexes rated experience highest, with lessons learned from previous successes and failures rated slightly less important” (Cohoon et al., 2010).

Experience is expressed in number of years. In Table 19 the answers of respondents are presented.

Table 19: Descriptive statistics of control variable “experience”

<b>Experience (years)</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
0-10	128	57,9	59,8
11-20	57	25,8	26,6
21-30	24	10,8	11,2
31-41	5	2,3	2,4
Total	214	96,8	100,0
Missing System	7	3,2	
Total	221	100,0	



## **Industry**

In the present study a distinction was made among two broad industry classifications: (1) service and (2) non-service (production, trade). “Businesses in service sectors may be more likely to be one-man businesses with limited growth ambitions” (Isaksen, 2006, p. 165). Isaksen (2006, p. 165) reported: “Cooper et al. (1994) detected that retail and personal services sectors did less well than other sectors with regard to growth in terms of employment. Thus, service may be expected to be negatively associated with business performance”. Service companies have generally less sales turnover, less labour costs than trade and industry companies.

The variable “industry” is coded as service companies = 1, not service companies = 0. In Table 20 the answers of respondents are presented. As shown in Table 20, the majority of the businesses (56%) are in the service category.

Table 20: Descriptive statistics of control variable “industry”

<b>Industry</b>	<b>Frequency</b>	<b>Percent</b>
Service	124	56,1
Not service	97	43,9
Total	221	100,0

## **Team**

It is logically to assume, that those entrepreneurs, who start up the company in a team, will get more profit and greater sales turnover. Delmar and Shane (2006, p. 230) explain the reason for that: “a larger venture team has the opportunity to obtain more human capital and more resources (information, time and money) than a smaller team. Moreover, larger teams can accomplish tasks more quickly because founding team members can specialize their activities. Furthermore, larger teams benefit from variation in experience, which may yield more innovative solutions to problems”.

Variable “team” is coded as team = 1, alone = 0. In Table 21 the answers of respondents are presented.

Table 21: Descriptive statistics of control variable “team”

<b>Team</b>	<b>Number</b>	<b>Percent</b>
Team	151	68,3
Alone	70	31,7
Total	221	100,0

### ***3.8 Summary***

This study’s philosophical position is more close to the positivism paradigm.

In this chapter, the used methods were clarified. Attention was pointed out to quantitative method. Data-gathering process, survey research, quantitative data and use of statistical analysis were discussed.

The unit of analysis is considered to be business registrations represented by founding entrepreneurs or entrepreneurial team. Concerning the data site and sampling frame of the study, information was collected from the Brønnøysund Register Centre in 2004 by researcher Espen Isaksen. The sampling frame consisted of the whole population of new business registrations in Norway during 4 weeks in 2002. Initially, there were 3,121 new businesses, used filter has led to 221 companies that were included in this study. As for the longitudinal extent of the data collection, the time lag is ten years between initial cross-sectional study in 2002 and follow-up data collection for 2011. Follow-up data collection (collected annual accounts from surviving AS over a ten-year period) was carried out previously by a researcher with the use of database ‘RAVINFO’ in 2012. In this research, the population consists of businesses in Norway that entered the business register during weeks 21-24 in 2002. The sample is considered to be representative according to Espen Isaksen findings.

In the present study, univariate, bivariate and multivariate data analyses are implied. Data internal consistency reliability was checked for independent variables by testing the Cronbach's alpha. The score of Cronbach's alpha was disappointing, in spite of this, it was used. Validity was discussed as well: there is a theory that supports the relationship between intention and performance; the correlations between variables are indicated; time layer between independent and dependent variables exists; it was tested for spurious relationship with the use of control variables. The chapter also explained the operationalisation of the variables selected for this study with the use of variables’ transformations.

In the next chapter, the analysis of variables and research findings will be introduced.

## **4.0 Analysis**

As it was discussed earlier, the business performance is chosen as a dependent variable in this study. By analysing the variables, it will be possible to answer research question by accepting or not the hypotheses.

In this chapter the hypotheses, which were developed in relation to the research question, will be tested with the use of correlation analysis and regression analysis. The findings are summarised in a table.

### ***4.1 Correlation Analysis***

In this subsection, correlation analyses for all variables are presented. It will help to find out if there are any factors that influence business performance.

Correlation matrix reflects the correlation between all variables. Correlation matrix for each dependent variable is presented separately below (Tables 22, 23,24). Matrix also provides the means, standard deviation and Pearson correlation coefficients for the variables included in the research model.

Hypothesis 1: Business founders' initial sales turnover growth intention is positively related to subsequent actual firm performance in terms of sales turnover.

Table 22: Descriptive statistics and correlation coefficients for sales turnover

Sales	Mean	SD	1	2	3	4	5	6	7
<b>Control variable</b>									
1 Industry	0,5611	-	1,00						
2 Team	0,6833	-	-0,053	1,00					
3 Gender	0,8950	-	0,028	-0,139*	1,00				
4 Experience	11,1706	9,05695	0,065	-0,085	0,199**	1,00			
<b>Independent variable</b>									
5 Intention for sales turnover	4,7258	1,59924	-0,146*	0,033	-0,089	-0,056	1,00		
<b>Dependent variable</b>									
6 Sales turnover 2 years	7,3484	1,41340	-0,170*	-0,074	-0,176**	-0,165*	0,469***	1,00	
7 Sales turnover 5 years	8,2663	1,64714	-0,073	-0,047	-0,149*	-0,146*	0,403***	0,890**	1,00
8 Sales turnover 10 years	8,7885	1,89982	-0,033	-0,038	-0,142	-0,105	0,314***	0,771**	0,955**

Level of statistical significance: \* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$  (2-tailed)

Table 22 provides means, standard deviation and correlation coefficients for variables “sales turnover” and “intention for sales turnover”. The correlation between intention for sales turnover and sales turnover after 2 years is 0,469\*\*\*, after 5 years it is 0,403\*\*\*, and after 10 years it is 0,314\*\*\*. All coefficients are significant at the 0,001 level.

So sales turnovers after 2, 5 and 10 years are positively correlated with intention for sales, and this correlation is statistically significant at the 0,001 level. It means a probability that those, who intent to have higher sales turnover, get higher sales turnover. In other words, obtained positive strong correlation shows that entrepreneurs, who have chosen higher scores in questionnaire concerning intention for sales, achieve larger sales turnovers. However, it can be observed a slight decline in rates over the time. Hence, H1 is preliminary supported.

Hypothesis 2: Business founders’ initial employment growth intention is positively related to subsequent actual firm performance in terms of employment.

Table 23: Descriptive statistics and correlation coefficients for employment

Employment	Mean	SD	1	2	3	4	5	6	7
<b>Control variable</b>									
1 Industry	0,5611	-	1,00						
2 Team	0,6833	-	-0,053	1,00					
3 Gender	0,8950	-	0,028	-0,139*	1,00				
4 Experience	11,1706	9,05695	0,065	-0,085	0,199**	1,00			
<b>Independent variable</b>									
5 Intention for employment	5,4055	1,73514	-0,225**	-0,018	-0,077	-0,235**	1,00		
<b>Dependent variable</b>									
6 Employment 2 years	6,2489	1,10712	-0,155*	-0,079	-0,189**	-0,133	0,425***	1,00	
7 Employment 5 years	6,9607	1,51845	-0,062	-0,040	-0,155*	-0,135*	0,358***	0,844**	1,00
8 Employment 10 years	7,4482	1,80802	-0,028	-0,054	-0,135*	-0,092	0,314***	0,727**	0,934

Level of statistical significance: \* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$  (2-tailed)

Table 23 provides means, standard deviation and correlation coefficients for variables “employment” and “intention for employment”. The correlation between intention for employment and employment after 2 years is 0,425\*\*\*, after 5 years it is 0,358\*\*\*, and after 10 years it is 0,314\*\*\*. All coefficients are significant at the 0,001 level.

So, employment after 2, 5 and 10 years is positively correlated with intention for employment, and this correlation is statistically significant in all these years. Obtained positive strong correlation shows that entrepreneurs, who have chosen higher scores in questionnaire concerning intention for employment, have more employees. However, it can be observed a slight decline in rates over the time. Hence, H2 is preliminary supported.

Hypothesis 3: Business founders’ initial profit growth intention is positively related to subsequent actual firm performance in terms of profit.

Table 24: Descriptive statistics and correlation coefficients for profit

Profit	Mean	SD	1	2	3	4	5	6	7
<b>Control variable</b>									
1 Industry	0,5611	-	1,00						
2 Team	0,6833	-	-0,053	1,00					
3 Gender	0,8950	-	0,028	-0,139*	1,00				
4 Experience	11,1706	9,05695	0,065	-0,085	0,199**	1,00			
<b>Independent variable</b>									
5 Intention for profit	5,5413	1,67954	0,024	-0,159*	-0,078	-0,073	1,00		
<b>Dependent variable</b>									
6 Profit 2 years	4,0000	1,45901	0,041	-0,088	-0,096	-0,087	0,307***	1,00	
7 Profit 5 years	4,0196	1,44855	0,001	-0,149	-0,067	0,026	0,294***	0,768**	1,00
8 Profit 10 years	4,0261	1,45374	-0,025	-0,094	-0,047	0,075	0,136	0,656**	0,824**

Level of statistical significance: \* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$  (2-tailed)

Table 24 provides means, standard deviation and correlation coefficients for variables “profit” and “intention for profit”. The correlation between intention for profit and profit after 2 years is 0,307\*\*\*, after 5 years it is 0,294\*\*\*, and after 10 years it is 0,136. Coefficients for 2 and 5 years are significant at the 0,001 level, however, coefficient for 10 years is not statistically significant.

So, profits after 2, 5 and 10 years are positively correlated with intentions for profits, and correlation is significant after 2 and 5 years. However, it can be observed a slight decline in rates over the time. Concerning 10 years, the correlation is not significant, and a possible reason for that can be the 106 missing cases/respondents after 10 years, which constitute a significant part of the total number of cases. Hence, H3 is preliminary supported except profit after 10 years.

Noteworthy, both Pearson correlation and Spearman's correlation were run, and as the result, no big differences were observed between them.

Test for multicollinearity was conducted as well in all three cases, as the result, there were no multicollinearity problem indicated since all VIF (the variance inflation factor) values were very low. “Large VIF values indicate a high degree of multicollinearity among the

independent variables” (Hair et al., 2010, p. 161). The highest score was 1,112. According to Martz (2013), “a VIF between 5 and 10 indicates high correlation that may be problematic”. This indicates that in case of this study there are no serious problems regarding multicollinearity. Thus, multicollinearity does not distort the regression models. It leads to more solid diagnostics; the results can be trusted more.

Next, regression analysis will be presented, and based on these hypotheses will be tested. Based on the regression analysis, research question will be addressed.

#### ***4.2 Regression Analysis***

While the correlation matrix was used for preliminary testing of hypotheses, the use of regression analysis gives the formal final test.

Since, the correlation uses a standardized measure of the relationship between the two variables, the significance of the relationship also will be measured through a regression analysis. Regression is stronger test than just running correlations, since control variables are included in the model.

Regression analysis assumes that the distribution of the variables corresponds to the normality (Hair et al., 1998). In Chapter 3, the distribution of variables was assessed. In order to get normal distribution of variables, the transformation was performed.

Hypothesis 1: Business founders’ initial sales turnover growth intention is positively related to subsequent actual firm performance in terms of sales turnover.

Table 25: Regression results on sales turnover

	2 years	5 years	10 years
<b>Independent variable</b>			
Intention for sales turnover	0,438***	0,390***	0,315***
<b>Control variables</b>			
Gender	-0,113	-0,097	-0,103
Experience	-0,116	-0,113	-0,082
Team	-0,121*	-0,085	-0,074
Industry	-0,096	-0,008	0,015
R <sup>2</sup>	0,264	0,192	0,128
Adjusted R <sup>2</sup>	0,247	0,172	0,107
F value	14,743***	9,727***	6,013***
N	211	211	211

Notes: Standardised regression coefficients (betas) are displayed in the table.

Level of statistical significance: \* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$  (2-tailed)

N means how many cases (number of respondents) are in analysis. Regression model relates to 211 businesses.

The first requirement when testing hypothesis is that F value is statistically significant, then it means that it makes sense to look at the single variables. Table 25 shows that F value for sales turnover after 2 years is 14,743\*\*\*, after 5 years it is 9,727\*\*\*, after 10 years it is 6,013\*\*\*. F value is statistically significant for all years.

“R-squared is a statistical measure of how close the data are to the fitted regression line. It is the percentage of the response variable variation that is explained by a linear model” (Frost, 2013). “The Proportion of variance explained (R<sup>2</sup>) indicates how much better the function predicts the dependent variable than just using the mean value of the dependent variable” (Sherrod, without date). R<sup>2</sup> after 2 years is 0,264, after 5 years it is 0,192, after 10 years it is 0,128. In this case, 26,4% of variation for 2 years, 19,2 % - for 5 years and 12,8% - for 10 years is explained by linear model. F-value is statistically significant.

Beta measures the strength of the relationship between the dependent and the independent variables. Beta after 2 years is 0,438\*\*\*, after 5 years it is 0,390\*\*\*, after 10 years it is 0,315\*\*\*. Beta values are changing and decreasing with the time, all beta values are



significant at the 0,001 level. So, it can be concluded that there is a positive relationship between intention for sales turnover and the dependent variable “sales turnover”. Higher values on the independent variable tends to go together with higher values on the dependent variable.

Beta values for the most of control variables are not statistically significant.

Hypothesis 1 says that business founders’ initial sales turnover growth intention is positively related to subsequent actual firm performance in terms of sales turnover. Based on the results from the Table 25 the hypothesis is accepted/supported. Thus, business founders reporting higher levels of intentions for sales turnover are significantly more likely to achieve greater sales turnover after 2, 5 and 10 years.

Hypothesis 2: Business founders’ initial employment growth intention is positively related to subsequent actual firm performance in terms of employment.

Table 26: Regression results on employment

	2 years	5 years	10 years
<b>Independent variable</b>			
Intention for employment	0,381***	0,329***	0,301***
<b>Control variables</b>			
Gender	-0,169**	-0,120	-0,105
Experience	-0,010	-0,038	-0,007
Team	-0,097	-0,050	-0,059
Industry	-0,081	0,009	0,035
R <sup>2</sup>	0,210	0,137	0,106
Adjusted R <sup>2</sup>	0,191	0,116	0,085
F value	10,916***	6,509***	4,883***
N	211	211	211

Notes: Standardised regression coefficients (betas) are displayed in the table.

Level of statistical significance: \* indicates p<0.05; \*\* indicates p<0.01; \*\*\* indicates p<0.001 (2-tailed)

Table 26 shows that F value for employment after 2 years is 10,916\*\*\*, after 5 years it is 6,509\*\*\*, after 10 years it is 4,883\*\*\*. F value is statistically significant for all years.

R<sup>2</sup> after 2 years is 0,210, after 5 years it is 0,137, after 10 years it is 0,106. In this case, 21% of variation for 2 years, 13,7% - for 5 years and 10,6% - for 10 years is explained by linear model.

Beta after 2 years is 0,381\*\*\*, after 5 years it is 0,329\*\*\*, after 10 years it is 0,301\*\*\*. Beta values are changing and decrease with the time, all beta values are significant at the 0,001 level. So, it can be concluded that there is a positive relationship between intention for employment and the dependent variable “employment”. Higher values on the independent variable tends to go together with higher values on the dependent variable.

Beta values for the most of control variables are not statistically significant.

Hypothesis 2 says that business founders’ initial employment growth intention is positively related to subsequent actual firm performance in terms of employment. Based on the results from the Table 26 the hypothesis is accepted. Thus, business founders reporting higher levels of intentions for employment are significantly more likely to achieve greater employment after 2, 5 and 10 years.

Hypothesis 3: Business founders’ initial profit growth intention is positively related to subsequent actual firm performance in terms of profit.

Table 27: Regression results on profit

	2 years	5 years	10 years
<b>Independent variable</b>			
Intention for profit	0,278***	0,293***	0,135
<b>Control variables</b>			
Gender	-0,067	-0,102	-0,072
Experience	-0,049	0,050	0,077
Team	-0,067	-0,121	-0,079
Industry	0,044	-0,012	-0,037
R <sup>2</sup>	0,104	0,119	0,040
Adjusted R <sup>2</sup>	0,080	0,088	-0,006
F value	4,366***	3,811**	0,876
N	195	147	111

Notes: Standardised regression coefficients (betas) are displayed in the table.

Level of statistical significance: \* indicates p<0.05; \*\* indicates p<0.01; \*\*\* indicates p<0.001 (2-tailed)

Table 27 shows that F value for profit after 2 years is 4,366\*\*\*, after 5 years it is 3,811\*\*\*, after 10 years it is 0,876. F value is statistically significant for 2 and 5 years, but not for 10 years (a possible reason for that can be the missing cases/respondents after 10 years, which constitute a significant part of the total number of cases).

R<sup>2</sup> after 2 years is 0,104, after 5 years it is 0,119, after 10 years it is 0,040. In this case, 10,4% of variation for 2 years, 11,9% - for 5 years and 4% - for 10 years is explained by linear model. It indicates that 10,4% of the change in profit for 2 years (11,9% for 5 years, 4% for 10 years) could be explained by the change in intentions for profit and control variables, while 89,6% of the change must have other reasons than the differences in intentions for profit for 2 years (88,1% for 5 years, 96% for 10 years).

Beta after 2 years is 0,278\*\*\*, after 5 years it is 0,293\*\*\*, after 10 years it is 0,135. Beta values are changing; beta values for 2 and 5 years are significant at the 0,001 level. So, it can be concluded that there is a positive relationship between intention for profit and the dependent variable profit. However, the association between intention for profit and ten year profits is not statistically significant (due to missing cases).

Beta values for the control variables are not statistically significant.

Hypothesis 3 says that business founders' initial profit growth intention is positively related to subsequent actual firm performance in terms of profit. Based on the results from the Table 27 the hypothesis is partly accepted, except for 10 years. Thus, business founders reporting higher levels of intentions for profit are significantly more likely to achieve stronger profits after 2 and 5 years. However, regression analysis shows that intention for profit is not significantly associated with the profit after 10 years.

Results of regression for all three variables coincide with Pearson correlation and Spearman's correlation. Regression analysis shows that there is significant connection between intention variables and performance variables.

Control variables are not significantly associated with variables. When it comes to control variable "gender", regression result is negative, which means that men earn less profit, have lower sales turnover and employ fewer than women in all cases, but it is not statistically significant, so it cannot be concluded as a considerable effect.

When it comes to control variable "management experience", those, who have longer management experience, make lower sales and have lower employment, however, it is not significant. Maybe management experience influence intentions in some ways.

Control variables "team" and "industry" has no significant effect as well.

The use of control variables leads to control for other relevant factors. Even that the control variables are taken into consideration, which makes the results robust, there is still significant connection between the independent intention variables and dependent performance variables. It means that intentions explain performance over and above gender, management experience, industry and team.

**4.3 Summary**

The hypotheses developed in Chapter 2 are formally tested. Assumptions relating to the regression analyses were considered (normality). Results from the hypotheses testing are summarised in Table 28. Three out of the three hypotheses are supported (except profit after 10 years in H3).

Table 28: Summary of results

<b>Hypotheses</b>	<b>Hypothesised direction</b>	<b>Dependent variable - performance</b>
H1 Intention for sales turnover	+	***
H2 Intention for employment	+	***
H3 Intention for profit*	+	***

Notes: Level of statistical significance: \* indicates p<0.05; \*\* indicates p<0.01; \*\*\* indicates p<0.001 (2-tailed)

\* The association between intention for profit and ten year profits is not statistically significant.

## 5.0 Discussion and conclusion

In this chapter, research question and sub-questions presented in chapters 1 and 2 will be discussed, and the main findings will be summed up. The contribution of this study is highlighted.

The results of the study will be compared with the literature presented in chapter 2. Further, the summing up will be done, that will make it possible to come with a main conclusion. Moreover, implications, limitations and advices for further research will be considered.

The first research sub-question was:

- 1) What is the effect of business founders' initial sales turnover growth intention on subsequent actual firm performance in terms of sales turnover?

In the literature that describes intention and performance, the connection between these two concepts is supported. As analysis shows, initial sales growth intention has significant positive correlation with actual sales turnover through the years. However, these correlation weakens over the time.

The next research sub-question of this study was:

- 2) What is the effect of business founders' initial employment growth intention on subsequent actual firm performance in terms of employment?

Employment after 2, 5 and 10 years are positively correlated with intention for employment, and this correlation is significant in all these years. Obtained positive strong correlation shows that entrepreneurs, who have chosen higher scores in questionnaire concerning intentions for employment, have more employees. However, it can be observed a slight decline in rates over the time.

And the third sub-question was:

- 3) What is the effect of business founders' initial profit growth intention on subsequent actual firm performance in terms of profit?

Profits after 2, 5 and 10 years are positively correlated with intentions for profits, and correlation is significant after 2 and 5 years. However, it can be observed a slight decline in rates over the time. Concerning 10 years, the correlation is not significant, and a possible reason for that can be the missing cases/respondents after 10 years, which constitute a significant part of the total number of cases.

Noteworthy, used control variables in regression analysis confirmed the significant connection between dependent and independent variables. The use of control variables leads to control for other relevant factors. Even that the control variables are taken into consideration, which makes the results robust, there is still significant connection between the independent intention variables and dependent performance variables. It means that intentions explain performance over and above gender, management experience, industry and team.

When it comes to contributions of the study, several of them can be named:

1. Since business performance is multidimensional (Murphy et al., 1996), the present study concentrates on the different dimensions simultaneously: sales turnover, employment and profit.

Several studies discussed that performance is multidimensional. In particular, Murphy, Trailer and Hill claim that “it is unlikely that any single performance measure or dimension could appropriately serve the needs of a diverse set of research questions” (Murphy et al., 1996, p. 21). Thus, the main proposition of researchers is that “it might be more useful to recognize the multiple dimensions of performance and allow theory the freedom to guide selection of the appropriate means of addressing performance” (Murphy et al., 1996, p. 21). In other words, the main idea is that performance is considered to be multidimensional. And the reason why performance is multidimensional, can be in the diversity of indicators that are of interest when it comes to performance: sales, survival, employment, etc. All of them are different dimensions and aspects of performance, which are important themselves to focus on. In addition, Brush and Vanderwerf (1992) argue that the use of the term “performance” by researchers included many constructs measuring alternative aspects of performance.

2. The study highlights the link between imprinting, intentions and business performance.

When it comes to imprinting and performance, as highlighted in research of Blake D. Mathias, David W. Williams and Adam R. Smith: “founders' early decisions and the environmental conditions at founding each imprint upon a new venture in ways that affect growth and survival” (Mathias et al., 2014, p. 11). “Entrepreneurs' initial decisions have a lasting impact on future outcomes. Therefore, entrepreneurs imprint their ventures by making important decisions early on in their venture's development” (Mathias et al., 2014, p. 14). DeTienne and Cardon (2008, p. 2) say that “researchers (Boeker, 1989; Doz, 1996; Kimberly, 1979) refer to the impact of founding conditions on future outcomes as organizational imprinting”. That can be reformulated that imprinting has effect on performance. Imprinting is important in terms of what is going to happen with company in the future. Imprinting effect is

reflected in how company will develop itself, in other words how the company will perform. In addition, as proposed by Kriauciunas and Shinkle in their work, “imprinting may contribute to improved understanding of the initiation sources of organizational behaviour. In other words, imprinting may be a helpful causal mechanism to explain observed behaviour and the origins of such behaviour in varied situations related to organizational behaviour, entrepreneurship” (Kriauciunas and Shinkle, 2008, p. 4). It can clarify how intentions of entrepreneurs can affect the outcomes of the business. Given arguments once again suggest that imprinting has a crucial effect on business performance.

As for the link between imprinting and intentions, imprinting influences intentions through such sources as family and friends, technology and the environment, work experience and work-related knowledge, skills and abilities. In another words, entrepreneur’s demographics/characteristics influence intentions. Further, according to the Ajzen’s theory of planned behaviour, such characteristics influence intentions through the effect on attitude toward behaviour, subjective norm and perceived behavioural control. In this way, the link between imprinting theory and intentions originates. Intention can be named as an indication of imprinting which is positive. Intentions are also the consequences of imprinting sources.

When it comes to intention and performance, Autere (2005, p. 84) discusses that “there are several studies that investigated the relationship between motivation/intention and growth confirmed a positive relationship between motivation and growth”. In particular, Kolvereid and Bullvåg (1996) found that growth ambitions were positively associated with performance. “Growth intentions are related to actual growth, the past intentions are related to later intentions, and that changes in intentions are related to changes in actual growth. Opportunity influences intentions, which, in turn, influences actual growth” (Kolvereid & Bullvåg, 1996, p. 13). “Growth intentions may be used to predict actual growth; intentions may be used as surrogate measures of actual growth” (Kolvereid & Bullvåg, 1996, p. 14). Further, Wiklund and Shepherd (2003, p. 1922) found that “small business managers’ aspirations to expand their business activities are positively related to actual growth”. Using the theory of planned behaviour, they argue that “attitude towards the behaviour, subjective norms, and perceived behavioural control explain intentions, whereas perceived behavioural control and intention predict behaviour” (Wiklund and Shepherd (2003), p. 1922). Researchers, using logic of Ajzen’s theory, report and believe that those who have higher intentions to start business, more likely to do it; in the same way those, who want the growth of businesses, will have greater chance to actually achieve the business growth.

3. In this study more than one level of analysis is considered.

When it concerns the dependent variable “performance”, research is conducted at the firm/business level of analysis. When it comes to independent variable “intentions”, the level of analysis is the individual.

4. A longitudinal study

“A longitudinal study was conducted. Data related to the independent variables was collected during the first interview. Ten years later evidence related to business performance was provided. The time gap between the independent variables and the dependent variables suggests causality issues can be explored” (Isaksen, 2006, p. 202). There are more interest for longitudinal studies, which reflect the cause and effect, among researchers.

### ***5.1 Summary and conclusion***

The purpose of this master thesis was to find out what effect initial growth intentions have on subsequent business performance. The chosen dependent and independent variables based on the literature review helped to identify the effect.

The multidimensional dependent variable “business performance” refers to sales turnover, employment and profit. Theoretical framework helped to examine the research question. Proper regression analysis was used to test the presented hypotheses. The analysis showed that all three hypotheses are supported, except the association between intention for profit and profit after 10 which is not statistically significant due to missing cases.

The main general finding of the study is that business founders reporting higher degrees of initial intentions are more likely to achieve subsequent stronger (superior) performance. Growth intention is strongly positively associated with business performance. And it was tested within the ten years with the use of three different performance dimensions.

Being aware about the business founder’s intentions can lead to important information concerning subsequent business performance.



## ***5.2 Implications***

### **Theoretical implications**

The theory of planned behaviour was partly tested, and full support to the theory was found. Particularly, intentions affect actual business outcomes in the period of time 10 years and in terms of three different dimensions. This is a strong support for the theory.

In this study, imprinting theory is considered to be a support for theory of planned behaviour. The connection between imprinting and intentions is clarified. Intentions are the indication of the imprinting effect; it appears to be when businesses start up.

Imprinting becomes more relevant in entrepreneurship literature. Theoretical contribution was made in this study by connecting imprinting theory and intentions model.

### **Practical implications**

There is a strong empirical support for the theory of planned behaviour. Despite the partial testing of it, it is still conceptual; it is good idea to use imprinting logic to understand how intentions are formed.

This study shows that growth intentions are linked to actual growth, that is why it makes it possible to suggest how to make entrepreneurial intention stronger. Indication of the intention's effect on business performance can help to create new policy measures what will be aimed to change the growth intentions to entrepreneurship. According to the theory of planned behaviour, intention can be increased by attitude toward the behaviour, subjective norm and perceived behavioural control. Thus, suggestion on policy measures will be primarily directed on these concepts.

When it comes to positive attitude toward the behaviour, authorities can increase it by presenting the role models, in other words, sharing the experience of people who have achieved the business growth. Concerning the subjective norms, support from family and friends can increase these subjective norms. As for perceived behavioural control, people should believe in themselves that they can grow their businesses, it can be achieved through the special organized training that can make a difference and affect entrepreneurs.

By increasing the intention, it is possible to increase the performance. And since performance is a priority for the most of entrepreneurs, it will have a significant role. Practitioners can expand the choices businesses can make, particularly those who want to grow.

The study's findings can be useful for the practitioners who are interested in increasing the number of superior performing businesses. Now it is possible to identify these businesses by choosing the business founders with stronger growth intentions.

Superior business performance of companies can lead to further economic development by creating jobs and wealth; that can be interesting for the state, which gets benefits from this.

The possibility to predict potentially strong businesses can increase the gains from investments. For that purpose, the motivations and intentions of business owners have to be taken in consideration.

### ***5.3 Limitations of the study***

This section discusses the limitations of the study:

- The concept of business performance is difficult to define. Its multidimensional nature includes different indicators. The use of additional performance measures could lead to more findings.
- Since the used data was secondary, there was not possibility to clarify the answers from respondents in order to get some details.
- Theoretical part about imprinting could be included in the empirical analysis as well by using new variables. Intention is just one of the factors of imprinting, so using more imprinting factors could expand the study.
- The lack of information on some companies could distort the results of analysis or make them inaccurate.

### ***5.4 Further research***

It would be interesting and useful to conduct further research on the topic about intention and business performance. The use of different independent, dependent and control variables can deeper the research. In this study the following variables were used: dependent performance variables (sales turnover, employment costs, profit); independent intention variables (intention for sales turnover, intention for employment, intention for profit); control variables (gender, experience, industry, team). However, the variables could be expended. It is interesting to make research how imprinting variables affect intentions. For instance, it can be possible to include imprinting variables such as sources of imprint: family and friends, technology and the

environment, work experience and work-related knowledge, skills and abilities. In particular, it could help to find out how environment or experience affect intentions.

On the other hand, it is possible to study how to change/increase the growth intentions to entrepreneurship by conducting the qualitative research. In addition, it is possible to find out why the effect of intentions on performance is strongest in initial period (10 years), but weakens afterwards (due to the change of intentions, change of conditions, environment, etc.).

There is also an opportunity to conduct the familiar research outside the Norway, in other European countries, for instance, in order to discover new tendencies.

The use of longitudinal approaches can give opportunity to extend the period of time between the first data collection (explanatory variables) and final data collection (dependent variables), thereby to identify new patterns. The use of wider timeframes can be helpful.

Multiple theoretical perspectives can be included in further research (such as chosen strategy, etc).

## References/Bibliography

- Acs, Z.J., & Storey, D.J. (2004). Introduction: Entrepreneurship and economic development. *Regional Studies*, 38(8), 871-877.
- Ajzen, I. (1991). Theory of planned behaviour. *Organizational behaviour and human decision processes*, 50(1), 179-211.
- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology and Health*, 26(9), 1113–1127.
- Ajzen, I. (2011). Behavioral interventions: Design and evaluation guided by the theory of planned behavior. In M. M. Mark, S. I. Donaldson, & B. C. Campbell (Eds.), *Social psychology for program and policy evaluation*. New York: Guilford, 74-100.
- Anna, A.L., Chandler, G.N., Jansen, E., & Mero, N.P. (2000). Women business owners in traditional and non-traditional industries. *Journal of Business Venturing*, 15(3), 279-303.
- Autere, J. (2005). *The Impact of Referents on Entrepreneurship – Growth of Small and Medium Sized Software Companies in Three Finnish Regions*. PhD dissertation, Helsinki University of Technology, Finland.
- Bagiev, G., & Asaul, A. (2009). Organization of entrepreneurial activity. Tutorial. St.Petersburg, pp.336.
- Bellu, R. R., & Sherman, H. (1995). Predicting business success from task motivation and attributional style: a longitudinal study. *Entrepreneurship and Regional Development*, 349–363.
- Bird, B. (1988). Implementing Entrepreneurial Ideas: The Case for Intention. *The Academy of Management Review*, 13(3), 442–453.
- Bird, B. (1992). The operation of intentions in time: the emergence of the new venture. *Entrepreneurship. Theory and Practice*, 17(1), 11–20.
- Boeker, W. (1989). Strategic change: the effects of founding and history. *Academy of Management journal* 32 (3), 489-515.
- Bourgeois, L.J. (1980). Performance and consensus. *Strategic Management Journal*, 1(3), 227-248.
- Brush, Candida G., & Vanderwerf, Pieter A. (1992). Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance. *Journal of Business Venturing* 7(2), 157-170.
- Bulanova, O., Isaksen, E. J., & Kolvereid, L. (2016). Growth aspirations among women entrepreneurs in high growth firms. *Baltic Journal of Management*, 11(2), 187-206.
- Burns N, & Grove S.K. (2005). *The Practice of Nursing Research: Conduct, Critique, and Utilization* (5th Ed.). St. Louis, Elsevier Saunders.
- Bygrave, W.D. & Hofer, C.W. (1991), Theorizing about entrepreneurship, *Entrepreneurship Theory and Practice*, 16 (2), 13-22.
- Chandler, G.N., & Hanks, S.H. (1993). Measuring the performance of emerging businesses: A validation study. *Journal of Business Venturing*, 8, 391–408.

- Clark, B. (2002). Measuring performance: The marketing perspective. *Business Performance Measurement. Theory and Practice*, 22-39.
- Cooper, A., & Gascon, F. (1992). Entrepreneurs, processes of founding, and new-firm performance. In Sexton, D.L., & Kasarda, J.L., (eds.), *The State of the Art of Entrepreneurship*. Boston: PWS-Kent publishing, 301-340.
- Cooper, A.C., Gimeno-Gascon, F.J., & Woo, C.Y. (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9(5), 371–395.
- Davidsson, P. (1989). Entrepreneurship—and after? A study of growth willingness in small firms. *Journal of Business Venturing*, 4(3), 211-226.
- Davidsson, P., Low, M. B., & Wright, M. (2001). Editor's introduction: Low and MacMillian ten years on: Achievements and future directions for entrepreneurship research. *Entrepreneurship Theory and Practice*, 25 (4), 81-99.
- Delmar, F., & Shane, S. (2006). Does experience matter? The effect of founding team experience on the survival and sales of newly founded ventures. *Strategic Organization*, 215-248.
- Delmar, F., & Wiklund, J. (2008). The effect of small business managers' growth motivation on firm growth: A longitudinal study. *Entrepreneurship Theory and Practice*, 32(3), 437-457.
- Dencker, J.C., Gruber, M., & Shah, S.K. (2009). Individual and opportunity factors influencing job creation in new firms. *Academy of Management Journal*, 52(6), 1125–1147.
- DeTienne, D.R. (2010). Entrepreneurial exit as a critical component of the entrepreneurial process: theoretical development. *Journal of Business Venturing*, 25, 203–215.
- DeTienne, D.R., & Cardon, M.S. (2008). The impact of new venture design on entrepreneurial exit. *Frontiers of Entrepreneurship Research*, 28(1), 1-13.
- Doz, Y.L. (1996). The Evolution of Cooperation in Strategic alliances: Initial Conditions or Learning Processes? *Strategic Management Journal*, 17(7), 55-83.
- Douglas, E.J. (2013). Reconstructing entrepreneurial intentions to identify predisposition for growth. *Journal of Business Venturing*, 28(5), 633-651.
- Douglas, E., & Fitzsimmons, J. (2008). Individual intentions towards entrepreneurship vs. intrapreneurship. Paper presented at the 2008 ASGE International Entrepreneurship Research Exchange, Melbourne, Australia, 5 – 8 February.
- Dufays, F., & Huybrechts, B. (2015). Where do hybrids come from? Entrepreneurial team heterogeneity as an avenue for the emergence of hybrid organizations. *International Small Business Journal*, 1-45.
- Easterby-Smith, M., Thorpe, R., & Jackson, P. (2012). *Management Research*. 4th Edition, London: SAGE, pp. 392.
- Eddleston, K.A. (2008). Commentary: The Prequel to Family Firm Culture and Stewardship: The Leadership Perspective of the Founder. *Entrepreneurship: Theory and Practice*, 32(6), 1055-1061.
- Eikemo, T., A., & Clausen, T., H. (2007), *Kvantitativ analyse med SPSS*, Trondheim: Tapir Akademisk Forlag.

- Etzioni, A. (1960). Two approaches to organizational analysis: A critique and a suggestion. *Administrative Science Quarterly*, 5, 257–278.
- Fini, R., Grimaldi, R., Marzocchi, G.L., & Sobrero, M. (2009). The Foundation of Entrepreneurial Intention. Paper presented at the 2009 Social Entrepreneurship & Entrepreneurship Research Study Group Meeting, Case Western Reserve University, Cleveland, USA, 6th March, 1-36.
- Fishbein, M., & Ajzen, I. (2011). Predicting and changing behaviour: The reasoned action approach. New York: Psychology Press, pp. 509.
- Frazier, B.J., & Niehm, L.S. (2006). Predicting the entrepreneurial intentions of non-business majors: a preliminary investigation. Paper presented at the 2006 the USASBE/SBI Conference, Tucson, 14–17, Jan 2006, 1-9.
- Fritsch, M. & Mueller, P. (2004). Effects of New Business Formation on Regional Development over Time. *Regional Studies*, 38, 961–975.
- George, D., & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference*, 17.0 update (10a ed.) Boston: Pearson.
- Ghauri, P., & Grønhaug, K. (2005). *Research Methods in Business Studies*. Third Edition. England: Pearson Education.
- Hair, J.F. jr., Anderson, R. E., Tatham, R. L., & Black, W.C. (1998). *Multivariate data analysis*. 5<sup>th</sup> ed. Upper Saddle River, New Jersey: Prentice-Hall.
- Hair, J.F. jr., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis: a global perspective*. 7th ed., Global ed. Upper Saddle River, N.J. Pearson.
- Hannan, M. T., Burton, M.D., & Baron, J.N. (1996). Inertia and Change in the Early Years: Employment Relations in Young High Technology Firms. *Industrial and Corporate Change*, 5(2), 503–536.
- Hofer, C.W. (1983). ROVA: A new measure for assessing organizational performance. In R. Lamb (Ed.), *Advances in strategic management*, New York: JAI Press, 43-55.
- Hofer, C.W., & Bygrave, W.D. (1992). Researching entrepreneurship. *Entrepreneurship Theory and Practice*, 16(3), 91-100.
- Isaksen, E. (2006), Early business performance. Initial factors effecting new business outcomes, PhD dissertation, Bodø Graduate School of Business, Norway.
- Johannessen, A., Tufte, P.A., og Kristoffersen, L. (2011), *Forskningsmetode for økonomisk administrative fag*, Abstrakt forlag.
- Johnson, V. (2007). What Is Organizational Imprinting? Cultural Entrepreneurship in the Founding of the Paris Opera. *American Journal of Sociology*, 113(1), 97-127.
- Judge, W.Q., Hu, H.W., Gabrielsson, J., Talaulicar, T., Witt, M.A., Zattoni, A., López-Iturriaga, F., Chen, J., Shukla, D., Quttainah, M., Adegbite, E., José Luis Rivas, J.L., & Kibler, B. (2015). Configurations of Capacity for Change in Entrepreneurial Threshold Firms: Imprinting and Strategic Choice Perspectives. *Journal of Management Studies*, 1-44.
- Kaplan, R.S., & Norton, D.P. (1992). The balanced scorecard – Measures that drive performance. *Harvard Business Review*, 70(1), 71–79.

- Kimberly, J.R. (1979). Issues in the Creation of Organizations: Initiation, Innovation, and Institutionalization. *Academy of Management Journal*, 22 (3), 437-457.
- Knoke, D., & Bohrnstedt, G.W. (1994). *Statistics for social data analysis*. 3<sup>rd</sup> ed. Itasca, Illinois: F.E. Peacock publishers Inc.
- Kolvereid, L., & Bullvåg, E. (1996). Growth intentions and actual growth: The impact of entrepreneurial choice. *Journal of Enterprising Culture*, 4(1), 1-17.
- Kriauciunas, A., & Shinkle, G. (2008). Organizational Imprinting: Informing Firm Behaviour in Domestic and International Contexts. *Purdue CIBER Working Papers*, 58, 1-25.
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship: Theory and Practice*, 18(3), 91–104.
- Krueger, N.F., Reilly, M., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15 (5/6), 411–432.
- Lebas, M., & Euske, K. (2007). A conceptual and operational delineation of performance. In Neely, A., *Business performance measurement. Theory and Practice*, Cambridge University Press, 125-140.
- Lee, M., & Battilana, J. (2013). How the Zebra Got Its Stripes: Imprinting of Individuals and Hybrid Social Ventures. Working Paper 14-005 July 9, 2013, Harvard University, 1-50.
- Mandal, P. (2013) *Proceedings of the International Conference on Managing the Asian Century*. ICMAC. Springer. Singapore, Heidelberg, New York, Dordrecht, London.
- Mathias, B.D., Williams, D.W., & Smith, A.R. (2014). Entrepreneurial inception: The role of imprinting in entrepreneurial action. *Journal of Business Venturing*, 30(1), 11-28.
- Marquis, C., & Tilcsik, A. (2013). Imprinting: Toward a Multilevel Theory. *The Academy of Management Annals*, 7, 193-243.
- Meyer, M. W. (2002). Finding performance: The new discipline in management. In Neely, A., *Business performance measurement. Theory and Practice*, Cambridge University Press, 8, 51-64.
- Miner, J.B., Smith, N.R., & Bracker, J.S. (1994). Role of entrepreneurial task motivation in the growth of technologically innovative businesses: interpretations from follow-up data. *Journal of Applied Psychology*, 79(4), 627–630.
- Mok, A.L., & van den Tillaart, H. (1990). Farmers and small businessmen: a comparative analysis of their careers and occupational orientation. In Donckels, R., & Miettinen, A. (Eds), *New Findings and Perspectives in Entrepreneurship*. Aldershot, VA: Avebury, 203-230.
- Murphy, G.B., Trailer, J.W., & Hill, R.C. (1996). Measuring performance in entrepreneurship research. *Journal of Business Research*, 36(1), 15-23.
- Neely, A. (2004). *Business Performance Measurement: Unifying Theory and Integrating Practice*. 2nd edition. Cambridge University Press: Cambridge, pp. 361.
- Neely, A., & Austin, R. (2002). Measuring performance: The operations perspective. In Neely, A., *Business performance measurement. Theory and Practice*, Cambridge University Press, 41-50.

- Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement systems design. *International Journal of Operations and Production Management*, 15(4), 80–116.
- Nielsen, S.L., Klyver, K., Rostgaard Ewald, M., & Bager, T. (2012). *Entrepreneurship in Theory and Practice: Paradoxes in Play*. University of Southern Denmark. Cheltenham, UK, Northampton, MA, USA, Edward Elgar.
- Otley, D. (2002). Measuring performance: The accounting perspective. In Neely, A., *Business performance measurement. Theory and Practice*, Cambridge University Press, 3-21.
- Perez, E.H., & Canino, R.M.B. (2009). The Importance of the Entrepreneur's Perception of "Success". *Review of International Comparative Management*, 10(5), 990-1010.
- Perkmann, M., & Spicer, A. (2014). How Emerging Organizations Take Form: The Role of Imprinting and Values in Organizational Bricolage. *Organization Science* 25(6), 1785–1806.
- Peterman, N.E., & Kennedy, J. (2003). Enterprise education: influencing students' perceptions of entrepreneurial ship. *Entrepreneurship Theory and Practice*, 28(2), 129-144.
- Robinson, K.C. (1998). An examination of the influence of industry structure on eight alternative measures of new venture performance for high potential independent new ventures. *Journal of Business Venturing*, 14(2), 165–187.
- Sastry, A., & Coen, C. (2000). *Beyond the Beginning: Building a Theory of Organizational Imprinting*. Working paper. University of Michigan Business School.
- Schein, E.H. (1983). The role of the founder in creating organizational culture. *Organizational Dynamics*, 12(1), 13–28.
- Schmidt, P., Tatarko, A., Amerkhanova, N. (2013). Entrepreneurial intention, values, and the reasoned action approach: results from a Russian population survey. Basic Research Program. Working papers. National Research University Higher School of Economics (HSE), 1-40.
- Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *The Academy of Management Review*, 25(1), 217-226.
- Shapero, A., & Sokol, L. (1982). Social dimensions of entrepreneurship. In C.A. Kent et al. (Eds.) *The Encyclopaedia of Entrepreneurship*, 72-89.
- Simsek, Z., Fox, B.C., Heavey, C. (2015). "What's Past Is Prologue": A Framework, Review, and Future Directions for Organizational Research on Imprinting. *Journal of Management*, 41(1), 288–317.
- Stinchcombe, A.L. (1965). Social structure and organizations. In: March JG (ed) *Handbook of organizations*. Chicago, IL: Rand McNally, 142-193.
- Storey, D.J. (1994). *Understanding the small business sector*. London: Thomson Learning.
- Thagaard, T. (2002), *Systematikk og innlevelse*, 2. utgave. Bergen: Fagbokforlaget.
- Tubbs, M.E., & Ekeberg, S.E. (1991). The role of intentions in work motivation: Implications for goal-setting theory and research. *Academy of Management Review*, 16, 180–199.
- VanderWerf, P.A. (1994). Determinants of new ventures' objectives. *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, 290–303.
- Venkatraman, N., & Ramanujam, V. (1986), Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of Management Review* 11, 801-814.



- Watson, J., & Robinson, S. (2003). Adjusting for risk in comparing the performance of male- and female-controlled SMEs. *Journal of Business Venturing*, 18, 773-788.
- Wiklund, J., & Shepherd, D. (2003). Aspiring for, and Achieving Growth: The Moderating Role of Resources and Opportunities. *Journal of Management Studies* 40(8), 1919-1941.
- Wong, P.K., Ho, Y.H., & Autio, E. (2005). Entrepreneurship, Innovation and Economic Growth: Evidence from GEM Data, *Small Business Economics*, 24, 335-350.
- Zain, Z.M., Akram, A.M., & Ghani, E.K. (2010). Entrepreneurship Intention Among Malaysian Business Students. *Canadian Social Science* 6(3), 34-44.
- Zhao, H., Seibert, S.E., & Lumpkin, G.T. (2010). The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review. *Journal of Management*, 36(2), 381-404.

### References to Internet documents

- Clarkson, N. (without date). *Female entrepreneurs are more successful*. Article. Downloaded 17 July 2016 from <https://www.virgin.com/entrepreneur/female-entrepreneurs-are-more-successful-according-to-research/>.
- Cohoon, J.M., Wadhwa, V., & Mitchell, L. May 2010. *The Anatomy of an Entrepreneur Are Successful Women Entrepreneurs Different From Men?* Ewing Marion Kauffman Foundation, Article. Downloaded 24 July 2016 from [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2009/07/successful\\_women\\_entrepreneurs\\_510.pdf/](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2009/07/successful_women_entrepreneurs_510.pdf/).
- Frost, J. 30. May 2013. *Regression Analysis: How Do I Interpret R-squared and Assess the Goodness-of-Fit?* Minitab Blog, Article. Downloaded 21 July 2016 from <http://blog.minitab.com/blog/adventures-in-statistics/regression-analysis-how-do-i-interpret-r-squared-and-assess-the-goodness-of-fit/>.
- Helmrich, B. 10. July 2014. *Male vs. Female Entrepreneurs: How Are They Different?* Business News, Article. Downloaded 20 July 2016 from <http://www.businessnewsdaily.com/6762-male-female-entrepreneurs.html#sthash.ulvCT57Y.dpuf/>.
- Kolvereid, L., & Isaksen, E.J (2017). *Expectations and achievements in new firms*. *Journal of Small Business and Enterprise Development*. Downloaded 12 July 2017 from <https://doi.org/10.1108/JSBED-11-2016-0189/> .
- Martz, E. 16. April 2013. *Handling Multicollinearity in Regression Analysis*. Downloaded 2 August 2016 from <http://blog.minitab.com/blog/understanding-statistics/handling-multicollinearity-in-regression-analysis>.
- NIST/SEMATECH *e-Handbook of Statistical Methods* 6. January 2003. Downloaded 22 July 2016 from <http://www.itl.nist.gov/div898/handbook/>.

Sherrod, P. (without date). *NLREG - Nonlinear Regression and Curve Fitting*. Article. Downloaded 18 July 2016 from <http://www.nlreg.com/results.htm/>.

Shuttleworth, M. 8. November 2009. *Types of Validity*. Downloaded 30 July 2016 from Explorable.com: <https://explorable.com/types-of-validity>.

## Appendix A: Questionnaire

Translation of postal questionnaire. (Only questions used in the present study are presented)

### Survey among newly registered businesses

This survey takes aim on investigating aspects regarding the founding of new businesses. The questions are concerned with the business that recently was registered in the Brønnøysund Register Centre.

#### Part A. The business founding

A2. Are you responsible for the founding of the new business?

- 1  Yes, alone                      2  Yes, together with partner(s)                      3  No

A4. How was this business founded? **(Tick one box)**

- 1  Started from scratch  
2  Purchased  
3  Inherited  
4  Continuance of business that went bankrupt  
5  Other, please specify \_\_\_\_\_

#### Part D. Business growth intentions

D1

**(Tick one box on each line)**

	Very unlikely 1	2	3	Neither likely or unlikely 4	5	6	Very likely 7
1. How likely is it that you in <b>one year</b> are working full-time in the new business?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How likely is it that the business in one year has employed anyone in addition to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How likely is it that the business in one year employs at least ten persons?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How likely is it that the business in one year has turnover of more than NOK 500,000?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How likely is it that the business in one year has turnover of more than NOK 5,000,000?

6. How likely is it that the business in one year will yield a profit?

## Part I. Personal background

12. Gender: 1  Male 2  Female

13. How many years of work experience do you have? \_\_\_\_\_ years, of this management experience \_\_\_\_\_ years  
**(please write "0" if do not have work experience or management experience)**

Thank you very much for your participation!

Please put the completed questionnaire in the enclosed return envelope and mail it today