

**AN INQUIRY INTO THE IMPACT OF PRE START-UP BUSINESS PLANNING
ON NEW BUSINESS VENTURES' PERFORMANCE**

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Summary

This study models and tests the different ways in which pre start-up business planning affects firm performance in the early life cycle stages of a start-up. We assume that a well developed business plan can (a) facilitate access to bank loans, thereby increasing the overall amount of available financial capital, and (b) stimulate management professionalism. Next, we hypothesize that (c) larger financial capital stocks, and (d) higher levels of management professionalism will positively impact on performance. We rely on a sample of new Belgian incorporated companies between one and two years old to test our hypotheses. We find significant positive relations between pre start-up business planning and access to bank loans, between the receipt of bank loans and total start-up financing, and between business planning and management professionalism. However, the data do not support our hypothesis on the relationship between pre start-up business planning and performance. In the result section of the paper, we compare several alternative explanations for this 'zero effect' on performance.

Keywords: new business ventures, pre start-up planning, start-up financing, new business ventures' performance, management professionalism

1. Introduction

In the past decade, pre start-up business planning has received a lot of attention in both popular and academic literature. Numerous 'how to' books and brochures meticulously inform would-be entrepreneurs about the proper formulation of a business plan. Additionally, various interactive tools assisting starting entrepreneurs with the preparation of a business plan can be found on the Web.

But, what is in it for the entrepreneur? Why investing resources and time in the development of a comprehensive business plan?

Honig and Karlsson (2004) distinguish two views on the rationale behind business planning. The *economic rational view* focuses on the direct impact of business plans on economic firm performance. Effective planning is associated with doing business in a professional and well-thought manner, and subsequently, with positive performance outcomes. The *institutional view* stresses the importance of business plans as a way to achieve legitimacy, a necessary (yet, not sufficient) condition to survival and success.

Both perspectives have been put forward in empirical research to theoretically ground the relationship between business plans - or planning in general - and performance (e.g. Bracker et al., 1988; Delmar and Shane, 2004; Honig and Karlsson, 2004; Perry, 2001; Robinson et al., 1986). However, findings on the planning-performance relationship are diverse and a consensus has not yet been reached. For example, Perry (2001) found a significant, although weak, positive relationship between planning and firm survival. Delmar and Shane (2004) equally observed a significant positive relationship between the completion of a business plan and new venture

survival. Conversely, Bhidé (2000) did not find any correlation between extensive planning and start-up success. Honig and Karlsson (2004) failed to find any effect of writing a formal business plan on both survival and profitability within the 24 months of study. The inconsistencies in operationalization of business planning and performance certainly contribute to this discord in views.

Although planning-performance relationships have been widely studied, a clear understanding of the mechanisms linking the two concepts is still lacking. According to Castrogiovanni (1996), no theoretical rationale exists for studying direct planning-performance linkages. Instead, other benefits may be deduced from planning, which in turn may impact financial performance or survival prospects. The objective of this paper is to open the black box between pre start-up business planning and performance. We thereby focus on two mediating mechanisms: (1) access to bank financing; and (2) management professionalism. Our contribution to the business planning literature is twofold. First, by increasing insights into the black box between business planning and performance, we may incite future theory development. Second, we rely on a homogeneous sample of start-ups between one and two years old, thereby minimizing extraneous variation and neutralizing 'noise' which could be ascribed to differences in life cycle stage.

The remainder of this paper is structured as follows. First, a theoretical rationale will be provided for linking business planning to firm performance. Next, we elaborate on the hypotheses. Subsequently, our methodology (research design and measurement) will be treated, followed by a description of the results. We end with a discussion and implications for future research.

2. Conceptual framework and hypotheses

Our conceptual framework is visualized in Figure 1. In what follows, we elaborate on and theoretically underpin the different hypotheses.

Please insert figure 1 about here

2.1 Relationship 1a: business planning — bank financing

Regarding the first mediating mechanism, we start from the assumption that the business plan contributes considerably to the gathering of external financing. Mason and Stark (2004) state that “although business plans have several purposes and target audiences, most are produced in order to raise finance”. Almost all authors (e.g. Barrow et al., 2001; Kuratko and Hodgetts, 2001) agree that this assumption is an established fact rather than an interesting line of inquiry. In recent literature, the former relation has been further explored with the focus on the content and structure of business plans and the various types of financiers (Mason and Stark, 2004).

In this paper, we concentrate on the banker’s lending behaviour, because bank financing is a major source of finance for small and new businesses (Shepherd and Wiklund, 2005). Venture capital and business angel capital are particularly reserved for the most promising new business ventures, a small proportion of all start-ups. As our sample contains all sorts of companies, it is more appropriate to pay attention to bankers’ loan decisions.

The importance of the business plan originates from the *information asymmetry* problem bankers are confronted with when assessing investment decisions (Gompers, 1995). This problem is even more pronounced in the case of new businesses because of

their lack of track record. Mason and Stark (2004) indicate that the information required to assess the competence of the entrepreneur and the prospects of the business is either unavailable, uneconomic to obtain or difficult to interpret. The business plan is thus the first - and possibly sole - substantial contact that a potential funder has with the entrepreneur (Shepherd and Douglas, 1999). In this respect, Castrogiovanni (1996) refers to the symbolism benefit of pre start-up planning. This benefit consists in (1) the legitimation of the new venture proposal and (2) the improved communication with external stakeholders, especially potential investors. Thus, potential financiers will let their investment decision depend on the presence of a business plan, since successful businesses are perceived as doing it. Moreover, it gives legitimacy to the start-up's project and provides information about the new venture.

Although the presence of a written business plan should attract the attention of the banker, we claim this condition is not sufficient to explain total loan allocation decisions. Previous research on venture capital investment decisions found that the business plan's structural characteristics tend to influence investment behaviour (MacMillan and Narasimha, 1987). In this paper, we focus on the extensiveness of the business plan, operationalized as the number of subdivisions. We argue that an elaborate business plan provides a clear and complete view of the entrepreneur's intentions. Both characteristics may enhance the chances of being funded by bankers. Moreover, the extensiveness of the business plan can be considered a proxy for dedication, accuracy and precision of the entrepreneur, qualities that are highly regarded by investors. Therefore the following hypothesis will be examined:

H1a: The more extensive the business plan, the higher the probability of receiving bank loans at start-up.

2.2 Relationship 1b and 1c: bank financing — total start-up financing — performance

In the second part of the first mediating mechanism, bank financing is related to performance through the total start-up funding volume. Castrogiovanni (1996) expects that the amount of external financing obtained will positively impact the survival prospects of the new venture. We agree with his proposition, but find the focus on external financing too restrictive. Instead, we argue that the total volume of start-up financing positively impacts on performance. Several authors (Cooper et al., 1994; O'Neill and Duker, 1986) have already pointed out the positive effects of initial financial capital on new venture survival and growth. They argue that more initial capital permits more ambitious strategies and buys time for the entrepreneur to make mistakes or to overcome economic downturns.

Additionally, in view of the capital constraints-argument, we assert that the access to external financing (in this case bank loans) will increase total financing. In the case of start-ups, owners will invest a great deal if not all of their own savings in their project. But these savings will mostly not suffice to guarantee the proper functioning of the new venture. Therefore, external financing is needed in order to raise total start-up capital. If external financing is a substitute for private capital, this relationship would not hold. Given that start-ups are capital constraint, we state that start-ups obtaining bank loans will have a higher amount of total start-up financing compared to start-ups that do not.

H1b: The receipt of bank loans shows a positive relationship with total start-up financing.

H1c: Total start-up financing shows a positive relationship with the new business venture's performance in its second year of life.

2.3 Relationship 2a: business planning — management professionalism

Some authors claim that planning offers little advantage to new firm founders (Bhidé, 2000; Carter et al., 1996). Yet, we argue that apart from the symbolism benefit (Castrogiovanni, 1996), business planning may enhance management professionalism. The adequate formulation of a business plan prior to start-up procures the possibility of unfolding swifter and more professional management practices after legal start-up. If the business plan is not sufficiently elaborated, a starter needs to invest time and resources to compensate for the improper preparation of the start-up. For example, if the financial plan fails to make proper cash flow predictions the entrepreneur needs to resort to bank overdraft, which is considered an unprofessional management practice. Similarly, the response of the new venture to market influences will be superior in terms of quickness and efficacy if pre start-up market research is part of the business plan.

In his article, Castrogiovanni (1996) describes similar features for the efficiency benefit of pre start-up planning. Delmar and Shane (2003) present an analogous reasoning. They state that “planning helps firm founders to make decisions more quickly than with trial-and-error learning; to manage resource supply and demand in ways that minimize time-consuming bottlenecks; and to turn abstract goals into concrete operational activities more efficiently”.

In our research, management practices were evaluated in the following domains: (1) financial management and accounting, (2) strategic orientation, (3) sales, (4) purchase, (5) ICT, (6) HR management, (7) networking, (8) market orientation. These practices were combined into an index, a proxy for the extent to which the start-up engages in professional management practices (for more details, see measures section). We investigate the following hypothesis.

H2a: The more extensive the business plan, the higher the level of management professionalism in the start-up's second year of life.

2.4 Relationship 2b: management professionalism — performance

In our survey, ventures up to two years were asked about their management practices. This implies that management professionalism has been assessed early in the venture's existence. However, it is not obvious for start-ups to display professionalism promptly. Therefore, new business ventures already attaining an elevated stage of management professionalism in their early years are expected to perform better compared to those lagging in professionalization. An example of a highly professional management practice is the verification of the financial and economic health of the suppliers. This practice enables the entrepreneur to avoid financial discomfort or the interruption of his business activities. On the other hand, having a limited clientele generating a major fraction of the returns is considered an unprofessional practice and may have severe implications on the endurance of the venture's performance. The nature of the relation between management professionalism and new venture performance is hypothesized as follows:

H2b: Higher levels of management professionalism lead to higher business performance.

3. Methods

3.1 Sample

The data to test the hypotheses originate from a survey on the initial resource profile and management practices of new business ventures (organized at the end of 2003). Questions related to ownership, management, human resources, strategy, location, innovation etc. These questions are intended to serve the broader objective of gaining insight into the relationship between the initial resource profile and long term business success.

The sample consists of companies from all economic sectors employing between 1 and 49 persons and between 1 and 2 years old. The lower bound of one employee was introduced in order to clear away 'post box companies' from our sample. These companies do not contribute to the economic activity as they are primarily founded for fiscal reasons. The upper bound of 49 has been chosen to obtain a homogeneous sample. Fast growing start-ups, in terms of number of employees, may have specific features distinguishing them from the majority of slowly growing firms. Research on new business ventures is often characterized by a selection bias, implying that only survivors or successful new firms are studied. Using figures on failures in Belgium (Graydon, 2001), we calculated that the majority of businesses that fail in their first five years of existence, are 3, 4 and 5 years old. Since we focus on businesses between 1 and 2 years old, we believe the selection bias in our sample is small.

As all companies in our sample are incorporated, their annual accounts are available through the Central Balance Sheet Office of the National Bank of Belgium. Because these annual accounts are formulated under uniform rules and are subject to control, the ensuing economic information is objective and comparable among all included start-ups.

The stipulations to be considered a new business venture are of a juridical nature. This implies that a business venture is regarded new when a new VAT-number has been registered or when an old VAT-number has been reregistered. An extra questionnaire item enabled us to distinguish between genuine new companies and companies that already exerted the business activity before start-up of the current business venture, e.g. takeovers. Because takeovers are of a different nature than genuine start-ups and have a history that may influence the relationship under study, we only consider genuine start-ups.

The questionnaire was sent by mail to the business owner/manager and followed by two reminders, one postal and one by telephone. A total of 2679 ventures were contacted resulting in a sample of 637 useable data lines. Subtracting start-ups that could not be reached, the response ratio amounted to 29%. After removing takeovers and missing values, the data set further declined to 92 ventures for path 1 (business planning – bank and total financing – performance) and 110 ventures for path 2 (business planning – management professionalism – performance).

3.2 Measures

Pre start-up business planning

Planning a business prior to start-up can be defined as the gathering and analyzing of information about the business context and the business opportunity to be pursued, the evaluation of the business risks and rewards, the projection of financial forecasts, the identification of the strategies, resources and capabilities needed to accomplish a well-defined goal, etc. The written reflection of these planning activities is referred to as the business plan. In literature, business plan variables are often coded as dummy variables (presence of a written business plan or not). Measures of the quality or completeness of the written business plan occur less frequently. An exception is the article from MacMillan and Narasimha (1987) in which the structure and financial content of the business plan was analyzed. In our analyses we make use of an index representing the extensiveness of the business plan. Respondents were asked to indicate which components they included in their business plan (see Table 1). For each component, a binary variable was constructed (1=presence in business plan; 0=absence in business plan). Subsequently, we added up all binary variables, resulting in an additive index denoted by I_e (extensiveness index) and ranging from 0 to 8. This index will be used in testing hypothesis 2a. Through its composition, the extensiveness index (I_e) gives every component equal value. However, in the case of banker's decisions, equal merit of all subsections is not very likely. Mason and Stark (2004) developed a ranking of business plan aspects considered to be important by bankers to assess investment opportunities. The three most important aspects, in order, are: (1) finance,

(2) market; and (3) strategy. In line with their findings, we assign the weights of 5, 4 and 3 respectively to the investment plan, market analysis and (marketing) strategy. The resulting weighted index is denoted by I_w and will be used in testing hypothesis 1a.

Please insert table 1 about here

Bank loans

The receipt of *bank loans* was measured by means of a dummy variable coded as 1 if a loan was granted and 0 if not.

Total financing

Total financing volume is measured by the natural logarithm from all financial resources at start-up so that outliers manifest less their effect.

Management professionalism

The degree of *management professionalism* is captured by means of a formative index (manprof). This index is composed of the sum of 8 variables between 0 and 1, representing 8 functional domains (financial policy and accounting, strategic orientation, sales, purchase, ICT, HRM, networking and market orientation). Each variable represents the extent to which several ‘best practices’ are used in the functional domain (Maes et al., 2005; Table 2). The number of management practices differs between functional domains. In order to give each policy area equal weight in the final professionalization index, the eight sub-indices were rescaled, resulting in a total index with a minimum score of 0 and a maximum score of 8.

The negative sign between the brackets (see Table 2) indicates that these variables have been reverse-coded so that higher scores represent higher professionalization.

Please insert table 2 about here

Performance

Given the young age of the questioned business ventures, the use of traditional *performance* estimators, originating from research done on large corporations, is not self-evident. Yet, we decided to use profit as a short-term measure of performance for two reasons. First, although new ventures are not expected to show profitability during the first years of existence, two tiers of our sample registered positive profits equally spread from 0 till 320 000 Euro. Second, growth measures, considered to be more relevant for new ventures, could not yet be calculated due to missing data. An additive and logarithmic transformation was performed to minimize outlier effects.

Control variables

We added three control variables to our regression models: (1) sector, (2) sector experience of owner-managers and (3) educational level of owner-managers. Sector was controlled for by 7 dummy variables (1_agriculture, 2_industry, 3_construction, 4_wholesale and retail, 5_catering, 6_transportation and communication, 7_financial services and 8_health services). The human capital of owner-managers was measured by their industry experience and educational level. Owner-managers were asked to indicate the relevant years of working experience in the same sector as the start-up and the highest diploma they obtained. Subsequently, scores from all managers were averaged for analysis.

4. Analysis and results

Both mechanisms (presented in Figure 1) are path models with mediating variables. Mediation (see Figure 2) occurs when an independent variable (business plan extensiveness) causes a mediating variable, which in turn causes the dependent variable (firm performance). Thus, mediation represents the generative mechanism through which the independent variable is able to influence the dependent variable of interest (Baron and Kenny, 1986). As such, direct and indirect effects of the independent and mediating variables on the dependent variable can be distinguished. The first path contains two mediating variables, whereas the second path only contains one mediating variable. Analyses were executed by means of the mediating variable model of Baron and Kenny (1986). Baron and Kenny (1986) indicate three conditions that must be met in order to have a mediating relationship. These three prerequisites are (a) variations in the levels of the independent variable should significantly account for variations in the dependent variable, (b) variations in the levels of the independent variable should significantly account for variations in the mediator variable and (c) variations in the levels of the mediator variable should significantly account for variations in the dependent variable, controlling for the independent variable. Complete mediation occurs when the independent variable no longer affects the dependent variable after controlling the mediating variable. Partial mediation is the case where the effect of the independent variable on the dependent variable lowers but remains when controlling the mediating variable.

Please insert figure 2 about here

An overview of the main descriptive statistics is presented in Table 3. From this table it can be seen that at least for hypotheses 1a, 1b and 2a correlations point towards positive relationships. The correlations between profit and the independent variables, however, are negative.

Please insert table 3 about here

As can be deduced from Table 4 and Table 5, no relationship was found between degree of planning and profit. This is true for both the weighted and the non-weighted extensiveness index. Even though the p-value of the estimate in regression 1 is close to .05, we regard the estimate to be not significant. Also note the very low adjusted-R². In some cases, step (a) (cf. supra) is not required to have mediation. However, step (c) is not satisfied in both regression 2¹ and 7. As a result, no mediation could be found between the degree of planning and profit.

We suggest three possible explanations for this phenomenon. First, it was our intention to consider a time lag between the period the questions are referring to and performance measurement. Because of reasons beyond our control (performance data with a lag of minimum one year were not yet released at the time of writing this paper), we had to conduct our analyses with performance data referring to the same period as the other variables. Second, the method described by Baron and Kenny (1986) does not allow the relevant paths to be tested directly contrary to structural equation modelling. Third, in the first path, the application of bootstrap financing techniques by new ventures can reduce the financing needs, allowing new ventures to perform well irrespective of the amount of start-up financing they possessed at start-up.

In case we leave new venture performance aside, results indicate that a mediational effect of bank loans exists between degree of business planning and total start-up financing, thus supporting hypotheses 1a and 1b. This implies that an extensive business plan lowers the likelihood of bank loan refusal. In turn, new ventures receiving bank loans, will on average have a higher amount of total start-up financing.

Analyses equally supported hypothesis 2a, indicating that entrepreneurs preparing the new venture more carefully show higher levels of management professionalism directly after start-up.

Please insert table 4 about here

Please insert table 5 about here

5. Discussion and conclusion

This study failed to reveal a mediational effect of financing and management professionalism in the planning-performance relationship in the case of new business ventures. We suggest three possible explanations for this phenomenon of which we feel the most important is the absence of a time lag between the independent and mediating variables and performance. Indications were found of a relationship between the degree of business planning and total start-up financing through access to bank loans. Additionally, results indicated a positive effect of planning on management professionalism.

Although we believe this paper has generated interesting results, some limitations should be mentioned. Next to the time lag issue, profit is not the most stable performance measure in the case of start-ups. In future research we will introduce

growth related performance indicators and time lags. Additionally we could not assess the quality of the business plan.

Although no outcome benefit (performance) of planning was observed, we identified two possible process benefits of the business plan for future entrepreneurs. A well developed business plan assists the entrepreneur to access bank financing which increases the total financing volume. On top, business planning helps saving time and enhances management professionalism after start-up.

In conclusion, we emphasize the importance of the business plan as a facilitating tool for future entrepreneurs.

¹ Mediation between business planning and profit was tested through total start-up financing; mediation between business planning and total starting financing was tested through bank loan.

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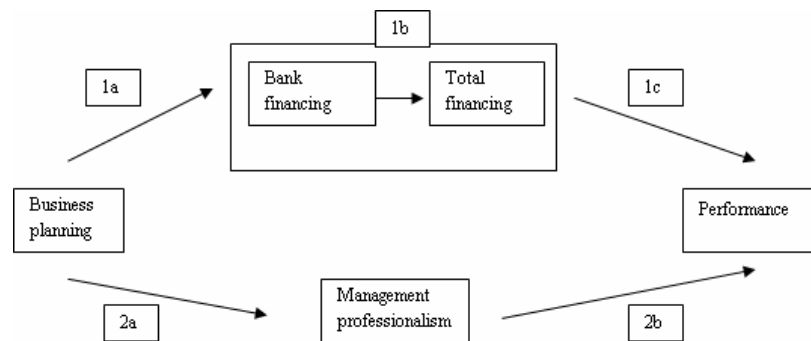


Figure 1 - conceptual model

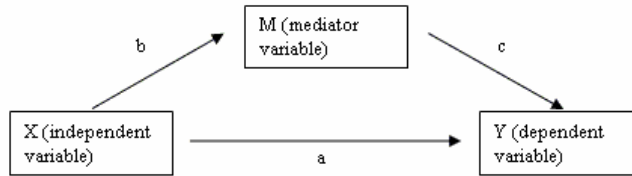


Figure 2 - mediation

Table 1 - components of the business plan

<i>Components</i>	<i>Frequency of occurrence in the total sample</i>
Description of the product or service that will be developed	.59
Risk analysis	.27
Investment plan	.83
Market analysis	.32
(Marketing) strategy	.35
Personnel planning	.33
Personnel management	.16
Mission statement	.19
No business plan was developed	.00

Table 2 - components of the professionalization index

<i>Policy area</i>	<i>Management practices</i>
Financial policy and accounting	The use of bank overdraft for investments and current financing needs (-)
	The use of personal resources for investments and current financing needs (-)
	The use of an expert for bookkeeping (+)
	The proportion of time of payment to the supplier to the time of payment of the customer (+)
	The follow up of financial performance (+)
Strategic orientation	Attention to market position (+)
	Analytical management (+)
Sales	Dependence on the 2 largest customers in terms of return (-)
	Amount of subcontracting in terms of return (-)
	The use of e-commerce for sales (+)
Purchase	The use of multiple suppliers (+)
	Verification of the financial-economic health of the suppliers (+)
	The use of e-commerce for purchase (+)
ICT	Amount of management practices supported by the Internet (+)
Human resource management	Amount of subcontracted HR-related activities (+)
	The use of recruitment and selection, training and evaluation (+)
	The use of certain specific selection instruments (e.g. simulation, assessment center, biographical questionnaire, ...) (+)
	The use of certain specific reward systems (e.g. commission on sales, profit sharing, shares, skill based pay, competence reward, ...) (+)
	Amount of assigned extralegal benefits (+)
	Amount of domains in which the personnel can take part in deciding or has advisory power (+)
Networking	Sum of all types of partners with which the start-up already has collaborated (+)
Market orientation	Market research, communication and coordination, quickness of market response (+)

Table 3 - descriptive statistics

<i>Variables</i>	<i>Mean</i>	<i>S.D.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
I _w	7.68	3.63	1			
Bank loan	.30	.46	.16	1		
Total financing	10.47	1.17	.24*	.34**	1	
Profit	9.65	.52	-.17	.07	-.05	1
I _e	3.00	1.69	1			
Manprof	22.21	8.25	.53**	1		
Profit	9.66	.43	-.08	-.10	1	

* Significant at the .05 level ** Significant at the .01 level

Table 4 - path 1

<i>N°</i>	<i>Regression</i>	<i>Standardized estimate</i>	<i>p-value</i>	<i>R_a²</i>
1	I _w → profit	-.16	.07	.01
2	total financing I _w → profit			.01
	total financing	-.01	.55	
	I _w	-.15	.07	
3	I _w → total financing	.11	.05*	.27
4	I _w → bank loan (event bank loan=0)	-.41	.02*	Rescaled R ² = .20
5	I _w bankloan → total financing			.39
	I _w	.06	.58	
	bankloan	.35	.0001**	

*p<.05 **p<.01, N=92

Table 5 - path 2

<i>N°</i>	<i>Regression</i>	<i>Standardized estimate</i>	<i>p-value</i>	<i>R_a²</i>
6	I _e → profit	-.12	.31	.02
7	manprof I _e → profit			.07
	manprof	-.15	.23	
	I _e	-.04	.58	
8	I _e → manprof	.52	<.0001**	.31

*p<.05 **p<.01, N=110