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LETTER FROM THE EDITORS

Welcome to the fourth issue of the *International Journal of Entrepreneurship*. We are extremely pleased to be able to present what we intend to become a primary vehicle for communication of entrepreneurship research throughout the world.

The Academy of Entrepreneurship® is a non profit association of scholars and practitioners in entrepreneurship whose purpose is to encourage and support the advancement of knowledge, understanding and teaching in entrepreneurship throughout the world. It is affiliated with the Allied Academies, Inc. The *International Journal of Entrepreneurship* is a principal vehicle for achieving the objectives of the organization. The editorial mission of this journal is to publish empirical and theoretical manuscripts which advance the entrepreneurship discipline. To learn more about the Academy, its affiliates, and upcoming conferences, please check our web page: www.alliedacademies.org.

For this issue of the International Journal of Entrepreneurship, we have selected many fine articles from previous issues of the *Academy of Entrepreneurship Journal* which have an international flavor to present here. We are between Editors for the IJE and do not want to have a break in our offerings, but because of unforeseen challenges, we do not have submissions for this issue. Our new Editor should be with us for the 2002 issue of the *International Journal of Entrepreneurship*. Until that time, we will serve in that capacity. We hope that we will have much support through your contributions of articles in the future.

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Manuscripts

UNCERTAINTY AND NEW VENTURE INVESTMENTS: SOME EMPIRICAL EVIDENCE FROM YOUNG ITALIAN FIRMS

Alessandra de Marco, Università di Napoli, Italy

ABSTRACT

The paper focuses on entrepreneurial decisions regarding initial investment during the creation of new ventures. It presents an empirical test on the relationship between the uncertainty perceived by entrepreneurs when starting new independent ventures and the relative size of start up investment. It also explores the relationship between the relative size of initial investment and the early growth of the firms.

The aim of the paper is to verify whether the relative size of initial investment is influenced by the uncertainty perceived by entrepreneurs at the time of start up. Some hypotheses are developed and tested on a sample of 124 new independent Italian firms. The hypotheses build on some contributions in the field of the real option perspective for investments, which stress the importance of the dimension and timing of investments and the role of waiting in increasing or decreasing the attractiveness of a project. Three different forms of uncertainty are identified: internal uncertainty, external uncertainty and resource uncertainty. Each form of uncertainty is supposed to have a different influence on the decisions about the investments. The paper also explores the relationship between asset relative size and firms' growth, the latter being considered as a major indicator of new venture performance.

INTRODUCTION

Many different perspectives can be used when studying new venture creation, that has been recognized as a multidimensional phenomenon (Gartner, 1985). One of these perspectives regards the accumulation of assets inside the firms. The consideration of the entrepreneur as a coordinator of resources originates in the work of Say (1840) and has been adopted by many other economists. Studies in the field of entrepreneurship have considered the acquisition of the resources needed to start the business to be a central step in the new venture creation process (Vesper, 1990; Bhavé, 1994). In addition to this, the accumulation of assets has been identified as a property characterizing the emergence of an organization (Katz & Gartner, 1988).

Despite the consideration of the fundamental role that capital constraints and resource availability play in the process, there are still not so many studies that focus on the distinctive decisions regarding assets acquisition in new ventures. Most research focuses on the availability of

initial human and financial resources in influencing the performance of the new ventures (Timmons, 1986; Cooper, Gimeno-Gascon & Woo, 1994; Carter, Williams & Reynolds, 1997) and on the actions undertaken by entrepreneurs in order to obtain capital for starting the firms (Birley, 1985; Dubini & Schillaci, 1988; Starr & MacMillan, 1990; Vesper, 1990). However, research on habitual entrepreneurs (MacMillan, 1986; Colombo, 1988) and some recent contributions adopting a resource-based approach (McGrath, 1996) have pointed out how entrepreneurs can adopt different behaviour when dealing with start up investment and how such behaviour can be considered a way to cope with the perceived uncertainty.

In this paper we focus on the relative size of the initial investment, that represents one of the founders' decisions regarding the process of accumulating assets inside the new firm.

We identify two different behaviours that entrepreneurs can adopt for the initial investment: "large scale" and "asset parsimony". We then explore whether it is possible to identify a relationship between these behaviours and the uncertainty perceived by the entrepreneurs when starting the venture, and these behaviours and the growth of sales that the ventures are able to obtain in the first stages of their life.

INITIAL INVESTMENT IN NEW FIRMS CREATION

According to the literature on new venture creation (MacMillan, 1986; Colombo, 1988; McGrath, 1996), two different investment behaviours can be adopted by entrepreneurs when dealing with the acquisition of assets: "large scale" and "asset parsimony". We will examine these two behaviours, focusing on the *relative size of the initial investment* that each behaviour involves - namely the amount of assets that the founders invest in the very initial phase compared with the initial sales.

The entrepreneurs deciding to invest on a "large scale" intend to create as soon as possible a firm of a dimension compatible with the efficient size in the industry. The underlying logic for this behaviour is the theoretical base of the traditional business plan techniques. According to this perspective, start up investment should be guided by the search for market effectiveness, by the previous identification of the set of assets necessary to constitute the organization and by the anticipated planning of the activities to be done. The entrepreneurial goal is the exploitation of a previously identified market opportunity. Founders investing on a "large scale" tend to build from the beginning an organization able to compete with the firms already present in that industry.

For these ventures, the relative size of the initial investment is quite large. The quantity and quality of the assets acquired is mainly influenced by the availability of capital, while in the first period the sales can be very low. Thus in some cases large scale investments lead to firms that are oversized for a certain period of time.

The large relative size of the initial investment can negatively impact on the profitability in the very initial period, if limited sales are compared to fixed costs generated by the size of the firm. On the other hand, if ventures are able to successfully address the target markets, they can more easily increase the production, thus obtaining a fast growth of sales.

Other entrepreneurs follow the principle of "asset parsimony", namely the skill of deploying minimum assets needed to achieve the desired business results (Hambrick & MacMillan, 1984).

They postpone the acquisition of each single asset to the time it is really needed. In “asset parsimony” behaviour, the initial investment takes place through a gradual acquisition of all the assets over a certain period of time. Parsimonious entrepreneurs try to maximize from the very early phase of the firm’s life the rate of returns on the investment. The cash flows generated are then used for step-by-step expansion of the organization. In this approach, assets are minimized in relation to the firm’s output (MacMillan & Hambrick, 1988). “Asset parsimony” is often made possible by the commitment of the founders in obtaining all the resource needed at the lowest possible cost. Second-hand goods are bought and the entrepreneurs’ personal network is used to obtain all the resources at the minimum possible cost. It has been pointed out that the extensive use of social capital (Starr & MacMillan, 1990) can allow new ventures to beg, borrow, or loan the assets needed.

UNCERTAINTY AND INITIAL INVESTMENT

The new venture creation process takes place through a successive and interrelated sequence of actions and decisions. The decisions about initial investments are some of the various decisions that the founders have to take during the start up. Decision-making in new ventures is characterized by uncertainty. In older firms the availability of historical data, past results and a large number of internal and external information help to reduce the level of uncertainty at a low cost (Thompson, 1967). Entrepreneurs dealing with start up processes do not have all this information. In many cases they take decisions under conditions of scarcity of information. Moreover, the efforts to reduce the uncertainty through the acquisition of additional data could prove for them too expensive and not so effective. For taking the main decisions, entrepreneurs are very dependent on their feelings and perceptions.

Therefore in the study of entrepreneurial decision-making processes, it is useful to refer to contributions in the fields of decision-making under conditions of high uncertainty and of real option perspective for investments (Bowman & Hurry, 1993; Dixit & Pyndick, 1994; McGrath, 1997). These recent contributions in the field of investment decision-making under conditions of uncertainty have identified different forms of uncertainty (Dixit & Pyndick, 1994), each differently influencing decisions about the timing and the size of investment (McGrath, 1997). The application of these propositions to investments in new ventures has stressed that by adopting rational investment behaviours the entrepreneurs can systematically and idiosyncratically reduce uncertainty (McGrath, 1996). We refer to these three forms of uncertainty, taking into account the peculiarities of the new venture creation process.

With regard to investment decisions, it is possible to distinguish between internal, external and resource uncertainty. Internal uncertainty is a “technical uncertainty” (Dixit & Pyndick, 1994) and refers to the costs and probabilities of obtaining technical success with the project. This form of uncertainty is “internal” because it depends on factors and conditions that are inside the firm and in particular on its knowledge and skills. A decision-maker facing high internal uncertainty does not know if his or her organization will be able to successfully complete the project. In this case, because the uncertainty originates in the firm, there is no additional information that can be expected in order to reduce the uncertainty. In the presence of an interesting investment opportunity, if the main uncertainty that the decision-maker faces regards the ability of the organization in coping with

that project, the rational decision should be to invest immediately, thus accelerating the timing of the investment. Under conditions of high internal uncertainty, waiting has no positive value, while it can affect the future profitability of the investment, as some favourable conditions can disappear. Therefore, internal uncertainty creates pressures to invest immediately (McGrath, 1997).

In the new venture creation process, internal uncertainty can be referred to the ability of the entrepreneurs to realize their business idea using their previous knowledge, competencies, experiences and skills. In order to successfully start the business, the entrepreneurial team must be able to solve the main technical issues, to define a marketing mix appropriate for the selected markets and to manage the assets and human resources in the emerging organization. Internal uncertainty in new ventures can be related to the founders' background - namely their past experience and knowledge. A strong background enhances the experience and the knowledge of the founders, thus reducing the perceived internal uncertainty. On the other hand, lack of a technical, commercial or managerial experience or knowledge is supposed to increase perceived internal uncertainty. It has been pointed out that a rational way to cope with the internal uncertainty is to invest (McGrath, 1997) because only by investing will the entrepreneurs start to learn about the new venture, thus reducing uncertainty. So we expect to find initial investment of a large relative size in new ventures which face high internal uncertainty.

Hypothesis 1: Under conditions of high internal uncertainty entrepreneurs do not tend to keep low the relative size of initial investment.

The second form of uncertainty is "external". "Input costs" uncertainty has been defined as the difficulty in forecasting the costs of inputs and the prices of outputs (Dixit & Pyndick, 1994). It is possible to define as "external" the uncertainty depending on conditions that are in the firm's environment and are outside the control of the entrepreneurial team (McGrath, 1997). External uncertainty cannot be reduced by actions made by the founders, nor by rapid investments. However, as time passes the firm can obtain new information that can affect the desirability of the investment. Therefore under conditions of high external uncertainty waiting has a value, while the decision to invest immediately on a large scale creates an opportunity cost related to the abandonment of the possibility of obtaining new information on the desirability of the investment or on the way to realize it better in the future (Dixit & Pyndick, 1994). This point builds on the real option perspective for investment (Bowmann & Hurry, 1993), which stresses that in many cases making investments involves giving up the possibility of waiting for other information. Therefore external uncertainty creates pressure to postpone the investment (McGrath, 1997).

In the new venture creation process, external uncertainty depends mainly on the competitive environment in which the new venture will enter. Studies in the field of strategic management and entrepreneurship have demonstrated how new small businesses are affected by industry-specific factors external to the firm. This is because if compared with older and larger firms, new ventures have fewer possibilities of impacting on the environment in which they operate, and so they are particularly vulnerable to events and things that may happen in the environment. External

uncertainty is caused by factors such as decreasing demand in the market, fast technological change and strong competition. In highly uncertain environmental contexts a rational choice would be to make the minimum required investment necessary to exploit the market opportunity, while waiting for new information that may indicate the advisability of investing later on a larger scale.

Hypothesis 2: Under conditions of high external uncertainty entrepreneurs tend to keep low the relative size of initial investment.

Resource uncertainty is the third form of uncertainty. It refers to the concrete capacity of acquiring all the resources needed to realize the project, given the firm's initial equipment and the possibility of having access to other resources. Only in a few cases are all the production factors necessary for a project immediately available. Their unavailability may be due to difficulties in finding a specific resource on the market or to the lack of capital needed to acquire it. Thus the difficulties in acquiring resources depend on the context in which the venture operates and on some characteristics of the firm. The presence of high uncertainty regarding resources generates a tendency toward the postponement of the investment, waiting for the actual availability of resources. As in the case of high external uncertainty, also for high resource uncertainty waiting has a value.

Resource scarcity is a condition usually associated with new ventures. The majority of new organizations have very limited access to capital, inputs and qualified human resources, this factor having been considered as influencing the "liability of newness" (Stinchcombe, 1965). The entrepreneurial capacity of acquiring all the resources needed to realize the project is influenced by the environment in which the potential entrepreneur operates (Dubini & Schillaci, 1988) and by the effectiveness of the founder's personal network (Birley, 1985). A beneficial environment, a wide and effective social capital possessed by partners and the presence of personal and family funds facilitate the acquisition of the initial assets.

Entrepreneurial resource uncertainty refers to the difficulty in obtaining assets, goods and human resources necessary to start the business and to survive in the event of initial unfavourable conditions. Under conditions of high perceived resource uncertainty the founders are supposed to reduce the relative size of initial investment. On the other hand, in new firms low uncertainty regarding resources is supposed to act towards an acceleration of the investment, because the availability of resources creates pressure to use them quickly to pursue a good business opportunity.

Hypothesis 3: Under conditions of high resource uncertainty entrepreneurs tend to keep low the relative size of initial investment.

As previously stated when presenting the two different behaviours that can be adopted by entrepreneurs when dealing with asset acquisition, a larger relative size of initial investment can be considered as having the potential of favouring higher rates of growth, supporting the firm in reaching a size compatible with the competitors already present in the market. On the other hand, asset parsimony is considered to lead the ventures to greater efficiency but it favours slower expansion of the activity. Therefore it is possible to hypothesize that entrepreneurs investing from the beginning on a larger scale should obtain better growth rates in early sales.

Hypothesis 4: Firms with a larger relative size of initial investment have greater sales growth.
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RESEARCH DESIGN AND MEASURES

The hypotheses were tested on a sample of 124 new ventures, located in southern Italy, which received for start up the incentives of “Law 44”, the largest Italian assistance program for new venture creation. At the time of data collection, firms were 2 to 9 years old. The sample is referred to the universal set of Law 44 “healthy” firms and is representative of the population as regards size of start-up investment, regional location and age.

Law 44 was established in 1986 and is still operating. It supports new ventures created by entrepreneurs up to 35 years old. The program funds up to 90% of total start-up investment, 30% as a loan with a reduced rate of interest, and from 40 to 60% as a grant, thereby greatly reducing the amount of capital needed. Firms benefit also from coverage of approximately 30-40% of the operating expenses (raw materials, payment for services) incurred in two years of operation. Start-up investment must not exceed 5 billion lire (approximately 2,500,000 EURO); salaries are excluded from operating expenses.

The choice of government-aided new ventures for field analysis was motivated by the need for limiting parsimonious behaviours caused by risk aversion or unavailability of financial resources. “Law 44” discourages entrepreneurs in the use of asset parsimony (Maggioni, 1997). Among these entrepreneurs, parsimonious initial investments are supposed to be a deliberate choice aimed to increase the return on capital or to reduce the risks connected with the new ventures. However, the use of government-aided firms involves consideration of the mode and procedures by which the incentives are given being taken into account when evaluating the results.

Data were retrieved from a database of 132 new ventures, which had been constructed at the Seconda Università di Napoli in the context of the research program “Beyond Start-up”. The database contains data collected through mailed questionnaires and economic and financial data retrieved from company balance sheets.

Both qualitative and quantitative variables were used. In order to measure the relative size of initial investment, the *asset intensity* variable was constructed, comparing total investment to sales (year 1993). Therefore higher asset intensity indicates a large scale investment, while lower asset intensity indicates asset parsimony. Asset intensity is not significantly correlated to firms' age.

Initial investment decisions were considered as dependent on perceived internal, external and resource uncertainty, rather than on objective internal and external conditions. For each variable measuring uncertainty, the information in the database is awarded scores on a 1-5 scale, representing the entrepreneurs' perceptions at the time of start up.

Internal uncertainty was measured through six variables related to the founders' background (MacMillan, Siegel & Subbanarisimha, 1985; Goslin & Barge, 1986; Sandberg, 1986): previous business start-ups; work experience in the same industry, work experience in similar industries; knowledge of the specific market; possession of distinctive competencies and possession of distinctive skills. For each of these variables, a score of 5 represents the lack of that background (high internal uncertainty) and a score of 1 represents possession of that background (low internal uncertainty).

External uncertainty was measured through four variables related to the competitive environment: the intensity of competition, the intensity of the reactions expected by competitors, the degree of technological change, the rate of growth or reduction of the market. Entrepreneurs aiming to obtain the support of Law 44 must develop a business plan to be positively evaluated. Therefore for these ventures competitive factors are the most investigated external characteristics, and thus the most likely variables to influence the founders' decisions. Moreover, the selected factors have been identified in previous research (Stuart & Abetti, 1987; Romanelli, 1989; McDougall, Covin, Robinson & Herron, 1994) as affecting new business. For each of these four variables, scores of 5 represent the strong presence of that factor (high external uncertainty) and scores of 1 the low presence of that factor (low external uncertainty).

Resource uncertainty was measured through three variables related to the difficulty in acquiring raw materials, acquiring a specialized workforce and in acquiring capital. For each variable a score of 5 represents great difficulty (high resource uncertainty) and a score of 1 represents little difficulty (low resource uncertainty).

Sales growth was measured as percent variation of sales from 1993 to 1994. The growth of sales is widely used in entrepreneurial empirical research as a variable measuring new venture performance (Stuart & Abetti, 1987; Cooper et al., 1994; Chandler & Hanks, 1994; Sorrentino, 1997).

All the analyses were performed using the package SPSS. Descriptive statistics for all the variables are presented in Table 1 below.

Table 1 - Descriptive Statistics

Variable	Answer	Mean	Std Dev	Minimum	Maximum
Asset Intensity (year 1993)	quantity	5.03	5.49	0.64	25.02
Previous business start-ups	score	4.08	1.42	1	5
Work experience in the same industry	score	2.77	1.63	1	5
Work experience in similar industries	score	2.89	1.53	1	5
Knowledge of the specific market	score	2.46	1.11	1	5
Possession of distinctive competencies	score	2.92	1.48	1	5
Possession of distinctive skills	score	2.69	1.19	1	5
Intensity of competition	score	3.18	1.13	1	5
Reaction expected by competitors	score	3.02	1.35	1	5
Degree of technological change	score	3.24	1.17	1	5
Growth/reduction of the market	score	3.12	1.17	1	5
Difficulties in acquiring raw materials	score	1.92	1.14	1	5
Difficulties in acquiring workforce	score	3.37	1.33	1	5
Difficulties in acquiring capital	score	3.64	1.29	1	5
Sales Growth (year 1994 vs. 1993)	quantity	0.40	0.94	- 0.72	4.90

ANALYSES AND RESULTS

For hypotheses 1-2-3, regarding the impact of internal, external and resource uncertainty on the relative size of initial investment, the significance of three full models was tested through multiple backward regression analysis, aiming to identify the variables that have a significant influence on the asset intensity.

In evaluating the role of internal uncertainty, we regress asset intensity on six independent variables (Model 1): previous business start-ups; work experience in the same industry, work experience in similar industries; knowledge of the specific market; possession of distinctive competencies, and possession of distinctive skills. For these variables, higher scores represent a higher perceived internal uncertainty. Therefore the expected sign for all the independent variables is positive. In Table 2 we report the results. The results show how in this sample only the internal uncertainty caused by the lack of distinctive competencies has a significant positive relation with asset intensity. The uncertainty caused by the lack of distinctive skills has a partially significant positive relation with asset intensity. Contrary to what was hypothesized, uncertainty regarding weak work experience in similar industries has a partially significant negative relation with the dependent variable. The positive relations between asset intensity and both the uncertainty caused by the lack of distinctive competencies and the uncertainty caused by the lack of distinctive skills are consistent with hypothesis 1.

Table 2 Regression results: Model 1 Internal uncertainty and Asset intensity			
Dependent variable: Asset intensity Independent variables	Expected sign	Coefficients	p-value
Constant		2.085	
Previous business start-ups	+	removed	
Work experience in the same industry	+	removed	
Work experience in similar industries	+	- 0.908	0.0592
Knowledge of the specific market	+	removed	
Possession of distinctive competencies	+	1.222	0.0443
Possession of distinctive skills	+	0.965	0.0885
Ad. R- squared	0.06		
F	2.53		0.0633

For the evaluation of the role of external uncertainty, we regress asset intensity on four independent variables (Model 2): the intensity of competition, the intensity of the reactions expected by competitors, the degree of technological change, the rate of growth or reduction of the market. For these variables, higher scores represent a higher external uncertainty perceived by entrepreneurs. Therefore the expected sign for all the independent variables is negative. The results (Table 3) show that only the external uncertainty caused by the expectation of a strong reaction by competitors has a partially significant negative relation with asset intensity. In this sample, the founders that expected an intense reaction from direct competitors on their entering the market realized smaller initial investments. This finding is consistent with hypothesis 2. The other variables have no significant influence on the considered dependent variable.

Table 3 Regression results: Model 2 External uncertainty and Asset intensity			
Dependent variable: Asset intensity Independent variables	Expected sign	Coefficients	p-value
Constant		8.107	0.0000
Intensity of competition	-	removed	
Reaction expected by competitors	-	- 0.961	0.0557
Degree of technological change	-	removed	
Growth/reduction of the market	-	removed	
Ad. R- squared		0.04	
F		3.780	0.0557

In evaluating the role of resource uncertainty, we regress asset intensity on three independent variables (Model 3): the difficulty in acquiring raw materials, acquiring a specialized workforce and the difficulty in acquiring capital. For these variables, higher scores represent a higher perceived resource uncertainty. Therefore the expected sign for all the independent variables is negative. The results (Table 4) show that none of the variables is significantly associated with the asset parsimony of the sample firms.

Table 4 Regression results: Model 3 Resource uncertainty and Asset intensity			
Dependent variable: Asset intensity Independent variables	Expected sign	Coefficients	p-value
Constant			
Difficulties in acquiring raw materials	-	removed	
Difficulties in acquiring workforce	-	removed	
Difficulties in acquiring capital	-	removed	
Ad. R- squared		n.a.	
F		n.a.	

To test hypothesis 4, sales growth was regressed on asset intensity. The simple regression results (Table 5) support hypothesis 4, as asset intensity has a significant positive association with sales growth.

Table 5 Regression results: Model 4 Asset intensity and Sales growth			
Dependent variable: Sales growth Independent variable	Expected sign	Coefficients	p-value
Constant		- 0.283	
Asset intensity	+	0.192	0.0000
Ad. R- squared		0.30	
F		38.33	0.0000

DISCUSSION

With respect to the role of internal uncertainty in influencing the relative size of initial investment, the analysis shows that the uncertainty caused by the lack of distinctive competencies and distinctive skills has a positive relation with asset intensity. This finding is consistent with hypothesis 1. It is worth noting that these two factors refer to the possession of “immaterial resources” at the time of start up.

In evaluating this finding, two groups of ventures in the sample of government-aided firms can be identified. The first group consists of entrepreneurial teams with a low level of competencies and skills. In these ventures the know-how necessary to start the business has probably been acquired through the hiring of highly qualified staff or through the acquisition of highly technological equipment. Therefore these ventures have a larger relative size of initial investment. These entrepreneurial teams probably exploit business ideas based on the identification of a market opportunity rather than on the possession of immaterial resources. In this group the fact that the business idea mainly derived from the identification of a market opportunity provides an incentive to invest rapidly on a large scale. This behaviour during the new venture creation process seems much more appropriate to the considered support program. According to Law 44, access to the incentives is subject to the approval of the business plan; moreover, the large amount of capital available allows firms to immediately realize start up investment of a larger relative size.

The second group consists of the entrepreneurial teams that possess distinctive competencies and skills. These founders have a tendency towards the realization of “knowledge intensive” business ideas, thus making initial investments of a smaller size. The firms created by these entrepreneurs are probably based on the possession of highly specific immaterial resources, such as

distinctive competencies and skills. These firms pursue gradual growth, increasing their sales more slowly but obtaining higher profitability from the beginning. Therefore it is possible to imagine that the “origin” of the business idea can affect the decisions about the relative size of the initial investment. This seems a factor that could be investigated in further research taking into account also other factors that are likely to influence entrepreneurial investments.

Another factor of internal uncertainty, the lack of working experience in similar industries, has a partially negative relation with asset intensity, contrary to the hypothesis. The absence of experience in this sample invites the founders to be more careful, thus minimizing the initial investment.

With respect to the role of external uncertainty, only the intensity of the reaction that the founders expect from competitors has a partially significant negative impact on asset intensity. In the observed sample, the entrepreneurial teams that expected an aggressive reaction from the competitors decided to invest more cautiously. The other variables measuring external uncertainty have no significant impact on the decisions about the relative size of the initial investment. On the whole, external uncertainty cannot be considered as a factor explaining the adoption of investment behaviour in this sample. In explaining the lack of expected results, the role of business planning performed by these entrepreneurs must be taken into account. During business planning, a variety of factors regarding the external environment are evaluated and taken into consideration. Once the business plan has been approved by a group of experts, the entrepreneur is likely to feel that all the external factors potentially affecting his venture have been considered. Thus he may tend not to really consider external factors as a potential source of uncertainty affecting its decisions.

The variables measuring resource uncertainty show no significant relation with asset parsimony. Also for this finding a possible explanation can be referred to the circumstance that the firms investigated received government aid at the time of their creation. The presence of the financial incentives of Law 44 allows the firms to greatly reduce the amount of personal capital needed to start the business. In this sample, the difficulties in acquiring specific production factors cannot be totally ascribed to firms’ specific factors, but to the reduced availability of some factors in that particular geographical area, or to the founder’s perception of his or her own incapacity in identifying the most suitable supplier of raw materials, in selecting and hiring the most adequate workforce and in interacting with the banks.

Hypothesis 4 regarding the positive influence of the relative size of the initial investment on the rate of sales growth can be supported. The firms showing higher asset intensity were able to obtain higher growth rates in early sales. On the other hand, more parsimonious firms showed lower rates of growth. It is therefore possible to confirm that in the considered sample the adoption of an investment behaviour is likely to influence the early results. This finding can be considered as a first step for a more in-depth research on the relationship between investment behaviour and development paths that new ventures can pursue. Further research on this subject should investigate the relationship between the relative size of initial investment and both sales growth and profitability. Moreover, it should also take into account a subsequent period of time, thus verifying what happens to these ventures during the consolidation process.

Some comprehensive considerations on the lack of expected results regarding the relation between uncertainty and asset parsimony in this sample of new entrepreneurial ventures can now be formulated. Theoretical contributions in the field of decision making under conditions of uncertainty hypothesize that uncertainty has a strong explanatory power on decisions regarding investment dimensions. However, in the observed firms, with the exception of four variables (three out of four are only partially significant) internal, external and resource uncertainty do not play a major role in affecting investment relative size.

The weak influence of the uncertainty perceived by the founders on their investment behaviour can be explained by the distinctive characteristics of the venture creation process of these firms, and in particular by the presence of business planning activities: all the founders developed a business plan before starting the ventures. Business planning could have given the entrepreneurs the impression that all the possible factors and conditions with a potential for affecting the success of the venture had been taken into account. In this perspective, the business plan could be considered a tool able to reduce the uncertainty perceived by the founders. On the other hand, as previously stated when presenting the observed sample, the business plan procedure by which Law 44 incentives are given may also be considered as a limitation of this study. Another limitation is that the sample excludes the firms that failed in the first two years and the ones who were almost failed by the time of data collection.

CONCLUSIONS

In this paper we have proposed and tested hypotheses regarding the influence that different forms of uncertainty have on the decisions regarding the relative size of initial investment in new ventures and on the influence of the relative size of the initial investment on the early growth of sales. The results of the research show that in the observed sample the perceived uncertainty does not play a major role in influencing the relative size of initial investment while the relative size of the initial investment influences the growth rate of sales that the new ventures are able to obtain.

Some findings seem of interest. First of all, there emerges a possibility of considering the origin of the business idea - either the identification of a market opportunity or the possession of immaterial resources - as a factor influencing the founders' investment behaviour. Secondly, it has been possible to identify some peculiarities in the process of new venture creation for government-aided firms, considering that for these ventures the compulsory nature of the business planning activity and the presence of financial aid can strongly reduce the consideration of external and resource uncertainty by the entrepreneurs.

With respect to the relationship between the relative size of the initial investment and the rates of growth of the firms, the results strongly support the idea that large scale initial investments favour the early growth of firms. Future steps of this research must also take into account the different development paths that new ventures can follow as a consequence of having adopted a particular investment behaviour.

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ESTABLISHING AND DEVELOPING ENTREPRENEURSHIP AND SMALL BUSINESS GROWTH IN A POST-COMMUNIST ECONOMY: THE CASE OF HUNGARY

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ABSTRACT

Working in a post-Communist economy, the recently-elected government of Hungary has developed a policy and plan to foster the establishment and development of entrepreneurship and small business growth. This article surveys the recent political and economic history of the country, describes the details of this plan, compares its components to current American programs, analyzes the plan and relates it to current research and theory, and presents some recommendations to increase the likelihood of success.

INTRODUCTION

Following the World War II defeat of Germany, and the resulting Soviet dominance of Eastern Europe, a Communist government was established in Hungary in 1948. For more than forty subsequent years, a typical Soviet-style economy existed, with virtually all businesses, down to the smallest one-person workshops, state-owned and part of a centrally planned economic system.

In 1989-90, as the Soviet Union under President Mikhail Gorbachev loosened its grip over the Eastern European nations, the Hungarian Communist Party agreed to free multi-party elections, which resulted in a right-of-center coalition government, and which began the restoration of a market economy in Hungary.

As has been the case for all the post-Soviet Bloc nations, the past decade has not been an easy one for Hungary, either politically or economically. In the 1994 elections, political power was transferred to a left-of-center party dominated by reform-oriented ex-Communists. Most recently, in the May 1998 elections, a center-right coalition gained control (www.itaiep, 1999; www.kecskemet, 1999; www.users, 1999).

This frequently shifting political environment has naturally hampered economic development. Compounding the issue have been several other factors, again common to much of Eastern Europe. A weak economy, with limited investment from the more economically developed nations, in combination with a total population of only about ten million people, and with a

generation of managers and workers having no experience in and little understanding of the required skills and attitudes necessary for business success in a free market, have resulted in an economy growing at a pace well below that desired and necessary for a strong and competitive nation.

Furthermore, this transitional economy has had both positive and negative impacts upon the population. Some individuals have risen to the new challenges and opportunities presented by these changes, and a new breed of successful entrepreneurs has started new businesses or taken over old ones (Banerjee, 1999). However, these individuals are few in number in comparison to those persons who have not easily adjusted to the new economic mode. In Hungary, and throughout the old Soviet bloc, the market economy has taken a toll, especially on men, who are now leading shorter and less healthy lives. Specifically, there have been rising suicide rates, poorer health care, and an increase in self-destructive behavior, such as drug and alcohol abuse and crime (Lewis, 1999).

The current government naturally wishes to rectify this situation. Because 99.2% of the 770,000 businesses operating in Hungary today are small, a national plan has been developed in 1999, by the Ministry of Economic Affairs, to foster growth for these small firms.

THE GOVERNMENT STRATEGY

Objectives

The overall objectives of this new business development strategy are to generate economic growth and foster employment in the nation. Within this overall objective, family businesses are to be supported, impeded social groups (including ethnic minorities and women) are to be brought into the economy, and schemes to assist small businesses in supplying larger firms are to be established (Ministry of Economic Affairs, 1999).

Firm Size

In 1999, there are approximately 770,000 business enterprises in Hungary, of which 96.5% are micro-enterprises employing less than 10 people, 2.7% are small businesses employing 10 to 49 people, 0.6% are medium sized firms with less than 250 employees, and 0.2% are large enterprises with more than 250 employees.

Thus, out of 770,000 enterprises, less than 5000 are medium sized and only about 1500 are large. Even the “small” firms (10-49 employees) are relatively few-less than 21,000. For each of these size categories, the government plan calls for a specifically focused type of assistance.

In comparison, the distribution of American firms is less skewed toward very small firms. The most recent U.S. Small Business Administration data [which use somewhat different size categories] report 89.6% of all firms employ 0 to 19 workers, 10.1% have 20 to 499 workers, and 0.3% have more than 500 employees (www.sba.gov, 2000).

Micro-Enterprises

In the wake of the fall of the Communist centralized economy and the dissolutions of many state-owned large enterprises, a large number of family businesses were established for the purpose of providing self-employment to laid-off workers. These micro-enterprises are ubiquitous in Hungary, and their immediate needs include a radical reduction of administrative burdens and a simplification of tax regulations and obligations. In addition, the government strategy includes a micro credit scheme, and a consulting program to assist these micro-enterprise owners, who are often totally inexperienced in running a business.

Small Enterprises

The many small firms which resulted from the mass dissolutions of state-owned enterprises, and which employ more than ten workers, have different needs than the micro-enterprises. Their most frequent problem is a shortage of working and growth capital, and the government plan focuses on the improvement of lending conditions and the accessibility of equity capital. A reduction in the regulations regarding administration and taxes is also central to the plan to foster these firms.

Medium-sized Firms

For firms with 50 to 250 employees, the government's plan is to increase the number of these firms, and to encourage and assist them in establishing foreign market opportunities and commercial relationships with larger multinational companies. This will involve contact building and appropriate levels of credit and equity funding assistance.

THE COMPONENTS OF THE PLAN

Improving the Business Environment

For small firms to develop in Hungary, there must be economic predictability, security in the law for entrepreneurs, and fair rules of competition. These environmental factors may seem obvious and natural from a Western perspective, but they were not always present in the Communist economic system. Thus the government must now work to provide favorable regulatory conditions and to suppress the still strong remnants of a sizable black market component of the economy.

More specifically, the government plan includes the following components:

◆	regulations that are simple, efficient and practical
◆	to suppress the black market and enhance the legalization of labor, a reduction of taxes and regulations on labor
◆	a focus on simplifying the general tax and administrative burden, with consideration of flat rate taxation for businesses
◆	to enhance business performance and improve competitiveness, the encouragement of real investments and research and development by businesses
◆	the reduction of the tax burden on smaller firms, which currently are often higher than for large firms (current tax regulations are very convoluted and open to arbitrary tax rate determinations, often subject to informal influence factors in which larger firms may have greater power)

Expanding Financial Opportunities

Under the Communist system, the recipients of financing efforts were institutions; the current government policy is to fund enterprises rather than institutions. Such financing will be administered by an independent fund under the auspices of the Ministry of Economic Affairs. In order to assure the effective usage of provided financing, appropriate monitoring and evaluation systems will be central to the financing assistance.

Specific components of the financing effort will include:

◆	micro credit programs
◆	the establishment of regional risk capital funds
◆	loan guarantee schemes
◆	promoting small firm access to international markets
◆	promoting access to franchise opportunities
◆	subcontractor programs
◆	business incubator programs
◆	preparation and support for current and future participation in EU (European Union) programs
◆	fostering the abilities of small firms to engage in research and development, business information systems, and public relations activities

This financial component of the government strategy will make use of existing banks and other lending institutions, rather than establish new institutions. To assist existing institutions in accomplishing these objectives, the government will provide both funding and loan guarantees to them.

Fostering Small Firm Innovation

In a post-Communist economy, the historical lack of innovation must be overcome, and this is an important component of the government plan. Small firm innovation will be cultivated using:

- ◆ technology transfer institutions
- ◆ innovation centers
- ◆ innovation parks
- ◆ technology incubation centers
- ◆ demonstration centers
- ◆ published methodological aids

For more efficient government support, the emphasis will be on cooperation between business firms, and the joint maintenance and financing of R&D infrastructures.

Developing Business Information Systems

Along with the need for capital, Hungarian small businesses are also highly hampered by a lack of business economic information. Without information on markets, resources, employment, taxation, regulations, etc., small firms are unable to plan and make effective decisions.

Thus, the government plan includes:

- ◆ information on market trends and opportunities will be updated and compiled for specific sectors and made available on a regular basis
- ◆ information on other companies (and thus competitors, suppliers, etc.) will be made accessible in a timely manner
- ◆ public procurement opportunities will be published and made available in an information center

These information systems will be made available in the most current formats, including the Internet, CD-ROMS, etc., to facilitate a timely and efficient flow of information.

Developing an Entrepreneurial Culture

The Hungarian government recognizes that the past history of the country has stifled rather than encouraged entrepreneurial thinking and behavior, and that formal efforts must now be made to overcome this weakness. Efforts in this direction will include:

- ◆ primary, secondary and higher education institutions will include entrepreneurial culture encouragement within their curricula
- ◆ specific entrepreneurial training and re-training programs will be established
- ◆ government funds for vocational training institutes will be focused on entrepreneurial segments of the economy
- ◆ chambers of commerce and industry associations will be involved in entrepreneurial training
- ◆ the development of an entrepreneurial culture will be encouraged in educational and information materials, press publications, and cultural productions

Preparation for Joining the European Union

The expected future entry of Hungary into the European Union will provide both significant economic opportunities and challenges to Hungarian firms. While the largest enterprises may be strong enough to reap the benefits of this large single market, most smaller firms will find themselves in a much more competitive marketplace, with stronger and more experienced competitors (Andrews, 1999).

The EU recognizes these challenges, and has programs to educate and prepare current non-EU small businesses for future participation in the EU. The Hungarian small business development plan includes supporting the sending of small business managers to these EU training programs.

The Institutional System

Central to this overall plan is the decentralization of responsibility for program implementation. Recognizing the weaknesses of the previous Communist centralized economy, the Ministry of Economic Affairs will delegate much of the implementation task to quasi-governmental Hungarian institutions, including Hungarian Enterprise Development Fund and the Hungarian

Development Bank, along with non-governmental chambers of commerce and business associations (www.gm.hu, 1999).

COMPARISONS WITH AMERICAN PROGRAMS

Many of the components of the proposed Hungarian program are modeled after American and Western European programs, and a comparison with specific American programs can be useful in assessing the Hungarian plan. Since the current level of economic development in Hungary is much lower than in the United States, the two countries have somewhat different objectives in fostering small business. In Hungary the basic objectives are significant growth in employment and of the economy; while in the United States the objective is primarily to support and protect small businesses, with overall economic growth secondary.

Thus the Hungarian program includes certain specific objectives largely irrelevant to the American economy: economic predictability, legal security, the suppression of black market and illegal undocumented labor activities, and the development of entrepreneurial behavior as part of the national culture. Still, other components of the proposed Hungarian program have their American models or counterparts (generally administered by the U.S. Small Business Administration, and often by other federal, state and local agencies as well):

- ◆ loan guarantee programs (U.S. program: SBA 7(a) Program)
- ◆ capital investment funds (SBA 504 Program)
- ◆ microloan programs (SBA Microloan Program)
- ◆ information systems/centers (SBA Information Centers, publications, On-Line Library Reading Room)
- ◆ international trade assistance (SBA Office of International Trade, International Trade Loans, Export Working Capital Program)
- ◆ subcontractor programs (SBA 8(a) Program)
- ◆ R&D/technology support (SBA Office of Technology)
- ◆ business incubator programs (nation-wide network of business incubators)
- ◆ entrepreneurial training and consulting programs (SBA-sponsored workshops and management assistance programs)
- ◆ simplified regulations and taxes (SBA-IRS educational tax assistance programs) (www.sba.gov, 1999)

Limited Hungarian resources can not support a version of every American program. Still, there are some American SBA programs without counterparts in the Hungarian plan that should be mentioned:

- ◆ the “LowDoc Loan Program” featuring minimal loan application paperwork
- ◆ the “CAPLines Loan Program” for short-term loans and revolving lines of credit
- ◆ the “Minority and Women Prequalification Pilot Loan Program” which offers assistance in preparing loan application packages
- ◆ the Office of Minority Enterprise Development
- ◆ the Office of Women’s Business Ownership (www.sba.gov, 1999).

Each of these programs could serve as a model consistent with the objectives of the Hungarian program.

ANALYSIS

It can not be assumed that this Hungarian program will be successful simply because it is modeled after American and Western European programs. The very different Hungarian context suggests that certain components of the plan will be more important than others.

Certainly one of the most critical contextual issues is the history of central planning and the dominance of non-market forces in the old economy. In the past, managerial decisions and business success were unduly influenced by mistrust, political connections, bribes and informal influences (the Russian term is *nomenklatura* management). This makes the need for *economic predictability*, *security* and *fairness* (as discussed earlier) especially critical components of the Hungarian plan. At the same time, it must be recognized that such non-market influences will not die quickly, and thus the training components of the plan should deal with these issues so that new Hungarian entrepreneurs and small business managers possess the savvy to work within the remnants of the old system (Kuznetsov, McDonald & Kuznetsova, 2000).

Another critical factor for Hungarian entrepreneurship and small business growth is the European Union and Hungary’s future entry into it. As discussed earlier, the greatest opportunities and challenges for all but the smallest Hungarian companies will be EU markets and EU competing firms. Thus, those components of the Hungarian plan which focus on preparation for joining the EU must be emphasized as the plan is implemented.

Even before Hungary’s entry into the EU, other transnational opportunities exist for smaller Hungarian firms. Many large EU-based corporations have set up manufacturing facilities in Hungary (i.e., Audi and General Electric), and the EU-oriented component of the plan should include the fostering of Hungarian small business supplier opportunities with these corporations.

Also, while the government’s program correctly recognizes the necessity of expanding financial opportunities for entrepreneurs and small businesses, the instability of the various Hungarian governments over the past decade makes the future availability of the required

government funds uncertain. To supplement government funding for the financial components of the plan, private sources of monies should also be aggressively pursued. For example, the Soros Foundation is currently providing significant funds in Hungary for educational, social and health programs (www.soros.org, 2000). Foundations such as this could provide additional funding for the program, and reduce the risk of future reductions in government financing.

RECOMMENDATIONS

None of the many components of the government's plan seems illogical or inappropriate. All have proven successful in Western economies and could be of benefit in the Hungarian context as well. Still the proposed plan seems ambitious and multifaceted; and with limited resources the government would be wise to focus on certain components first rather than attempt to provide all at once. For example, the "Fostering Small Firm Innovation" and "Developing an Entrepreneurial Culture" components of the plan involve objectives of major changes in culture and thinking. While certainly appropriate as long-term plan components, these may be more difficult to achieve in the short run, and perhaps should not be among the first components to be implemented.

Short run priorities should focus upon simplifying the business environment for micro-enterprises and providing funding opportunities for small enterprises, as these are the most critical issues for these two firm size groups. More than anything else, the very smallest enterprises need to be able to operate within a system where rational market forces are the determinants of business success. Given such an opportunity, these very small firms can provide valuable self-employment, employment and services within the Hungarian economy. Similarly, if the government can provide funding opportunities for small firms (with 10 to 49 employees), then these firms will have the opportunity to innovate and expand, and become a major factor in the growth of the national economy. Given the limited resources available to the government for economic development, most of the many other components of the government's plan must be considered lower-priority items.

RELEVANT RESEARCH

In the United States and Western Europe, government plans and programs are often designed in response to the findings of business-oriented research. With the limited market economy experience that Hungary and its several post-Communist governments have had, there has been little time for business researchers to develop theories and models specific to Hungary (or even Central and Eastern Europe in general) upon which to base strategy.

Still, there is some relevant existing theory and there has been some limited research conducted which should be considered as Hungary moves ahead in its small business development efforts. Since many of the new enterprises in Hungary are family-owned and managed firms, the field of family firm research and theory can be of value in refining existing strategies and developing additional programs. For example, models and guidelines relating to family succession issues will

soon become important in Hungary, and future program adjustments should build upon this theory (Donckels & Lambrecht, 1999).

Lyles, Watson, and Saxton (1998) conducted a longitudinal study from 1993 through 1996, from which some limited conclusions specific to Hungary were reached. Attempting to determine whether existing (Western) models of firm survival could be applicable to transitional economies, they concluded that an integration of institutional linkages and strategic variables best predict survival in such economies. More specifically, the strongest variables were industry experience and networking activities. On the other hand, pursuing a low cost strategy, under conditions of low initial capitalization or low industry growth rates, decreased the chance of survival. Again, while current government efforts and programs must largely emulate existing Western programs, future adjustments and fine-tuning should take research findings such as this one into account. Hopefully, the body of empirical research focusing on post-Communist economies will be larger and thus more generalizable when such future adjustments are being considered.

CONCLUSIONS

The current government of Hungary, and more specifically the Ministry of Economic Affairs, has developed a substantial policy for the fostering of entrepreneurial and small business development in the country. This plan draws upon an understanding of efforts of more economically developed countries (in particular the United States) to develop and assist their small businesses. While Hungary can not afford to fully emulate established small business development/assistance programs, most of the ingredients of the Hungarian plan seem appropriate and logical.

However, at this point in time this Hungarian plan includes some concrete components but also much that must be characterized as vague generalities. Furthermore, this program will require significant funding, and there are few details as to how such funding will be obtained. A funding commitment by the central government and the Parliament has not yet been obtained. It would be wise at this time to obtain limited government and private funding, implement those components of the overall plan which seem most important and promising, and then use the successes of these efforts to encourage additional and greater funding for other components of the plan.

Also, the instability of the Hungarian political system may result in a different government in a few years, with a different set of priorities and intended actions toward small business development in the economy. Even if implemented, this current policy and program may be significantly modified or eliminated well before it has an opportunity to be fully effective. Thus the future implementation and success of this policy is an uncertainty. Only time will tell whether this article describes wishful thinking or a success story.

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THE CLIMATE FOR ENTREPRENEURSHIP: A COMPARATIVE STUDY OF CHINA AND HONG KONG

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ABSTRACT

The project builds on the previous work of Müller-Böling and Klandt (1990 and 1993) into what motives for, and reservations against, entrepreneurship and also contributes to a standardised data collection and comparison, particularly China and Hong Kong, of attitudes towards entrepreneurship as a key factor of the climate for entrepreneurship. The research findings suggest that both China and Hong Kong respondents perceive “do work that you like” as the important motive to start their own business and “no start-up capital” as the important influential factor that hinders their decisions for setting up own businesses. Interestingly, however, the research results also suggest that the “climate for entrepreneurship” of China and Hong Kong are significantly different. Hong Kong potential entrepreneurs tend to be influenced positively by social factors and negatively by company and personal factors, whereas the China counterparts are subjected to the influences both positively and negatively of the external, family and personal factors.

INTRODUCTION

Research findings (Acs & Audretsch, 1990; Anderson, 1982; Bannock, 1981; Birch, 1979; Brock & Evans, 1986; Bruch & Hiemenz, 1984; Hisrich, 1986; Hull & Hjern, 1987) reveal that the functioning of the market system and the international competitiveness of a national economy depend largely on the continuous emergence of new ventures. The new ventures induce company growth and innovation, which in turn enhance economic growth and development. Also, new ventures contribute to a solution of urgent employment problems. In the long term, the emergence and survival of new business units can only be secured by favorable surrounding conditions. There are various critical factors, ranging from key general economic factors to the entrepreneur's personal support systems, which affect entrepreneurial success. Müller-Böling and Klandt (1990/1993) conceptualized those factors as the “climate for entrepreneurship” and argue that the way social groups and politics influence entrepreneurs basically determines the entrepreneurial environment, which is influenced by the public opinion on entrepreneurship and/or the image conveyed by job and education. Interestingly, Siu and Martin (1992) find that the Chinese socio-cultural environment facilitates entrepreneurial endowment but hinders entrepreneurial development. As China moves

from a planned economy to a socialist market economy with Chinese characteristics, it would be interesting to know how and to what extent the socio-cultural factors affect the entrepreneurial climate of China.

RESEARCH DESIGN

As the entrepreneurship tenets and principles are basically Western dominated, it would be interesting to determine the entrepreneurship climate of China and to compare with that of Hong Kong, a Chinese city with British capitalistic characteristics. Thus, the research question is “How much does the image of entrepreneurship vary in different politico-economic backgrounds -- China and Hong Kong?”

The instrument, designed specifically by Müller-Böling and Klandt (1990/1993), measuring the “climate for entrepreneurship” was adopted. As Chinese is a major language in China and Hong Kong, a Chinese questionnaire, which was translated from the English version of the “climate for entrepreneurship” questionnaire, was prepared for potential Hong Kong and China entrepreneurs. To eliminate translation bias, the back-translation method proposed by Brislin (1970) was adopted. Two translators who knew both English and Chinese well were invited to translate the English questionnaire into Chinese independently. Then, two other translators back-translated the Chinese questionnaire into English. A meeting with the four translators were arranged so as to resolve disagreements on different versions of the questionnaires. A finalized version in Chinese was developed after the meeting.

There were 243 China and 114 Hong Kong potential entrepreneurs, specifically the final year students of the BBA and MBA programs, who were invited to answer the questionnaire. Questionnaire items related to attitudes, motives and barriers of entrepreneurship development are listed in Appendices 1, 2 and 3. However, the reliability (Cronbach’s $\alpha = 0.3224$) for attitudes is not very satisfactory. However, due to the historical background of the scale, it is still used for further data analysis. Cronbach’s α coefficients for motives and barriers are 0.8050 and 0.8536 respectively. These figures demonstrate high degrees of internal consistency.

RESULTS

Attitudes

Table 1 shows that there are significant differences, at the 95 per cent confidence level, between Hong Kong and China respondents towards the attitude statements.

Compared with the respondents in China, Hong Kong respondents tend to show a more positive attitude towards fighting against unemployment, leisure time, well-organised, persistence in planning, and concern about career. Interestingly, however, China respondents exhibit stronger positive attitude towards satisfaction without ambition, compared with the Hong Kong respondents. The differences suggest that Chinese and Hong Kong respondents are different in attitudes towards

entrepreneurship. Hong Kong respondents place emphasis on working hard, leisure, organization, career, and persistence, whereas the Chinese respondents place emphasis on satisfaction.

Table 1: Attitude statements of potential entrepreneurs

Attitude Statements	Mean Value China Respondents	Mean Value Hong Kong Respondents	t-value	p-value
Unemployment should be fought rather by reducing working hours than by fueling the economy	1.66	2.38	-7.90	< 0.01
Even without constant ambition, I am satisfied with my life	3.12	2.77	5.71	< 0.01
Leisure time is more important to me than work	1.88	2.35	-6.63	< 0.01
When you want to succeed, many things have to be organized carefully	2.19	2.62	-5.72	< 0.01
When I have planned something, I never give up	2.10	2.61	-5.18	< 0.01
If I had plenty of money, I would not care about career	3.27	3.63	-4.88	< 0.01

Motives

To identify the relative importance each item contributed to the motives of setting one's own business, each item is ranked according to its mean value. The results are shown in Table 2 below.

The statistical test at the 5 per cent level of significance (Spearman correlation coefficient = 0.8477, p value < 0.01) shows that there is an association/relationship in the rankings of motives for setting up one's own business between China and Hong Kong respondents. Thus, the results appear to suggest that the rankings of motives of China and Hong Kong respondents are somewhat similar. Both Hong Kong and China respondents perceive "do work that your like" as the most important motive for setting up their own businesses. To further test the differences among each item, mean differences of the two responding groups are compared against each other. Table 3 shows that, at the 95 per cent level of confidence, there are differences in motives between Hong Kong and China respondents.

The results suggests that Chinese respondents place emphasis on economic independence, reputation, creation and family relationship, whereas the Hong Kong respondents are concerned about independence among relatives and peers. The results seem to suggest that Chinese respondents are more interested in economic, personal, and family factors. Interestingly, however, the Hong Kong respondents, relatively, are subjected to the influence of social factors.

Table 2: Rankings of motives for setting up own business.		
Motives	China	Hong Kong
Gain freedom of decision and action	7	5
Fulfill your ideas	3	2
Strive for economic independence	6	13
Lead people	21	20
Family tradition	25	25
Strive for higher income	10	8
Investment/fortune	14	10
Earn according to your performance	8	6
Labour market and economy	9	21
Public reputation	13	18
Frustrated as employee	22	23
Tax advantages	20	22
Create something valuable	2	7
Work on your behalf rather than of others	16	9
Gain power and influence	18	14
Create something lasting, durable	12	15
Determine the amount of your income	11	11
Work within a unit that can be supervised from the beginning	19	17
Possibility to work with your spouse/family members(s)	23	24
Taste of adventure	17	16
Prove your capacity	4	4
Be in touch with other people	15	12
Build a successful organization	5	3
Do work that you like	1	1
Good examples of independence among relatives/peers	24	19

Barriers

To identify the relative importance each item contributed to the barriers of setting up one's own business, each item is ranked according to its mean value. The results are shown in Table 4.

The statistical test at the 5 per cent level of significance (Spearman correlation coefficient = 0.8477, p value < 0.01) shows that there is an association/relationship in barriers for setting up one's own business between Chinese and Hong Kong respondents. Thus, the results appear to suggest that the rankings of barriers of Chinese and Hong Kong respondents are somewhat similar. Both sets of respondents perceive that no start-up capital is the most important barrier to set up their own business. To further test the differences among each item, mean differences of the two responding groups are compared against each other. Table 5 shows that, at the 95 per cent level of confidence, there are differences in barriers between Hong Kong and Chinese respondents.

Table 3: Differences between Hong Kong and Chinese respondents in motives for setting up their own businesses				
Reasons	Chinese Respondents (Mean)	Hong Kong Respondents (Mean)	t-value	p-value
Strive for economic independence	3.05	2.72	4.16	<0.01
Labour market and economy	2.90	2.35	6.49	<0.01
Public reputation	2.82	2.39	4.48	<0.01
Create something valuable	3.19	2.95	3.05	0.03
Create something lasting, durable	2.83	2.63	2.13	0.03
Possibility to work with your spouse/family members(s)	2.18	1.77	4.45	<0.01
Good examples of independence among relatives/peers	2.17	2.39	-2.37	0.02

Table 4: Rankings of barriers for setting up own business.		
	China	Hong Kong
Risks are too high	4	2
More work than for an employee	22	21
No regular work schedule	20	22
Political development	12	14
Tax burden	17	13
Good career perspectives as employee	11	6
Problems with employees	19	12
Dissatisfactory retirement plans	16	15
Good current salary	5	5
No start-up capital	1	1
Competition inhibited by your current labour contract	13	11
Have only special technical skills but no business/management experience	2	4
Unstable income	7	3
Negative public image of entrepreneurs	21	23
Not the guy for entrepreneurship	9	8
No compassion from your spouse/family	10	19
Separation of business from private life impossible	14	10
More stress and pressure	8	7
Entrepreneurs have to do many dull things	15	17
Insufficient growth in prospect branches	3	9
Probably too old	24	24
Entrepreneurship produces much disharmony in your life	6	16
Bad experiences from former independence	18	18
Bad examples of independence among relatives/peers	23	20

Table 5: Differences between Hong Kong and Chinese respondents in barriers for setting up own businesses

Reasons	Chinese Respondents (Mean)	Hong Kong Respondents (Mean)	t-value	p-value
Risks are too high	2.55	2.88	-3.50	<0.01
Good career perspectives as employee	2.32	2.53	-2.20	0.03
No start-up capital	3.02	3.25	-2.32	0.02
Unstable income	2.43	2.62	-2.35	0.02
No compassion from your spouse/family	2.34	2.02	3.42	<0.01
Insufficient growth in prospect branches	2.60	2.39	2.21	0.03
Entrepreneurship produces much disharmony in your life	2.44	2.11	3.45	<0.01

The results suggest that Hong Kong respondents perceive that risks, career prospects, start-up capital and unstable income have greater influences upon their decisions for not setting up their own businesses, whereas the Chinese respondents place emphasis on family compassion, growth prospects and harmony in life. The findings tend to suggest that the barriers to Hong Kong respondents to set up their own businesses are company and personal factors, whereas to the Chinese respondents are personal and family factors.

DISCUSSION

The research findings suggest that both China and Hong Kong respondents perceive “do work that you like” as the important motive to start their own business and “no start-up capital” as the important influential factor that hinders their decisions for setting up own businesses. Interestingly, however, the research results also suggest that the “climate for entrepreneurship” of China and Hong Kong are significantly different. Hong Kong potential entrepreneurs tend to be influenced positively by social factors and negatively by company and personal factors, whereas the Chinese counterparts are subjected to the influences both positively and negatively of the external,

family and personal factors. This can be summarised in Table 6 about the tentative model for the “climate for entrepreneurship” of Hong Kong and China.

Table 6: A tentative model for the “climate for entrepreneurship” of Hong Kong and China		
Factors	China	Hong Kong
Social Independence among peers		+
Company High risk No start-up capital		- -
Personal Economic Independence Create something valuable lasting and durable Disharmony in life Career prospect Unstable income	+ + - 	 - -
External Growth prospect Labour Market Public Reputation	- + +	
Family No familial/spouse compassion Work with family members	- +	

This exploratory research has examined the motives for, and reservations against, entrepreneurship for a Chinese socio-cultural environment. These research findings suggest that the socio-cultural environment influences both positively and negatively the entrepreneurship climate of China and Hong Kong. Perhaps the broad western entrepreneurship principles are not fully applicable to, and suitable for, some specific politico-economic contexts, for example, China. Further research should attempt to examine exactly, and in more depth, how and to what extent Chinese entrepreneurs managed to survive, grow and succeed in China and Hong Kong. More specifically, it should examine how they make venturing decisions, and strive for success and

survival. Also, a number of more pragmatic considerations, specifically related to facilitate favourable climate for Chinese entrepreneurship, should also be addressed.

CONCLUSION

Scientific research views the foundation and (early) development of enterprises as a complex and multi-cause process, in which the entrepreneurial climate as described in this paper appears as an important aspect. Previous investigations referring to the similar topic appear, however, to be rather rudimentary, for entrepreneurship research is a relatively young discipline, which can be seen in many areas. Though this research follows the framework developed by Müller-Böling and Klandt (1990/1993), the research findings reveal that there is a need to refine the general concept categorizations and define explicitly the contents relevant to the model, specifically in a Chinese socio-cultural context. Thus, complete concepts to describe and, equally, improve the climate for entrepreneurship are needed for further investigation.

Many scientific investigations prove that attitudes towards entrepreneurship existing in a society influence the behavior enormously and are, therefore, a crucial indicator for the entrepreneurial climate of a society. This research has specifically examined the motives for, and reservations against, entrepreneurship in Hong Kong and China. To advance knowledge, an index of the climate for Chinese entrepreneurship should be developed and compared with the benchmark - the existing index in Germany.

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Appendix 1: Items for Measuring Attitudes

Unemployment should be fought rather by reducing working hours than by fueling the economy
 When I have planned something, I never give up
 When I feel challenged, I achieve a lot
 When I have no real task, I feel uncomfortable
 If I had plenty of money, I would not care about career
 If I won a lottery, I would investment most of the money in a company
 Even without constant ambition, I am satisfied with my life
 The principle of achievement should prevail in our society
 Leisure time is more important to me than work
 When you want to succeed, many things have to be organized carefully
 Only as an exception, I am willing to work more than 50 hours a week

Appendix II: Items to Determine Motives

Gain freedom of decision and action
Fulfill your ideas
Strive for economic independence
Lead people
Family tradition
Strive for higher income
Investment/fortune
Earn according to your performance
Labour market and economy
Public reputation
Frustrated as employee
Tax advantages
Create something valuable
Work on your behalf rather than of others
Gain power and influence
Create something lasting, durable
Determine the amount of your income
Work within a unit that can be supervised from the beginning
Possibility to work with your spouse/family members(s)
Taste of adventure
Prove your capacity
Be in touch with other people
Build a successful organization
Do work that you like
Good examples of independence among relatives/peers

Appendix III: Items for Measuring Barriers

Risks are too high
More work than for an employee
No regular work schedule
Political development
Tax burden
Good career perspectives as employee
Problems with employees
Dissatisfactory retirement plans
Good current salary
No start-up capital
Competition inhibited by your current labour contract
Have only special technical skills but no business/management experience
Unstable income
Negative public image of entrepreneurs
Not the guy for entrepreneurship
No compassion from your spouse/family
Separation of business from private life impossible
More stress and pressure
Entrepreneurs have to do many dull things
Insufficient growth in prospect branches
Probably too old
Entrepreneurship produces much disharmony in your life
Bad experiences from former independence
Bad examples of independence among relatives/peers

LIKE MOTHER LIKE DAUGHTER? A STUDY OF THE IMPACT OF AGE ON ENTREPRENEURIAL WOMEN IN AUSTRALIA

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ABSTRACT

The majority of entrepreneurial research has involved men and male characteristics with research into women entrepreneurs just beginning. With the increased participation of women as business owners it is useful to explore their characteristics and contributing factors to being an entrepreneur. Research has indicated that there are two groups of women based on age with different characteristics affecting their entrepreneurship. The focus of this research was to quantify these differences in Australian women entrepreneurs. Age was found to impact on the characteristics of field of study, type of industry, source of capital, use of mentor and risk-taking propensity

INTRODUCTION

The majority of entrepreneurial research has involved men and male characteristics with research into women entrepreneurs just beginning. With the increased participation of women as business owners it is useful to explore their characteristics and contributing factors to being an entrepreneur. Research has indicated that there are two groups of women based on age with different characteristics affecting their entrepreneurship. The focus of this research is to quantify these differences in Australian women entrepreneurs.

The study of women entrepreneurs is an important part of entrepreneurial theory, as the growth rate of women starting up new ventures is increasing faster than the rate of men. The number of men in self-employment has increased by 32.3% between 1978 to 1997 (refer to Table I) whereas the number of women in self-employment has increased by 91.35% over the same period (ABS, Small Business in Australia, 1997). This trend of women starting businesses at a faster rate than men is also reflected in the U.S where 70% of new businesses are started by women (Brooks, 1997). Interestingly the self-employment rate shows a different picture. This rate is calculated by dividing the number of self employed persons in that groups by the total number of employed persons in that group.

As Table I demonstrates, the self-employment rate of women has decreased since 1978 compared to men. An explanation for this, given that the increase in number of self employed women, is that more women are participating in the workforce in 1996 than in 1978. This is supported by the 68.78% increase in the all employed group for women since 1978 which is three times the increase in the all employed group for men.

Table I Growth in Self-Employment and Total Employment 1978 - 1996									
	Self-Employed				All Employed			Self Employed Rate	
	1978 000s	1996 000s	1997 000s	%Change 1978-1997	1978 000s	1996 000s	%Change 1978-1996	1978 %	1996 %
Males	641.7	830.7	849	32.30%	3890	4733	21.66%	16.5%	17.6%
Females	241.6	391.3	462.3	91.35%	2124	3584	68.78%	11.4%	10.9%
Persons	883.3	1222	1312.3	48.52%	6014	8317	38.29%	14.7%	14.7%
Sources: ABS Labour Force January 1997, ABS Small Business 1997, p.15									

There are many areas to be studied; the differences between men and women entrepreneurs in terms of education, occupational background, motivations for starting a business, business goals, business growth and source of capital. These differences have been identified but not explained (Brush, 1992). There has also been research that indicates that age is a differentiating factor within the group of women entrepreneurs in each of the above categories (Moore, 1990). The focus of this study was to quantify these characteristics in Australian women entrepreneurs.

Moore (1990) groups women entrepreneurs into two categories, traditional and modern with the cut off age being around 35 and asserts that women under 35 have different characteristics in the areas of industry, source of finance, education, company structure and role models. It is interesting to note that in Gunter & Furnham (1992) the women's consumer market has also been segmented into two groups, traditional and modern based on their stated activities, interests and opinions.

Taking 35 as the critical age, this research explores the question of whether or not significant differences in these characteristics are apparent between female entrepreneurs based on age. Before examining the issues of age in detail, an overview of the key issues in entrepreneurship will be given.

LITERATURE REVIEW

Entrepreneurial Process

The entrepreneurial process is defined as having three stages; the founder, opportunity recognition and resource acquisition (Timmons, 1994). The process begins with the founder who has certain characteristics which distinguish him/her from the others. The founder has the ability and experience to recognise an opportunity to establish an entrepreneurial venture. The final stage in the process is the balancing of the resources that the entrepreneur currently has with the resources required to successfully initiate and maintain the venture.

There are several factors that impact on the way these three stages come together, they are education, previous industry experience, source of capital, type of business structure, role models/mentors and psychological characteristics.

Education

Educational background influences the decision to become an entrepreneur. Research suggest that entrepreneurs are better educated than the general public; however there are still areas of educational need such as finance, strategic planning, marketing and management (Hisrich & Peters, 1995; Brush, 1992). The education levels of entrepreneurs tend to be above average; however entrepreneurs appear to be less educated than managers (Brockhaus, 1982, Still, 1987). A possible reason for this may be that while the entrepreneurs had the ability, they did not have the formal qualifications to support the ability in a traditional work environment and thus were overlooked for promotions. This dissatisfaction is an important part of the decision to leave employed work to start a business.

Previous Industry Experience

Past employment influences the choice of field in which the entrepreneur commences the venture, and can influence both management style (Fried, 1989) and the industry sector chosen (Stanger, 1990). Most entrepreneurs establish a new venture in the same industry in which they have experience, particularly if they had the opportunity to serve an apprenticeship. An apprenticeship helps the potential entrepreneur to plan a strategy for becoming an entrepreneur by providing a safe testing ground.

Women entrepreneurs are traditionally concentrated in the services sector. The main reason given for this is that most women have experience in this sector (Stanger, 1990, Still, 1987). However there is an increase in the number of women starting up business in non-traditional industries (Hadary, 1997). As women move in the more traditionally male dominated fields such as manufacturing and high technology, it is likely that they will use this experience to start up ventures in these fields.

Source of Capital

The majority of entrepreneurs prefer to retain full control over their business and therefore prefer funding arrangements that provide this. Women tend not to borrow any funds commercially to start up their business (Stanger, 1990). In the US, the proportion of women seeking credit from a bank has increased, however they still borrow less than men (Rosenthal, 1999).

A study into the finance options for women from Australian banks (Dahn cited in Stanger, 1990) found that while banks did not discriminate against women in terms of the banking structure, they discriminated in the collateral requirements. Men owned as much as 90% of assets therefore women tend not to have the collateral to obtain a start-up loan. Women's assets such as mailing lists of clientele did not meet the bank manager's requirement of assets such as real estate and machinery.

While there is a perception that banks are less sympathetic towards women who seek finance for start-ups the evidence denies this. In a survey conducted by Yellow Pages Australia (1994), no strong evidence was found to support this. These findings are also supported by a Victorian study (cited in ESFC, 1994) which revealed that loans for women were approved on the basis of personal finances rather than the strength of their business proposal.

However while Australian women are not discriminated against by banks, a high number of women do not actually approach the banks as a source of funding. The majority of women starting a venture obtain the money from personal savings, family loans or friends (Stanger, 1990, ESFC 1994) whereas men tend to obtain capital from external sources. This tendency of women not to incur large debts, "combined with their concentration in less capital intensive service industries, may partly account for women starting their business with low amounts of capital" (ESFC, 1994, p 14).

Business Structure

In 1988, 30% of Australian entrepreneurial women were in sole ownerships, with partnerships at 10% and companies at 56%. (Victorian Women's Consultative Council cited in Stanger, 1990). This indicates that Australian women entrepreneurs prefer the company structure. Additionally those business' that were incorporated had more employees than the other structures which indicates larger scale operations.

Role Models/Mentors

Family background and parental role models serve a critical purpose in the preparation of an entrepreneur. There is strong evidence that links entrepreneurs to parents who are either self-employed or entrepreneurs. The parent provides a source of inspiration to the child and a role model for them to follow (Hisrich & Peters, 1995). It is natural for a child to imitate its parents and want to follow in their footsteps.

Psychological Characteristics

A review of the literature reveals three main personality characteristics of an entrepreneur; internal locus of control, achievement and risk-taking. The internal locus of control as proposed by McClelland (Cited in Brockhaus, 1982; Hisrich & Peters, 1995) is deemed necessary for the entrepreneur to take the risk of establishing a new venture. Individuals who do not have a high belief in their own ability to control a situation are unlikely to expose themselves to the risks associated with a start-up.

The need for achievement is linked to the internal locus of control characteristic (Rotter cited in Brockhaus, 1982; Hisrich & Peters, 1995). Rotter states that individuals who believe their actions will result in personal achievement have a strong internal belief.

Risk-taking, as the third psychological characteristic, whether it be financial, social or psychological is an integral part of the entrepreneurial process, indeed it is the balancing between the potential profit of the venture and the cost process (Hisrich & Peters, 1995; SAIT, 1989; Koironen, Hyrsky & Tunnanen, 1997).

There is some debate in the literature as to whether psychological characteristics are defining qualities of an entrepreneur. An entrepreneur is not necessarily created at birth, however their individual traits are critical to how such a person reacts to a given situation. For example, the trait of risk-taking will influence whether a person takes up an opportunity to start their own business depending on the perceived risk. Therefore psychological characteristics as well as situational variables have an explanatory role for an entrepreneurs behaviour.

Impact of Age

It has been proposed that age has a significant impact on how these factors contribute to the entrepreneurial process (Moore & Buttner, 1999; Moore, 1990). Moore classifies women entrepreneurs into two groups according to age. The first group, classified as Traditional, are aged under 35, they have a home and family orientation, have businesses in the services and retail sector and have started a business without a great deal of planning. The second group, classified as Modern, are aged over 35, have a career focus, well-educated, have experience in technical industries and have taken a structure approach to their business.

It is interesting to note that the women's consumer market has also been divided into two groups based on age (Gunter & Furnham, 1992), traditional and modern. A study conducted in the 1970s (Reynolds, Crask & Wells cited in Gunter & Furnham, 1992) performed research that found differences between the two groups on women in terms of buying behaviours, attitudes and patterns of media exposure. These studies however did not assign a cut-off age to distinguish the two groups.

Moore (1999) places great emphasis on the existence of two generations of entrepreneurs which have quite different characteristics. If her hypothesis that age has an impact on the

characteristic of entrepreneurs is true, then the implications for entrepreneurial theory is that definitions and characteristics of entrepreneurs change over time.

In this study, the definition of “young” entrepreneurs is based in the literature on career development theory. Using a developmental approach, it was assumed that all individuals progress through their working lives in a series of distinct stages. Super’s (1990) developmental theory of career progression conceptualises individual work patterns as consisting of a series of age and task appropriate stages. Briefly he identified five key tasks which need to be undertaken within the course of an individuals working life. These are:

- ◆ *Crystallisation* (14-18 years) – during this time individuals formulate ideas about self concept and translate them into a concept of what vocational area they wish to follow;
- ◆ *Specification* (18 – 21 years) – the general vocational concept is translated into a specific career and the necessary steps to enter that career, such as study, are undertaken;
- ◆ *Implementation* (21 – 25 years) – occurs when entry into the career actually occurs in terms of completing training and taking up an entry level position;
- ◆ *Stabilization* (25 – 35 years) – is characterised by behaviours which reinforce early career choices; and
- ◆ *Consolidation* (from 35 years) – is characterised by a desire to build on earlier career gains and progress within the chosen occupation.

Under this model specifically, and developmental career theories more generally, 35 is seen as a critical point in an individual’s working life. It is the age which represents the transition from occupational experimentation and training into a period of stability and long term consolidation. It is also an age at which many people, regretting earlier choices, make a sudden and substantial change in their career direction. Given that there is a substantial body of literature to support the notion of 35 as being the approximate dividing line between undecided youth in career terms, and maturity, this age was selected as the cut off for “young” entrepreneurs.

The characteristics of entrepreneurs in general, Traditional and Modern women entrepreneurs, as outlined in the literature, are summarised in Table II. While there is widespread research on entrepreneurs in general the emphasis has been on male entrepreneurs. In the field of women entrepreneurs, there has been more research conducted into the characteristics of traditional women entrepreneurs than modern.

This research tests ten hypotheses that were formulated based on the research by Moore (1990) that profiles exist of a traditional and a modern entrepreneur. Moore (1990) describes the traditional entrepreneur as a woman aged between 35 and 55 who has a home and family orientation and is self-employed in the service and retail sectors. She uses personal savings and loans from friends to finance the business, has a liberal arts background, has a partnership or is a sole trader and has role models. Yet, Moore (1990) describes the modern entrepreneur as trained in business, oriented towards making money and established ventures in traditionally male dominated fields.

Table II Comparison of literature characteristics

Characteristic	General	Traditional Women Entrepreneur Aged Over 35	Modern Women Entrepreneur Aged Under 35
Need for achievement	No proven link between ownership of business and high need for achievement	No proven link	No proven link
Risk-taking	No evidence that this a defining characteristic	Research is inconclusive	No proven link
Locus of control/ Independence	Internal - high belief in own abilities	High belief in own abilities	No proven link
Apprenticeship	Entrepreneur usually learns experience from incubator organisation	Entrepreneur learns from incubator organisation	No proven link
Industry experience	Previous industry is usually the industry sector chosen for new venture.	Experience in services: recreational, personal, community	Experience fields of technology/manufacturing
Family background	Entrepreneur's parents are usually self-employed or entrepreneurs	Fathers were self-employed	No proven link
Position in family	Not known	First or first girl	No proven link
Education level	Better educated than general public, but less educated than managers	Better educated than gen. public, but less educated than managers	No proven link
Educational type	Not known	Attended single-gender school, liberal arts tertiary	Business studies
Age when started the business	25 to 40 years	30 to 40, baby boomer	Babybuster
Motivation	Independence, to be own boss, money, satisfaction and a sense of achievements.	Control over career, glass ceiling, flexible work patterns family, to be own boss, money	Oriented towards profit
Structure	Types of structure - company, family, sole-owner. In USA 90% are family run	Company structure	No proven link
Resources – People	Utilises referrals and organisations.	No proven link	No proven link
Resources – Finance	Entrepreneurs prefer funding that allows them full control of the venture. Use ext. sources.	Uses personal source of money	Seeks external capital
Resources – Assets	Leases assets rather than purchase	No proven link	No proven link
Resources – Business Plan	Used for raising capital and guiding growth	No proven link	No proven link

METHODOLOGY

The sample was derived from organisations that have contact with entrepreneurial and self-employed women including government small business departments and private women's organisations. A total of 535 women were sent the survey of which 229 surveys or 42.8% was returned. After screening these responses for those who met the criteria for an entrepreneur (defined as a person who created a new venture, has a growth orientation and was motivated by financial and personal satisfaction), a usable response rate of 36.8% (197/535) was obtained (refer Appendix A for operationalisation of criteria). This response rate was greater than anticipated and is probably due to the high levels of interest the respondents have in women's issues.

The data was collected using a survey design made up of questions derived from previous research (Bennett & Dann, 2000). Part 1 consisted of demographic questions based on characteristics identified in the literature review. Part 2 consisted of statements derived from Bowen & Hisrich's research (1986). Part 3 is taken from Timmons (1994) and are open-ended questions. The survey is detailed in Appendix B.

RESULTS

Once the data was collated it was necessary to delete those subjects who responded to the survey but did not fit the definition of an entrepreneur. This resulted in 197 valid cases. Interestingly while 87% of the respondents met the criteria of being classified as an entrepreneur, only 54.8% of the subjects perceived themselves to be an entrepreneur. These women do not see themselves as entrepreneurs and may have been surprised to realise that their behaviours and attitudes indicate that they are entrepreneurs.

Demographics

The results revealed a wide age range for the subjects with the majority within the range of 31 and 50 years. The mean age when the entrepreneurs first became self-employed was 31 years old.

In relation to family background, 65.3% of the entrepreneurs were either the eldest girls or the eldest child in the family and 45.7% had parents who were self-employed.

A total of 37.7% had a role model, which is interesting as it is a similar proportion to the 30% of the entrepreneurs who sought help from a mentor when establishing their business. Of the 37.7% who had role models, the majority cited their parents as the key role-model.

With respect to educational background, 61.8% of the entrepreneurs had been educated to a tertiary level. Of the 37.8% of entrepreneurs who attended university, 38.1% had studied in the business field, 28% had studied an arts related field and 15.3% had done medical/science studies.

Hypothesis Testing

It is Moore's hypothesis that forms the basis for this research. The hypothesis "Age has an impact on the characteristics of women entrepreneurs" was broken into ten hypotheses each related to a specific characteristic. Hypotheses one to seven were tested using cross tabs with the remaining three hypotheses tested using t-tests.

Hypothesis one to seven each involve differences between women under the age of 35 and women entrepreneurs over the age of 35 in specific areas.

Hypothesis 1 relates to the impact that age has on the highest educational level achieved. It was expected that:

H_1 Women entrepreneurs under the age of 35 are more likely to have attended university than women entrepreneurs over the age of 35.

H_1 was tested using the analysis tool of cross-tabulation which revealed a difference in the highest level of education between women entrepreneurs in the two age groups. A higher proportion of the women in the under 35 age bracket attended TAFE and university (69.8%) than did the women over 35 (57.6%) (see Table III).

Table III Age By highest educational level achieved					
Age	Primary	Secondary	TAFE/College	University	Total
Under 35	0	30.2%	25.4%	44.4%	100%
35 & Over	4.5%	37.9%	23.5%	34.1%	100%

H_2 is concerned with the impact of age on the type of field studied at university. It was expected that:

H_2 : Women entrepreneurs under the age of 35 are more likely to have studied business fields than women entrepreneurs over the age of 35

The results of H_2 indicated that of the women who attended university, more women over 35 studied arts than women under 35. The proportion of women under 35 and over 35 who studied business was equal. However more women under 35 studied medical/science and legal fields (see Table IV).

Table IV Age by Field of Study						
Age	Arts	Business	Medical/ Science	Law	Other	Total
Under 35	8.9%	37.8%	22.2%	2.2%	28.9%	100%
35 & Over	38.9%	38.9%	11.1%	8.9%	37.8%	100%

Hypothesis H_3 looks at the impact of age on the type of industry in which women entrepreneurs establish their business ventures. It was expected that:

H_3 : Women entrepreneurs under the age of 35 are more likely to operate in the traditional male industries than women entrepreneurs over the age of 35

The results for the entrepreneurs in each group have been separated into traditional male and traditional female industries. The traditional male industries have been defined as; mining, manufacturing, construction and transport & storage. The female industries being retail trading, finance property & business services, community services; and recreational, personal and other services. The basis for this definition is the gender employment proportion in each industry (Stanger, 1990; Still, 1987).

There are 29.8% of women under 35 operating in the male dominated industries of mining, construction, manufacturing, wholesale trading and transport & storage compared with 21.1% of women over 35 (see Table V below). Interestingly the majority of women in both age groups are concentrated in the female industries of retail trading, finance, property & business services and recreational, personal & other services with 70.2% of the under 35s and 78.9% of the over 35s.

Hypothesis H_4 is concerned with the impact of age on the source of capital. It was expected that:

H₄: Women entrepreneurs under the age of 35 are more likely to use external sources such as banks as the main source of capital than women entrepreneurs over the age of 35

Some 69.7% of women under 35 use a bank as a source compared to 51.1% of women over 35 (see table VI). There was no difference in the use of savings between the two groups, with 57.1% of women under 35 using savings and 58.4% of women over 35 using savings (see Table VII). It would appear that women under 35 are also using their savings and supplementing this with capital sourced from a bank, however the results do not show the proportion of capital sourced from each.

Table V Age by Current Industry		
Industry	Age Under 35	Aged 35 & Over
Mining	0%	0.8%
Manufacturing	17.2%	9.8%
Construction	9.4%	3%
Wholesale trading	1.6%	4.5%
Transport & Storage	1.6%	3%
Sub- total % in male industries	29.8%	21.1%
Retail Trading	18.8%	34.8%
Finance, Property & Business Services	23.4%	24.2%
Community Services	4.7%	3%
Recreational, Personal and Other Services	23.4%	16.7%
Sub-total % in female industries	70.2	78.9
Total 100%	100%	100%

Table VI Age by Source of Capital - Bank			
Age	Source of Capital Bank	Source of Capital Non-Bank	Total
Under 35	69.7%	30.3%	100%
35 & Over	51.1%	48.9%	100%

Table VII Age by Source of Capital - Personal Savings			
Age	Source of Capital Personal Savings	Source of Capital Not Personal Savings	Total
Under 35	57.1%	42.9%	100%
35 & Over	58.4%	41.6%	100%

Hypothesis H₅ relates to the impact of age on the business structure of the venture. It was expected that:

H₅: Women entrepreneurs under the age of 35 are more likely to have a company structure than women entrepreneurs over the age of 35.

The results revealed that 48.4% of women under 35 preferred the company structure with the balance being split between sole-trader and partnership (see Table VIII). A total of 55.3% of the women over 35 also had a company structure; this being the case, there was no significant difference between the two groups in the type of business structure.

Table VIII Age by Organisation Structure				
Age	Company	Partnership	Sole Trader	Row Total
Under 35	48.4%	32.8%	18.8%	100%
35 & Over	55.3%	20.5%	24.2%	100%

Hypotheses H_6 and H_7 are concerned with the impact of age on the likelihood of having a role model and the likelihood of seeking help from a mentor respectively. It was expected that:

- H_6 : Women entrepreneurs under the age of 35 are less likely to have a role-model than women entrepreneurs over the age of 35; and
- H_7 : Women entrepreneurs under the age of 35 are more likely to have a mentor than women entrepreneurs over the age of 35

There was little difference between the groups relating to the use of role-models, with 31.7% of the under 35 women and 26% of the over 35 women stating they had a role-model (see Table VIII). However there was a difference between the groups in terms of the use of mentors, 38.5% of the women under 35 used a mentor compared with 27% of the women over 35 (refer to Table X).

Table IX Age by Role Model

Age	Had A Role Model	Did Not Have A Role Model	Total
Under 35	31.7%	68.3%	100%
35 & Over	26%	74%	100%

Table X Age by Help from Mentor

Age	Help From Mentor	Did Not Have Help From Mentor	Row Total
Under 35	38.5%	61.5%	100%
35 & Over	27%	73%	100%

The hypotheses relating to the psychological characteristics of risk-taking propensity, internal locus of control and independence were tested using simple t-tests with results scoring from 1 (strongly agree) to 5 (strongly disagree). It was expected that:

- H₈: Women entrepreneurs under the age of 35 are more likely to have a risk-taking propensity than women entrepreneurs over the age of 35; and
- H₉: Women entrepreneurs under the age of 35 are more likely to have a high locus of control than women entrepreneurs over the age of 35; and
- H₁₀: Women entrepreneurs under the age of 35 are more likely to be more independent than women entrepreneurs over the age of 35.

The results revealed a borderline significance in the difference for risk-taking propensity between the two groups, with a mean result of 2.4 for women under 35 and 2.3 for women over 35 indicating that the respondents agreed with the risk-taking statements in the survey. This result was found to be borderline significance at the 0.05 level with a result of 0.055.

There was no significant difference between the age groups for internal locus of control with a mean result of 2.1 for both groups indicating that the respondents agreed with the statements in the survey regarding high internal locus of control. This result was found to be not significant at the 0.05 level with a result of .670.

There was also no significant difference between the groups for level of independence with a mean result of 2.3 for both groups indicating that the respondents agreed with the statements in the survey regarding high levels of independence. The result was not found to be significant at the 0.05 level with a result of .935. Therefore H_{1j} is rejected.

Table X1 Mean t-test Score for Psychological Characteristics

Age	Risk-taking propensity	Internal locus of control	Level of independence
Under 35	2.4%	2.1%	2.3%
35 & Over	2.3%	2.1%	2.3%
Significance $\alpha=0.05$	0.055 (not significant)	.670 (not significant)	.935 (not significant)

SUMMARY OF FINDINGS

In summary the following hypotheses were accepted:

- Hypothesis H₁: Women entrepreneurs under the age of 35 are more likely to attend university than women entrepreneurs over the age of 35;
- Hypothesis H₃: Women entrepreneurs under the age of 35 are more likely to operate in the traditional male industries than women entrepreneurs over the age of 35;
- Hypothesis H₄: Women entrepreneurs under the age of 35 are more likely to use external sources such as banks as the main source of capital than women entrepreneurs over the age of 35;
- Hypothesis H₇: Women entrepreneurs under the age of 35 are more likely to have a mentor than women entrepreneurs over the age of 35;
- Hypothesis H₈: Women entrepreneurs under the age of 35 are more likely to have a risk-taking propensity than women entrepreneurs over the age of 35;

The following hypothesis were rejected:

- Hypothesis H₂: Women entrepreneurs under the age of 35 are more likely to study business fields than women entrepreneurs over the age of 35;
- Hypothesis H₅: Women entrepreneurs under the age of 35 are more likely to have a company structure than women entrepreneurs over the age of 35;
- Hypothesis H₆: Women entrepreneurs under the age of 35 are less likely to have a role model than women entrepreneurs over the age of 35;
- Hypothesis H₉: Women entrepreneurs under the age of 35 are more likely to have a high locus of control than women entrepreneurs over the age of 35;
- Hypothesis H₁₀: Women entrepreneurs under the age of 35 are more likely to be independent than women entrepreneurs over the age of 35.

The age of a female entrepreneur has an impact on the following factors: attendance at university, industry type, source of start-up capital, use of mentors and risk-taking propensity. Age does not impact on the type of field studied at a tertiary level, type of business structure, use of role models, the level of locus of control and independence.

DISCUSSION

Expected Results

It was anticipated that women entrepreneurs under the age of 35 were more likely to attend university than women entrepreneurs over the age of 35, and this was confirmed in the sample with 69.8% of younger women attending a tertiary institution compare to 57.6% of older women. There are varying reasons for this; there has been a change in the education system, with girls encouraged to continue their study at a tertiary level in order to have fulfilling careers. The trend in recent Australian academic enrolments of women shows an increase in the number of women since 1990, with more women than men enrolling in higher education institutions (see Table XII). This upwards trend has steadily been increasing since the mid 20th century. Between 1949 and 1959 there was slow growth from 21.4% to 22.1%, and the next decade only saw the enrolment levels move upwards to 26.4% in 1969. The largest growth has been achieved between 1969 and 1979 with enrolments reaching 44.7% in 1979, an increase of 18.3% in just ten years. Since 1979 the growth has slowed by 7.45 to 52.1% in 1989 and slowed again to 54.4% in 1997.

Table XII Trends in Australian Female Higher Education Enrollments			
Year	Number of women Enrolled	Total Enrolments	% women
1997	358655	658827	54.4%
1995	325,357	604177	53.9%
1990	255,655	485075	52.7%
1989	229,800	441,076	52.1%
1979	141,401	322,098	43.9%
1969	39,871	151,029	26.4%
1959	10,485	47,447	22.1%
1949	6795	31,753	21.4%
Source: DEETYA, Selected Higher Education Students Statistics 1990, 1995, 1997			

This growth in female enrolments in higher education institutions was started in the late 60s which coincided with the introduction of the contraceptive pill, the sexual revolution and a social move towards career women. No fault divorce legislation was introduced in 1975 (Australian Family Law Act, 1975) and the divorce rate in Australia went from 17495 in 1974 (ABS 4101.0,

1976) to 24182 in 1975 (ABS 4102.0, 1998), an increase of 38%. The divorce rate has quadrupled going from 4.3 per 1000 married men in 1974 (ABS 4101.0, 1976) to 12.9 in 1996 (ABS 4102.0, 1998). This increase in the number of divorces has further highlighted the need for women to obtain economic independence for themselves rather than depend on a husband for an income.

These events of the 60s and 70s continued the social redefinition of women introduced in post-world war 2, when women decided to continue working after being given a taste of employment in the war years. The change in the status of women over the past few decades has impacted on the career choice and the social position of women. A recent study in Queensland, Australia has highlighted these changes (Office of Women's Affairs, 1998). This research revealed four categories of women; young independents age 18 – 34, mothers at work 25 – 44, Mid Lifers 45 – 59 and seniors 60+ . The women under 35 are juggling careers with family while being interested in further study.

The changes in educational fields of study as a consequence of changes in the status of women have also had an effect on the type of industries in which women establish their ventures. As mentioned in the literature review, women have been traditionally employed in the service industries (ABS cited in ESFC, 1994), and people tend to start up businesses in the industries in which they have work experience. As women enter the traditional male-dominated industries and gain experience in these fields, the number of female owned businesses in these industries should also increase. The change in the education system over the past two decades has encouraged women to study the technical fields of engineering, business and manufacturing, thus preparing them for careers in these industries. As a result, women under the age of 35 were found to be more likely to operate in traditional male industries than women entrepreneurs over the age of 35.

The proposition that women entrepreneurs under the age of 35 are more likely to use external sources such as banks as the main source of capital than women entrepreneurs over the age of 35 was accepted. In the past, when a woman tried to obtain a loan from a bank she was required to have a male partner in whose name the loan was recorded. Many times women could not even see the bank manager or taken seriously as a business-woman. This history has led to the perception that it is not worth applying to a bank because they are biased against women. However the *Yellow Pages Small Business Index* report on Women in Business (1994) revealed that there is no strong evidence to suggest that the banks are any less sympathetic towards women than they are toward men when lending finance for business start-up. Therefore public perception is based on the historical treatment of women by banks rather than the current treatment.

Additional reasons why women are less inclined to borrow money from banks include the capital requirement and risk-taking levels. Traditionally, the majority of Australian women require less than \$10,000 to start their business with 40% requiring less than \$5000 (Still, 1993). The nature of the business is responsible for this, with many women starting up in the service sector and relying more on their skills than plant and equipment to generate income. It is interesting to note that 69.7% of the women under 35 use the bank as a source of capital compared with 51.1% of the women over 35. However, the fact that more than half of both groups use the bank as a source of capital contrasts with the general trend of self-employed women, whose main source of capital is savings or loans from family (Still, 1993).

It was also found that women entrepreneurs under the age of 35 are more likely to have a mentor than women entrepreneurs over the age of 35, was accepted. Some 38.5% of the women under 35 accessed help from a mentor. A mentor can provide significant assistance particularly if they are also self-employed. The entrepreneur is able to glean the wisdom based on experience and better prepare herself for the problems ahead. While both mentors and role-models serve the purpose of providing an example or a source of inspiration for the entrepreneur, they serve two different functions. A mentor is a person with whom an active relationship exists, they are consulted and advice is requested. A role-model is a passive relationship, they are viewed from a distance and vicarious learning rather than interactive learning occurs. Perhaps this active/passive dichotomy explains why the hypothesis of women entrepreneurs under the age of 35 are less likely to have a role model than women over the age of 35, was rejected.

Women entrepreneurs under the age of 35 were also found to be more likely to have a risk-taking propensity than women entrepreneurs over the age of 35. The results for this were borderline; it is possible that age has an impact on risk-taking from the perspective that the older people are, the less inclined they are to change or to take risks.

Therefore age has an impact on highest educational level achieved, type of industry, source of capital, use of mentor and risk-taking propensity.

Unexpected Results

The notion that women entrepreneurs under the age of 35 are more likely to study business fields than women entrepreneurs over the age of 35, was rejected. While it is more likely that women under 35 will attend university, of the woman in both age groups, there is no significant difference between the types of fields they choose to study. This may be due to many older women returning to university to obtain qualifications in business fields to assist them with their business and younger women entering the business fields as a first-choice option.

Women under the age of 35 are more likely to have a company structure than women over the age of 35 was also rejected. It appears that with 72.5% of women consulting external professionals including accountants and solicitors, the advice to become incorporated is taken seriously.

Women entrepreneurs under the age of 35 are more likely to have a higher locus of control than women entrepreneurs over the age of 35, and, Women entrepreneurs under the age of 35 are more likely to be independent than women entrepreneurs over the age of 35, were rejected. It appears that these characteristics are not altered with age and are a defining characteristic of an entrepreneur, regardless of her age.

Therefore age does not have an impact on the type of field studied at university, type of business structure, use of role model, internal locus of control or level of independence.

Limitations

Entrepreneurship is a relatively new academic field, so there is little data is available. Of the data that is available, most of it is descriptive and deals with personality traits only. Additionally, there are definitional problems: in that no two researchers agree precisely on what 'entrepreneurship' is. This is possibly due to the ownership staked on the field of entrepreneurship by the various disciplines of economists, psychologists and feminists. Even if a common definition could be agreed upon, the very nature of entrepreneurs as human beings capable of change and development means that the definitions will change over time.

It is difficult to locate subjects who meet the criteria of an entrepreneurial woman when conducting such research, as there is a lack of knowledge on the overall number of entrepreneurial women in Australia and there is no one database of entrepreneurial women. Many organisations have databases of women but there is the need to eliminate those who are employed or running small businesses with no intention of growth. Many databases do not hold this kind of information, so the survey was designed to contain questions that would identify those women who closely met the definition used in this thesis. It is difficult to generalise from this sample to the population of entrepreneurial women in Australia, as the population is unknown. Presumably it is a subset of the number of women who are self-employed, but the size of this subset is also unknown.

Given the quantitative nature of the data collection, it meant that it was not possible to probe for further information on why the results occurred. It would be useful in future research to conduct interviews after performing quantitative research to identify explanations for the results.

CONCLUSION

This paper has revealed many interesting results related to the impact of age on the behaviour of women entrepreneurs. Age was found to impact on the characteristics of field of study, type of industry, source of capital, use of mentor and risk-taking propensity. The age at which women commence self-employment is dropping. Perhaps women are prepared to take the risk at an earlier age because of encouragement at school or relevant tertiary education. The hypothesis testing has accepted that age has an impact on half of the characteristics proposed by Moore (1990). It appears then that there is a possibility of a second-generation of women entrepreneurs emerging. Further research should be conducted on this substantiate this.

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Appendix A – Operationalisation of Entrepreneur Definition

Definition	Questions in Survey (bolded)
Created a new venture	Part 3 Q11 How did you become self-employed? a) Established the business as new b) Inherited the business/family connections c) Purchased the business
Growth orientation	Part 3 Q9 Which best describes your situation when you commenced the business? a) You planned to grow the business b) You didn't plan to grow but would take advantage of any opportunities that arose c) Growth was not important
Motivation - Financial and personal satisfaction	Part 3 Q8 Why did you first become self-employed? The responses were coded into several categories including: Financial Help husband Quality of life Employment dissatisfaction Fulfillment Family Crisis

Appendix B: Entrepreneurial Women Survey

Thank you for taking the time to fill in this survey. The results of this will be used as part of an honours thesis in preparation for a larger research project which will run for 6 years. Your contribution will help up paint a picture of the 90's Woman Entrepreneur in Australia.

The information you give is CONFIDENTIAL and will only be used for the research into woman entrepreneurs. Please complete ALL sections as any surveys that contain missed or omitted questions cannot be used.

Section 1 Personal Details (please circle the category that best describes you)

- Q1. What is your age?
1. 20 - 25
 2. 26 - 30
 3. 31 - 35
 4. 36 - 40
 5. 41 - 45
 6. 46 - 50
 7. 51 - 55
 8. 56 - 60
 9. 64 - 65
- Q2. What is the highest education level you have attained?
1. Primary School
 2. High School
 3. TAFE/College
 4. University
- (Please specify field of study) _____
- (Please specify field of study) _____
- Q3. How many brothers and sisters do you have?
1. Number of brothers? _____
 2. Number of sisters? _____
- If Nil then go to Q6**
- Q4. Are you the eldest child?
1. Yes (go to Q6)
 2. No (Go to Q5)
- Q5. Are you the eldest female child?
1. Yes 2. No
- Q6. What is your full time employment status?
1. Self-employed (go to Q8)
 2. Employed (go to Q7)
- Q7. Are you also self-employed on a part-time basis?
1. Yes a) Part time with employment
 b) Part time without employment
 2. No

- Q8. What is the structure of your business?
1. Company
 2. Partnership
 3. Sole-Trader
- Q9. Do you have a partner or co-director?
1. Yes (go to Q10)
 2. No (go to Q11)
- Q10. If you have a partner or co-director, what is your relationship to that person?
1. Husband/de-facto
 2. Friend
 3. Family Member
 4. Business Colleague
 5. Other (please specify) _____
- Q11. What is the main industry that your business is in?
1. Mining
 2. Manufacturing
 3. Construction
 4. Wholesale Trading
 5. Retail Trading
 6. Transport & Storage
 7. Finance, Property & Business Services
 8. Community Services
 9. Recreational, personal and other services
- Q12. Please describe the main products/services of your business.
- _____

Section 2 Attitudes (please tick the category that most resembles your opinion)

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
1. When I know I'm in charge, I don't apologise, I just know what has to be done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I'll speak up for an unpopular cause if I believe in it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am prepared to take risks with money, that is, invest and not know the outcome.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I take an umbrella every time I travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I'd rather have other people decide where to go on a social evening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I know that if I decide to do something, I'll do it and nothing can stop me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Even though its scary to try something new, I am the kind of person who tries.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I hate to go shopping for clothes alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If my friends won't go to a movie I want to see, I'll go by myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I like trying new food, new places and new experiences.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I need to know the answer before I ask a question.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I have taken a risk in the last 6 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. People tell me its foolish to want a career. I should have listened to them and stayed home all these years.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I can walk up to a total stranger and strike up a conversation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. When things go right and are terrific for me, I think "its mostly luck".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
16. I usually wait for people to invite me to places, rather intrude on them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I want to be financially independent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I have intentionally travelled an unfamiliar route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. If I am frightened of something, I will try and conquer that fear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I need to know that it's been done already before I am willing to try it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I have gone on a blind date.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I often feel "That's just the way things are and there's nothing I can do about it"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I think it's important for everyone to like me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. When I do a good job, my pleasure in a job well done is satisfaction enough.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. If I want something, I ask for it rather than wait for someone to 'just give it to me'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I often need to ask other people's opinions before I decide on important things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I am afraid to be different	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. I want the approval of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Even though people tell me 'it can't be done' I have to find out for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 3. Experiences (Please fill in the answer or circle the responses that most describe your experiences)

- Q1. What was your previous occupation? _____
- Q2. Did you have a knowledge of your current industry prior to establishing a business?
 1. Yes (go to Q3)
 2. No (go to Q4)
- Q3. How did you gain this knowledge?
 1. Work experience
 2. Research (journals, books etc)
 3. Personal contact (knew someone in the industry)
- Q4. What was your previous work experience? _____
 Was it helpful?
 1. Yes
 2. No
- Q5. How old were you when you first became self-employed? _____
- Q6. What was the nature of this self-employment?
 1. Full Time
 2. Part time
- Q7. Where are you currently in the business cycle?
 1. Just started the business
 2. Growth stage
 3. Mature business
 4. Decline stage
- Q8. Why did you first become self-employed? _____
- Q9. Which best describes your situation when you commenced the business?
 1. You planned to grow the business
 2. You didn't plan to grow but you would take advantage of any opportunities that arose
 3. Growth was not important
- Q10. Has your attitude towards growing your business changed since you started?
 1. Yes Please indicate how _____
 2. No
- Q11. How did you become self-employed?
 1. Established the business as new
 2. Inherited the business/family connections
 3. Purchased the business

- Q12. Did you need capital to start the business?
1. Yes (go to Q13)
2. No (go to Q15)
- Q13. Where did you get the capital from?
1. Venture capital 4. Personal savings
2. Bank 5. Loan from family/friends
3. Partner 6. Other (please specify) _____
- Q14. How much capital did you need to start your business? \$ _____
- Q15. Were your parents self-employed?
1. Yes
2. No
- Q16. Did you have a role model?
1. Yes (please specify who) _____
2. No
- Q17. What outside help did you get when establishing the business?
1. Accountant 4. Bank Manager
2. Tax experts 5. Mentor
3. Solicitor 6. Other (please specify) _____
- Q18. When you looked for key people such as partners, advisors or managers - how did you locate them?
1. Yellow Pages 3. Referred by an organisation
2. Referred by family/friend 4. Other (please specify) _____
- Q19. Did you have a start-up business plan?
1. Yes
2. No
- Q20. Did you need to buy equipment or assets?
1. Yes
2. No
- Q21. Did you evaluate the opportunity in terms of the following?
1. The competition Yes/No
2. The market demand Yes/No
3. The potential revenue (profit) Yes/No
- Q22. Were you entrepreneurial in you childhood or teenage years?
1. Yes
2. No
- Q23. Do you consider yourself to be an entrepreneur?
1. Yes
2. No

MODEL OF CORPORATE ENTREPRENEURSHIP: INTRAPRENEURSHIP AND EXOPRENEURSHIP

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ABSTRACT

This article extends the model of corporate entrepreneurship designed by Covin and Slevin (1991) into intrapreneurship and exopreneurship. Intrapreneurship is closely related to corporate entrepreneurship which is the creation of new products within the large organization using existing employees. On the other hand exopreneurship is the generation of innovation outside the boundary of the organization using external agents known as exopreneurs. The modes to intrapreneurship have been in the dispersed and focused forms (Birkinshaw, 1996). The exopreneurship process can be attained through franchising, external venture capital, subcontracting and strategic alliance (Siti Maimon & Chang, 1995). This article reviews the different conditions that trigger intrapreneurship and exopreneurship and established propositions to identify the dissimilarity of both processes that build up corporate entrepreneurship in large organizations.

INTRODUCTION

There is a number of leading research journals and published articles that present the exploratory work on corporate entrepreneurship. The research has developed a number of models of corporate entrepreneurship that focused on internally generated innovations within the organizations also known as intrapreneurship. The models are domain models of corporate entrepreneurship (Guth & Ginsberg, 1990), a conceptual model of firm behavior (Covin & Slevin, 1991), an organizational model for internally developed ventures (Brazeal, 1993) and an interactive model of corporate entrepreneuring (Hornsby, Naffziger, Kuratko & Montagno, 1993). These models are centered on innovations that are generated within the organizations to revitalize largely established and bureaucratized organizations into strategically entrepreneurial performers.

Siti-Maimon (1993) coined “exopreneurship” as part of the process of corporate entrepreneurship to revitalize large organization by acquiring ideas or innovation from external sources. The term, exopreneurship, is viewed as acquiring innovations that are outside the organization into the firm. The external innovation can be acquired through franchising, strategic alliance, external capital venture, and subcontracting (Siti-Maimon & Chang, 1995). This paper proposes to differentiate the domain of corporate entrepreneurship into intrapreneurship and exopreneurship. The proposed model (figure 1) intends to identify the differences in the antecedent factors that trigger intrapreneurship and exopreneurship.

This paper starts with an explanation of the development of sourcing innovation internally (intrapreneurship) then moves to the divergence in sourcing innovations externally (exopreneurship). Based on the model of corporate entrepreneurship designed by Covin and Slevin (1990) with the several propositions made, the later section of the article discusses the differences in the antecedents that trigger intrapreneurship and exopreneurship

INTERNALLY SOURCED INNOVATIONS: INTRAPRENEURSHIP

Corporate entrepreneurship universally known as intrapreneurship employs internally generated innovations from employees. Corporate venture groups such as 3M and DuPont were sources of innovations chronicled with business renewal in the early 1960s despite Pinchot (1985) who made intrapreneurship popular in the mid 1980s. Scientific research by Burgelman (1983a, 1983b, 1984) revealed how corporate entrepreneurship should be synergized into the overall corporate strategy of any organizations that desire to diversify their innovations. He showed how traditional research and development should be transformed into new business through internal corporate venturing that grew in stages from the conceptual, pre-venture, entrepreneurial and organizational. Kanter and Richardson (1991) identified four approaches to the process of corporate entrepreneurship that include pure venture capital, the new venture development incubator, the idea creation centre and employee project model. They discovered that the internal employee program yielded a higher frequency of innovations

Kanter (1984) discovered that large organizations involved in internal venturing began to sponsor or became equity partners to innovative employees in the formations of new venture creations. These became the new venture companies. Burgelman (1985) suggested that new venture divisions exploit employees' expertise to achieve corporate growth through acquisition. This became another popular strategy for corporate growth but this approach considered entrepreneurship to be controversial. The study of corporate entrepreneurship as internally sourced innovations became popular among strategic management researchers throughout the 1980s and early 1990s (Hubbard, 1986; Kanter, Ingols, Morgan & Seggerman, 1987; Wood, 1988; Morris, Davis & Ewing; 1988; Sathe, 1988; Jennings & Lumpkin, 1989; Morris & Trotter, 1990; Fulop, 1991; Carlisle & Gravelle, 1992; Hornsby et. al 1993). Morris, Davis and Allen (1994), Ginsberg and Hay (1994) and Bryon (1994) studies also supported the same idea.

Byron (1994) found that product innovation depends on the type of internal ventures. His research revealed that the innovative ideas conceived from research and development departments have the fewest successful ventures, even though they represented the greatest degree of technical diversification. Byron's work inferred that those sources of ideas for innovation affect the success of new ventures. Studies by Farrel and Doutriaux (1994) showed that corporate growth did not have to depend on internal development. However, external strategy such as collaboration strategies based on franchising, external venture capital, subcontracting and strategic alliance can diversify product innovation. Their findings found that external agreements had a positive impact on sales and technology competency.

DIVERGENCE IN SOURCING INNOVATION: EXOPRENEURSHIP

Aldrich and Auster (1986) recommended strategies for large and aged organizations such as subcontracting and franchising to smaller companies as corporate entrepreneurs to make them young and viable. Starr and MacMillan (1990) examined social contracting as an approach to resource acquisition. External strategies adopted by organizations to gain competitive advantage, exploited the weaknesses of the other organizations. Therefore, corporate entrepreneurship should envelop both intrapreneurship and exopreneurship which is externally sourced ideas as proposed by Siti-. Maimon and Chang (1995).

Internally sourced innovations may take a long time to develop and involves higher risk of failure as invented by Lengnick-Hall (1991). She suggested that other modes toward the process of corporate entrepreneurship such as joint venture and acquisition involves externally sourced relationship. This pushes the idea of internally sourced idea of corporate entrepreneurship to vie for an external relationship. Perhaps factors such as the speed of innovations to meet market demands and the leverage of failure has caused corporate strategists to look into other designs for the process of corporate entrepreneurship.

Recent research has recommended the use of externally sourced innovations of products or services (Jones & Butler, 1992). Cowan (1993) indicated that the mode of corporate entrepreneuring would depend on the result of market research. This implies that not all intrapreneurship programs would provide the diversity for organizations on which to build their competitive edge. Schumann, Prestwood, Tong and Vanston (1994) emphatically stressed that the creation of innovative organizations must include the elemental infrastructure containing both internally and externally sourced innovations. However, they did not specifically define this idea as corporate entrepreneurship.

Rice, Wilkinson and Wickham (1994) tried to link the performance of the incubator program (a form of exopreneurship to new product development) with companies that sponsored the research. The survival rate is higher than start up programs with the success rate for breakout at about nine years. This suggests that exopreneurship can speed up diversity in large established organizations into the market and provide a higher success rate. The study by Daniels and Hofer (1994) revealed that the success rate of university-based new venture development has an 80 per cent success rate of survival.

Exopreneurship as strategic alliance plays a very important linkage to the Asian market. Western multinationals are finding it difficult to move into Asian markets because the host country makes more demands. The demands include types of technology transfer, local content and are getting less accommodating in selling natural resources at cheap prices. Consequently, many opportunities were closed to Western companies. Therefore, large multinationals must be smart to use business relationships to achieve superior growth when dealing with strategic alliances.

In short, compared with intrapreneurship, exopreneurship creates diversity in large companies in a speedier route to corporate entrepreneurship. For instance, DuPont found that intrapreneurship may take up to 15 years to commercialize certain products. Schumann et al (1994) have suggested some form of exopreneurship such as the use of contract research and development;

universities; consultants or government supported centers. The external venture center focuses on the product or business that includes acquisition and establishment of joint ventures. They (Schumann et al., 1994) specified licensing as a form of subcontracting because it shortens the time to market and maintains technical dynamism of an industry. Gee (1994) coined the term, corporate entrepreneurial activities, which are both internally and externally sourced as corporate business renewal which includes strategic alliances. However, Siti-Maimon and Chang (1995) have proposed the creation of new ventures in large organizations through franchising, subcontracting, strategic alliances and venture capital. Table 1 gives a summary of the differences in the intrapreneurship and exopreneurship.

MODEL BUILDING FOR EXOPRENEURSHIP AND INTRAPRENEURSHIP

This section outlines a conceptual model of corporate entrepreneurship as a result of exopreneurship or intrapreneurship or both phenomena. The model intends to depict the differences in the antecedents for exopreneurship and intrapreneurship at the organizational level. The proposed models delineate the antecedents and the types of venture creation of a corporate entrepreneurial posture and firm performance. The proposed model is based on the model conceived by Covin and Slevin (1991) which consists of the original component. However certain components are altered for the purpose of this paper.

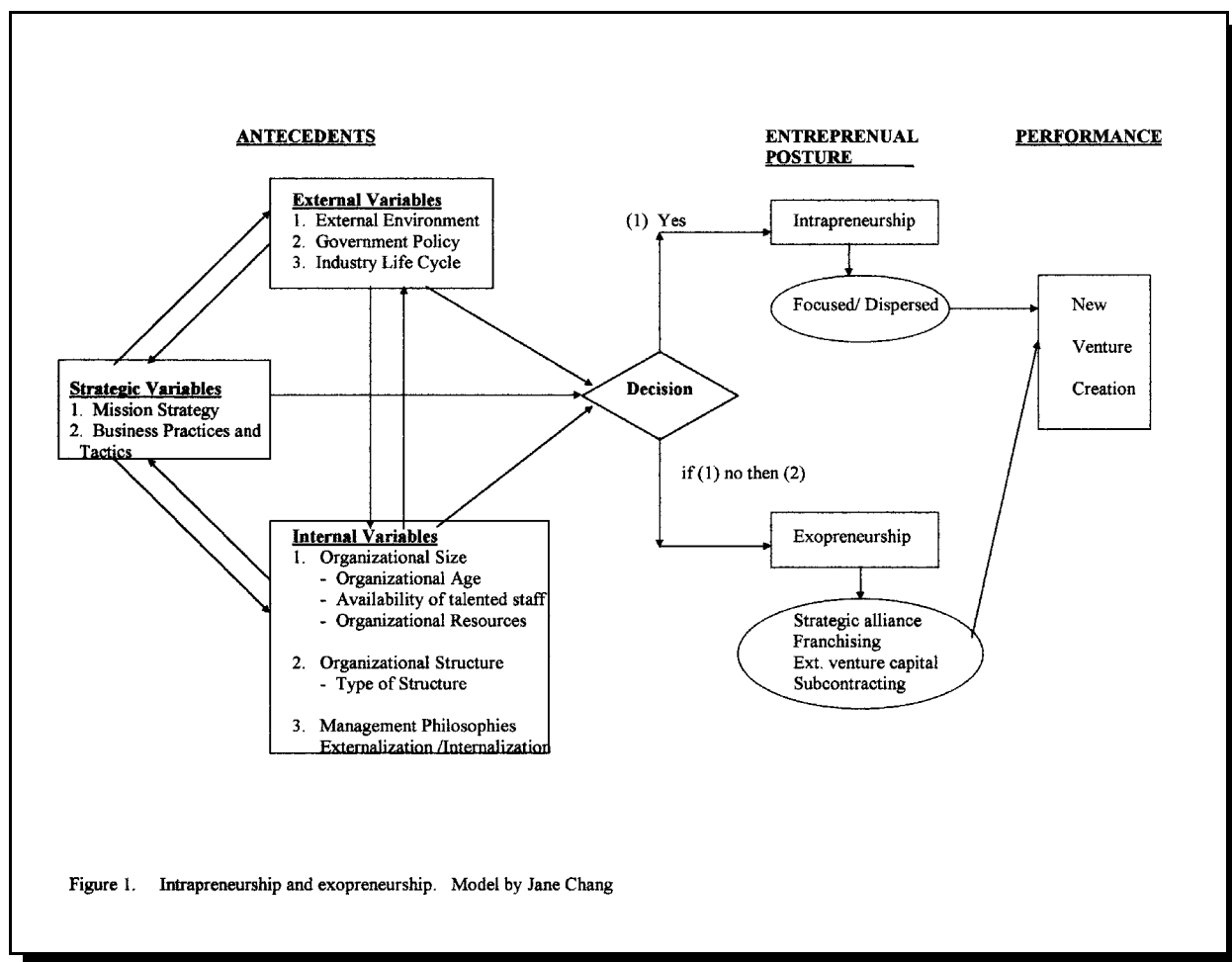
COMPONENTS OF THE MODEL AND THEIR INTERRELATIONSHIPS

Figure 1 depicts the proposed model of corporate entrepreneurship based on organizational behavior depending on the use of internally sourced (intrapreneurship) or externally sourced (exopreneurship) innovations. The model shows the antecedents to intrapreneurship and its consequential intrapreneurial posture and the antecedents to exopreneurial posture. The three main variables comprising external variables, strategic variables and internal variables in the model and their interrelationship are discussed below.

CORPORATE ENTREPRENEURIAL POSTURE AND ACTIVITIES.

The entrepreneurial posture reflected by Covin and Slevin (1991) are risk taking, product innovation and proactiveness with similar descriptions upheld by Miller and Friesen (1982); Jennings and Lumpkin (1989) and Guth and Ginsberg (1990). Yeoh and Jeong (1995) argued that innovativeness involves seeking creative or unusual solutions to problems and needs. This includes product innovation, development of new markets, and new processes and technologies for performing organizational functions. Risk taking refers to the willingness of management to commit significant resources to opportunities in the face of uncertainty. Proactiveness is defined as the firm's propensity to know the what their competitive rivals are doing.

However, Kao (1991) and Churchill and Muzyka (1994) believed entrepreneurial organizations are opportunity seeking with a built-in imperative to continually renew their businesses. In the opinion of the author, it is the opportunity seeking that pushes an organization to be risk-taking, innovative and proactive. Yeoh and Jeong (1995) argued that the opportunistic capability of entrepreneurial organizations which is an element of proactiveness drives a firm to take advantage of the hostile environment. This opportunistic outlook of entrepreneurial organizations drives them to seek innovation outside the corporations. In short, the corporate entrepreneurial posture stems from the opportunity seeking capability which is manifested in two forms which involves intrapreneurial and exopreneurial behaviors.



Intrapreneurial activities which are focused include internal corporate venturing also known as new venture division and formal research and development group. The dispersed intrapreneurial activities include an idea creation centre and an employee project model (Kanter & Richardson,

1991). Exopreneurship typifies the use of outside entrepreneurs for new venture creation such as franchisees, subcontractors, strategic alliance partners and external corporate venturing.

DIFFERENCES IN ANTECEDENTS TO INTRAPRENEURSHIP AND EXOPRENEURSHIP

Numerous research explored the antecedents that trigger intrapreneurship. However, this list does not differentiate the different conditions that cause intrapreneurship or exopreneurship. This section attempts to distinguish the differences in the antecedents that trigger intrapreneurship and exopreneurship. The proposed model is to dispute the differences in the antecedents of both seemingly entrepreneurial behaviors based on the Covin and Slevin model (1991). The antecedents are categorized into three areas known as external environment, strategic, and internal variables.

The external variables include the external environment, the industry's life cycle and government intervention. The strategic variables include mission strategy, the firm's business practices and its competitive tactics. The antecedents that comprise the internal variables are organizational size; age; competency, structure, and management philosophies. Having argued the differences in antecedents between exopreneurship and intrapreneurship, a set of propositions are postulated for the creation of a model for both entrepreneurial behaviors. The antecedents to exopreneurship and intrapreneurship are shown in Table 1.

EXTERNAL VARIABLES

The dimensions of external variables incorporate external environment, the industry's life cycle and the type of government intervention. These dimensions include environmental technology sophistication, the state of the industry life cycle and the type of government intervention.

External Environment

Cowan (1983) stressed that corporations must understand the external environment through market research to find the "nugget" in the environment. Understanding the environment will result in entrepreneurial ideas. Indeed, environmental characteristics elicit entrepreneurial behaviour on the part of organizations. High tech industries are composed of disproportionate numbers of entrepreneurial firms (Maidique & Hayes, 1984). Firms operating in uncertain environment show higher levels of innovation (Karagoszoglu & Brown, 1988; Walters & Samiee, 1990). A dynamic environment challenges organizations to take risks, be innovative and exhibit proactive behaviors (Johnston & Czinkota, 1985; Reid, 1987; Miller, Droge & Toulouse, 1988).

Hostile and Benign Environment and Industry Life cycle

The dynamism of the environment includes escalating cost of technology, globalization, information revolution, product life contraction, greenism which have shifted the organization into an entrepreneurial paradigm of seizing opportunities from the enveloped surrounding. The level of hostility, heterogeneity and dynamism (Miller & Friesen, 1982, 1983; Miller, 1983), turbulence (Davis, Morris & Allen, 1991) or volatility (McKee, Varadarajan & Pride, 1989) influence the external environment. The scale on the external environment ranges from hostile to benign (Covin & Slevin, 1989; Covin, 1990). Precarious industry setting, intense and fierce competition, harsh and overwhelming business climate and the relative lack of exploitable opportunities represent hostile environments. Benign environments provide a safe setting for business operations due to the richness in investments and marketing opportunities.

Several studies indicate that the relationship between entrepreneurial posture and firm performance is moderated by environmental conditions. Firms operating in a hostile environment are entrepreneurially inclined and promote a higher level of firm performance (Covin & Slevin, 1989, 1994; Dean et. al, 1993; Jansen & VanWee, 1994; Stopford & Fuller, 1994; Zahra, 1991, 1993; Zahra & Covin, 1995). Empirical studies by Dean et. al (1993) and Zahra and Covin (1995) revealed that firms operating in a hostile environment yielded higher performance levels. However, there is no empirical evidence as to the level of hostility to internal or external mechanisms of corporate entrepreneurship.

Baden- Fuller and Volberda (1997) discovered that strategic renewals depend on the technology of the organizations. They suggested that firms operating in a benign competitive environment adopt to technology variations through internal corporate venturing. This mechanism supports the firm in diffusing knowledge and technology throughout the firm which reorders the organizations' core competencies, thus increasing the survival rate (Fast, 1979; Block, 1982; Block & MacMillan, 1993). Organizations faced with a resource rich environment undertake core competence renewal projects at lower risks by organizing change in specialized parts of the firm such as new business developments. This implies that intrapreneurship prevails in organizations operating in benign environments. Fuller-Baden and Volberda (1997) viewed that both corporate venturing and specialized innovations are slow to promote strategic renewal and are at the expense of speed. For instance, the intrapreneurship project in DuPont took up to 15 years to commercialize certain products. 3M searches for innovative approaches to reduce the time frame of commercializing products in its intrapreneurship projects (Strategic Direction, 1996). This suggests that internally generated innovations are sluggish to react in environments with high levels of hostility where speed is required as a competitive edge over a firms' rivals. Therefore, intrapreneurship is not an appropriate mechanism to corporate entrepreneurship under this hostile environment.

Table 1 A Summary of the Difference between Intrapreneurship and Exopreneurship		
Area	Intrapreneurship	Exopreneurship
1. Origin	*synergised internal creativity to create new innovations *internal employees who are willing to run the risk of commercialising new products	*synergised outside creativity to create new innovations detected by sponsoring companies or independent entrepreneurs or organization search for opportunities from large companies.
2. Activities	Sponsoring organization source innovation from product champion, employee program, new venture team , new venture division, research and department	Sponsoring organization request or map out the right partner in sourcing new innovation then the commercialization process depend on the type of exopreneurial mechanism.
3. Investment	Sponsoring organization gives seed money (budget) to source innovation internally until the new product is commercialize	The investment is dependent on the types of entrepreneurial mechanism
4. Involvement	Involved only internal employees from idea to commercialization of product. Depending on the types of intrapreneurship program.	Working with outside partners involvement of large organization may be minimal because it becomes a separate function of the large organization.
5 Control	Monitoring the success of intrapreneurial program depends on the procedure of organization. Easy to control because inside the organization	difficult to control because involved at least two different cultured organization of different systems in running organization
6. Culture of Organization	easy to implement change because within similar organization	exopreneurship results in changes therefore difficult to change the attitude of other “partner”. Need to form a new culture in the process of the new venture creation
7. Mission Strategy	holistic mission for the whole organization.	Need to input part of the “partners” vision into own vision
8. Risk	The risk is dependent on the success of project	risk involves lose of goodwill besides financial risk.
9. Cost Reduction	cost effectiveness in management because communication within on e organization	cost reduction in terms of sharing and using the comparative advantage of organizations involved.

Firms functioning within high levels of competition and emerging industries faced with instability and uncertainty require speed as a weapon to surpass their rivals. Firms operating in

intense competition, market saturation and new emerging industries tend to use franchising, strategic alliance, external corporate venturing and subcontracting to enhance their competitive position. Studies on franchising (Anonymous, 1982, 1984, 1995; Sanghavi, 1991; Sadi, 1994; Kedia, Ackerman & Bush, 1994) used this strategic means to enhance competitive position. Similarly subcontracting (Florida & Kenny, 1990; Goe, 1991; Scott, 1991) becomes a popular strategy under hostile conditions to improve efficiency and the quality of the product in the shorter time spent as a tool to a competitive edge. Strategic alliance in the form of equity and non equity partnerships (Vyas, Shelburn & Roger, 1995; Glaister & Buckley, 1996) and external corporate venturing (Roberts, 1991; Hurry, Miller & Bowman, 1992; Thayer, 1993; Gersick, 1994; McNally, 1995; Rotman, 1996) are popular means of product or service innovation for firms of converging technology in new emerging industries. Under these conditions, exopreneurship becomes a prevalent mechanism to corporate entrepreneurship to outwit the competitive rivals in terms of speed to deliver products or services to the target market.

From the preceding arguments, it can be concluded that the organizations operating in benign environments with rich resources with ample opportunities of investments have the propensity to use intrapreneurship because speed does not play a crucial role in the competitive advantage. On the other hand, organizations performing in hostile environments require speed to compete with their rivals; thus, they choose a faster route to innovation by acquiring it externally. Organizations with knowledge about their competition (Chaharbaghi & Nugent, 1996) and the level of hostility can create and exploit opportunities either through intrapreneurship or exopreneurship. The author speculates the following propositions:

- | | |
|----------------|--|
| Proposition 1: | Intrapreneurship is prevalent in benign environments while exopreneurship is prevalent in hostile environments. |
| Proposition 2: | Intrapreneurship is prevalent in growth and mature industries while exopreneurship is prevalent in the early stage of an industry. |

Government Policy

Studies revealed that governmental, fiscal and regulatory environments have an impact on entrepreneurial activity (Kilby, 1971; Kent, 1984). The regulatory environment depends on the macroeconomic objective of government which has indirectly favoured exopreneurial activities. In developed countries, there is a growing application of government regulation to all facets of business activities which increase the demand for service functions such as accounting, legal services and insurance (Stanback, 1979; Daniels, 1985; Orchel & Wegner, 1987). These requirements caused organizations to externalize these functions. The developing countries and former Soviet block insist foreign investment must contain a local market partner (Beamish, 1988; Ghazali, 1994). For instance, the Malaysian government induced the business environment into an exopreneurial one. The various new form of foreign investment include joint ventures (equity strategic alliance),

technology, know-how and management agreements and licensing and patent agreement (non-equity strategic alliance), franchising and subcontracting. The regulatory policy in Malaysia forces multinationals to exopreneurialize (externalize). In doing so, the locals have opportunities to gain access to modern technology and export markets. The author speculates that government policy plays a vital role in exopreneurial activities.

Proposition 3: Exopreneurship is prevalent in government policy that encourages agency theory while intrapreneurship is prevalent in corporate innovation policy.

STRATEGIC VARIABLES

The strategic variables in the Covin-Slevin model include mission strategy and the firm's business practices and competitive tactics.

Mission Strategy

The development of mission strategy has evolved with the progress of strategic management. The Covin-Slevin model is based upon the strategies of build, hold, harvest and divest. Scholarly research such as Gupta and Govindarajan (1982), Burgelman (1985); Hubbard (1986); Morris and Trotter (1990), Zahra (1991, 1993); Dean (1993) has affirmed the Covin-Slevin model in that entrepreneurial postures are manifested in the build and hold strategies for growth; however, they did not specify which kind of entrepreneurial posture.

To delineate the types of mission strategy as antecedents to exopreneurial and intrapreneurial activities, four strategies are classified. Integration strategies allow firms to gain control over distributors, suppliers and competitors. Intensive strategies require intensive efforts to improve a firm's competitive position with existing new products and diversification strategies to diversify a portfolio of products. Finally, defensive strategies include joint venture, retrenchments, divestiture or liquidation.

Integration strategies include forward integration, backward integration and horizontal integration. Forward integration involves gaining ownership or increased control over distributors or retailers. An effective means of implementing forward integration for growth is franchising (Caves & Murphy, 1976; Brickley & Dark, 1987; Martin, 1988; Carney & Gedajlovic, 1991; Hoffman & Preble, 1991; Sanghavi, 1991; Huszagh, Huszagh & McIntyre, 1992) because businesses can expand rapidly as costs and opportunities are spread among many external participants.

Backward integration is a strategy for seeking ownership or increased control of a firm's suppliers. Horizontal integration is seeking to gain control over the firm's competitors. Vertical integration consisting of forward, backward, and horizontal integration is reducing the competition. The cooperation with suppliers, customers and competitors in the form of subcontracting,

outsourcing and strategic alliances is gaining popularity in order to improve the competitive position of the organization (Carney & Gedajlovic, 1991; Goe, 1991; Scott, 1991; Fearn, 1994; Harrison, 1994; Mattysesens & Van den Bulte, 1994; Brown & Butler, 1995; Varamaki, 1996; Stearns, 1996).

Defensive strategies in the form of joint ventures are part of the strategic alliance in terms of equity sharing. Studies on mission strategy connected to joint ventures have been numerous (Harrigan & Newman, 1990; Butler & Sohod, 1995; Das & Bing, 1996; Glaister & Buckley, 1996; Stearns, 1996). The nature of this strategy requires external partnerships to achieve the corporate objectives of growth.

Integration strategies and defensive strategies in the form of joint ventures have the propensity to use external agencies to achieve its mission strategy. The preceding dialectic suggests that the higher propensity of a firm's mission strategy to integration and joint venture, the more exopreneurial the firm's strategic posture is to facilitate the achievement of growth goals. This expectation is supported by Carney and Gejadlovic's studies (1991) in franchising; Goe (1991) and Scott's (1991) in subcontracting; Fearn's (1994) in strategic alliance and Brown and Butler's (1995) in competitive strategic alliance.

Intrapreneurial behavior is expected in firms that use strategies related to the internal strength of organizations. Intensive and diversification strategies require a high input of resources to improve the firm's existing competitive position. Market penetration demands higher levels of marketing activities to increase market share especially in intrapreneurially-behaved organizations (Nielsen, Peters & Hisrich, 1985; Dougherty, 1990, 1992, 1995; Foxall & Minkes, 1996).

The existence of internal corporate venturing and new venture division within large corporations aim to diversify the existing product portfolios (Burgelman, 1983a, 1983b; Gee, 1994; Holt, 1995). According to Gee (1994) most related diversifications cost less and are more efficient because necessary resources are available within the corporation and are easily understood by top management (Mandell, 1971; Fast, 1978; Sykes, 1986). For instance, according to Holt (1995) horizontal diversification does not disrupt other operations by setting up a divisionalized structure. In short, the intrapreneurial and exopreneurial activities may be contingent upon the mission strategy exercised by organizations. The following proposition postulates how corporate entrepreneurial activities may respond to the types of mission strategy variables.

<p>Proposition 4: Intrapreneurship is prevalent in organizations exercising an intensive diversification strategy while exopreneurship is prevalent in organizations exercising integration and defensive strategies.</p>

Business Practices and Competitive Tactics

The primary element of business strategy is always to make the organization entrepreneurially and competitively effective in the market place (Thompson & Strickland, 1987). The business strategy is the managerial action plan for directing and running a particular business unit. It is defined in terms of a collection of business practices and competitive tactics. These decisions include reduction of risk, reduction of transaction cost and increasing the speed of sales to market. These expected strategies keep the organizations abreast with innovations.

Profiles of business practices and competitive tactics associated with entrepreneurial posture have been cited in Miller and Camp (1985), MacMillan and Day (1987) and Robinson and Pearce (1988). Organizations that are market (Nielsen, Peters & Hisrich, 1985; Jennings & Lumpkin, 1989; Cram, 1996) and technologically (Zahra, 1993; Zahra & Ellor, 1993; Zahra, Nash & Bickford, 1995; Zahra, 1996) driven have shown an entrepreneurial posture by producing high quality products. These studies confirmed Covin and Slevin's (1991) propositions.

Competitive strategy such as risk reduction, increase in the speed of sales and reduced transaction costs are domains leading to exopreneurial activities in franchising, subcontracting, strategic alliance and external corporate venture capital.

The most common antecedent factor which leads organizations to externalization is cost minimization. Organizations often franchise their businesses to reduce the cost of capital. Studies by Martin (1988) Carney and Gedajlovic (1991), Thompson (1994) Birkland (1995), Michael (1996), Elango and Fried (1997) confirm this. Birkland (1995) found that organizations capitalize on the ideology of entrepreneurship (agency) while Michael (1996) stressed that franchising is a form of minimization in conditions of low levels of human capital and business.

Generally, subcontracting lowers production costs and increases producers' profit (Kamien & Li, 1990; Rao & Young, 1994; Shenan & Derakshan, 1994; Downey, 1995; New & Payne, 1995). Large established organizations move into externalization to focus on reduction of production costs and to increase their core competencies to get closer to their customer (Belotti, 1995). Subcontracting becomes a popular strategy to reduce administrative burden and escape from the restriction of industrial disputes (Friedman, 1977). Sharing costs with partners is the prime motivator of strategic alliances in the form of joint ventures (Bijlani, 1994; Glaister & Buckley, 1994; Cauley, 1995). On the other hand, the external corporate venturing by large organizations does not depend on this factor.

Another latent factor that drives large organizations to obtain outside innovation is risk reduction. Capital and business risks are transferred to the exopreneurs and, therefore, the large organization and the exopreneurs share lower risks. Numerous studies (Shelton, 1967; Walsh, 1983; Castrogiovanni, Justis & Julian, 1993) on franchising revealed higher rate of success than independent business start ups. Franchising provides large corporation the nimbleness to react because of its stability and low failure rate. It has the ability to achieve an individual's desire to become an entrepreneur (Mathewson & Winter, 1985; Brickley & Dark, 1987). Thus, franchising reduces risk (Combs & Castrogiovanni, 1994) as the capital cost is spread among the franchisor and franchisees. For instance, the Quizno Franchise encouraged its general manager to invest in its

franchise after working four to six years tapping the entrepreneurial spirit of middle managers (Ruggles, 1995).

Similarly subcontracting is a popular form of exopreneurial activity of transferring risk to exopreneurs. Studies of the Japanese industrial systems (Sako, 1991; Smitka, 1992; Easton & Aroujo, 1994) provide examples of secondary investments in technological capabilities of Japanese subcontractors. The kereitsu system lowers the risk of business integrated systems. Rao and Young's (1994) research affirmed that risk transference and high quality products are part of the driving force to subcontract physical distribution in a risk reduction exercise. Campbell (1995) noted that large organizations reduce risk by subcontracting their specialized projects or risky maintenance projects not within the capability of the organization. At the same time, liability can be avoided through subcontracts (Downey, 1995; Baker, 1995).

Strategic alliance in the form of equity or non-equity collaboration aims to reduce risk and to leverage uncertainties and reduction of escalated costs (Carnavale, 1996). A study by Glaister and Buckley (1996) showed that strategic alliance is an attractive mechanism for hedging risk because neither partner bears the full risk or the cost of the alliance (Mariti & Smiley, 1983; Porter & Fuller, 1986; Contractor & Lorange, 1988). Risk reduction includes spreading the risk of a large project over more than one firm; enabling product diversification reducing market risk; enabling quicker sales to market and lower investment costs.

The common antecedent that leads organizations to exopreneurial activity is to expedite the sales to market. Franchising is one of the fastest mechanisms for global expansion (Hoffman & Preble, 1991) characterized by intense competition and rapidly changing customer taste. Subcontracting is a popular alternative to hasten products or services to market (Blois, 1994; Baker, 1995; New & Payne, 1995). Similarly strategic alliances decrease time to market and access to international markets at a greater pace of time (Takac & Singh, 1992; Cauley, 1995; Glaister & Buckley, 1996; Carnavale, 1996) while external corporate ventures speed up the sales through the expertise of technology of the exopreneur (Shrader & Simon, 1997).

In short, the types of competitive business tactics have a contingent influence over the type of corporate entrepreneurial activities. Propositions 5 and 6 are speculated as follows:

- | | |
|----------------|---|
| Proposition 5: | Organizations which pursue externalization (exopreneurship) reduce risk through transfer of risk to partners, an increase in speed of sales, and work on economies of scale. |
| Proposition 6: | Organizations which pursue internalization (intrapreneurship) reduce risk by diversification of related products/customers, an increase in the speed of technology/product into market through teamwork, and reduce costs by increasing productivity through internal creativity. |

INTERNAL VARIABLES

Following the Covin-Slevin (1991) entrepreneurial model, only three out of four internal variables are included as antecedents to entrepreneurial behavior. They are top management values and philosophies, organizational resources and competencies, and organizational structure. Corporate culture is excluded because it is seen as similar to top management values.

Organizational Resources and Competence

Organizational resources and competencies variables are defined in the broadest sense which include resources, capabilities and culture (Collis, 1991; Leonard-Barton, 1992). The organizational resources refer to the specific knowledge and the specialized assets (Lippman & Rumelt, 1982; Wernerfelt, 1984; Barney, 1991; Grant, 1991; Tvorik & McGivern, 1996). Resources range from patents, brand names to knowledge of particular processes. Capabilities relate to the ability of making use of resources (Bartlett & Ghoshal, 1990; Amit & Schoemaker, 1993; Whitney, 1996). Dougherty (1995) argued that culture is the cognitive decision which connects resources and capabilities.

Entrepreneurially inclined organizations are resource-consuming in nature (Romanelli, 1987). Intrapreneurial activities such as internal corporate venturing and specialized innovation to a certain extent depend on the resource capacity of organizations (Covin & Slevin, 1991; Baden-Fuller & Volberda, 1997). A majority of organizations involved in intrapreneurial activities are large and established which reflect their high level of resources and competencies. Though organizations with abundant resources and competencies engaged in entrepreneurial activities, this does not prevent lower resources and competent firms from being innovative. The latter externalizes via restructuring to improve its resources and competencies thus strengthening its competitive position.

In delineating the antecedents of the exopreneurial and intrapreneurial behavior of the firm, the operational definitions included in the organizational resources and competencies are organizational size, organizational age, technology driven, market driven and the level of corporate governance.

Organizational Size

Organizational size is a liability to innovation (Aldrich & Auster, 1986; Jones & Butler, 1992). Growing in size in terms of employees, expansion of buildings and equity would cause organizations to be less flexible to respond to opportunities (Abernathy, Clark, & Kantrow, 1983; Ettlie, 1983; Dougherty, 1990). This scenario was seen in the United States during the early 1980s where there were huge numbers of innovative employees who left large organizations to start their ventures (Hisrich & Peters, 1995). The operational definitions of organizational size are numbers of employee, sales turnover, and equity.

Evidently research (Romanelli, 1987; Laforge & Miller, 1987; Zahra, 1993) revealed that entrepreneurial strategies are influenced by company size. Therefore, an organizational aptness for corporate entrepreneurial posture is to some extent limited by its resource base. Bloodgood, Sapienza and Almeida (1995) found that organizations with more employees tend to innovate through internationalization than smaller firms. Harrison (1994) and Gertz (1997) viewed that no company is too big to grow as a correlation between company size and its growth is weak. This implies that organizations which are rich in size are abundant in resources, thus have the propensity to use intrapreneurship to produce new creations.

Conversely, smaller organizations which are low in resources tend to externalize for appropriate alliances in search of opportunities. This is one of the driving forces to exopreneurship. Empirical studies revealed firms franchise their businesses as a result of resource scarcity (Oxenfelt & Kelly, 1968, 1969; Hunt, 1973; Carney & Gedajlovic, 1991). The notion of resource constraints is evidenced by studies completed by Thompson (1992) whereby company ownership is less likely to occur when units require high capital investment. Charging high royalties by franchisors at an early stage of business also shows the low resources (Sen, 1993). Other motives that drive organizations to seek exopreneurs related to resource constraints are transfer of complementary technology and access to specialized knowledge which firms do not possess (Contractor & Lorange, 1988, Coffey & Bailey, 1990). This exopreneuring is due to the organization's lack of financial resources necessary to produce innovations internally at the time they are needed or at the level of efficiency or quality which is required.

The level of research and development and market specialization moderated the influence of the entrepreneurial posture (Covin & Slevin, 1991). The extent of these variables also depends on the financial status of organizations. Studies by Shrader and Simon (1997) confirmed that the success of intrapreneurship depends on internal capital resources, proprietary knowledge and marketing knowledge compared to independent ventures which require external capital resources. Undoubtedly, large entrepreneurial organizations exhibited higher levels of R & D and marketing expenditure on internal corporate ventures (Zahra, 1996) because of their posture of innovations, risk taking and proactiveness. However, this does not imply that the low levels of R & D and market specialization are less entrepreneurial. Smaller resource organizations have a lower capacity for research expenditure; therefore, they adopt externalization as an outlook for product development.

Organizational Age

The life cycle of the organization is another yardstick by which to measure corporate entrepreneurial activities. Large sized aging organizations become less innovative at the later stages of their evolution (Chandler, 1962, 1977; Mintzberg & Waters, 1982; Adizes, 1988). Mature businesses show signs of aging (Goold, 1996) with slow growth, more stable technologies, resource self sufficiency and tend not to anticipate changes (Kanter, 1983). Zahra (1993) defined established companies as being a minimum of eight years old. The resource of self sufficiency becomes an added advantage to large corporations to introduce intrapreneurial activities to achieve variations of technologies upon the existing ones. There has been numerous intrapreneurial studies

(Burgelman, 1984; Harrel & Murray, 1986; Schaffhouser, 1986; Grove, 1987; Kiley, 1987; Rutigliano, 1987; Kapp, 1988; Pla, 1989; Shatzer & Schwartz, 1991; Denton, 1993; Weaver & Henderson, 1995; Birkinshaw, 1995, 1997) on large, mature and established organizations.

On the other hand, young independent organizations that are resource deficient synergize their internal competencies to complement external sources for growth strategies. This combination leads to exopreneurship among young entrepreneurial organizations with large organizations with scarce technology (Contractor & Lorange, 1988). Empirical research (Ettington & Bentel, 1994) found that organizations less than ten years old are involved in strategic alliances. However, mature industries (Davis, 1976; Harrigan, 1983; Killing, 1983; Morone, 1993) are moving into joint venture activities to reduce the opportunities of merger or acquisitions because of fear of losing talented employees as a result of acquisition.

The Availability of the Corporate Entrepreneurs

Brazeal's findings (1993b; 1996) show that organizations may have potential intrapreneurs even if they do not display any overt intentions to start a corporate venture. Large established organizations have the managerial, technical specialization and financial economies of scale to nurture the employees' entrepreneurial talents into commercialized products. An example of dispersed intrapreneurship is "Enterprize programme at Ohio Bells (Kanter, 1991). Other methods of acquiring new innovations internally are through research and development (administrative entrepreneurship) and the set up of new venture development units (incubative entrepreneurship). Both methods are known as focused corporate entrepreneurship.

Organizations involved in exopreneurship lack talented or specialized personnel to build their competencies. It is evident that the franchise system capitalizes on the agency theory of using external entrepreneurs as agents for expanding businesses (Combs & Castrogiovanni, 1994). Studies found that strategic alliances (Bijlani, 1994; Ingham & Thompson, 1994; Vyas et. al, 1995), external corporate venture and subcontracting (Goe, 1991) are means to increase skills without having to develop competencies in house. The complementary role synergized through the combination of subcontracting, strategic alliance and external corporate venture between two or more organizations suggest that exopreneurship is a mechanism to seek talented expertise for new innovations.

One point worth noting is that exopreneurs can only be identified by innovative and established intrapreneurs before moving into exopreneurship. The availability of corporate entrepreneurs is also determined by the level of education. White (1995) found that intrapreneurs have higher levels of education compared to independent entrepreneurs. Studies by Burenitz and Barney (1997) found that independent entrepreneurs who could be exopreneurs are bad managers because the latter has a higher level of overconfidence.

Having argued in the preceding paragraph the extent to which organizational size, age and human resources may have contingent influence over the entrepreneurial activities of an organization, the following proposition summarizes the argument presented earlier.

Preposition 7: Exopreneurship is prevalent in organizations which are young, small and lack human and financial resources while intrapreneurship is prevalent in large, mature organizations with sufficient resources.

Organizational Structure

Increase in growth, inadvertently, increases complexity (Butler & Jones, 1992). Complex organizational structure makes the flow of communication difficult which consequently brings death to an organization (Adizes, 1988). Studies found that organizational structure and form have an impact on strategy through its impact on the strategic decision making process on the growth and survival of firms (Frederickson, 1986; Priem, 1994; Rowlinson, 1995; Shane, 1996). It was shown that structure and form have domain over corporate entrepreneurship (Russell & Russell, 1992; Gielser, 1993; Mueller, 1994; Jennings & Seaman, 1994; Chesbrough & Teece, 1996). This implies that structure moderates the entrepreneurial postures of firm behavior.

Scholars found that entrepreneurial activities are positively related to firm performance with appropriate organizational structure. Burgelman and Sayles (1986) stressed the importance of fit between an organization's strategic orientations and its organizational structure. The organic structure encourages entrepreneurial activities (Khandwalla, 1977; Miller & Friesen, 1982; Miller, 1983) which was empirically supported by Slevin and Covin (1990). Further empirical evidence show that attributes of organicity outperform mechanistic structures in terms of team participation and shared decision making (Nasi, Nasi, Banks & Ensley, 1994).

The attributes of organicity studies focused on the internally generated innovations. There may be deviation in the structure of organizations that practice exopreneurship. Baden-Fuller and Volberda (1997) speculated that organizations that externalize tend to inter-reorder their competencies across multiple industries. This involves restructuring of organizational business. Baden-Fuller and Volberda (1997) suggested that ease of restructuring is positively related to the size of organization whereby the flow of communication tends to be top down (Prahalad & Hamel, 1990). Therefore, the author speculates that organizations which externalize may have a simple structure so that the strategic intent of the organization is easily related to the entrepreneurial employees as restructuring poses a higher risk to large and complex organizations.

Proposition 8: Exopreneurship is prevalent in organization with simple centralized structures while intrapreneurship is prevalent in complex and decentralized structures.

Proposition 9: Organizations that practice intrapreneurship have a higher level of organicity compared to organizations that practice exopreneurship.

Management Philosophies

Studies have shown that management philosophies moderate competitive strategy choices (Andrew, 1980). The choice of intrapreneurial or exopreneurial behavior depends on the decision of management's beliefs. The choice adopted by top management must fit with the strategic intent (Khandwalla, 1987). Top management values and philosophies that may affect this choice are identified in the following proposition:

Proposition 10: Exopreneurship is positively related to the value top management places on externalization which brings competitive advantage to the organization while intrapreneurship is positively related to internalization values.

DISCUSSION

This proposed model of corporate entrepreneurship has a number of limitations. First, is there any difference between internally generated innovations and externally generated innovations?. Looking at performance, there seems to be no difference as both strategies aimed to revitalize corporate growth in diversifying the product portfolio. Ultimately both the process of acquiring innovation converges to increase organizational performance. In theory, the origin of innovation is different, which requires a specific ambient environment to conceive the idea and commercialization of the innovation. Intrapreneurship and exopreneurship processes require different types of contextual influences to trigger them and need different modes to achieve the new venture creation.

Another limitation of this model is that organizations appear to use both processes simultaneously, thus making the differentiation of the two processes more tedious. Theoretically, intrapreneurship precedes exopreneurship to give organization the uniqueness of the competitive advantage which earns monopolistic market while exopreneurship works on comparative advantage with other organizations to achieve organizational performance.

This proposed model assumes that organizations are ready to use either intrapreneurship or exopreneurship to cope with the changes of any kind. This means that organizations have strategic intent to change by being innovative. However, this may be an erroneous assumption as there are firms that are not entrepreneurial yet still perform well. Although corporate entrepreneurship has been applicable to large firms, this model can be applied to small firms, perhaps with some different degree of contextual differences influencing intrapreneurship and exopreneurship.

Finally this model has to be empirically tested. Do the conditions for exopreneurship and intrapreneurship differ from each other? To explore this issue the data needed must cover both time series and cross sections. The data has to be pooled and regressed to recognize the differences in the conditions that trigger intrapreneurship and exopreneurship. The differences tested, hopefully

would make a positive contribution to management decisions with regards to corporate entrepreneurship.

CONCLUSION

Corporate entrepreneurship has been closely linked to intrapreneurship; the creation of innovation within the organization by existing employees. Exopreneurship is a new term that extends the paradigm of corporate entrepreneurship by acquiring innovation invented beyond the boundary of the organization. The modes to achieve the process of exopreneurship are franchising, external corporate venture capital, strategic alliance and subcontracting. It is not the intent of this article to discuss whether these modes achieve the means of corporate entrepreneurship. In conclusion, the process of exopreneurship is part of corporate entrepreneurship which requires different conditions to trigger it than that of intrapreneurship.

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ENTREPRENEURIAL IDENTITY, INTENTIONS AND THE EFFECT OF THE PUSH-FACTOR

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ABSTRACT

The research on entrepreneurship has for long been trying to find personality characteristics which could serve to explain business start-up. Often these studies have, however, been looking for only one stereotypical character, the classical entrepreneur, and contrasted this character with the non-entrepreneurial counterpart.

This study focuses on the process of business start-up, and more precisely on the pre-startup phase, where people's self-conceptions, intentions and eventual need to find alternative career-options have the most central effect on the start-up decision. Our study aims to show that there actually exist more than these two extreme types of identities in the entrepreneurial-non-entrepreneurial continuum. We also look for the relationships between entrepreneurial identities, the start-up intention and the environmental push into entrepreneurship.

The findings suggest that there indeed exist more than one or two entrepreneurial identities. Beside the classical entrepreneur identity, we found also farmer, intrapreneur and custopreneurial identities. Furthermore, the results suggest that these identities function as important intermediaries in the pre-start-up phase of the entrepreneurial process. For example, the effect of push-factors seems more compelling people having farmer identities, whilst people with classical entrepreneur identities do not seem to react in any significant way.

The main interest of this study is in finding that the entrepreneurial identity has such a strong effect on the entrepreneurial process. The environmental pressure or subjective compulsion to choose an entrepreneurial career option does not relate to classical entrepreneurship nor to totally non-entrepreneurial people, but to those in between who have doubts about their usefulness, needs, attitudes and competencies for entrepreneurship. However, the positive value base for entrepreneurship is essential for the development of an entrepreneurial identity. The development of one's identity is formed during the early years as a human being, and, therefore, the study points to the importance of supporting the development of a positive value base.

INTRODUCTION

Since Kilby's hunting of the Heffalump, determinants of entrepreneurial behaviour¹ have been searched for in various directions. It is somewhat surprising that even today there prevails an (at least implicit) understanding and belief in homogeneous Heffalumps. That is to say, we do not take into account seriously enough the great variation in entrepreneurial roles and types when trying to understand and find linkages between personal characteristics and entrepreneurial behaviour. Thus, instead of searching for one Heffalump, we should rather search for the species or tribe of those important actors. While searching for these characters, it is important to note that the mode of appearance of entrepreneurial actors varies to a great degree. That is a fact that is very explicit in entrepreneurship literature. However, in research focusing on the determinants of entrepreneurial behaviour the distinction between different forms of 'entrepreneurial behaviour' is neglected.

It is a common view amongst the researchers in entrepreneurship that the moment of emerging entrepreneurial identity and intentionality is an important research object. Especially studies on varying backgrounds of would-be entrepreneurs and research on 'who, when, and which factors have influence on their decision to start up' are seen as important (see e.g., Dyer, 1994; Schein, 1994; Koskinen, 1996). In this paper we regard entrepreneurial identity as a latent occupational concept of oneself, and use our data of a 'normal' population to study *how common entrepreneurial identities are* (the proportion of people identifying themselves as possible entrepreneurs) and *what kinds of different identities exist in a population*. From there we continue by studying, *the entrepreneurial intentions* (of starting up a business) within the population. Also *relationships between identities and intentionality* are studied. The paper ends up with an analysis of the *pushfactor's effect on the relationship between entrepreneurial identity and intentionality*. There is quite a lot of theorising about the influence of the push-factor on entrepreneurship, but there are rather few research results about certain push-factors' influence on the intentionality of different personalities. This study tries to focus on that theme by elaborating the effect of the push-factor on various groups of persons.

DETERMINANTS OF ENTREPRENEURIAL ACTION

At a very general level of discussion, the various explanations of entrepreneurship can be categorised into two schools: (i) the environmental school and (ii) the people school. The environmental school bases its explanation of the existence of entrepreneurship on the cultural and structural conditions of (most often) the local environment. A recent survey by Reynolds, Storey and Westhead (1994) focused on various economic-structural characteristics in six countries trying to find out relationships between structural variables and entrepreneurship. Also Johannisson and Bang (1992), Davidsson (1993) and Havusela (1995) have reported empirical findings on the relationship between structural variables and entrepreneurship. Entrepreneurship-related values and attitudes have been used as a measure indicating local culture (see e.g., Davidsson, 1993). Similarly, in the classical work of McClelland (1961) the personal achievement motive was used to measure an achieving culture at the level of society. According to various investigations, there is a link

between both structural and cultural aspects of environment and entrepreneurship. In many cases, however, this link seems to be quite vague and the strict causality between the independent (environment) and the dependent (entrepreneurship) variable is uncertain and thus problematic.

The people school of entrepreneurship stresses the importance of 'right stuff' (see e.g. Ronstadt, 1984). At an extreme, the point is that an individual having 'entrepreneurial characteristics' always finds the path to entrepreneurship regardless of environmental conditions. The mainstream of 'people school' research uses the so-called 'trait approach' in explaining both entrepreneurial intentions and entrepreneurial success. Perhaps the most widely used traits are the need for achievement (McClelland, 1961) and the locus of control (Rotter, 1966; Levenson, 1973). Also tolerance of ambiguity and creativity have often been linked to entrepreneurship. Bateman and Crant (1993) defined a measure for the proactive personality. This 'new trait' seems to be a rather promising determinant of entrepreneurial behaviour. The trait approach has found various linkages between personal characteristics and entrepreneurship. Also these relationships are usually quite weak, but it can be argued that traits in general possess at least some explanatory power with regard to entrepreneurship. The critique on the trait approach has for example focused on the fact that it has not succeeded in defining a unique entrepreneurial stereotype with a certain pattern of characteristics, and that the relationship between a trait and actual behaviour is weak (see e.g. Chell, 1985).

It is true that traits alone have a limited explanatory power with regard to entrepreneurship. As a solution to this problem an interactive approach (interactionism) tries to explain entrepreneurial behaviour as a function of the person and environmental conditions (Chell, 1985: 48). Huuskonen (1992) has also discussed the co-effect of personal characteristics and the objective reality individuals live in. In his approach the person's subjective interpretation of the objective reality functions as a triggering element towards an entrepreneurial career.

Values and attitudes in general and especially those linked closely with entrepreneurship are connected with entrepreneurial career development. Environmental observations shape people's attitudes and beliefs. Attitudes and beliefs influence the potential entrepreneur's view when he or she compares entrepreneurial and non-entrepreneurial career alternatives (c.f. Huuskonen, 1992: 81-82). Ideological values have been regarded as important determinants of entrepreneurial behaviour by classical writers like Weber and McClelland. Weber relates ideological values straight with entrepreneurial behaviour, whereas McClelland uses the need for achievement concept as an intermediating psychological variable between values and behaviour. (Kilby, 1971: 7-8).

Gibb and Ritchie (1981) have proposed an alternative 'social development model' to explain and understand entrepreneurial start-up decisions. They suggest that "entrepreneurship can be wholly understood in terms of the types of situation encountered and the social groups to which individuals relate" (1981: 183). Also Stanworth and Curran's (1976) definition of entrepreneurial identities refers to certain reference groups. That is, persons can identify themselves as certain types of entrepreneurs (artisans, classical entrepreneurs or managers). Entrepreneurial identity may be a new promising link in the discussion of entrepreneurial potential as it can be used to distinguish between various would-be entrepreneurs. The concept can be defined as an individual's latent occupational identity in relation to entrepreneurship. In most studies of entrepreneurship, there has

clearly been an aim to define entrepreneurship as a unique and coherent phenomenon. This approach has failed mostly because of the complexity of the empirical reality of entrepreneurship. In order to measure entrepreneurial potential, it is very important and interesting to find out how people define themselves as entrepreneurs and what is the link between identity, attitudes, traits and intentions.

Intentionality is a state of mind directing a person's attention (and therefore experience and action) towards a specific object (goal) or a path in order to achieve something (means) (Bird, 1988: 442). Intentionality is, thus, grounded on cognitive psychology that attempts to explain or predict human behaviour. It is seen that behavioural intention results from attitudes and becomes an immediate determinant of behaviour. Fishbein and Ajzen (1975) have illustrated this relationship as follows:

Beliefs ==> Attitudes ==> Intentions => Behavior

Entrepreneurial intentions are aimed at either creating a new venture or creating, new values in existing ventures. Intentionality includes both rational/analytic thinking (goal directed behaviour) and intuitive/holistic thinking (vision) (Bird, 1988). Motivational factors, such as the need for achievement (McClelland, 1961) and the need for control (Brockhaus, 1982) predispose individuals to entrepreneurial intentions. Boyd and Vozikis (1994) have treated self-efficacy as an important triggering or inhibiting factor of intentionality. Self-efficacy is originally derived from Bandura's (1977) social learning theory and it refers to a person's belief in his or her capability to perform a given task. Self-efficacy also affects a person's beliefs regarding whether or not certain goals may be attained. (Boyd and Vozikis, 1994: 66). Thus it follows that if a person has positive attitudes to entrepreneurship and his/her intentionality has arisen, and if the triggers (suddenly changing, personal or environment-based conditions) are stronger than the barriers to start-up, the decision to found an enterprise occurs (Volery, Doss, Mazzaroli & Thein, 1997).

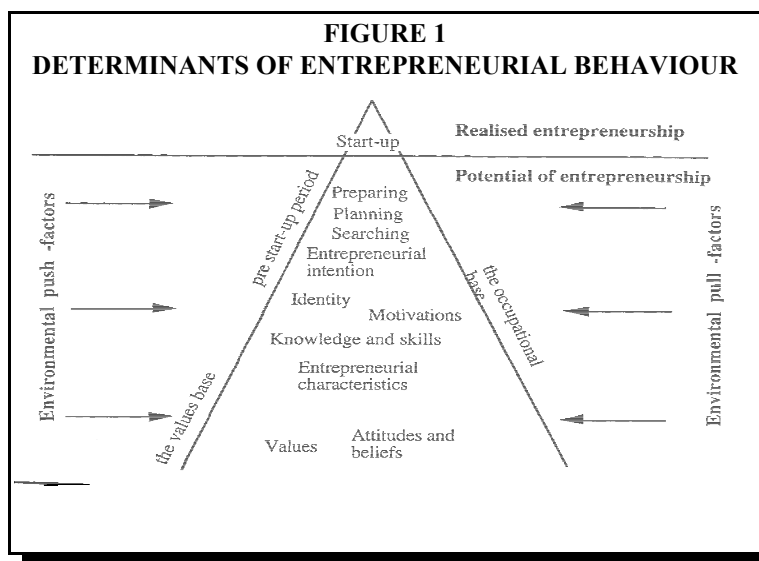
The period of pre start-up has been described by many writers. For example Schöllhammer and Kuriloff (1979), Vesper (1980), Cooper (1982), Churchill (1983), Kazanjian (1984) and Stevenson, Roberts and Grousbeck (1985) have touched upon the theme. Those models usually include the stages of pre-start-up, start-up, growth and maturation (e.g. Churchill, 1983; Kazanjian, 1984). Cooper (1982) defines the pre-start-up stage as follows:

"The pre-start-up stage includes those events which lead a specific entrepreneur to a specific venture opportunity. It can involve varying degrees of deliberate planning, development of contacts and resources, and systematic search for entrepreneurial opportunities."

Churchill (1983) defines the start-up-stage in three different sub-stages:

"Seriously consider doing it - decide that having your own business is a serious possibility and that you want to be an entrepreneur. The potential entrepreneur undergoes a change in outlook - for what was pure speculation or an intellectual game now becomes a distinct possibility. **Plan for it** - First, develop the fundamental business concept ... second, prepare the business plan. **Do it** - take the plunge and actually launch (or acquire) the business."

Common to all definitions of the pre-start-up stage is the focus on business related facts, which together form a straightforward pathway to business start-up. The pre-Start-up models usually begin with a "perception of market opportunities" (Kilby, 1971), "when the desire for entrepreneurship is recognized" (Vesper, 1980), or "understanding forces creating opportunity" (Stevenson et al. 1985: 23). Some writers have seen the pre-start-up period to begin with more person-oriented phases like the "entrepreneur sees a need" (Schöllhammer & Kuriloff, 1971: 31) or "seriously consider to do it" (Churchill, 1983).



Determinants of entrepreneurial action (like the starting up of an enterprise) form a complex web of different explanatory concepts and variables. Even though the strict causality of these determinants in relation to entrepreneurial action is somewhat questionable, there is evidence enough to draw at least a hypothetical picture of the (loosely) explanatory structure behind entrepreneurial action. Figure I illustrates our thinking. We consider the following determinants of personal development as prerequisites to entrepreneurial action. Values and attitudes form a base

for entrepreneurial development. McClelland (1961) placed the need for achievement motive as an intermediating variable between cultural values and entrepreneurial action. Our thinking follows a similar line of reasoning in that also other personal characteristics can be placed as intermediating factors between a positive value base and entrepreneurial action. In our studies we have used *nach*, locus of control, tolerance of ambiguity, creativity and proactivity as those intermediating personal variables.

It is possible to distinguish between three different main phases or areas of entrepreneurial determinants. The first can be termed *the values base* and it consists of a personal value structure, more precise attitudes to and beliefs in entrepreneurship as well as of various entrepreneurial characteristics and ways of behaviour (see e.g., Bygrave, 1989: 9). While some entrepreneurial characteristics are 'products' of a positive value base, they also add to the second level of the process, the development of a person's occupational base. The level consists of concepts related to a person's occupational development, such as different forms of occupational knowledge and skills. These are mostly developed through education and experience (or, to follow Collins, Moore and Unwalla, 1964: "the school for entrepreneurs"). Also motivations have significant meaning for the occupational development of a person. Entrepreneurial identity is a person's context-bound and socially influenced subjective interpretation of his/her eventual role as an entrepreneur, stemming from his/her personal values, motivations and skills (the concept of entrepreneurial identity is discussed more profoundly later). Entrepreneurial intention is the link between the development of a person's occupational base and real entrepreneurial behaviour. The third and final area of entrepreneurial background processes is *the phase of pre-start-up*, which we see here as a straight pathway to realised entrepreneurship, even though it has been found that not all intentions lead to business start-up (Learned, 1992; Volery et al., 1997).

As to entrepreneurial determinants, it is very important to distinguish between personal and external determinants. One of the main messages in Figure I above is that the entrepreneurial process is always a personal process, i.e. a person is subjectively involved in it and no external involvement can not realise the process unless the person wants it. Putting it differently, all external push- and pull-factors influence the start-up process through individual actors.

Prior research has dealt with several types of push factors. Specht's (1993) literature review showed that the five most common contextual factors used as determinants of entrepreneurship can be grouped as social, economic, political, infrastructure development and market factors. The failure of a previous organisation, getting fired, or concluding that the organisation or one's career is not progressing can also be treated as factors 'pushing' towards entrepreneurship. (Collins et al, 1964, Shapero & Sokol, 1982; Vesper, 1983). Push- and pull-factors are usually connected with the start-up process of a new firm. However, it is also possible to argue that several environmental factors influence the development of a person's value base as well as occupational base. Moreover, the environmental factors change during a person's development. In the early years the environment provides the cultural prerogatives needed for primary and secondary socialization (Berger & Luckmann, 1966), changing then from fostering and supporting to forming structures, expectations, pressures and obstacles.

From our point of view the discussion and research concerning the effect of external factors (push and pull) on the entrepreneurial process is too general. That is, the research has not tried to show the external factors' effect on different personalities and persons with different occupational identity. In this study we try to specify our research focus on a certain phase of the entrepreneurial development process (entrepreneurial identity) and study certain environmental factors' influence on its relationship with entrepreneurial intentions.

THE CONCEPT OF ENTREPRENEURIAL IDENTITY

The literature of entrepreneurship recognises various types of entrepreneurs. The basic differentiating line is usually drawn between craftsman and opportunistic entrepreneurs (Smith, 1967; Stanworth & Curran, 1976; Routamaa & Vesalainen, 1989; Lafuente & Salas, 1989) even though many authors define more than two types. The above writers define varying forms of entrepreneurship through the socio-psychological approach and entrepreneur's goal orientation, especially growth. Vesper's (1980) categorisation of entrepreneurs differs from the above in that it is mainly based on the way an entrepreneur is carrying out his/her business. However, definitions of the different types among, the would-be entrepreneurs are rare. We aim to analyse a certain population in order to find out the quantity and especially the quality of entrepreneurial identity of would-be entrepreneurs within that population.

The concept of entrepreneurial identity has its roots in entrepreneurial types used to differentiate between various types of entrepreneurs. Especially Stanworth and Curran's (1976) definition of the entrepreneur identity has influenced our thinking. Following, Gouldner (1958) they used the concept of *latent social identity* to deal with "the several possible constellations of meanings which may form the core of the entrepreneur's self definition of the entrepreneurial role" (Stanworth & Curran, 1976: 104). Identity search, understanding oneself within one's social environment, has been considered as one of the main themes of human life. Identity develops in youth so that occupational identity is one of the latest areas of development (Erikson, 1959). Identity may have a *foreclosure status* in the sense that a young person has taken the identity for granted e.g., as a legacy from his/her parents. In another path of development, *identity achievement*, the young person looks for and tries out several different identities and on the basis of the cumulated experience, he/she chooses one. Identity becomes reevaluated at different stages in life, when conditions of life change and when crises are encountered (Marcia, 1980). Identity has been distinguished in several areas: clarity of definition of one's self, commitment to values, beliefs and objectives, activity towards these commitments, consideration of identity alternatives, approval of one's self, and thrust in one's own future (Waterman, 1982).

Schein's (1978) theory of career anchors is also applicable here. Schein (1978) argues that as people move into their careers they gradually develop clearer self-concepts in terms of their:

1. *Talents and abilities*: they discover at what they are and what they are not good.
2. *Motives and needs*: they determine what they are ultimately seeking out of their career (e.g., good income, security, interesting work, or opportunities to be creative).
3. *Values*: they realize with what kind of company, work environment, product, or service they want to be associated.

Schein continues by arguing that "talents, motives, and values become interrelated in a total self-concept through a reciprocal process of learning." This learning process can be seen as an important linkage between *the values base and the occupational base* defined earlier in this paper. It can be argued that entrepreneurial identity is the central concept of *the occupational base*. It is anchored in the values and occupational experiences, education as well as motivations, and it strengthens and changes the entrepreneurial intentions according to the circumstances. Also external factors like entrepreneurial culture or the existence of entrepreneurial 'heroes' as living examples of entrepreneurship have a certain influence on each person's occupational entrepreneurial identity.

Schein originally defined eight career anchors: (1) Security/stability, (2) autonomy and independence, (3) entrepreneurship, (4) technical/functional competence, (5) managerial competence, (6) service, (7) pure challenge, and (8) life style. The original career anchor of entrepreneurship is defined on the very strict basis of Schumpeterian entrepreneurship where extreme creativity and the need for creating a new business are the dominant features of the anchor. In the light of varying entrepreneurial roles (e.g., from self-employed to conglomerator or from artisan to classical entrepreneur) the entrepreneurial career anchor serves as too narrow a perspective to understand entrepreneurs' career decisions. Taking an opposite approach to the anchors it can be argued that only the anchor of security/stability is clearly against all entrepreneurial career alternatives.

Our definition of occupational entrepreneurial identity is based on varying entrepreneurial identities and its main rationale can be crystallised by asking, *if entrepreneurship, what kind of entrepreneurship?* On the basis of the above discussion the entrepreneurial identity can be defined as a person's inclination to adopt a certain type of occupational entrepreneurial role. It has a career anchor-type of nature in that it is latent (social identity) and it becomes more explicit when the person becomes older and more experienced in different occupational situations.

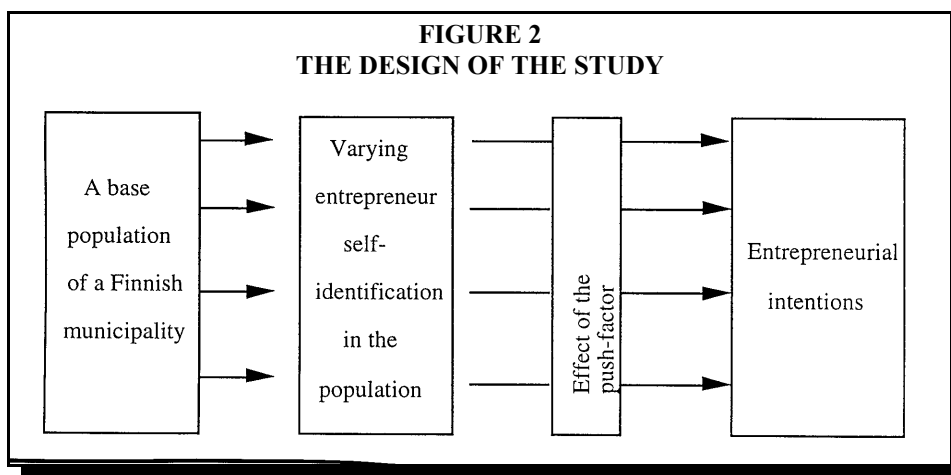
RESEARCH QUESTIONS AND METHODOLOGY

This research report focuses on four questions:

- (1) How common are different entrepreneurial identities in a population,
- (2) How do the groups of persons categorised by the entrepreneurial identity differ according to personal characteristics, entrepreneurial attitudes and other background factors,
- (3) What is the level of entrepreneurial intentions in each group, and
- (4) What kind of effect has a certain push -factor to the entrepreneurial intention in each group.

As a base population we used the small Finnish country municipality of Laihia which has a total population of approximately 7,500 inhabitants. We excluded all inhabitants under 16 and over 65 years of age and took a randomly selected sample of 1,000 names from the remaining population, which was about 4,800 inhabitants. After one reminder with a questionnaire we got a response rate of 48,5 % and thus our data consists of 485 acceptable questionnaires. The age class 46 - 65 is somewhat underrepresented and the age class 31-46 years somewhat overrepresented. In other respects, the data corresponds well with the base population.

FIGURE 2
THE DESIGN OF THE STUDY



Entrepreneurial identity was measured by a 19-item block of statements describing various entrepreneurial roles (the items listed in figure 3.) The data was analysed at three levels. First, we looked at the straight distribution of each type of role. Second, we conducted an exploratory factor analysis in order to find out some basic dimensions of identity, and third we used the factor coefficients in a cluster analysis in order to form groups of different would-be and non-entrepreneurs in the sample.

In the study we have also measured various personal characteristics. Tolerance of ambiguity was measured by a block of 6 questions (Cronbach's alpha 0.69). The need for achievement was measured by a block of 8 questions (0.73). In order to measure locus of control we used a Levenson-type of questionnaire instead of Rotter's by making the same statements as two Finnish researchers, Pitknen and Vesala (1988), had used earlier (our alpha for the measure was 0.70). Creativity was measured by a block of 8 items (0.77) as we did with proactive behaviour, for which we used a shortened version of Bateman and Crant's (1993) measure (alpha 0.83). In the light of the coefficient alpha all the measures are internally valid. Our aim here is not to concentrate on the 'traits-discussion' but to use the above personal characteristics as background variables to study whether different groups of would-be entrepreneurs differ with regard to personal characteristics.

Intentionality was measured by a block of 19 items. Of the items six dealt with the respondents' aim to start some kind of an enterprise within a year. The next six considered various searching activities for the year, such as active search for an opportunity, financing or a partner. The rest of the items (7) dealt with various aims related to development and training activities in order to acquire entrepreneurial and managerial skills. In this research report we use only the 'real' aims to start an enterprise within a year.

As a push-factor we measured *a person's dissatisfaction with prevailing occupational conditions*. Acknowledging that people may experience drastically different occupational conditions, we defined three different scales of questions: One for those having a job at the moment, one for those unoccupied at the moment (unemployed, mothers/fathers at home, students etc.) and one for farmers. Each scale (4-6 items per scale) represents the personal push-factor of *dissatisfaction with prevailing occupational conditions*. The three groups' dissatisfaction followed fairly well the shape of normal distribution but there were expected differences of scale. To improve their comparability within a single variable, the scales were standardised and normalised to follow a normal distribution. This kind of push-factor can be categorised in the group of negative displacement-type of push-factors defined by Shapero and Sokol (1982).

ENTREPRENEURIAL IDENTITY

The distribution of all the 19 entrepreneurial roles is represented in Figure 3. It can be noticed that the most popular entrepreneurial role is that of an *independent professional*. This may include several professional solo entrepreneurs like lawyers, consultants, doctors or other professional experts whose expertise is acquired through education and experience.

Over 60% of all respondents could at least partially agree that this kind of an entrepreneurial role might be appropriate for them. The data was factor-analysed in order to find new and more coherent dimensions of entrepreneurial identity. The results of the factor-analysis are reported in Table 1. The varimax-rotated factor pattern produced five factors when the criterion was set on the basis of eigenvalue > 1. Factor 1 appeared to represent the main entrepreneurial elements like "businessman" (loading .7) and "owner-manager" (.8) -identities. Also the more innovative elements like "inventor" (.58), "scientist" (.65) and "expert" (.62) loaded strongly on this factor. This factor can be thus labeled as *classical entrepreneurial identity*.

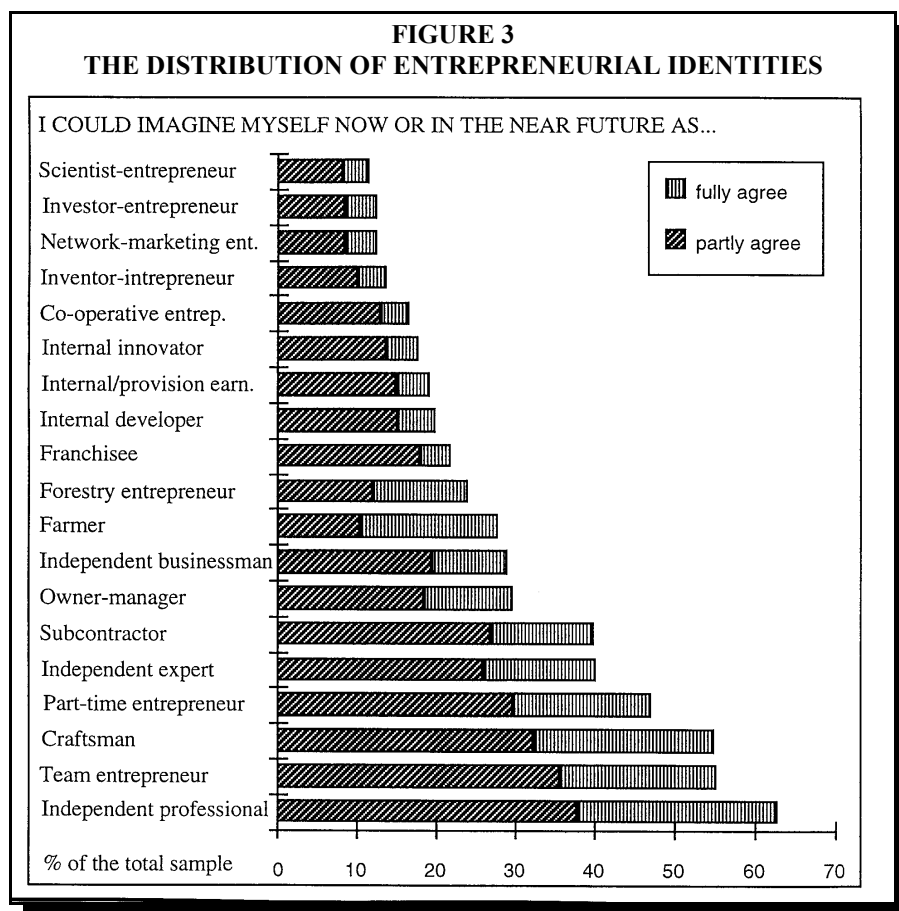


TABLE 1
ROTATED FACTOR MATRIX OF ENTREPRENEURIAL IDENTITIES

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Comm
Businessman	.70					.59
Inventor-Intreprenuer	.58					.58
Owner-Manager	.80					.71
Scientist-Entrepreneur	.65					.55
Expert	.62					.52
Internal Innovator		.79				.70
Internal Provision Earner		.69				.63
Internal Developer		.75				.67
Franchisee			.83			.72
Cooperative Entrepreneur			.53			.56
Network-Marketing Entrepreneur			.66			.49
Farmer				.87		.81
Forestry Entrepreneur				.89		.83
Craftsman					.78	.63
Independent Professional					.72	.66
Eigen Value	5.75	1.73	1.45	1.35	1.16	
Variance Explained	30.3	9.1	7.7	7.1	6.1	
Cumulative Variance	30.3	39.4	47.1	54.2	60.3	
Only Loadings > .5 are Shown						

The second factor consists purely of items of internal entrepreneurship with respective loadings of "internal innovator" (.79), "internal provision earner" (.69) and "internal developer" (.75). Thus the factor can be labeled as *intrapreneurial identity*.

The third factor consists mainly of "franchising," (.83), "network-marketing" (.66) and cooperative-entrepreneurship" (.53). All these items reflect the new entrepreneurial roles in Finnish society. Franchising is increasing rapidly, many unemployed have joined work cooperatives through

which they can offer their services on an entrepreneurial basis. Also network-marketing is clearly booming in Finland at the moment. However, the commonality of the network-marketing role is quite low, thus this particular role is spread into other factors, too. Common to these entrepreneurial roles is that in each type the entrepreneur is not alone by him- or herself but some sort of 'principal' is always closely involved with the business. This factor can be called the *custopreneurial identity*. The term custopreneurship was launched by Lehtinen (1988) and it has been defined as involving those operations where the business has integrated its customers as resources into the business operations to work entrepreneurially (Koiranen & Tuunanen, 1996).

The fourth factor is easily interpreted. Two main items have very strong loadings, "farmer-identity" (.87) and "forest-entrepreneur identity" (.89). This factor can be called *farmer identity*.

In the last factor items "craftsman" (.78) and "independent professional" (.72) loaded strongest. This factor reflects a *craftsmanship* -dimension of entrepreneurial identity. The difference between craftsmanship and professionalism here is that the former is usually believed to be an identity for poorly and the latter for highly educated persons. However, people seem to mix between these elements because they loaded in the factor.

Compared with former entrepreneurship studies, it can be found that the factor structure includes the opportunistic - craftsman distinction. Factor 1 (classical entrepreneurship) corresponds to the one end of the continuum and factor 4 (farmer entrepreneurship) and factor 5 (craftsman entrepreneurship) to the other end. Factor 3 (custopreneurship) can be placed in between the extreme ends of that continuum. It should be kept in mind that the above factor pattern is a result of data gathered from the normal population and thus it cannot be directly compared with results from purely entrepreneurial data. Anyway, it can be concluded that the data reflects entrepreneurial identities in a population through five alternative dimensions:

Classical identity, which is characterised by businessman and owner-manager identities as well as the more opportunistic and innovative identities of innovator and scientist.

Intrapreneurial identity, which is characterised by innovative behaviour, a positive attitude towards a flexible reward system, and activity towards various development tasks within an organisation.

Custopreneurial identity, in which entrepreneurial roles of franchising, cooperative entrepreneurship and network-marketing entrepreneurship dominate.

Farmer identity, where both farmer identity and forestry entrepreneur identity are the most characteristic features.

Craftsman identity, which is characterised by craftsmanship and independent professionalism.

The analysis was continued with cluster analysis using the factor scores computed. The cluster analysis resulted in five distinct clusters which can be labeled as follows (Table 2). In cluster 1 the farmer identity (cluster centre² 1.24) is clearly a dominating factor. This group of individuals seems also to have quite low inclination towards classical identity (cluster centre -.52). Thus this cluster can be labeled as *farmer identity cluster* and it consists of 98 individuals which is 20.2 % of the sample. In cluster 2 the absence of any entrepreneurial identity is extremely clear. All cluster centres are negative; thus this cluster can be labelled as a *non-entrepreneurial cluster* and it consists of 81 persons, which is 16.7 % of the sample. The most dominating factor in cluster 3 is the classical entrepreneurial identity (1.30). It is also worth noticing that three out of four other cluster centres are negative; thus people in this group seem to be quite focused in their identity. The cluster can be named as *classical identity cluster* and it consists of 102 members, which is 21.0 % of the sample. Cluster 4 is characterised by internal entrepreneurship. The cluster centre does not, however, reach as high a score as other dominating factors in other clusters (0.83). It is also worth noticing that factor 5 gets quite a high value in this cluster, too. Thus both the internal entrepreneurship and the craftsman/expert identity somewhat dominate this cluster. The main reason why the two factors get such high values in this cluster might be that many people having internal entrepreneur identity are at the same time experts, who could easily think of themselves as independent experts on a solo-entrepreneurial basis. This cluster can, however, be named as an intrapreneurial identity cluster and it consists of 88 persons, which is 18.1 % of the sample. The last cluster is dominated by custopreneurial entrepreneurship. The interpretation is quite clear as the other factors have very low or negative cluster centres. This cluster can be named as the custopreneurial identity cluster, and it consists of 116 persons, which is 23.9 % of the sample.

TABLE 2 A FIVE CLUSTER SOLUTION OF THE ENTREPRENEURIAL IDENTITIES OF THE SAMPLE						
Cluster Number	Number of Persons	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	98	-.52	-.29	-.00	1.24	.41
2	81	-.76	-.32	-.27	-.24	-1.31
3	102	1.30	-.02	-.32	.09	-.25
4	88	-.32	.83	-.79	-.65	.59
5	116	.07	-.15	1.07	-.48	.34
Factor 1: Classical Identity			F 131.51; probability < .001			
Factor 2: Intrapreneurial Identity			F 23.84; probability < .001			
Factor 3: Custopreneurial Identity			F 87.06; probability < .001			
Factor 4: Farmer Identity			F 100.21; probability < .001			
Factor 5: Craftsman/Expert Identity			F 89.16; probability < .001			

Looking at the result from the perspective of various factors, it is obvious that factor 1 (classical entrepreneurial identity), factor 3 (custopreneurial identity) and factor 4 (farmer identity) produced the most clear-cut solutions in terms of focused interpretation (the single factor clearly the dominating one in the cluster). Instead, the craftsman/expert factor spread into several clusters, and thus no pure craftsman cluster emerged. The main reason for that might stem from the questionnaire, which does not distinguish clearly enough between craftsman and expert identities which, in turn, leads to the result that both identities loaded on the same factor. Comparing this result against reality, it seems to be somewhat misleading.

Several differences between the clusters were found. First, comparing the personal characteristics within and between the groups, it was found that in the cluster of classical identity all the personal characteristics measured were at the highest level (Appendix 1). Correspondingly, all the characteristics in the group of non-entrepreneurial identity were the lowest. Most of the values of entrepreneurial characteristics of the classical entrepreneurship identity group were also higher than the values of all other would-be entrepreneur groups. The other three clusters (2, 3 and 4) were quite equal with respect to personal characteristics. On the basis of the above results, it is quite clear that entrepreneurial identity and personal characteristics interrelate. Thus the strength of entrepreneurial characteristics seem to settle down at three levels. The highest overall level was measured in the group of classical identity. The 'mid-group' consisted of the other three groups which were also identified as entrepreneurs. Clearly the lowest scores of the characteristics measures were found in the group of non-entrepreneurs. Almost the same results could be found concerning the entrepreneurial attitudes (Table 3).

In regard to the background characteristics, the persons with custopreneurial identity were the youngest and the persons with farmer identity the oldest. It seems that custopreneurial activities are favoured by younger persons, which is logical because these (especially) franchising and network-marketing types of entrepreneurial activities are quite new phenomena. The groups of farmer identity (55.1 %), classical identity (64.7 %) and intrapreneurial identity (55.7 %) were dominated by men and correspondingly the groups of non-entrepreneurial identity (55.6 %) and custopreneurial identity (56.0 %) by women. As to the social background of the different groups of identities it was found that only 28.4 % of the persons in the non-entrepreneurial group had several relatives and/or friends who were entrepreneurs as compared to the groups of classical identity (50%), farmer identity (48 %), custopreneurial identity (44.8 %) and intrapreneurial identity (42 %). The lowest educational levels were found in groups of farmer identity and non-entrepreneurial identity (37.8 % and 33.3 of the persons in the respective group) had only basic education. Persons having an intrapreneurial identity represented the highest level of education (only 12.5 % having just basic education).

INTENTIONALITY AND THE EFFECT OF THE PUSH-FACTOR

According to previous studies environmental push might have a positive relationship to start-ups. Here we studied the push factor's effect on intentionality. A push-factor acts as an intermediate variable and it can be hypothesised that there exists a positive correlation between intentionality and

the push-factor. That is, when the push-factor strengthens, the intentionality increases. As a push-factor we used here *dissatisfaction with prevailing occupational conditions*.

Approximately 30 % of the persons in the sample aimed at new business start-up within a year. In the groups of custopreneurial and classical identity, intentionality was strongest (37.1 % and 35.3 %) aimed at start-up. At the overall level, the correlation between intentionality and the push-factor was .13 ($p < 0.001$). The relationship was elaborated further by calculating correlation coefficients in various sub-groups (Table 4).

TABLE 3																		
Attitudes and Personal Characteristics of Four entrepreneurial and One Non-Entrepreneurial Identities																		
	Identities					t-tests for Independent Samples											Overall	
Variable	1	2	3	4	5	1-2	1-3	1-4	1-5	2-3	2-4	2-5	3-4	3-5	4-5	Mean	F	
SYRIT	3.82	3.36	3.70	3.69	3.77	***	ns	ns	ns	***	**	***	ns	ns	ns	3.68	5.52	
SKAPI	3.82	3.25	3.93	3.81	3.76	***	ns	ns	ns	***	***	***	ns	*	ns	3.73	10.2	
SPIEN	3.75	3.30	3.76	3.64	3.62	***	ns	ns	ns	***	***	***	ns	ns	ns	3.63	5.49	
SRYHT	3.18	2.90	3.29	3.26	3.25	**	ns	ns	ns	***	***	***	ns	ns	ns	3.19	6.26	
SKOGN	4.09	3.54	3.96	3.96	3.85	***	ns	ns	***	***	***	**	ns	ns	ns	3.89	7.41	
SEPAV	3.15	2.86	3.46	3.34	3.25	**	***	ns	ns	***	***	***	ns	**	ns	3.23	8.0	
SSUOR	3.23	2.89	3.42	3.42	3.17	***	**	ns	ns	***	***	***	**	***	ns	3.19	6.78	
SELAH	3.11	2.89	3.35	3.35	3.18	0	**	ns	ns	***	***	***	ns	*	ns	3.17	5.16	
SLUOV	3.23	2.83	3.44	3.44	3.17	***	**	ns	ns	***	***	***	ns	***	ns	3.21	10.5	
SPROA	3.60	3.12	3.83	3.83	3.58	***	**	ns	ns	***	***	***	0	***	ns	3.58	16.4	
***p<.01 1=Farmer Identity SYRIT=Attitude Toward Entrepreneurs SEPAV=Tolerance of Ambiquity ** p<.05 2=Non-Entrepreneurial Identity SKAPI=Attitude Toward Capitalism SSUOR= nAch * p<.10 3=Classical Identity SPIEN=Attitude Toward Small Firms SELAH=Internal Locus of Control ns= not 4=Intrapreneurial IdentitySRYHT=Attitude Toward Starting a BusinessSLUOV=Creativity significant5=Custopreneurial Identity SKOGN=Cognitive Attitude Toward Entrepreneurship SPROA=Proactiveness																		

Table 3 shows that in the age group 16-30 the correlation changed clearly (weakened as low as to 0.09). In other age groups the correlation strengthened slightly (0.26 and 0.16). This result reflects quite clearly that in the case of younger persons, the environmental push does not have any effect on intentionality. Instead, the older persons, especially the middle-aged, tend to have growing

intentionality if the environmental push increases. The effect of the push-factor also strengthened in the group of poorly educated persons (0.16) and weakened in the group of highly educated ones. Thus it seems that education has a certain position in the chain of evidence concerning entrepreneurial intentions. It is possible to assume that entrepreneurship is more often the solution to problems of poorly educated than highly educated persons, who might more easily find other work if the conditions in the present job are not satisfactory enough. These findings correspond quite well to the social marginality theory (e.g. Collins et al, 1964). Further, it was found that intentionality strengthens in the group of men (0.17) and weakens in the group of women (0.08). This was no surprise either (see e.g. Cooper, Gimeno-Gascon & Woo, 1994).

In regard to identities, the correlation strengthened in the group of farmer identity (0.29). The farmer identity may be more linked to high environmental awareness than to strategic awareness (Gibb & Scott, 1985). The result indicates also that environmental push does not have any effect on intentions when a person has either a classical or a non-entrepreneurial identity. The correlation weakened in the groups of classical identity (-0.06) and non-entrepreneurial identity (0.05). The reasons for this, of course, are different. For classical entrepreneurs, 'the internal flame' is enough to cause entrepreneurial intentions and no push is needed, whilst in the case of non-entrepreneurial identity not even an environmental push can wake up the need for entrepreneurial behaviour.

The analysis was continued by calculating sub-correlations at the third level of analysis (i.e., age, education and gender within the identity groups). These results are also presented in Table 4. By bringing in the entrepreneurial identity as an intermediate factor, the correlations in the age groups were turned around from the original setting. It was found that the push factor seems to have quite a strong influence on intentionality especially in the groups of young, and middle-aged farmer identities. The increase in correlation suggests that persons having a farmer identity will be more influenced by the push-effect than other groups.

In the classical identity group the lack of positive correlation was confirmed. The bringing in of the classical identity erased the high correlations in the age group 31-45 and in the group of poorly educated. In the oldest age group 46-60, the correlation even turned significantly negative (-0.39*). This finding suggests that the push-effect and classical entrepreneurship are not linked together but classical entrepreneurship is an internally motivated and triggered phenomenon.

As a new type of 'quasi-entrepreneurship', custopreneurship has been well adopted by the young. Indeed, the only positive change that the bringing of custopreneurial identity into the equation caused, was that the correlation among the age group 16-30 grew statistically significant (0.28*). On the other hand, the other age groups declined in significance. The identity seems to fit well the group of young men with a low level of education.

In the group of intrapreneurs the identity has the mildest effect on the correlations. In the older age groups the correlation levelled off as well as with the poorly educated. In many respects the group seems to behave quite similarly to the classical entrepreneurs, with a remarkable exception in the age group 46-60, where the push has fairly high (though statistically insignificant) correlation.

TABLE 4: Sub-Correlations (Spearman) between Intentionality and the Push-Factor

Overall Level				Second Level				Third Level			
	n	r ²	p	Group	n	r ²	p	Group	n	r ²	p
Overall	443	.13	***	age 16-30	135	.09	ns				
				age 31-45	200	.26	**				
				age 46-60	104	.16	**				
				low education	321	.16	***				
				high education	122	.05	ns				
				men	227	.17	**				
				women	209	.08	ns				
				farmer identity	98	.29	***	age 16-30	18	.36	**
								age 31-45	44	.37	**
								age 46-60	30	.20	ns
								low education	76	.30	**
								high education	16	.12	ns
								men	52	.40	**
								women	39	.19	ns
				classical identity				age 16-30	32	-.18	ns
								age 31-45	31	.16	ns
								age 46-60	19	-.39	*
								low education	62	-.03	ns
								high education	27	-.09	ns
								men	54	-.18	ns
								women	34	.05	ns
				custopreneurial identity				age 16-30	41	.28	*
								age 31-45	45	.02	ns
								age 46-60	16	.28	ns
								low education	74	.26	**
								high education	28	-.11	ns
								men	43	.32	**
								women	59	.03	ns
				intrapreneurial identity				age 16-30	27	-.02	ns
								age 31-45	35	.25	ns
								age 46-60	17	.40	ns
								low education	57	.25	*
								high education	26	-.01	ns
								men	46	.31	**
								women	33	-.08	ns
				non-entrepreneurial identity				age 16-30	18	.23	ns
								age 31-45	39	-.19	ns
								age 46-60	20	.39	*
								low education	52	.03	ns
								high education	25	.07	ns
								men	52	.40	**
								women	39	.19	ns

* p<.10 ** p<.05*** p<.01

The effect of the push-factor rises significantly also in the group of old non-entrepreneurial identities. In fact, the largest change takes place in the age-group 31-45, where the positive (0.26***) correlation drops to negative (0.19^{ns}). So it seems that having a non-entrepreneurial inclination is predominantly a phenomenon of the middle-aged. Another finding is the lack of correlation in the low-educated group. This non-entrepreneurial group shows clear signs of passivity. We think that here is a sign of the significance of the positive value base, which provides entrepreneurship as an optional career choice for those dissatisfied with their current positions.

DISCUSSION

The aim of this paper was to study entrepreneurial identities in a certain population and on the basis of the findings be able to discuss the possibilities of finding the 'real entrepreneurs' or of 'pushing' people towards entrepreneurial careers. We studied also the relationship between different identities and entrepreneurial intentionality, especially focusing, on the effect of a certain environmental push-factor as a mediating variable between identity and intentionality. The main findings of this study can be categorised as follows. First, most of the people in the population have an occupational entrepreneur identity. The group of people who did not possess an entrepreneurial identity was quite small; only 16.7 % of the population could be included in that group (cluster). This result, however, may be regionally biased and thus dangerous to generalize. Further research will reveal whether there are differences between the identity structures of various regional areas.

Second, the most common entrepreneurial roles were those of the independent professional, the team entrepreneur and the craftsman. These roles fill in both the intrapreneurship and micro business entrepreneurship posts, and were thus in no respect surprises. However, the findings suggest that most people do carry entrepreneurial determinants with them and, therefore, attempts to differentiate entrepreneurs from non-entrepreneurs with clear-cut measures may be futile.

Third, the further analysis of the separate entrepreneurial roles formed four types of entrepreneurial identity: (i) the classical identity, (ii) the intrapreneurial identity, (iii) the custopreneurial identity and (iv) the farmer identity. The fifth group of persons was characterised by non-entrepreneurial identity. The classical- and farmer- dimensions followed fairly well the existing logic of entrepreneurship literature. The classical entrepreneurs proved to score highest on all the personal characteristics. In many respects, however, even if the classical entrepreneurs scored highest in almost everything, the entrepreneurial identity groups did not differ drastically from each other in their value basis concerning entrepreneurship. The appearance of a separate intrapreneurship dimension was an interesting new finding in entrepreneurship research. The recent trends within larger organisations to increase the individuals' expertise and responsibilities has led to the clear emergence of the intrapreneur type of identity. They are well-educated and differ from classical entrepreneurs only in a few personal characteristics. Another interesting finding, was that several quite modern types of entrepreneurial roles loaded on the same factor, which could be named as custopreneurial identity. This finding brings in additional confirmation on Baumol's (1990) theorising on the changing nature of entrepreneurship as a phenomenon. The custopreneurial

movement makes it even more difficult than before to point out clear-cut differences between entrepreneurial and non-entrepreneurial behaviour. Custopreneurship seems to fit young people well, both as giving new options for employing oneself and as offering new unusual ways of balancing between work and leisure time.

Fourth, the push-factor as operationalised by '*dissatisfaction with prevailing occupational conditions*' has a statistically significant relationship to intentionality. That is, if people are dissatisfied with their prevailing occupational conditions, the probabilities of entrepreneurial intentions rise. However, this relationship is not universal in the sense that it would influence different people or groups of people similarly. According to our results, the push-factor has no effect at all on the groups of classical entrepreneur identities. As an interpretation of this result we assume that this particular type of identity does not need any external push because entrepreneurship is an in-grown quality of the type. On the other hand, in the group of non-entrepreneurial identities the absence of the push-factor effect can be explained by arguing that the identity is so strong, an element that at least this kind of push can not wake up the need for entrepreneurial action. In both of the groups where the push-factor has no effect on intentionality neither age, gender nor education has any strengthening effect, whereas in the other three groups of identity, those factors had a mediating role which strengthened the effect of the push-factor. Age, gender and education alone clarified the effect of the push-factor. According to the results summarised above, a young, educated man with classical entrepreneur identity is least influenced by the push-factor and a young or middle-aged man with a farmer identity is most influenced by the push-factor in regard to his entrepreneurial intention. These results bring in an important notion of the people and environment school on entrepreneurship (Ronstadt, 1984). It seems that the extreme types of entrepreneurship are not subject to the push-effect, and the 'right stuff' argument holds firm, while the three other groups seem to confirm the significance of the environmental push towards entrepreneurial behaviour.

Entrepreneurial identity seems to be quite a good determinant of intentionality. As the psychological theories of identity development clearly suggest, the development of human identity takes place during the first years of life. When we think about the promotion of entrepreneurship, the development of entrepreneurial identities becomes one of most important areas of action. The education system as a whole is in a key position in young people seeking their identity. However, it is somewhat questionable, at least in Finland, whether our education system promotes or inhibits the adoption of entrepreneurial identities.

ENDNOTES

- 1 The term 'entrepreneurial behaviour' here refers to the pre-start-up and start-up periods of an entrepreneur's personal and business-related development; especially strategic management literature uses the term in the narrower sense of the strict Schumpeterian interpretation with extreme innovativeness as the main content.
- 2 Cluster centre is a Euclidean mean of variables (here factor scores) of each cluster.

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APPENDIX 1

Scales for measuring dissatisfaction with prevailing occupational conditions

The following questions have been divided into three groups according to the current occupational status of the respondents. Choose

- a) group 1, if **you work as an employee**
- b) group 2, if you work as **a farmer** (this includes all forms of agricultural work)
- c) group 3, if you **have no employment** at the moment (concerns the jobless, students, etc.)

Choose an alternative depending on whether you

- 1) wholly disagree
- 2) disagree to some extent
- 3) neither agree nor disagree
- 4) agree to some extent
- 5) wholly agree

- 1. The following statements are intended for respondents who *hold a part-time or full-time job at present*.

The threat of unemployment is in my case acute.

The relations between my employer and myself are badly exacerbated.

My present job does not offer me opportunities of promotion.

My present job is not challenging enough.

I am not satisfied with my present wage level.

I cannot carry out my ideas in my present job.

- 2. The following statements are intended for *farmers* and concern the present situation in agriculture.

The income earned in agriculture is in my case extremely uncertain.

The income earned in agriculture is at present quite insufficient.

A traditional farm like mine gives few opportunities for development.

Agriculture no longer offers me enough challenges.

- 3. The following statements are intended for *the unemployed, for students and for others who do not at present go to work*.

To get a job seems at the moment almost hopeless.

I am extremely dissatisfied with my present financial position.

I feel that my knowledge and skills are wasted in the present situation.

I have energy but, being unemployed, cannot use it in any sensible manner.

I feel I am useless in the present state of affairs.

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