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KIMMO HYRSKY AND MIKA TUUNANEN

Innovativeness and Risk-taking Propensity: A Cross-Cultural Study of Finnish and U.S. Entrepreneurs and Small Business Owners

ABSTRACT

The present study centers on innovativeness and risk-taking. These two personality traits are among the most distinctive entrepreneurial characteristics. They provide a good starting point for a comparison of entrepreneurial behaviour between Finnish and U.S. entrepreneurs and small business owners. The Carland Entrepreneurship Index (CEI) was employed to measure the varying degrees of innovativeness and risk-taking displayed by Finnish and U.S. entrepreneurs and small business owners. The Americans (N=456) had greater risk-taking propensity than the Finns (N=434) who tended to be more conservative and risk-averse. Americans also exhibited slightly higher levels of innovation. Regarding gender, in the combined Finnish and U.S. sample, females had higher levels of innovation preference

KIMMO HYRSKY, Research Fellow
University of Jyväskylä, School of Business & Economics • e-mail: khyrsky@tase.jyu.fi
MIKA TUUNANEN, Research Fellow
University of Jyväskylä, School of Business & Economics • e-mail: mptuunan@tase.juy.fi

than the males. Meanwhile, male respondents scored significantly higher on risk-taking. In both countries respondents with detailed business plans had much higher risk-taking propensity and preference for innovation than those with no detailed plans. Finally, profit and growth oriented informants in both countries scored higher on both scales compared to those oriented to earning family income.

Keywords: *CEI, entrepreneurship, innovativeness, risk-taking, Finland, USA*

1 INTRODUCTION

Much past research on entrepreneurship has been founded upon the premise that entrepreneurs embody distinctive personality traits which can be identified and used to indicate potential for entrepreneurship (Lachman, 1980; Cooper & Dunkelberg, 1987; Carland & Carland, 1996). Innovativeness is perhaps the most distinctive entrepreneurial trait. As exemplified by Henry Ford, entrepreneurs tend to tackle the unknown; they do things in new and different ways; they weave old ideas into new patterns and they offer more solutions than alibis. Being such a significant component of the entrepreneurial psyche, innovativeness has been the subject of a plethora of past studies (see e.g. Hornaday & Aboud, 1971; Kets de Vries, 1977; Timmons, 1978; Brockhaus, 1982; Carland et. al., 1984, 1988, 1991, 1996 & 1997; Gartner, 1990; Sexton & Bowman-Upton, 1991).

Another key dimension of the entrepreneurial psyche is risk-taking propensity. It is essential for the success and growth of a business how entrepreneurs perceive and manage risks in their environment (Delmar, 1994, 735). In light of this, it is very important that deeper investigations are made to understand the role of entrepreneurial personality and to properly characterize entrepreneurs. Risk-taking propensity has also been widely studied in the past (cf. Brockhaus, 1980 & 1982; Schwer & Yucelt, 1984; Sexton & Bowman, 1983 & 1986; Ray, 1986; Masters & Meier, 1988; Carland et al., 1984, 1988, 1991, 1996 & 1997).

Most of past entrepreneurial innovation and risk propensity studies have been limited to comparing American entrepreneurs and managers or different business environments like retailing and manufacturing (Unni, 1990, 272). A review of past literature revealed that very few attempts have been made to compare innovation preferences and entrepreneurial risk among different nationalities. The present study sets out to provide some preliminary cross-cultural results by focusing on the following research questions: 1) *What are the varying degrees of innovation preference and risk-taking propensity displayed by Finnish and U.S. entrepreneurs and small business owners*, and 2) *Do the informants differ significantly if they are classified according to sex, business goals, roles in start-up and depth of business planning*. Finally, on the basis of the CEI data, we also try to make a contribution towards a better understanding of entrepreneurial growth in Finland.

2 ENTREPRENEURIAL INNOVATIVENESS

The view that there is a powerful set of links between innovativeness, creativity and small business has long been built into thinking about small firms (Cannon, 1985, 33). Much of the past literature reflects a belief that the nature of the entrepreneur allied to the particular properties of the small enterprise as a method of organization is particularly appropriate for innovative or creative activities. Various factors have contributed to this belief: the notion of the entrepreneur as a "mould maker"; the link between open and organic organization and creativity; the proposition that smallness, decisiveness and flexibility counterbalance absolute investment; and the evidence that small businesses account for a disproportionate number of new processes and products.

The ability of the entrepreneurial "mould-maker" to break free from bureaucratic rigidities, to fan the flames of innovation and create new situations has been the basis of the growth of many current successful corporations (Cannon, 1985, 33). Schumpeter (1942) regarded this "mould maker" as the driving force of industrial innovation; an innovator whose role was crucial in economic development. For him, the entrepreneur was a person who created new ways of fulfilling currently unsatisfied needs. Individuals introducing new combinations evidence the very special quality of entrepreneurship, a quality that is and should be distinguished from other aspects of the business role such as risk-taking and management. In one of his later studies, Schumpeter (1965) defined an entrepreneur as "an idea man and a man of action who possesses the ability to inspire others, and who does not accept boundaries of structured situations. He is a catalyst of change who is instrumental in discovering new opportunities, which makes for the uniqueness of the entrepreneurial function".

Not unlike Schumpeter, Bird (1989, 35) thinks that entrepreneurs are among the more creative of organizational players. An entrepreneur is a combination of innovative thinker and doer. He or she sees an opportunity for a new product, service, new approach, new policy or a novel way of solving an old problem. Subsequently, the entrepreneur does something about it. In fact, the implementation of the results of innovative thinking is often what truly distinguishes the entrepreneur from the non-entrepreneur. Thus, with his proactive tendencies, the entrepreneur seeks to have an impact on the existing system (with an idea or service), for example, by using his or her ability to recognize and develop the commercial application of technological advance. It is exactly this thinking-doing combination that gives entrepreneurial efforts that extra special appeal.

To sum up what has just been said above, existing research seems to agree that market-oriented innovativeness is a key factor that defines an entrepreneur. In fact, Carland et al. (1984) have gone so far as to suggest that innovativeness is the most significant component of the

entrepreneurial personality. It is a factor distinguishing entrepreneurs from less innovative managers and small business owners. In their study of differences in preference for innovation between these two groups, Carland et al. (1984 & 1988) have showed that entrepreneurs tend to set up a business principally for profit and growth. The less innovative ones, small business owners and managers in the Carland study, often found a business primarily in order to attain personal goals and/or to provide family income. In another related study, Smith & Miner (1983) indicated that founders of fast-growing firms scored significantly higher on innovativeness than individuals holding managerial positions. It was also found that entrepreneurs expressed a desire to introduce novel and innovative solutions. These and other studies have led researchers to the assumption that entrepreneurs tend to be more innovative in their predisposition than their corporate counterparts.

3 RISK-TAKING AND ENTREPRENEURSHIP

Risk-taking was the earliest identified entrepreneurial characteristic. Cantillon (1755) and later J.S. Mill (1848) both portrayed an entrepreneur as an individual who assumed the risk for the firm. In fact, Mill included the term risk-bearing to distinguish "entrepreneur" from "manager". According to Mill (1848), entrepreneurial functions consisted of direction, control, superintendence and risk-bearing. Later, Schumpeter (1934) noted the innovating nature and drive of the entrepreneur in terms of developing new methods and enterprises and the inherent risks associated with this kind of behaviour. For the purposes of the present study, the Brockhaus (1980, 513) definition of risk-taking is most useful: "the perceived possibility of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequence than the proposed situation."

Some writers hold the view that entrepreneurs, small business owners and managers, worldwide, perceive their role in making risky decisions as rather similar, even though risk-management is culturally conditioned (Boone & Kurz, 1984; Carson, 1985; Delmar, 1994). Especially entrepreneurs are widely believed to be willing to assume more risks than, for instance, managers and salaried employees (Masters & Meier, 1988, 31). Thus, Burch (1986, 34) argues: "the antithesis of the entrepreneur is a person who never loses because he or she never puts himself or herself at risk".

On the other hand, many past research findings have indicated that the attitudes of entrepreneurs towards risk-bearing do not necessarily differ from those of the general population (Brockhaus, 1980; Bowen & Hisrich, 1986; Unni, 1990). This may be partly explained by the

fact that many entrepreneurs seem to take risks only after carefully analysing the situation in hand. This was shown by Moore & Gergen (1985) in their study of risk-taking in business. They showed that individual risk-taking usually involved a propensity to taking or avoiding risks, decision-making skills, and experience with risk-taking behaviour in an organization. In the words of Moore & Gergen (1985, 72): "The process of risk-taking involves both making the decision to take a risk and developing a strategy that minimizes the risk. Well-seasoned risk-taking requires careful decision making".

The literature of Cognitive Psychology supports the hypothesis that risk-taking is mainly domain specific (Sjöberg, 1978, Heath & Tversky, 1991). Heath & Tversky (1991) have developed a theory that may explain why a majority of decision makers do not see a calculated risk as a chance. An entrepreneur is more inclined to take risks in a domain where he or she is an expert. This means that individuals will be more risk-averse in areas in which they have little knowledge to estimate the probabilities for different outcomes. Despite the findings that entrepreneurs do not necessarily have much higher risk-taking propensity compared to the general population, they do take many risks. Delmar (1994, 738) has noted that the reason might be their greater ability to manage risk in the specific domain of their own business venture.

Finally, let us shortly focus on prior research on cross cultural and gender differences in risk-taking behaviour. Firstly, Cummings et al. (1971) studied the attitudinal differences between American and European executives and found that Americans had greater risk-taking propensity than Europeans. Secondly, Masters & Meier (1988) conducted a study to determine whether U.S. male and female entrepreneurs would differ in risk-taking. They found no differences in the risk inclinations of male vs. female respondents. Thirdly, Masters et al. (1988) explored potential differences in risk-bearing between 160 American and Indian small business managers, both male and female. The study revealed that the risk-taking propensity of Indian and American female managers were on a level with their American male counterparts. The results also showed that Indian female managers had a greater propensity than their Indian male colleagues. These results contradicted past research findings that have typically found females to be more conservative in risk-taking than males (Masters & Maier, 1988, 31).

4 METHOD AND SAMPLES

The study utilized the Carland Entrepreneurship Index (CEI). The theoretical basis of the approach as well as details of the methodology are available in Carland & Carland (1996). Based on an extensive review of prior entrepreneurial personality studies and literature on Cognitive Psychology, Carland et al. (1992) developed an entrepreneurial index designed to identify the

strength of an individual´s entrepreneurial drive. The purpose is to reveal an individual's proclivity for four constructs: personality, innovation, risk-taking propensity and strategic posture. This is done by utilizing the following instruments: the Myers-Briggs Type Indicator (Myers & Briggs, 1962) to measure individual cognitive style, the Jackson Personality Research Form (1974) to measure achievement motivation, and the Jackson Personality Inventory (1976) to measure risk-taking and innovativeness. JPI includes 320 True-False statements consisting of 16 scales, each comprising 20 statements, the scores of each scale ranging from 0 to 20. The present study employed the Jackson Innovation and Risk Taking scales of JPI (see Appendix for a sample part of the questionnaire). The trait descriptions for these scales are displayed in Tables 1–2.

TABLE 1. Trait descriptions for the innovation scale of jackson personality inventory.

Description of High Scorer:	*Description of Low Scorer:*
A creative and inventive individual; capable of originality of thought; motivated to develop novel solutions to problems; values new ideas; likes to improvise.	**Has little creative motivation; seldom seeks originality; conservative thinker; prefers routine activities.**
Defining Trait Adjectives:	*Defining Trait Adjectives:*
Ingenious, original, innovative, productive, imaginative.	**Unimaginative, deliberate, practical, sober, prosaic, literal, uninventive, routine.**

TABLE 2. Trait descriptions for the risk-taking scale of jackson personality inventory.

Description of High Scorer:	*Description Of Low Scorer:*
Enjoys gambling and taking a chance; willingly exposes self to situations with uncertain outcomes; enjoys adventures having an element of peril; takes chances unconcerned with danger.	**Cautious about unpredictable situations; unlikely to bet; avoids situations of personal risk, even those with great rewards; does not take chances regardless of whether the risks are physical, social, monetary of ethical.**
Defining Trait Adjectives:	*Defining Trait Adjectives*:
Reckless, bold, impetuous, intrepid, enterprising, incautious, venturesome, daring, rash.	**Cautious, hesitant, careful, wary, prudent, discrete, heedful, unadventurous, precautionary, security minded, conservative.**

The Innovation Scale of the JPI consists of 20 questions in a forced choice format and can be scored by untrained people. It has been reported to display high reliability and validity and to exhibit high correlations with self and peer ratings (Jackson, 1976). Jackson (1976), in tests involving two samples (N=82 & N=307), reported internal consistency reliability values of .94 and .93 using Bentler's coefficient theta and .83 and .87 using coefficient alpha. In a test for validity, Jackson (1976) reported (N=70) correlations with the completion of an adjective checklist, with self rating and peer rating of .79, .73 and .37 respectively.

The Jackson Risk Taking Scale comprises 20 forced choice questions. Jackson et al. (1974) have defined risk-taking in terms of four facets: monetary, physical, social and ethical risk-taking. Although the risk-taking scale correlates substantially with all four facets, it does tend to weight monetary risk somewhat more heavily than the others (Jackson, 1976, 18). The scale can be scored by untrained people and has been reported to display high reliability and validity and to exhibit high correlations with self and peer ratings (Jackson, 1976). Jackson (1976), in a test involving two samples (N=82 & N=307), reported internal consistency reliability values of .93 and .91 using Bentler's coefficient theta and .81 and .84 using coefficient alpha. In a test for validity, Jackson (1976) reported (N=70) correlations with the completion of an adjective checklist, with self rating and peer rating of .75, .77 and .52 respectively.

These two scales are not designed to separate respondents into entrepreneurial and non-entrepreneurial ones; rather, to identify the levels of risk-taking propensity and innovation orientation. Instead of emphasizing any dichotomous features, the aim is to demonstrate the continuum in human risk-taking propensity and preference for innovation. The higher the score on the instrument, the stronger is an individual´s propensity or preference.

The Finnish and U.S. data were collected in 1995 and 1996. In Finland, the CEI was translated into Finnish by a certified translator and mailed to a group of 1,000 small business owners from two different regions, Central Finland and the Greater Tampere area, using the mailing lists of the Federation of Finnish Enterprises. After second mailing, the response rate climbed to 43%. The Finnish sample consisted of 434 principal owners of small businesses which met the U.S. Small Business Administration Definition. All respondents were native-born Finns. The high response rate was a clear indication of the keen interest which Finnish entrepreneurs have in supporting entrepreneurship research. Furthermore, the high response rate suggested a minimal non-response bias.

The American sample was gathered in two phases. In the first instance, the sample consisted of business owners: 225 surveys were distributed using a convenience sampling technique. Graduate students from the southeastern United States were asked to have small business owners complete the surveys and return them at the end of the semester. Of the 225 initial surveys, 211 were usable. The others were eliminated, in most cases because the owner

had omitted answers to key questions on the survey or the person who responded only had a small percentage of ownership. The final sample of firms were all individually owned and operated small businesses according to the U.S. Small Business Administration definition. All of the respondents were owners, partners, or major share holders and principal managers of the businesses. As regards the ethnic background, 96% were white and 4% were minorities: African-Americans, Hispanics, and people of Chinese origin.

Although the group represented a convenience sample, it was sufficiently large (N=211) as to eliminate most criticism since the central limit theorem holds that larger samples have a level of confidence which approaches that of a random sample (Mason, 1982). Further, the methodology of approach used minimized non-response bias. Since the data were collected through personal approaches, there was a high level of participation. Fewer than 20% of business owners approached declined to participate. As a result, the data was collected from individuals who might not have responded to a mail questionnaire. Later, the U.S. sample was increased to 456 employing similar data collecting procedures as in the first instance.

In the present study, the statistical analyses of the JPI data consisted of descriptive statistics, cross-tabulations and t-tests. These were conducted to explore similarities and differences between the two nationalities. Another aim was to compare the male and female scores on the Jackson instruments. Finally, other potential differences in innovation and risk-taking scores were explored by using combined Finnish and U.S. samples.

5 RESULTS

Some 1,000 respondents from both countries were sampled. The U.S. response rate was 46 per cent and the Finnish 43 per cent. Hence, in total 890 usable answers were obtained. As Table 3 indicates, the basic demographics showed strikingly similar distributions, though, at the same time some considerable differences also emerged. Notably, as regards the type of business, the American sample was much more retail intensive (46%) than the Finnish sample (18%) which included a greater proportion of firms from service, construction and manufacturing industries. Proprietorship was also a more general business form in the USA where enterprises were also older and entrepreneurs had much higher education. The most striking difference, which will affect the empirical results, was the fact that an overwhelming majority of Finnish subjects reported ”Family Income” as their primary business objective. On the other hand, over half of U.S. informants were ”Profit and Growth-Oriented” in their business goal settings.

TABLE 3. Demographic data.

		Finnish sample	US Sample
Gender	Male	75 %	70 %
Female		25 %	30 %
Age	< 25 years	1 %	3 %
	25–34	12 %	19 %
	35–44	29 %	33 %
	45–54	41 %	26 %
	> 54 years	16 %	16 %
Education	< 12 years	73 %	33 %
	12–15	9 %	22 %
	16	3 %	28 %
	> 16 years	9 %	14 %
Role in Start Up	Started Business	81 %	71 %
	Purchased Business	13 %	23 %
	Inherited Business	5 %	6 %
N:o of Bus. Started	None	10 %	1 %
	1	70 %	71 %
	2–5	17 %	27 %
	> 5	3 %	1 %
Primary Objectives	Profit & Growth	21 %	55 %
	Family Income	77 %	43 %
Plans for the Business	None	11 %	29 %
	Formal, Written Plans	13 %	19 %
	Informal, Unwritten Plans	76 %	51 %
Type of Business	Retail	18 %	46 %
	Service	45 %	38 %
	Wholesale	4 %	4 %
	Construction	15 %	6 %
	Manufacturing	15 %	5 %
	Other	3 %	0 %
Annual Sales	< 100.000 USD	34 %	43 %
	100.000–250.000	16 %	31 %
	250.000–500.000	19 %	10 %
	500.000–1.000.000	14 %	13 %
	> 1.000.000 USD	15 %	0 %
N:o of Employees	< 11	78 %	79 %
	11–25	10 %	13 %
	26–50	2 %	4 %
	51–100	2 %	2 %
	> 100	0 %	1 %
Business Form	Proprietorship	25 %	42 %
	Partnership	37 %	19 %
	Corporation	37 %	37 %
Age of Business	< 14 years	54 %	25 %
	14–24	24 %	40 %
	> 24 years	21 %	32 %

May not add to 100% due to missing responses

5.1 Preference for Innovation Scores

The first phase of analysis was an investigation of differences between Finns and Americans on Jackson Preference for Innovation scores (see Table 4). T-test results are given in Table 5. These showed an American dominance in innovation preferences. American females manifested somewhat higher preferences compared to Finnish females (p=ns). The same applied to differences between U.S. and Finnish males. Overall, female entrepreneurs seemed to be more innovative than males. Both Finnish and U.S. females exhibited higher levels of preference than their male counterparts. Indeed, a significant difference (p=.049) was discovered in the combined Finnish and U.S. sample. On the basis of this study, it appeared that small business

TABLE 4. Descriptive statistics: Jackson preference for innovation scores.

	Finnish Sample	American Sample
Mean Score	13.35	13.94
Standard Error of Mean	.21	.23
Standard Deviation	4.28	4.80
Mode	17	18
Median	14	15
Minimum	1	0
Maximum	20	20
Number of Cases	434	456

TABLE 5. Means, standard deviations, and t-test results: Jackson preference for innovation scores.

	Finns		Americans		
	Mean	(N)	Mean	(N)	t
Nationality	13.35	(434)	13.94	(456)	–1.95
Gender					
Male	13.24	(324)	13.70	(320)	–1.27
Female	13.67	(110)	14.52	(135)	–1.48
Primary Objectives					
Profit & Growth	14.99	(89)	14.77	(249)	.43
Family Income	12.90	(335)	12.91	(194)	.01
Role in Start Up					
Founder	13.32	(353)	14.27	(323)	–2.76**
Non-Founder	13.41	(80)	13.12	(130)	.45
Plans for the Business					
Detailed Plans	13.65	(386)	14.58	(322)	–2.88**
No Detailed Plans	10.89	(46)	12.40	(134)	–1.99*

Note: significance levels * p<.05 ** p<.01 *** p<.001

might hold a special attraction for females with more innovative tendencies. The results also gave support to the previous findings of Carland & Carland (1991, 71) who indicated that females with higher preferences for innovation would be driven to seek self-employment by their personalities.

A further t-test examined differences in the mean responses between respondents with different business goals (see Table 5). The two subgroups were Profit and Growth Oriented entrepreneurs and those whose primary objective was to Provide Family Income. Finns pursuing profit and growth exhibited slightly higher levels of personal innovation (p=ns) than respective U.S. informants. However, no significant difference was found between those Finns and Americans, who were not growth-oriented. Meanwhile, in the combined Finnish and U.S. data, respondents pursuing profit and growth had significantly higher (p=.000) preferences than respondents oriented towards providing family income. Schumpeter (1934) also found a link between innovativeness and profit. He made a distinction between entrepreneurial profits and earnings of management. For him, profit is not a return to risk, instead it is a residual, a surplus that arises due to an innovative act by the entrepreneur.

Next, the differences between business founders and non-founders were examined. A significant difference (p=.006) was found between Finnish and U.S. entrepreneurs who had set up their own businesses. The Americans were clearly more positively oriented to innovation. In addition, in the USA, the respondents who had either bought or inherited their current businesses scored much lower than the founders. Interestingly, Smith & Miner (1983) also discovered that founders of high growth firms scored higher on personal innovation than slow-growth founders and non-founders.

Moreover, the mean scores in the present study showed that American Non-Founders had weaker preference to innovation compared with the respective Finns. Nevertheless, no significant difference was found here. Rather surprisingly, Finnish Non-Founders scored slightly higher than Finnish Founders. It seems that in the USA a higher level of personal innovation is a crucial factor affecting new business creation. In fact, the U.S. respondents in our sample had set up more businesses than the Finns on the average.

Regarding the depth of planning in conducting business, a significant difference in favour of the Americans was found. Americans who had formal, written plans for development and growth of the business manifested a significantly (p=.004) higher level or personal innovation compared to the respective Finns. Moreover, in the combined Finnish and U.S. sample, entrepreneurs with formal, written plans scored significantly higher on personal innovation than those with informal, unwritten plans (p=.000). This seems to reflect the nature of an entrepreneurial venture which is typically characterized by innovative strategic practices (Carland et al., 1984, 358).

Additionally, a strong correlation (Chi-square, p=.000) was found between respondents´ business goals and their depth of planning. Some 85 per cent of people pursuing profit and growth had detailed plans for the business. On the other hand, seven out of the ten of those with no detailed plans pursued family income as their primary objective. In this context, we agree with Sexton & Bowman-Upton (1991, 182), when they state that, "Growth does not occur automatically. It must be planned, nurtured, and directed . . . Growing firms face frequent changes and attempt to change in a manner that is creative and innovative." One natural explanation can be that fast-growing companies often need external capital funding, and established business plans are often required to support and justify the loan application.

5.2 Risk Taking Scores

The second stage of analysis consisted of an investigation of differences between Americans and Finns on Jackson Risk Taking scores (see Table 6). T-test results are given in Table 7. American informants had much greater risk-taking propensity than the Finns who tended to be more conservative and risk-averse. This finding complies with Cummings et al. (1971) who found U.S. managers to have stronger proclivities for risk-taking than their European colleagues.

With regard to gender, American males proved to be much more inclined to risk-taking compared to the more risk-averse Finnish males. A significant difference was found (p=.000). The same difference applied to the female respondents of the two countries. Our results agreed with the bulk of previous studies on gender differences, since females appeared to be slightly more cautious risk-takers than males. In the combined Finnish and U.S. sample females scored lower than males, but there was no significant difference (p=ns). In the Finnish sample, the difference was minimal. This is parallel with the U.S. findings of Masters & Meier (1988), who discovered practically no differences in risk-taking between female and male entrepreneurs.

As regards the business goals, the two subgroups of entrepreneurs were "Profit and Growth-Oriented" entrepreneurs and those whose primary objective was to "Provide Family Income".

TABLE 6. Descriptive statistics: Jackson risk-taking scores.

	Finnish Sample	American Sample
Mean Score	7.33	10.46
Standard Error of Mean	.19	.25
Standard Deviation	3.99	5.36
Mode	5	14
Median	6	11
Minimum	0	0
Maximum	19	20
Number of Cases	434	456

TABLE 7. Means, standard deviations, and t-test results: Jackson risk taking scores.

	Finns		Americans		
	Mean	(N)	Mean	(N)	t
Nationality	7.32	(434)	10.46	(456)	–9.93***
Gender					
Male	7.35	(324)	10.81	(320)	–9.33***
Female	7.24	(110)	9.67	(135)	–3.96***
Primary Objectives					
Profit & Growth	9.89	(89)	11.55	(249)	–2.69**
Family Income	6.67	(335)	9.05	(194)	–5.59***
Role in Start Up					
Founder	7.26	(353)	10.51	(323)	–9.02***
Non-Founder	7.64	(80)	10.36	(130)	–3.98***
Plans for the Business					
Detailed Plans	7.51	(386)	11.22	(322)	–10.62***
No Detailed Plans	5.89	(46)	8.64	(134)	–3.88***

Note: significance levels * p<.05 ** p<.01 *** p<.001

In both cases, U.S. respondents scored significantly higher than the Finns (p=.007 and p=.000 respectively). In the combined Finnish and U.S. sample, respondents pursuing profit and growth had significantly greater propensity than those oriented towards providing family income (p=.000). Interestingly, Bird (1989) also found that entrepreneurs whose main goal was income substitution were more likely to become risk-averse when an acceptable income was achieved, whereas those who used profits as a way of keeping score continued to take calculated risks.

As was already mentioned, some 85 per cent of people pursuing profit and growth had detailed plans, while some 70 per cent of those with no detailed plans pursued family income as their primary objective. It appeared that those respondents who were more inclined to risk-taking ("Profit and Growth-Oriented") employed business plans as one way to manage risks. Their risk-taking was more calculated. This supported the findings of Moore & Gergen (1985) and Delmar (1994) who have indicated that many entrepreneurs take risks mainly in areas where they are experts and only after carefully analyzing the situation in hand.

The next analysis was conducted between U.S. and Finnish respondents who had started their own businesses. A significant difference in favour of the U.S. founders (p=.000) was discovered. The t-test results also suggested that the American non-founders, i.e. those who had either bought or inherited their businesses, tended to have greater risk-taking propensity than the respective Finns. Again a significant difference was found (p=.000). Rather controversially,

Finnish non-founders scored slightly higher than Finnish founders. This clearly affected the combined Finnish and U.S. sample where non-founders scored slightly higher than founders.

With respect to depth of business planning, both Americans with detailed plans and those without them manifested a significantly higher level of risk-taking compared with respective Finns (p=.000). Finally, in the combined Finnish and U.S. sample, the planning-oriented entrepreneurs scored significantly higher than their more improvising colleagues (p=.003).

6 CONCLUSION AND DISCUSSION

The present study focused on entrepreneurial innovativeness and risk-taking among Finnish and U.S. entrepreneurs and small business owners. When interpreting the results, some limitations should be taken into consideration. First, the Finnish businesses were comparatively young; on average, U.S. businesses had been in operation seven years longer. Second, success of the ventures was not measured. Third, the survey instrument used in Finland was a translation from the original CEI. Fourth, with regard to sampling, the results are more applicable to Finland than the USA where a convenience sampling technique was used.

The study suggested that there might be differences in the strength of innovativeness and risk-taking propensity between Finnish and American entrepreneurs and small business owners. Overall, the results showed an American dominance over Finland in these two traits. Specifically, there was a marked difference in risk-taking propensity. In preference for innovation, the scores were more even.

Perhaps the rather low Finnish mean scores can be attributed to cultural aspects as well as personal characteristics. Entrepreneurship tends to occur differently in different countries. If the social system surrounding the individual highly values entrepreneurial behaviour, e.g. innovativeness, risk-taking, achievement and internal locus of control, it is simply more likely to produce entrepreneurial events than an environment with other or contrasting values (Giamartino et al., 1993). In America, for instance, entrepreneurial traditions may translate into greater proclivity among the population to consider entrepreneurial careers as desirable and attainable (Carland & Näsi, 1996). Thus, to really understand the differences in business behaviour, factors, such as ideology, norms and rewards for behaviour, individual and national aspirations, religious doctrines and education as linked to entrepreneurship should also be examined on a comparative basis.

Besides neglecting cultural issues, researchers have sometimes tended to overlook the situational factors affecting entrepreneurial behaviour (Delmar, 1994, 739). Entrepreneurial behavior has been explained too exclusively from the personal characteristics of the individuals rather than seeing it as a response to the characteristics of a particular situation. In reality,

human behaviour is strongly directed by the situations that people find themselves in (Bandura, 1982; Kahneman & Tversky, 1984). For example, risk-taking behaviour not only depends on an individual´s propensity to risk-taking, but it is usually conditioned by the fact that some people frequently find themselves in situations in which they are more prone to risk-taking. The difference from "the risk-taking ability" approach is that here the behaviour is also directed by external factors that influence the perceptions of the entrepreneur. The situation frames him or her into a certain kind of behaviour. Thus, innovativeness and risk-taking should perhaps be studied using a framework including both psychological and socio-psychological dimensions. Situational and cultural factors should not be left aside since our personalities and entrepreneurial behaviours are always products of both inherited and learned aspects.

Let us conclude by shifting the attention to the potential implications that our findings might have for entrepreneurial growth. This is an important issue to consider in light of the relatively high unemployment in Finland. In an effort to remedy the situation, much effort is currently being made to stimulate growth in small business sector and promote small business start-ups. In this context, the two relevant entrepreneurial dimensions discussed in the study can combined into a 2 X 2 matrix, based on respondents´ mean scores (see Table 8).

Due to the relatively small samples in both countries and the non-dichotomous nature of both dimensions, this framework may well be too simplistic and idealistic. It must also be noted that the characterizations of the four cells of the matrix are meant to be tentative and hypo-

TABLE 8. An Exploratory Matrix Combining the Two Entrepreneurial Dimensions

	***Innovation Preference* Mean Score Lower Than 10**	***Innovation Preference* Mean Score More Than 10**
***Risk Taking* Mean Score Below 10**	**Basic income from Routine Operations** **"Conservatism"** **"Status Quo"** **NO MAJOR GROWTH AMBITIONS**	**Under-exploited Opportunities and Ideas** **"Cautiousness"** **"Daydreaming"** **LATENT GROWTH POTENTIAL, ALTHOUGH OFTEN NEGLECTED**
***Risk Taking* Mean Score Over 10**	**More Active Use of Established Ideas and Resources** **"Productivity-related Growth Logic"** **GROWTH THROUGH BETTER UTILIZATION**	**Novelties and Creative Growth Plus Major Improvements** **"Entrepreneurial Growth Logic"** **"Active Use of Innovations"** **EXTENSIVE AND INTENSIVE GROWTH POTENTIAL**

thetical. If we follow the logic of the matrix, the cross-national comparison can be summarized as is shown in Table 9.

TABLE 9. A Summary of the Cross-National Comparison.

	***Innovativeness* 0–10**	***Innovativeness* 10–20**
***Risk Taking* 0–10**		* **Finnish Females** * **Finnish Males** * **US Females**
***Risk Taking* 10–20**		* **US Males**

The differences in innovation scores between the countries were rather small. Meanwhile, the low Finnish scores on risk-taking might imply that the Finns lose or neglect some growth potential due to their unwillingness to take risks. From the growth perspective, the educational implication is certainly that Finnish people should be more actively trained to commercialize their ideas and encouraged to take calculated risks more eagerly. In both countries, there seems to be a need and human potential for expansion strategies based on the productivity-related growth logic with increased risk-taking.

Finally, one key question still requires further consideration: "Is it possible to teach entrepreneurial courage?" We can train people to be better *able* to calculate risks, but is it insuperably difficult to train them to be more *willing* risk-takers?" Since risk-taking proclivity is domain-related, it can be argued that the better people master their entrepreneurial domain, i.e. their field of business, the better could be their willingness to assume risks. What an educational challenge! ■

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Appendix A sample part of the questionnaire

Jackson Innovation Scale

If you agree with a statement or think it describes you, circle TRUE. If you disagree with a statement or decide it does not describe you, circle FALSE.

True False People often ask me for help in creative activities.

True False I seldom bother to think of original ways of doing a task.

True False I often try to invent new uses for everyday objects.

Jackson Risk Taking Scale

If you agree with a statement or think it describes you, circle TRUE. If you disagree with a statement or decide it does not describe you, circle FALSE.

True False If I invested money in stocks, it would probably only be in safe stocks from large, well known companies.

True False If the possible reward was very high, I would not hesitate putting my money into a new business that could fail.

True False I consider security an important element in every aspect of my life.