Journal of Economics and Behavioral Studies
Vol. 3, No. 2, pp. 83-93, Aug 2011 (ISSN: 2220-6140)

Risk Taking and Start-up Capital: Exploring Gender differences in Uganda, through an International Comparison

*Laura Orobia[1], Arthur Sserwanga[1], Gerrit Rooks[2]
[1]Makerere University Business School, Kampala–Uganda
[2]Department of Technology Management, Eindhoven University of Technology
*lauraorobiah@yahoo.com

Abstract: This study sought to explain the gender differences with respect to risk taking behaviour and start-up capital in Uganda, comparing with other countries. The start-up capital of businesses run by females is ostensibly smaller than those run by males in Uganda and in any other country. A number of reasons have been forwarded to explain this variance. Some researchers have linked the size of start-up capital to the risk taking behaviour among other factors. However there is insufficient local or Ugandan empirical research into this difference, given that much of the empirical research are based on western data sets. Data for this study was from the Global Entrepreneurship Monitor (GEM) 2003. A causal research design was used to establish the relationship between risk taking attitude and start up capital. A comparative design was also employed to compare the findings of Uganda with other GEM countries, Chi-square tests, and a two way analysis of variances were used to analyse the data. There are gender differences with respect to risk taking behaviour across all countries under study. However, the gender gap is wider in other countries than Uganda. On the whole, Uganda women are less risk averse as compared to those in other countries. The start-up capital requirement of Ugandan men is more than their female counterparts. In addition, Ugandan men invested more personal start up capital when they are risk averse. Among other recommendations, policy makers should sensitise females about viability of business start ups and encourage women access to ownership of property.

Key words: *Risk taking behaviour, start up capital, gender*

1. Introduction

One of the major barriers to entrepreneurship is access to start-up capital. A business start-up lies in the introduction stage of a business's life cycle. This stage is characterised by uncertainties about the future of the business. Due to these uncertainties, small business owners prefer to finance their business with internal resources rather than going for debt. The general result from the various capital structure studies is that the combination of leverage related costs (such as bankruptcy and agency costs) and a tax advantage of debt produces an optimal capital structure at less than a 100 percent debt financing, as the tax advantage is traded against the likelihood of incurring bankruptcy costs. Although this theoretical result is now widely recognised, the question that arises is whether or not the various gearing related costs and benefits are sufficiently significant economically to have an appreciable impact on optimal capital structure. This question gave rise to a number of empirical results in which observed capital structures were related to firm characteristics that were assumed to reflect these costs, and benefits, such as firm age, size, profitability, growth rate, firm risk and industry characteristics.

However, most empirical studies on capital structure use data from firms (Chittenden *et al*, 1996, Michaelas *et al,* 1996, Van der Wijst and Thurik, 1993 are notable exceptions). Theoretical frameworks typically use illustrations and empirical evidence involving large firms and those firms at their growth stage. Only a limited amount of research has focused on small, growing, entrepreneurial companies and the factors affecting the capital structure of these firms. It would be fair to say that theoretical and empirical capital structure research has ignored the small business sector. Much attention concentrates on financial problems of female entrepreneurs as cited by Verheul and Thurik (2001). They used a panel of 2000 Dutch starting entrepreneurs of year 1994 of which 500 were females. They looked at specific barriers when trying to acquire start-up capital and whether these barriers differ between male and female. Their findings indicated that the start-up capital size of female entrepreneurs is smaller than their male counterparts, but that they do not differ significantly with respect to the type of capital.

Researchers assert that female entrepreneurs differ from male entrepreneurs in the way they finance their businesses with respect to start-up capital (Carter & Rosa, 1998; Verheul & Thurik, 2001; Hisrich & Brush, 1987 and Reynolds, *et al..*, 2002). A number of factors have been suggested to explain these differences including risk attitude. Female entrepreneurs are often more risk averse compared to their male counterparts. However there is insufficient local or Ugandan empirical research into this difference, given that most of the empirical research is based on western data sets. In this paper, we focus on the size of start-up capital in terms of the amount of personal savings invested in a business. This is because most starting entrepreneurs use their own money for financing their business.

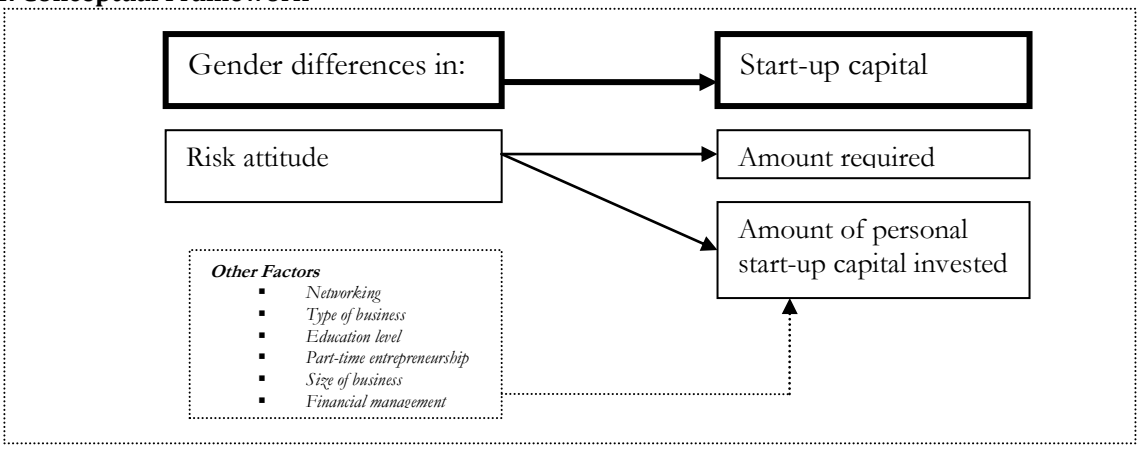
The following are the research questions.

- What is the level of gender differences in risk attitude?
- Is the influence of risk attitude on the amount of start up required the same for female entrepreneurs and their male counter parts?
- Is the influence of risk attitude on the proportion of personal start up capital invested in a business start the same for female entrepreneurs and their male counter parts?

At a theoretical level, this study intends to contribute to the development of literature relating to gender differences and start up capital in small businesses. This study brings on board the influence of risk attitude in explaining the amount of capital needed to start a small business, in contrast to the vast literature that centres on financial problems. Further still, research on start up capital in Africa and Uganda in particular is severely limited by volume and scope. The study will also provide new insights into developing economies. Most studies have been undertaken in developed economies with little research conducted in developing countries especially from Uganda. Owing to the differences in situational factors in the different economies, generalizing the findings from studies in the developed economies to developing economies may be problematic. Thus, the paper is structured to provide a review of Finance theories, personal savings as a source of start-up capital and risk taking behaviour among men and women. The research methodology is then outlined before results are presented and discussed. Concluding comments reflect on limitations of the study and identify recommendations.

We developed a conceptual framework that draws upon the works of Verheul and Thurik (2001). This study was to test the framework. The model depicts a relationship between gender differences in respect of risk attitude and start-up capital in Uganda. Many factors reportedly influence start-up capital. These include; networking, part-time entrepreneurship, size of business, type of the business, risk attitude, education and financial management experience. These factors are held constant, emphasis was placed on gender differences in respect to risk attitude, amount of start-up capital required and amount of personal start-up capital invested.

Figure 1: Conceptual Framework



Source: adapted from the works of Verheul and Thurik (2001)

2. Literature Review

Finance Theories: The Pecking Order Theory of capital structure states that firms have a preferred hierarchy for financing decisions. The highest preference is to use internal financing (retained earnings and the effects of depreciation) before resorting to any form of external funds. Internal funds incur no floatation costs and require no additional disclosure of proprietary financial information that could lead to more severe market discipline and a possible loss of competitive advantage. If a firm must use external funds, the preference is to use the following order of financing sources: debt, convertible securities, preferred stock, and common stock (Myers, 1984). This order reflects the motivations of the financial manager to retain control of the firm (since only common stock has a "voice" in management), reduce the agency costs of equity, and avoid the seemingly inevitable negative market reaction to an announcement of a new equity issue (Hawawini & Viallet, 1999). Pecking Order Theory of capital structure states that firms have a preferred hierarchy.

According to Pettit and Singer (1985), business firms select their financial structure in view of the cost, nature, and availability of financial alternatives. They also add that the level of debt and equity in a smaller firm is more than likely a function of the characteristics of the firm and its managers. Levin and Travis (1987) provide support for this view, suggesting that leverage theory does not apply. The owners' attitudes towards personal risk – not the capital structuring policies public companies use – determine what amounts of debt and equity are acceptable.

Personal Savings as a source of start-up capital: Start up capital refers to the financial amount required to start-up a business (Reynolds, 2002). The main sources of start-up capital are owners' savings, gifts from relatives and friends (business angels), loans from relatives and friends, bank loans and other suppliers' credit. Personal savings are often the key to funding new businesses. According to Holtz-Eakin, Joulfaian & Rosen, (1994) financing through bank loans or investors can be difficult and disadvantageous for the small business owner for many reasons. For those with little or no wealth, financing through institutional loans can exact a high price in the long term. Because small businesses are higher risk clients for potential financiers, lenders often compensate by increasing the financial costs associated with the loans, making this a less appealing path to gaining business capital in comparison to personal savings.

Researchers agree that access to resources is an important influence on business start-ups and that those with little personal wealth have higher failure rates in new business than their wealthier counterparts (Holtz-Eakin, Joulfaian & Rosen, 1994). Similarly, Bates, (1997), Dunn and Holtz-Eakin (1996), Evans and Jovanovic (1989), and Fischer and Massey (2000) assert that financial capital is critical for entrepreneurship and that liquidity constraints inhibit start-ups. They reason that business start-ups often require a substantial sum of money in order to buy the necessary equipment and supplies. This viewpoint emphasizes that equity, particularly from family wealth holdings, allows entrepreneurs to obtain credit, and those with little personal wealth simply cannot secure necessary start-up capital (Bates, 1990). Thus, those with high net worth, high income, and home ownership are expected to be more likely than others to become self-employed (Fischer & Massey, 2000; Evans & Leighton, 1989; Bates, 1995). In support of this viewpoint, research has shown that obtaining money from an inheritance increases the likelihood of self-employment (Holtz-Eakin, Joulfaian & Rosen, 1994).

Groshen (1991), Carrington and Troske (1998) and Bayard *et al.* (1999) find that females are concentrated in low paying occupations, industries, establishments and occupations within establishments. They add that gender segregation accounts for a sizeable portion of the overall gender pay gap and hence affecting the females' personal wealth. In the same spirit, Reily and Wirjanto (1999) provide the Canadian evidence of gender segregation at the establishment level and its effects on the gender wage gap. They found that the proportion of females in the establishment has a negative impact on the wages of both male and females and hence their resultant personal wealth.

Risk taking behaviour of entrepreneurs: Risk is a common daily phenomenon. Risk refers to a lack of predictability about the outcome of a problem, or to a lack of predictability about the consequences of a decision (Hertz and Thomas, 1984). Liles (1981) defined risk as the probability of a negative outcome occurring from some course of action. Psychologists define the propensity to take risk as a personality trait that varies among individuals. Keinan, Meir, and Gome-Nemirovsky (1984) described the risk taking trait as a

tendency to select inherently dangerous actions, for example going into business. Levinson (1990) proposed that risk behaviour is 'any purposive activity that entails novelty or danger sufficient to create anxiety in most people… it can be either physical or social or a combination of the two.'

Sitkin and Weingart (1995) defined risk perception as the extent to which there is uncertainty about whether potentially significant and/ or disappointing outcomes of decisions will be realised. They add that, to the extent that a decision involves high uncertainty or extreme outcomes, either in terms of the choice among alternatives or for individual alternatives in aggregate, the decision is characterised as risky. One of the greater uncertainties for the nascent entrepreneur is the future outcome of the business. Weber and Milliman (2000) reported that different definitions of risk attitude measure different underlying constructs. Risk attitude derived from the expected utility framework, for instance describes choice behaviour, whereas other constructs, such as relative risk attitudes (Dyer & Sarin, 1982) or perceived risk attitudes capture different behavioural aspects. Risk taking has been defined as the willingness to commit resources to a course of action that may result in success or failure. Social scientists since the days of Adam Smith have identified risk taking as fundamental to the practice of entrepreneurship (Caird, 1988). According to Yates and Stone (1992), the critical elements of risk are; potential losses, the significance of those losses and the uncertainty of those losses. A substantive body of risk research indicates that women and men differ in their risk perceptions implying the existence of gender differences in risk taking behaviour, which is purported to influence start up capital decisions.

Henning and Jardim (1977) reported some differences between males and females that is whereas females view risk as negative: it is loss, danger, ruin and hurt; males see risk as negative and positive, as loss or gain, danger or opportunity. They add that males and females also differ in their perspectives on the consequences of risk taking. For females, taking a risk means endangering all they have achieved so far. Males, on the other hand, see risks as affecting the future, as risking future gain and career advancement (El-Namaki *et al.*., 1986). This means that females do not perceive risk that exists in future and as a result, females may avoid risky actions that endangers the present, without having an eye for its potential benefits in the future. According to Brophy (1989) and Cavaluzzo, Cavalluzo and Wolken (2002), females are assumed to be more risk averse than males. They tend to start businesses that require less capital like the retail and service sectors. This implies a reliance on personal resources instead of bank loans. Such businesses are small and relatively easy to start i.e. the start-up process is not complex. This is confirmed by Kotey (1999) states that risk aversion of entrepreneurs leads to dependency on personal equity as a source of finance.

According to Sexton and Bowman (1990), females are less willing than males to become involved in situations with uncertain outcomes, even if financial gain is involved. On the other hand, Masters and Meier (1998) report that males and females do not differ in their propensities for risk taking. In the same spirit, Scherer, Brodzinski and Wiebe (1990) observed that female entrepreneurs seem to differ little from their male counterparts. According to Scherer et al., (1990) both males and females are moderate risk takers. Some studies have also observed no significant difference between female and male entrepreneurs in regards to risk taking (El-Namaki *et al.*., 1986; Hartman, 1970; Schwartz, 1976; Stevenson, 1984).

3. Methodology

The main source of data used in the study was based on the 2003 Global Entrepreneurship Monitor (GEM) datasets of the different countries that took part in the GEM adult population survey. The data collection process was standardised and 31 countries took part. This source was used because the datasets were accessible enabled an international comparison.

Description of the Ugandan Survey: The sample of the GEM Uganda 2003 Adult population survey consisted of 1015 individuals aged 18-64. The sample was composed of 1000 individuals, but 15 additional interviews had been conducted across all regions, they were included and weighted accordingly. The method employed in most GEM countries was telephone interviews, but due to the relatively low telephone coverage in Uganda, face to face interviews were conducted. The response rate of the Ugandan survey was 101%.

In order to assure a representative sample of the Ugandan population, two districts were selected with probability proportional to size in each of Uganda's four regions (north, east, west, central), leaving out certain areas where security situation was too unstable. One parish was sampled per sub county, one sub county per county, and one county per district with probability proportional to size. In each parish several enumeration units were covered. The Uganda Bureau of Statistics provided detailed maps of number, location and composition of households in each parish.

Sampling method: the following method was employed to choose a respondent in a selected household at random: the family members were numbered according to their age, assigning number 1 to the oldest and the highest number to the youngest household member. The respondent was selected according to a random number chosen from a random table: the second oldest person was selected if the random number chosen was a two, the fifth oldest if the random number was a five and so on. If the selected person was not available, two call-backs were made before another household was chosen randomly. The study population used was 468 entrepreneurs who were involved in starting a new business in Uganda and 2,364 entrepreneurs in other GEM countries. The entire population was used.

Measurement of variables: The study measured the research variables by adopting scales developed by GEM (Reynolds *et al..*, 2000). Gender differences were measured in respect risk attitude as further elaborated below;

Risk attitude: Risk attitude was measured basing on the question 'fear of failure prevents you from starting a business'. The responses were rated using a nominal scale.

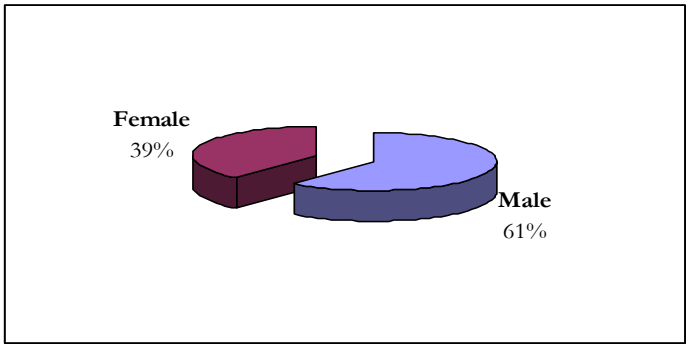
Start up capital: Start up capital was measured in terms of amount of start-up capital required for a business and amount of personal start-up capital invested in a new business on a ratio scale (numerical scale). Respondents were required to indicate a range of the amount of start-up capital required to start a business and the range of amount of money personally invested in a business start-up.

Data analysis: The data collected was analysed to examine the gender differences in risk attitude and start-up capital using Statistical Package for Social Sciences (version 11). The level of gender differences in risk attitude was analysed using Fischer's exact test, the influence of gender differences in risk attitude on start-up capital was analysed by a two way analysis of variances.

4. Analysis and Discussion of Findings

Demographic features: The demographic features used in this study are presented showing gender and age distribution in Uganda as derived from the data sets on start-up capital.

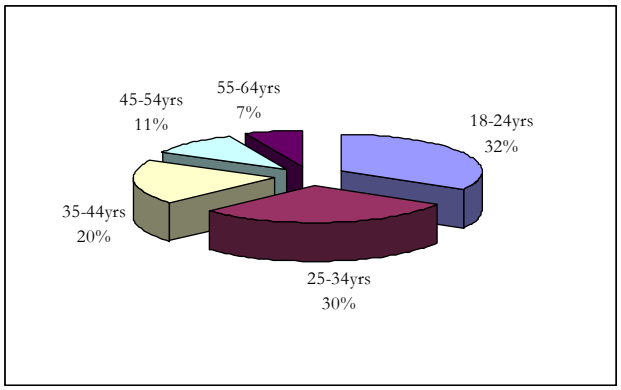
Figure 2: Gender distribution of entrepreneurs in Uganda



The findings in the figure above show that the 61% of the males are involved in starting a new business compared to 39% of females. This implies that there are more males involved in starting businesses. This can

perhaps be attributed to fact that people need income for survival. One way of doing this is by starting up income generating activities to be able to satisfy their needs.

Figure 2: Age distribution of new entrepreneurs in Uganda



The findings in the figure above show that the majority of entrepreneurs in Uganda belong to the 18-24 years age group, implying that the young people are more involved in entrepreneurial activity. However, such an age group is ideally meant to be in schools acquiring higher education. They seem to resort to starting businesses as a last choice. This can possibly explain the poor quality of businesses and why the business start-ups fail after twelve months of operation. According to Zoltan *et a.l* (2004), there may be difficulties in sustaining or increasing the level of entrepreneurship in a country where there is a predominantly a young or ageing population. Such difficulties Zoltan *et al. (2004)* identified are vivid in the high rate of business failures, a 30% shut down for Ugandan business start-ups Walter *et al.* (2004).

Gender differences with respect to Risk attitude: The study sought to establish the level of gender differences with respect to risk attitude of those involved in starting up a new business. The findings are presented in table 1 below:

Table 1: **Gender differences with respect to Risk attitude**

Risk attitude	Gender	Uganda	GEM
Not risk averse	Male	75.9%	76.5%
	Female	75.3%	72.1%
Risk averse	Male	24.1%	23.5%
	Female	24.7%	27.9%
Fischer's exact test		0.912	0.023

The findings show that the majority of Ugandan males (75.9%) are not risk averse, compared with 75.3% of Ugandan females. Similarly, 24.1% of males are risk averse, compared with 24.7% of females. The fisher's exact test reveals a non significant result (sig =0.912), i.e. gender does not significantly influence risk attitude. This is contrary to the works of Kotey (1999), who pointed out that females are more risk averse than males. A possible explanation for the above results could be that most of the businesses are necessity based ventures; hence the individual has no other survival alternative other than start a business. Therefore, issues of risk averseness where there are no alternative would not arise.

In other GEM countries, the majority of males (76.5%) are not risk averse, compared with 72.1% of females. Similarly, 23.5% of males are risk averse, compared with 27.9% of females. This implies that females are more risk averse as compared to their male counterparts as presented in table 1 above. The fisher's exact test indicates a significant result (sig =0.023). This is a clear indication that females are more risk averse than males. This perhaps explains why females are less likely to start businesses unlike males hence always lagging behind the males. It's important for females to educate themselves about businesses and to become risk tolerant.

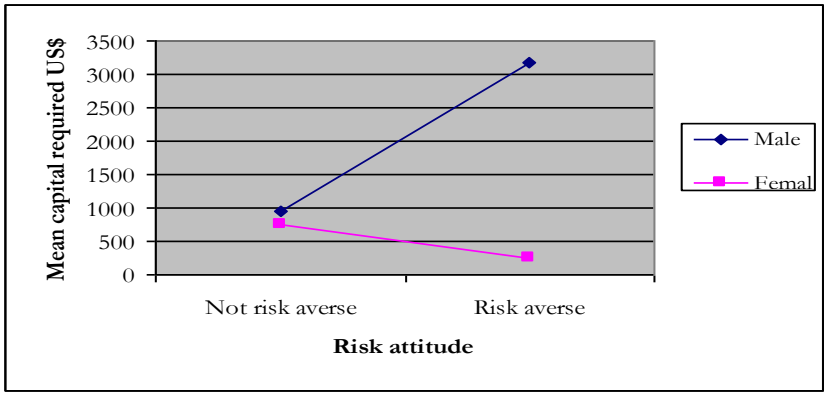
Influence of gender differences with respect to risk attitude on amount of start-up capital required: The study sought to establish the relationship between gender differences (with respect to risk attitude) and amount of start-up required. The findings based on a two way analysis of variance are presented in table 2.

Table 2: 2-WAY ANOVA: Risk attitude and amount of start-up capital required

		F	Sig	R	Adj R^2
Uganda	Risk attitude	1.259	0.262		
	Gender * risk attitude	2.267	0.133	0.205	0.037
GEM	Risk attitude	0.393	0.531	0.032	0.001
	Gender * risk attitude	0.582	0.445		

The findings show that there is insignificant influence of risk attitude on amount of start-up capital required in Uganda (F=1.259, sig =0.262), implying that the amount of capital required does not significantly depend on the risk attitude of the entrepreneurs. When compared to other GEM countries, the results are significant (F=0.393, sig =0.531). Risk attitude explains 3.7% of the variance in amount of start-up capital required in Uganda, and 0.1% in other GEM countries. This is further illustrated in figure 4.

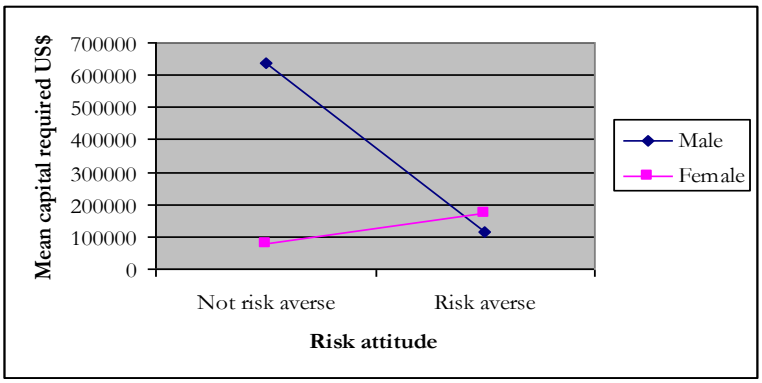
Figure 3: Risk attitude and amount of start-up capital required in Uganda



In Uganda, males require more start-up capital (by US$ 3000) if they are risk averse, whereas females require less. On the other hand, the males who are not risk averse require less start-up capital than their female counterparts. An explanation for this finding can be that females lack the confidence to start business due to fear of the consequences of business failure, thereby requiring less start-up capital. Sexton and Bowman (1990) reported that females are less willing than males to become involved in situations with uncertain outcomes, even if financial gain is involved. However, this is contrary to the findings of Masters and Meier (1998), who report that males and females do not differ in their propensities for risk taking.

Findings on other GEM countries also show that there are gender differences in amounts of start-up capital as illustrated in figure 5.

Figure 4: Risk attitude and amount of start-up capital required in other GEM countries



The figure above indicates that in other GEM countries, males who are not risk averse require far more start-up capital (by US$ 600,000) for business start-ups than females. On the contrary, females who are risk averse require slightly more (by US$ 50,000) start-up capital than males.

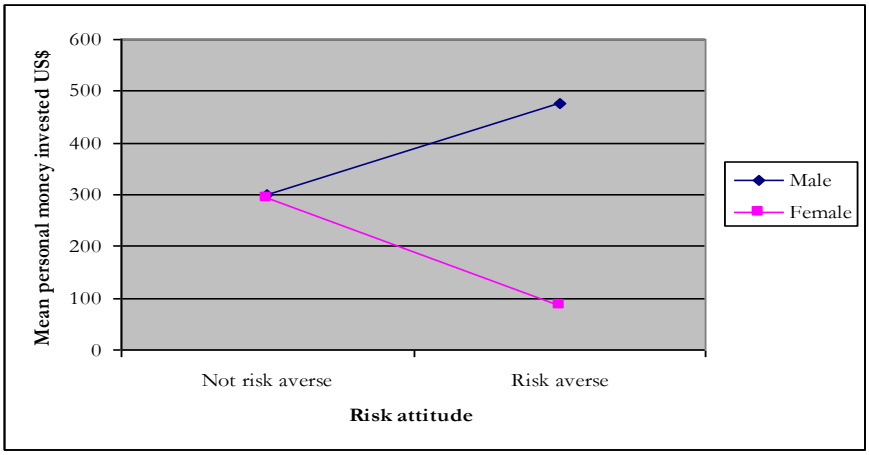
Influence of gender differences with respect to risk attitude on amount of personal start-up capital invested: The study sought to establish the relationship between gender differences (with respect to risk attitude) and amount of personal start-up capital invested. The findings based on a two way analysis of variance are presented in table 3.

Table 3: 2-WAY ANOVA: Risk attitude on amount of personal start-up capital invested

		F	Sig	R	Adj R^2
Uganda	Risk attitude	0.18	0.672		
	Gender * risk attitude	1.616	0.204	0.189	0.03
GEM	Risk attitude	1.52	0.218		
	Gender * risk attitude	0.573	0.449	0.770	0.004

The findings show that there is an insignificant effect of risk attitude on amount of personal start-up capital invested (F=0.18, sig =0.672) in Uganda and other GEM countries (F=1.52, sig 0.218). This implies that amount of personal start-up capital invested does not significantly depend on the risk attitude of the entrepreneurs. Risk attitude explains 3%, of the variances in the amount of personal start-up capital invested in Uganda and 0.4% in other GEM countries. This is further illustrated in figure 6.

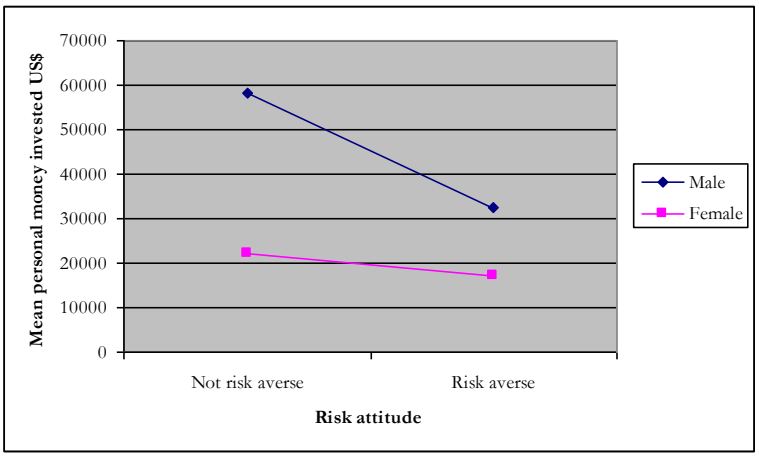
Figure 5: Risk attitude and amount of personal start-up capital invested in Uganda



In Uganda, males invest more personal start-up capital (by US$ 480) when they are risk averse whereas females invest less in this case. It also shows that males invest about the same amount when they are not risk averse.

The results for other GEM countries are also different as illustrated in figure 7.

Figure 6: Risk attitude and amount of personal start-up capital invested in other GEM countries



The findings show that in other GEM countries, males invested far more personal start-up capital in businesses than females. The difference is more pronounced if they are not risk averse (by US$ 40,000).

5. Conclusion and Recommendations

The following are the summaries of conclusions drawn from the study:

It was established that fear of failure as a deterrent to starting a business is relatively high in females than males across all countries. This implies that females are more risk averse. The gender difference (gap) was wider in other countries than Uganda. On the whole, Ugandan women are less risk averse as compared to those in and GEM countries. Across all countries, Uganda inclusive, the influence of risk attitude on amount of capital required to start a business was not the same for males and females. Ugandan males require more start-up capital when they are risk averse while the Ugandan females require less when risk averse.

With respect to risk attitude, Ugandan males invested more personal start-up capital when they are risk averse and the females invested less. When compared to other countries, both males and females invested less personal start-up capital when risk averse. The average amount of start-up capital required by males was more than that required by the females, the same applies to the average amount of personal start-up capital invested in starting a new business. The influence of risk attitude on amount of capital required to start a business was not the same for males and females. Ugandan males require more start-up capital when they are risk averse while the Ugandan females require less when risk averse. Ugandan males invested more personal start-up capital when they are risk averse and the females invested less. In general, across all countries, gender differences exist in type of business, education levels and risk attitude and influence amounts of start-up capital required and amount of personal start-up capital invested in a business.

Recommendations: In light of the above conclusions, the following recommendations are made:

Females should be sensitised about the viability of business start-ups, through conducting workshops, seminars, media, music dance and drama. Perhaps this could change their attitude towards risk and thereby increase the level of entrepreneurs. Given the high number of females in the Ugandan National Census demographic figures, this will boost not only Ugandan's entrepreneurship but also economic activities. If it is true that female entrepreneurs are more risk- averse than male entrepreneurs, programs mimicking non-profit sector micro-finance projects by extending small loans for very short terms might help women entrepreneurs gain confidence in their ability to productively use credit and build creditworthiness.

People need to change the tradition or culture in that, culture should encourage females' access to ownership of property, so that in the event that there is need to raise start-up capital, they are able to convert the property into liquid capital. One such important avenue is through the long awaited Domestic Relations Bill,

2003. Equal employment opportunities should be availed to females in both private and public sectors as required by the Ugandan Constitution and the Law on Employment. Generally, this will enable the females to earn a living and be able to save for investments, also gain some experience which can be later used to run their companies. In addition the policy makers should orientate the Ugandan Employment Act to protect and champion the females' interests.

Areas for Further Research

Despite relatively high levels of females' entrepreneurship in a number of countries, females are still much less likely to start-up a business than men. Why more females do not view entering into self-employment as a viable option is an important issue that needs further investigation. Further studies could focus on identification of other gender differences (with respect to networking, part-time entrepreneurship, and financial management) amongst entrepreneurs starting businesses in Uganda. Focus on the capital structure could also provide a better understanding of gender differences in start-up capital in Uganda. A more detailed investigation of issues related to gender differences in start-up processes in terms of challenges faced is particularly important.

References

Bates, T (1990). Self-Employment Trends among Mexican Americans, Working Papers, 90-9, Centre for Economic Studies, U.S. Census Bureau.

Bates, T. (1995). Small Businesses Do Appear To Benefit from State/Local Government Economic Development Assistance, Working Papers, 95-2, Centre for Economic Studies, U.S. Census Bureau.

Bates, T. (1997). Survival Patterns Among Newcomers to Franchising, Working Papers 97-1, Centre for Economic Studies, U.S. Census Bureau.

Bayard, K., Judith H., David N., & Troske. K. (1999). Why Are Racial and Ethnic Wage Gaps Larger for Men than for Women? Exploring the Role of Segregation Using the New Worker- Establishment Characteristics Database. In John C. Haltiwanger, Julia I. Lane, James R. Spletzer, Jules J.M. Theeuwes, and Kenneth R. Troske, eds. The Creation and Analysis of Employer-Employee Matched Data (Amsterdam: Elsevier Science B.V.), 175-203.

Brophy, D. (1989). *Financing Women-Owned Entrepreneurial Firms. In Women-Owned Businesses*, (Ed). O. Hagan, C. Rivchun & D. Sexton. New York: Praeger.

Caird, S. (1988). A review of methods of measuring enterprising attributes. Durham, UK: Durham University Business School.

Carrington, W. J & Troske, K. R. (1998). Sex segregation in U.S. manufacturing, *Industrial and Labor Relations Review*, ILR School, Cornell University, 51(3), 445-464.

Carter, N. & Rosa, P. (1998). The financing of male- and female owned businesses, *Entrepreneurship & Regional Development,* 10, 225-241.

Cavalluzzo, K. S., Cavalluzzo, L. C. & Wolken, J. D. (2002), Competition, small business financing, and discrimination: Evidence from a new survey, *Journal of Business,* 75(4), 641-680.

Chittenden, F., Hall, G. & Hutchinson, P. (1996). Small firm growth, access to capital markets and financial structure: review of issues and an empirical investigation. *Small Business Economics*, 8, 59-67.

Dunn, T. & Holtz-Eakin, H. (1996). Financial Capital, Human Capital, and the Transition to Self-Employment: Evidence from Intergenerational Links, Metropolitan Studies Occasional Paper No. 181, Center for Policy Research, Syracuse University.

Dyer, J. S. & Sarin, R. K. (1982), Relative risk aversion, *Management science*, 28, 875-886.

El-Namaki, M. S. S. (1990) A cross-country Examination of Barriers to Women Entry and Continuity in Business and Efforts Aimed at Barrier Waving Maastricht. ASTRO/RVB Proceedings on a Conference on Industrial and Trade Policies for 1990s: Implications for LDCs.

Evans, D. S. & Jovanovic, B. (1989). An Estimated Model of Entrepreneurial Choice under Liquidity Constraints. *Journal of Political Economy*, 97(8), 8-27.

Evans, D. S. & Leighton, L. (1989). Why Do Smaller Firms Pay Less?, *Journal of Human Resources*, University of Wisconsin Press, 24(2), 299-318.

Fischer, M. J. & Massey, D.S. (2000). Residential Segregation and Ethnic Enterprise in U.S. Metropolitan Areas. *Social Problems* 47, 408.

Groshen, E. L. (1991). Rising inequality in a salary survey: another piece of the puzzle, Working Paper, 9121, Federal Reserve Bank of Cleveland.

Hawawini, G. & Viallet, C. (1999). *Finance for Executives*, South Western College Publishing, USA.

Henning, N., & Jardim, A. (1977). *The managerial woman*. New York: Anchor Books.

Hertz, D. & Thomas, H. (1984). *Practical Risk Analysis through case Histories*, Wiley, Chichester.

Hisrich, R.D. & Brush, C.G. (1987). Women entrepreneurs: A longitudinal study, in: N.C. Churchill, J.A. Hornaday, B.A. Kirchhoff, O.J. Krasner and K.H. Vesper (Eds), *Frontiers of Entrepreneurship Research*, 187-199.

Holtz-Eakin, D., Joulfaian, D. & Rosen, H. (1994). Sticking It Out: Entrepreneurial Survival and Liquidity Constraints, *Journal of Political Economy*, 102, 53-75.

Keinan, G., Meir, E. & Gome-Nemirovosky, T. (1984). Measurements of risk takers personality. *Psychological Reports*, 55, 163-67.

Kotey, B. (1999). Debt financing and factors internal to the business, *International Small Business Journal*, 17(3), 11-29.

Levinson, M. R. (1990). Risk taking and personality. *Journal of personality and social psychology*, 58, 1073-80.

Liles, P. R. (1981). Who are entrepreneurs? In Gorb, P., Dowell, P. and Wilson, P. (Eds), *Small Business Perspectives*, Armstrong Publishing/ London Business School, London, 33-50.

Master, R. & Meir, R. (1998). Sex differences and risk-taking propensity of entrepreneurs. *Journal of Small Business Management*, 26(1), 1-35.

Michaelas, N., Chittenden, F. & Poutziouris, P. (1999). Financial Policy and Capital Structure Choice in U.K. SMEs: Empirical Evidence from Company Panel Data, *Small Business Economics*, 12, 113-130.

Myers, S. C. (1984). The Capital Structure Puzzle. *Journal of Finance*, 34(3), 575-592.

Pettit, R., & Singer, R. (1985). Small Business Finance: A Research Agenda. *Financial Management,* 14, 47-60.

Reily, K. T. & Wirjanto, T. S. (1999). The Proportion of Females in the Establishment: Discrimination, Preferences and Technology, *Canadian Public Policy,* University of Toronto Press, 25(1), 73-94.

Reynolds, P. D. (2000). National Panel Study of U.S. Business Start-Ups: Background and Methodology. In Advances in Entrepreneurship, Firm Emergence, and Growth, ed. J. Katz (4). Stamford, CT: JAI Press.

Reynolds, P. D., Hay, M., Camp, M. S., & Autio, E. (2002) AND (2003). *Global Entrepreneurship Monitor: Executive Report.* Kauffman Centre for Entrepreneurial Leadership, Kansas City, MO.

Scherer, R. F., Brodzinski, J. D., & Wiebe, F. A. (1990). Entrepreneur Career Selection and Gender: A Socialization Approach. *Journal of Small Business Management,* 28(2), 37-44.

Schwartz, E. (1976). Entrepreneurship: A new female frontier. *Journal of Contemporary Business,* 5(1), 47-76.

Sexton, D. & Bowman, N. (1990). Female and Male entrepreneurs: psychological characteristics and their role in gender- related discrimination. *Journal of Business Venturing,* 5(1), 29-36.

Sitkin, S. B. & Weingart, L. R. (1995). Determinants of Risky Decision-Making Behavior: A Test of the Mediating Role of Risk Perceptions and Propensity. *Academy of Management Journal* 38(6), 1573–1592.

Stevenson, L. (1984). An Investigation of the Entrepreneurial Experience of Women*. Implications for Small Business Policy in Canada*. Nova Scotia. Acadia University.

Verheul, I. & Thurik, R. (2001). Start up capital: Does Gender Matter? *Small Business Economics,* 16, 329-345.

Walter, T., Balunywa, W., Rosa, P., Sserwanga, A., Barabas, S., & Namatovu, R. (2003). Global Enterprenuership Monitor*: GEM Uganda 2003 Executive Report*.

Walter, T., Balunywa, W., Rosa, P., Sserwanga, A., Barabas, S., Namatovu, R. & Kyejjusa, S. (2004). Global Enterprenuership Monitor: *GEM Uganda 2004 Executive Report.*

Weber, E. U. & Milliam, R. A. (2000). Perceived risk attitudes: Relating risk perception to risky choice, *Management Science.* 43, 123-144.

Wijst, D. Van der & Thurik, A.R (1993). Determinants of small firm debt ratios: an analysis of retail panel data, *Small Business Economics*, 5(1), 55-65.

Yates, J.F., Stone, E.R., 1992. In: Yates, J.F. (Ed.), the Risk Construct in Risk-Taking Behavior. Wiley, Chichester, 1-25.

Zoltan, J., Arenius, P., Hay, M. & Minniti, M. (2004). Global Entrepreneurship Monitor*: GEM 2004 Executive Report.*