

Original Article

A Comparative Analysis of Risk Capacity and Risk Willingness Among Working Rural and Urban Women of Delhi NCR and Gujarat

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Abstract - Risk-taking is an important skill in entrepreneurs. However, there is a gender parity in the risk propensity between men and women. Although this parity doesn't seem to exist in women with high education in the west, it still exists in developing countries. The present study aims to find the risk capacity and risk willingness in women from different socio-economic groups in Delhi NCR and Gujarat, India, a developing country. There were 35 respondents in total, 20 of them being women from the higher socio-economic group in the Delhi NCR region, whereas 15 were from a lower socio-economic group in Gujarat. Graphical representation and descriptive statistics were used to analyse the results. Furthermore, Mann Whitney U- test was carried out to test the statistical significance of the results. It was found that regardless of socio-economic status, women have an overall low-risk tolerance. Lack of financial literacy is the reason for being financially risk averse, so awareness/educational programs about finance can be helpful to make women more financially literate.

Keywords - Risk capacity, Risk tolerance, Risk willingness, Socio-economic status, Women entrepreneurs.

1. Introduction

India is a hub of new opportunities for up-and-coming entrepreneurs wanting to start new businesses. With Bengaluru ranking 8th in the world's top cities with the strongest startup ecosystem according to the Global Startup Ecosystem Index 2022, followed by New Delhi ranking at the 13th position and Mumbai at the 17th, it is evident India has become a centre for startups. [8] The total number of startups in India as of 30th June 2022 was 72,993 compared to 471 in 2016. [17]

However, in a study, almost 55% of new companies formed in India come to an end or become inactive; the surviving 45% tend to stay in business for over 20 years. [10] Successful entrepreneurs running these businesses tend to have certain skills and attributes. For instance, knowledge of what the entrepreneur does not know, what is outside a personal span of control, intelligence, analytical abilities, adaptability, intuition, creativity, innovativeness, etc. [20]

2. Literature Review

Risk-taking is also an important characteristic in entrepreneurs, arguably one of the most important. The willingness to take risks and risk tolerance are considered important traits in entrepreneurs. [14] However, there seems to be a disparity between the risk tolerance of men and that of women. It was found in a study that women appear to be much more financially risk-averse as compared to men. [4]

The average investment for males was always higher than that for females, and women made significantly smaller investments in risky assets than men.

Another study in the U.S. came to a similar conclusion, stating that single women are more risk averse compared to single men and that relative risk aversion decreases less for single women compared to single men, emphasising that single women take relatively less risk. [26] On the other hand, a study conducted in Malang, Indonesia, which showed the gender differences in risk-taking among entrepreneurs, found that women entrepreneurs had a slightly higher average risk-taking score than men, though not statistically significant. [1] Similarly, when a high-performing group of women working in fairly large organisations in the U.S. were studied, it was found that the motivators for women's risk-taking were, in general, gender-blind, i.e., there was not much evidence for a particularly "female" decision-making process. [15]

This shows that while studies suggest women, in general, are more risk averse than men, women entrepreneurs or other women in high-performing roles have a similar risk tolerance to men.

Although this does not seem to be the case for small businesses in India, in a self-assessment, nonprofit female entrepreneurs saw themselves more as risk-takers than for-



profit female entrepreneurs. [11] Moreover, when a group of female micro-entrepreneurs in the handloom industry in northeast India was studied, it was found that they were more risk-averse compared to their male counterparts. [9] Lack of education was found to have a direct influence on this risk aversion.

Conditions are worse for female entrepreneurs in developing countries such as India. [13] Research shows that entrepreneurs in developing countries face many more problems than entrepreneurs in developed countries in the west. The situation is more unfavourable when the gender of the entrepreneur is taken into account. This is not only due to patriarchal ideologies, gender inequality, and social stigma in these countries but also to a lack of resources and digital exclusion.

Studies suggest that for women to get more opportunities for their businesses to be successful, lightening women's domestic workload is key. [13]

Small businesses play a significant role in the global economy. Businesses with less than 50 employees account for nearly 60 percent of the global G.D.P. [27]. However, on average, women-owned firms are half the size of men-owned firms. While money lenders may not discriminate based on gender, they tend to discriminate based on firm size, thus lending money to larger firms usually owned by men. [5] Additionally, women are lent money under less favourable conditions than men. [5] This gives women-owned businesses fewer opportunities.

While there is a significant amount of research on why women are not getting opportunities to be as successful as male entrepreneurs, there is little focus on the skills of women entrepreneurs. Furthermore, there is only a small amount of research on risk tolerance in women entrepreneurs in India.

So, this study will focus on risk tolerance as an attribute towards the business's success. The aim is to study entrepreneurial skills and risk tolerance in women in India, a developing country.

3. Materials and Methods

3.1. Aim of the Study

The study's main aim is to assess the risk-taking capabilities of women entrepreneurs of different income groups in a developing country and compare this risk propensity with their financial behaviour.

3.2. Research Design

The study uses a quantitative approach to conduct the research.

3.3. Informed Consent

Informed consent was taken from the respondents for data collection. The confidentiality and privacy of the respondents were maintained; no data would be disclosed to a third party. No identifiers, such as names or pictures, were disclosed in the article or while conducting the study. Ethical guidelines of research were followed.

3.4. Sample

There were 35 respondents, all of them were women. 20 were women belonging to a high-income group in Delhi, N.C.R. region, whereas 15 were women in a low-income group in Gujarat. All respondents were between the ages of 25 and 65.

3.5. Tools Used

The quantitative data includes responses to a self-constructed questionnaire that asks demographic questions, such as age, education level, etc., and questions regarding the respondent's business, such as those related to social media adoption. For example, "Is the business your primary source of income?", "Which popular social media features does your business use" etc. Additionally, quantitative data is collected using a "Risk Scoring and Mapping" questionnaire created by Charles Schwab Corporation to understand the respondent's risk propensity. [3] The questionnaire looked at two aspects of risk: risk willingness and risk capacity. Risk Willingness refers to the willingness to take risks or the attitude towards risk, and Risk Capacity refers to the ability to take risks. Risk Willingness was scored out of 100, while risk capacity was scored out of 90. Questions like "What is your understanding of stocks, bonds, and ETFs?" for Risk Willingness and "Why do you want to invest your savings?" for Risk Capacity were asked.

3.6. Data Collection Procedure

Convenient sampling was used to conduct this research. The questionnaire was first distributed to women in a high-income neighbourhood. Thereafter, it was sent to a group of women living in a low-income village in Gujarat with the help of a firm's CSR team. Women from this group were given the questionnaire in Hindi as they did not understand English. The Hindi questionnaire was translated from the English version and was vetted by a person well-versed in the language.

3.7. Data Analysis Strategy

Graphical representation and descriptive statistics were used to depict data received from the questionnaire. Non-parametric technique Mann Whitney U t-test was also carried out to find statistical significance in data between the different income groups.

4. Results and Discussion

Descriptive and inferential statistics were carried out in this study.

Of the 20 women from the high-income group, a Bachelor's degree was the highest level of education completed by 14 women, while for 6 of them, a Master's degree was their highest level of education. On the contrary, all 15 women from the low-income group were high school graduates or lower. (Figure 1)

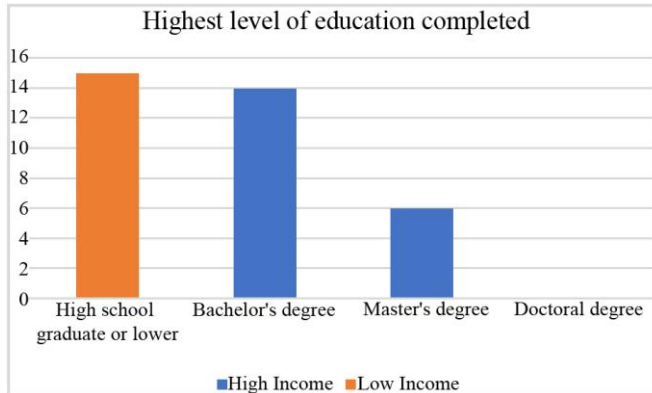


Fig. 1 Graphical representation of the educational qualification level of the respondents (N=35)

The survey respondents ran small businesses, mostly home-based. Out of the 35 respondents, 20 of them, their small business was their primary source of income. On the other hand, 15 respondents said their small business wasn't their primary source of income. (Fig. 2)

Looking at the same question from the perspective of income groups, it can be seen that in the high-income group, only 7 out of 20 women's primary source of income is their small business. But for the low-income group, 13 out of 15 respondents said their business was their primary source of income. (Fig. 2)

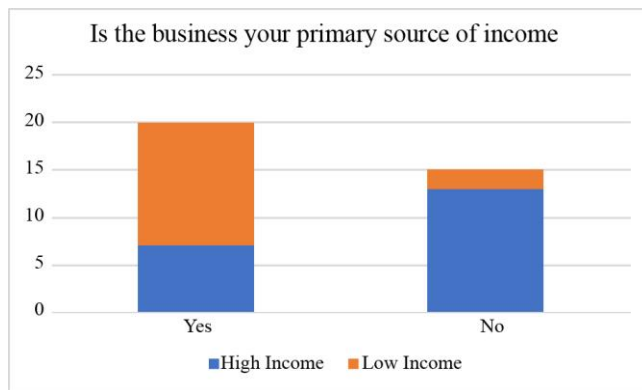


Fig. 2 Graphical representation of business as the primary source of income (N=35)

When asked what other sources of income the respondent has, it can be seen that women from the high-income group either have a full-time job (thus making their business a secondary source of income) or rely on spousal or family income. The reason for more women in the low-income group having their business as a primary source of income may be that they don't have any other full-time job, perhaps due to lack of education, which is an important determining factor for better non-agricultural work. [19]

The questionnaire also focused on the adoption of technology by these women entrepreneurs running small businesses. Only 6 of the 35 respondents had a website for their business, and all of these 6 women were from the high-income group (Fig. 3). While the overwhelming majority did not have a website, a similar majority continued when asked if they would like to make a website to gain more traction for their business. 22 of the 35 women said they would not like help making a website for their business (Fig. 4). But when asked if they face difficulty using social media, the responses were split in approximately half, with 18 women saying yes and 17 responding no. The majority of the 17 women saying no belonged to the high-income group – 15 – while only 2 were from the low-income group (Fig. 5). Many women in the high-income group use social media such as Instagram and Facebook for marketing. On the contrary, women in the low-income group either use Whatsapp for their business or have no social media at all.

An interesting insight is that all 15 women from the low-income group said they didn't want assistance to increase online traction. This could be due to hesitancy toward expanding their business because of a lack of resources. [16] Additionally, some of the women from this low-income group run community businesses such as grocery stores which cannot be marketed through social media to reach the target audience.

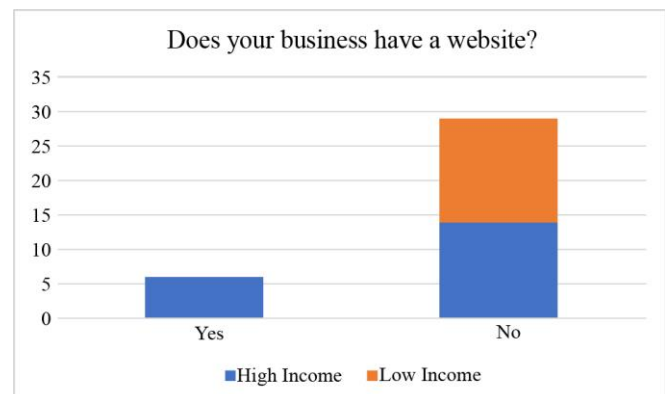


Fig. 3 Graphical representation of respondents who have a business with a website (N=35)

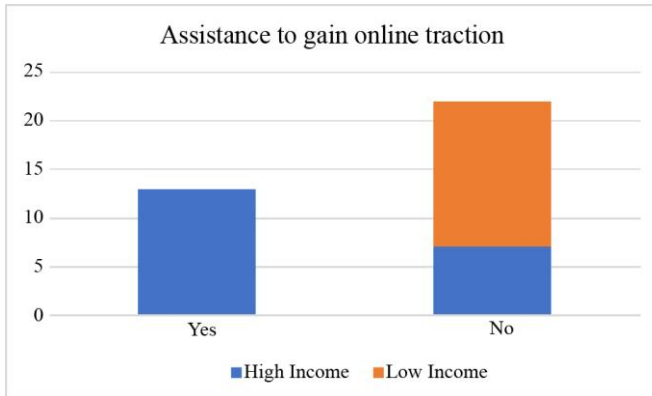


Fig. 4 Graphical representation of whether respondents want assistance to gain online traction (N=35)

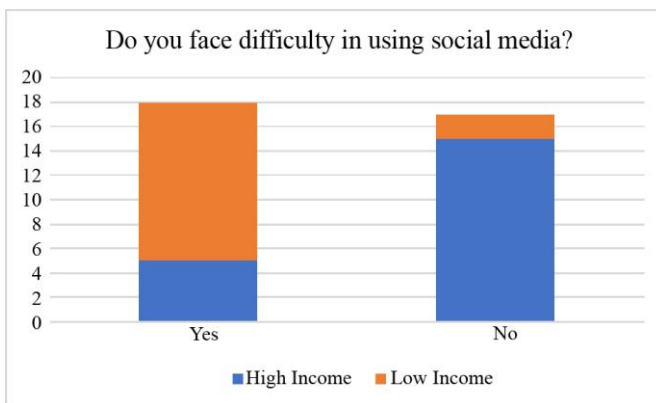


Fig. 5 Graphical representation of respondents that face difficulty in using social media (N=35)

Using the quantitative data collected from the questionnaire, the results suggest women overall have very little risk tolerance (Table 1).

Table 1. Overall Risk Willingness and Risk Capacity in women surveyed (N= 35)

	N	Mean	Median	Standard Deviation
Total Risk Willingness	35	30.54	28	7.77
Total Risk Capacity	35	32.29	20	21.23

As hypothesised, Risk Capacity in the low-income group (M = 21.67, SD = 10.8) is lower than in the high-income group (M = 40.25, SD = 23.76). It could be due to the difference in earnings (Table 2).

The Mann-Whitney U test indicated a statistically significant difference between the scores of high-income and low-income respondents on risk capacity, $U=91$, $p=0.047$ (Table 2). Hence. It depicts that there is a significant difference in risk capacity between the two income groups.

Table 2. Summary of Mann-Whitney U Analysis between high-income and low-income respondents on risk capacity (N=35)

Income group	N	Mean	SD	Mann-Whitney U	Z	p
High income: Total Risk Capacity	20	40.25	23.76	91	-1.99	0.047
Low income: Total Risk Capacity	15	21.67	10.8			

Similarly, Risk Willingness is also lower in the low-income group (M = 28.87, SD = 2.88) as compared to the high-income group (M = 31.8, SD = 9.9), albeit there is little difference. The Mann-Whitney U test indicated no statistically significant difference between the scores of high-income and low-income respondents on risk willingness, $U=110.5$, $p=0.178$ (Table 3). The comparatively higher risk willingness within the low-income group suggests that while they may not have access to resources and the capacity to take financial risks, they are more willing to take financial risks. It can be characterised by the fact that women belonging to the low-income group may have to take more risks to earn more money and achieve better conditions for themselves and their families. The investment patterns of the lower-income group can further back this up. The respondents were also asked about the assets they invest in. All respondents in the low-income group saved their money in the bank and invested in gold and other commodities. This group, which has a relatively lower risk capacity and willingness than the high-income group, invests in assets associated with less risk. [7] Due to the greater ability to take risks and more financial literacy, or ability to grasp financial concepts easily due to higher education level, of women in the high-income group, they have invested in many diverse asset types, including equity, which is a high-risk asset type.

Table 3. Summary of Mann-Whitney U Analysis between high-income and low-income respondents on risk willingness (N=35)

Income group	N	Mean	SD	Mann-Whitney U	Z	p
High income: Total Risk Willingness	20	31.8	9.9	110.5	-1.35	0.178
Low income: Total Risk Willingness	15	28.87	2.88			

However, it is important to note the difference in both income groups' values of Risk Willingness and Risk Capacity. On the one hand, the mean Risk Capacity is more than the mean Risk Willingness in the high-income group (40.25 vs 31.8). But, in the low-income group, the mean Risk Capacity is less than the mean Risk Willingness (21.67 vs 28.87).

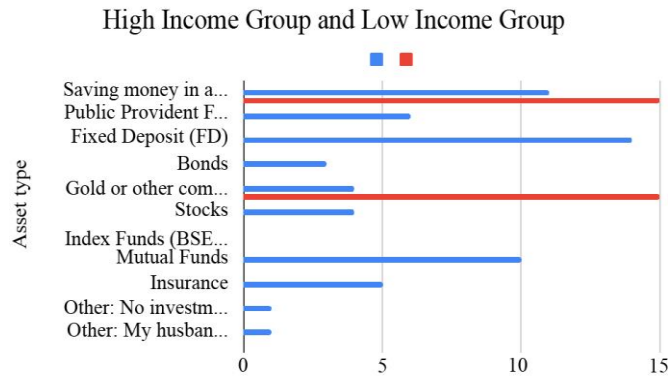


Fig. 6 Graphical representation analysis of asset investment in high and low-income respondents (N=35)

5. Conclusion

This study found that, overall, women have a low propensity for risk, irrespective of their socio-economic class. [6] While women in the high-income group have a higher capacity for risk, they are less willing to take risks than women in the low-income group. However, overall risk tolerance in women in the low-income group is comparatively lower than that of the high-income group. [2] Due to lesser risk propensity, and lack of complete secondary education, women in the lower income group tend to invest in safer, less risky assets like banks and gold. [2] Moreover, while some women in the high-income group are financially literate, investing in stocks, mutual funds, etc., many women

in this group also invested in less risky assets like Fixed Deposits and Public Provident Funds. Additionally, none of the respondents invested in Indices like NSE or BSE, suggesting a lack of financial literacy or a low-risk propensity.

Implications

While women in both groups have low-risk tolerance, it can be argued that women from the low-income group have lesser financial literacy since they only invest in banks and gold and have no government schemes or other assets. So, awareness programs could be conducted for women to be more financially aware. Awareness of the different investment methods and government schemes is imperative for women in low-income groups. For women from high-income groups, awareness about asset allocation and how investing assets in a manner that matches their risk propensity while also starting to invest in slightly more risky assets could be conducted. These awareness programs would act as a step towards women becoming more financially independent.

Limitations

This study only covered a small sample size, and the respondents were concentrated in particular regions. People from the same region may share similar beliefs due to the same cultural exposure, which may have skewed the results relative to if respondents were from various regions.

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