



RISK ANALYSIS OVER THE ENTREPRENEURIAL LIFE CYCLE OF WOMEN ENTREPRENEURS IN GALLE DISTRICT, SRI LANKA

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ABSTRACT

In the last few decades, there is a tendency among Sri Lankan women to break the traditionally inactive economic position by starting up their own business ventures. Gradually, the number of women has emerged in local entrepreneurial environment which is still dominated by men. Whatever the motive which encourages the women to initiate the business, survival of those women leading business ventures is crucial for the benefit of the individuals and as well as of the community. This research is an empirical study about the risks, face by women entrepreneurs in Galle district, Sri Lanka. Further, an analysis of the impact and probability of occurrence of the risks at each stage of entrepreneurial life cycle was conducted. Moreover, relationship between risk and the entrepreneurial life cycle stage was studied. Finally, mitigation strategies were suggested to minimize the impact of risks on business performance of women entrepreneurs at each stage of entrepreneurial life cycle after benchmarking the success models.

Keywords: Entrepreneurial life cycle, Galle district, Mitigation plan, Risks, Women entrepreneurs

1. INTRODUCTION

1.1 Research Background

Most of the Sri Lankan women were used to play economically inactive roles in their communities since ancient days. However, they tend to break those inactive positions during the recent decades. As a result of the particular trend, unemployment rate of female is gradually decreasing year by year and it was 6.6% when comparing with men's 3.2% in 2013. (Department of Census and Statistics, 2013) Even though, the situation makes the women to transit from their traditionally inactive economic positions, still the female employed population is 2,918,859 out of 3,124,298 of female labour force (Department of Census and Statistics, 2013). In the current scenario, according to the status of female employee contribution, 54% of women contribute as employees while 24.6% of women contribute as own account workers, in other words as entrepreneurs (Department of Census and Statistics, 2013). However,

Entrepreneurship among women is very important for a country like Sri Lanka because women constitute to more than half of the population of this country (Ranasinghe, 2011)

Entrepreneurship is not a new concept in Sri Lankan culture as far as ancient Sri Lankans ran their own business ventures. However, female entrepreneurs' appearance was significantly increasing in the male dominated entrepreneurial environment during the past few decades. Entrepreneurs play a vital role to strengthen a country's economy in numerous ways. They generate more job opportunities in their communities, enhance product and service choices for the customers and earn foreign currency through their international businesses. They have the potential to uplift the living standards of individuals and communities. Their contribution is highly crucial to minimize the economic inequalities and motivate the other women in their societies to be economically empowered. Finally, they contribute to enrich both social and economic status of their nations.



In a market economy, being a female entrepreneur means accepting the risks involved in selling either goods or services to make a profit (Dharmaratne, 2012). Research over the past ten years, has shown there are similarities between male and female business owners across demographic characteristics, business skills, and some physiological traits (Hagan, Rivchun, & Sexton, 1989). Even in the entrepreneurial life cycle, both male and female entrepreneurs face same and different kind of risks from time to time. This research is to identify the risks which face by female entrepreneurs in Galle district, Sri Lanka along their entrepreneurial life cycle and suggest risk mitigation strategies.

According to Global Entrepreneurship Institute, there are seven stages in the entrepreneurial life cycle and it is aligned with the business life cycle. The seven steps can be interpreted as, opportunity recognition, opportunity focusing, commitment of resources, market entry, growth, maturity and expansion and liquidity event. In this research, first four stages are combined and considered as one stage for an easier analysis. Hence, finalized four stages in entrepreneurial life cycle can be explained as follows.

1. Market entry

Here, the new business is started-up after recognizing the opportunities, selecting the best possible opportunity and assuring the resources availability to implement the opportunity. Generally, the objectives are identified and business plan is created in this stage. Initial progress is assessed against the objectives and if the business is performed well then the same will be forwarded.

2. Growth

This stage ensures whether the firm remains in the same stage for the entire life or grows to a larger organization beyond its small scale version. Growth depends on the external environmental factors of the firm and the personal factors of the entrepreneur.

3. Maturity and expansion

Firm comes to a maturity and enhances the capacities further with expansions, mergers and acquisitions. Now the firm has become a medium scale or large scale market leading organization.

4. Liquidity event

This is the last stage of entrepreneurial life cycle and the firm exits through an initial public offering, acquisition by a larger company, bankruptcy or termination by the owner.

In this research, risks are identified that face by the women entrepreneurs in Sri Lanka along the entrepreneurial life cycle, analyzed the impact and influence of risks towards the business and finally suggested risk mitigation strategies. Here, the entrepreneurial life cycle was studied about the women entrepreneurs in Galle district, Sri Lanka, who engage in the garment industry. The area and the industry for the study are selected due to the accessibility of primary and secondary data.

2. RESEARCH METHODOLOGY

From the women entrepreneurs who engage in garment industry in Galle district, Sri Lanka, 120 respondents were selected according to the random sampling method to collect data for the research. A questionnaire was handed over these women entrepreneurs as a primary data collection method. Further, previous research papers, books and related web sites were referred as secondary data. A pilot survey was conducted in order to identify the primary risk factors.

3. RESEARCH ANALYSIS

The pilot survey and the literature works were used to identify the primary risks which are faced by the women entrepreneurs. These risk factors were mentioned on the questionnaire which handed over to the women entrepreneurs in each stage of entrepreneurial life cycle. Respondents' task to rank the risk according to its impact towards their business and state the probability of occurrence of the risk factor by considering their experience in the previous stage of entrepreneurial life cycle. Primary risks which were considered in this research, are as follows.

- Endangering the femininity (mental and physical harassments, sexual abuse)



- Sacrificing family life
- Endangering the health and safety (including workplace accidents, natural disasters and work related health issues such as fatigue and body aches)
- Investing money in the business
- Trusting resources (including labour, machinery and raw material)
- Trusting business partners (including raw material suppliers, financial institutes, insurance companies and distributors)
- Designing the future trends (identify the future fashion trends and design the same, however, it can be a succession or failure with the market expectations)

- Violating rules and regulations (including bribing, violating trade agreements and paying for extortion)

Not only for the business, some of the above risks affect the entrepreneur’s personal life as well. However, only the impacts on the business from those risks were considered when doing the risk analysis.

Respondents had to fill the following table in their questionnaire for the analysis of risks. They had to tick off their previous entrepreneurial life cycle stage, mark the first priority out of all the listed risks, tick off the impact level on the business and the number of occurrences of the particular risk in the previous stage.

Table 1: Collecting information from the respondents for the risk analysis

Previous Stage :		Market entry <input type="checkbox"/>	Growth <input type="checkbox"/>	Maturity and expansion <input type="checkbox"/>	Liquidity event <input type="checkbox"/>
First priority	Risk	Low	Moderate	High	Probability of occurrence
		Endangering the femininity			
	Sacrificing family life				
	Endangering the health and safety				
	Investing money in the business				
	Trusting resources				
	Trusting business partners				
	Designing the future trends				
	Violating rules and regulations				

In the beginning of the questionnaire for the entrepreneurs, brief description was provided about the four stages of the entrepreneurial life cycle to identify the current stage in the life cycle by themselves. The classification for entrepreneurial life cycle stages was mentioned as below in the questionnaire.

1. Market entry

Features are shown in the market entry stage: looking for the business opportunities, assessing the resources, confirmation of business idea, opening-up the business, looking for the customers, sales are very low, not enough to cover the cost, but sales is improving slowly

2. Growth

Features are shown in the growth stage: rapid growth in sales, the business is getting popular,

new customers are added, receiving customer feedback, looking for the new designs, enhancing production capacity, increasing profits, investing profit in the business

3. Maturity and expansion

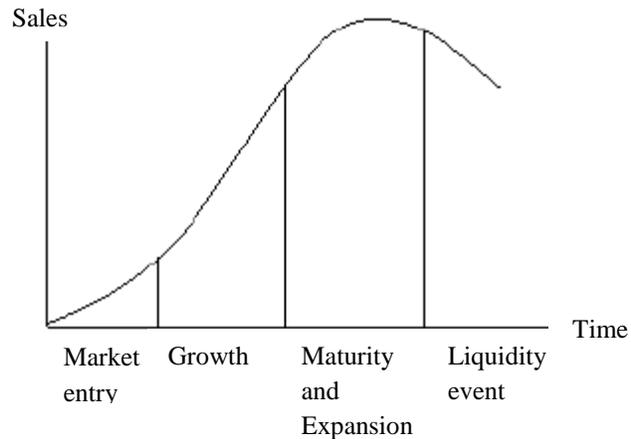
Features are shown in the maturity and expansion stage: business is very popular among customers, less number of new customer additions, no more sales growth, customers are highly loyal, opening-up a new branch, acquiring small businesses, partnering with other firms

4. Liquidity event

Features are shown in the liquidity event stage: decreasing sales, lack of new designs, working with outdated trends, acquiring by another firm, making loses, termination of the business, bankruptcy



Therefore, respondents were known which stage that they represent currently and about their previous



stages when they fill the questionnaire. Entrepreneurial life cycle between time and sales

Figure 1: Interpretation of stages of entrepreneurial life cycle between time and sales

Here, a summary of responses about the risks in each stage of the life cycle from the experience of women entrepreneurs. The questionnaire was asked to fill this table according to the entrepreneurs' experience on the preceding stage of the life cycle, because the current stage still opens for the experience and the count of risk occurrence is unstable. The summary was prepared by considering the mode value of the number of ticks on the risk impact columns and the mean value of probability of occurrence.

Table 2: Summary of risks analysis at “Market entry” stage

Risk	Impact			Probability of occurrence
	Low	Moderate	High	
Endangering the femininity			√	33
Sacrificing family life			√	58
Endangering the health and safety		√		22
Investing money in the business			√	35
Trusting resources		√		17
Trusting business partners			√	30
Designing the future trends	√			08
Violating rules and regulations	√			04

Table 3: Summary of risks analysis at “Growth” stage

Risk	Impact			Probability of occurrence
	Low	Moderate	High	
Endangering the femininity		√		18
Sacrificing family life			√	45
Endangering the health and safety			√	39
Investing money in the business			√	52
Trusting resources			√	25
Trusting business partners			√	20
Designing the future trends		√		20
Violating rules and regulations	√			10

Table 4: Summary of risks analysis at “Maturity and expansion” stage

	Impact	
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Risk	Low	Moderate	High	Probability of occurrence
Endangering the femininity		√		15
Sacrificing family life			√	20
Endangering the health and safety		√		15
Investing money in the business			√	25
Trusting resources			√	30
Trusting business partners			√	20
Designing the future trends			√	25
Violating rules and regulations		√		12

Table 5: Summary of risks analysis at “Liquidation event” stage

Risk	Impact			Probability of occurrence
	Low	Moderate	High	
Endangering the femininity		√		15
Sacrificing family life			√	25
Endangering the health and safety		√		10
Investing money in the business		√		5
Trusting resources			√	10
Trusting business partners			√	10
Designing the future trends			√	20
Violating rules and regulations			√	10

In further analysis of the risks along the entrepreneurial life cycle, following hypothesis was built and used Chi-square method to analyze the data.

Null hypothesis was stated as below,

H₀ : Risk, which is faced by the women entrepreneurs, is independent from the stage of the entrepreneurial life cycle.

Alternative hypothesis was stated as below,

H₁ : Risk, which is faced by the women entrepreneurs, and the stage of entrepreneurial life cycle are dependent upon each other.

Chi-square test of independence was used to analyze the data and the contingency table for the analysis is as below. When developing this table, the only factor was considered that the respondents ‘first priority risk out of all risks, then total of all those priorities is displayed against the previous stage of the entrepreneurial life cycle of the respondents.

Table 6: Contingency table with dimensions 8x4 for the chi-square test of independence

	Market entry	Growth	Maturity and expansion	Liquidity event	Total
Endangering the femininity	3	5	2		10
Sacrificing family life	8	10	10	2	30
Endangering the health and safety		4	3	4	11
Investing money in the business	6	10	5		21
Trusting resources	4	7	4		15
Trusting business partners	2	4	3	3	12
Designing the future trends	3	5	3	3	14
Violating rules and regulations			2	5	7
Total	26	45	32	17	120

Significance level was taken as 0.05.

Number of rows in the contingency table is 8 and number of columns in the contingency table is 4, therefore, chi-square table reading = 32.671

Then test statistic was calculated by applying following formula,

$$X^2 = \sum [(O_{r,c} - E_{r,c})^2 / E_{r,c}]$$

While, O – Observed frequency,

E – Expected frequency,

r – row number,

c – column number

$$E_{r,c} = (n_r \times n_c) / n$$

n – total number of sample observations

after doing the calculations by assigning values to the above equation, test statistic was received as,

$$X^2 = 39.725$$

Calculation was done on Excel.

Decision was made by drawing the chi-square curve and plotting the two values.

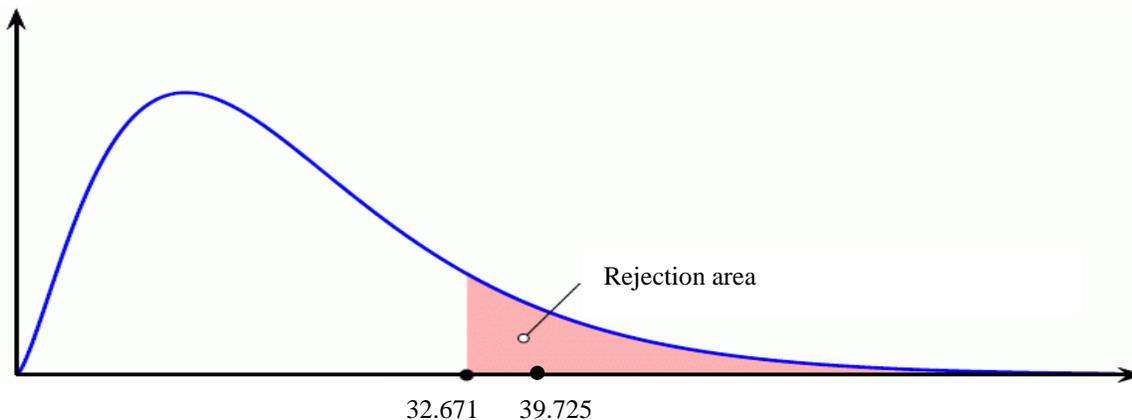


Figure 2: Chi-square curve

Test statistic is larger than the chi-square reading according to the significance level 5%.

Therefore, test statistic is in the rejection area, hence null hypothesis is rejected at significance level 5%.

There is enough evidence from this test to say, risk, which is faced by the women entrepreneurs, is not independent from the stage of the entrepreneurial life cycle. Further, risk, which is faced the by women entrepreneurs, and stage of entrepreneurial life cycle are dependent upon each other.

4. RECOMMENDATIONS

Risk mitigation recommendations were suggested by doing the benchmarking of women entrepreneurs who successfully overcome the particular risks in those life cycle stages. According to the chi-square test results, risk depends on the life cycle stage. Therefore, recommendations were listed according to the life cycle stage. Moreover, risks were selected only with the high impact and high probability of occurrence when suggesting the following risk mitigation recommendations.

4.1 Mitigation recommendations for the risks involved in the 'Market entry' stage

Risk : Sacrificing family life

Mitigation recommendations: prepare a time plan including work-life balance and work accordingly; involve the family members in the business during their leisure time

Risk : Investing money in the business

Mitigation recommendations : prepare a business plan in the beginning, contact government officers who offer the consultancy service in money investments for the entrepreneurs, take part in workshops which are conducted by the government



about the money investment, get an insurance policy for the business, record the daily financial figures of the business

Risk : Endangering the femininity

Mitigation recommendations: always deal with the trusted and recommended parties, if the situation seems unusual or uncomfortable, better to go with someone else, take legal actions against threatening, harassment or any misbehavior of someone during the business matters

Risk : Trusting business partners

Mitigation recommendations: when borrowing money, always go for the legalized financial institutions, other than going for local money lenders, visit financial institutes or their web sites and collect information about their facilities for the women entrepreneurs and then select the most suitable service

4.2 Mitigation recommendations for the risks involved in the ‘Growth’ stage

Risk : Investing money in the business

Mitigation recommendations : do not spend the money on personal matters that receive through business loans, invest a portion of profit in the business, get the advice of government financial consultants, prepare cost-benefit analysis for all the alternative options before investing, record the daily financial figures of the business

Risk : Sacrificing family life

Mitigation recommendations: update the time plan with new tasks, involve the family members in the business during their leisure time, share the business updates with the family, ask family members’ opinions when making decisions

Risk : Endangering health and safety

Mitigation recommendations: maintain safety work environment, keep a first-aid tool kit in the work flow, instruct the subordinates about safety precautions, obtain an insurance policy

Risk : Trusting resources

Mitigation recommendations: define the alternative resources, make a duplicate plan when working for high value orders with uncertain resources, maintain and repair the equipment regularly, provide proper guidance for the new subordinates, keep the friendly work environment

Risk : Trusting business partners

Mitigation recommendations : always deal with the legalized institutions for the financial matters, make written agreements when partnering with others, look

for all the possible partners, analyze their background and then select the most suitable one out of them

4.3 Mitigation recommendations for the risks involved in the ‘Maturity and expansion’ stage

Risk : Trusting resources

Mitigation recommendations : consider the geographical location when open-up new branches, define the alternative resources, make a duplicate plan when working for high value orders with uncertain resources, maintain and repair the equipment regularly, provide proper guidance for the new subordinates, keep the friendly work environment

Risk : Investing money in the business

Mitigation recommendations : do not spend the money on personal matters that receive through business loans, invest a portion of profit in the business, get the advice of government financial consultants, prepare cost-benefit analysis for all the alternative options before investing, record the daily financial figures of the business

Risk : Designing the future trends

Mitigation recommendations : forecast the future trends, refer sources like company web sites, social networking sites, magazines, fashion shows and TV programmes, promote the own designs through social networking sites, get the feedback from loyal customers

Risk : Trusting business partners

Mitigation recommendations: always deal with the legalized institutions for the financial matters, make written agreements when partnering with others, look for all the possible partners, analyze their background and then select the most suitable one out of them

Risk : Sacrificing family life

Mitigation recommendations: update the time plan with new tasks, involve the family members in the business during their leisure time, share the business updates with the family, ask family members’ opinions when making decisions, make a better understanding with the family

4.4 Mitigation recommendations for the risks involved in the ‘Liquidity event’ stage

Risk : Sacrificing family life

Mitigation recommendations : update the time plan with new tasks, share the business updates with the



family, ask family members' opinions when making decisions, make a better understanding with the family

Risk : Designing the future trends

Mitigation recommendations : forecast the future trends, refer sources like company web sites, social networking sites, magazines, fashion shows and TV programmes, promote the own designs through social networking sites, get the feedback from loyal customers, try to find new markets

Risk : Trusting resources

Mitigation recommendations : define the alternative resources, make a duplicate plan when working for high value orders with uncertain resources, maintain and repair the equipment regularly, provide proper guidance for the new subordinates, keep the friendly work environment, motivate subordinates

Risk : Trusting business partners

Mitigation recommendations : when borrowing money, always go for the legalized financial institutions, other than going for local money lenders, visit financial institutes or their web sites and collect information about their facilities for the women entrepreneurs, select the most suitable service

Risk : Violating rules and regulations

Mitigation recommendations : always follow the proper legalized process even at the termination of the business, maintain the documentation at the liquidity event, properly terminate the bonds and agreements

5. LIMITATIONS

Following limitations were identified when carrying out this research.

- Some features of the stages of entrepreneurial life cycle are similar and it was difficult to define those features specifically by assigning to a particular stage. It means, some features of the stages overlapped with features of other stages, especially the growth stage and the maturity and expansion stage.
- When comparing the availability of women entrepreneurs according to their current stage, it was difficult to find women entrepreneurs in the liquidity event stage, as there is not much women entrepreneurs currently in that stage in Galle district.

- Significance level was assumed as 0.05 in the chi-square test of this research, the null hypothesis was rejected and the decision was made based on this assumption. The decision could be varied if the significance level was some other value instead of 0.05.
- Mitigation recommendations were suggested after benchmarking the women entrepreneurs who successfully overcome the particular risks and these recommendations are to minimize the impact of risk or to avoid the risk.

6. CONCLUSION

The research analysis came to the conclusion, the risks which are faced by the women entrepreneurs depend on their stage of the entrepreneurial life cycle. Also, the impact of risk and its probability of occurrence at each life cycle stage were identified with the responses of women entrepreneurs. Therefore, the fact was clarified that the risk impact on the business is different according to the stage of the life cycle, even for the same risk. Hence, risk mitigation methods were suggested based on the life cycle stage. Risks with the high impact and high probability of occurrence were separated at each stage and suggested the risk mitigation methods only for the same. The risk mitigation methods are for the women entrepreneurs in the garment industry in Sri Lanka. These suggestions will be useful for women entrepreneurs in the particular industry and they can try for the methods after identifying their current stage in the entrepreneurial life cycle. The mitigation methods were developed after benchmarking the women entrepreneurs who successfully faced the same risks in the particular life cycle stage and the methods are based on the current scenario. Therefore, further studies can be conducted based on this research to identify the risk mitigation methods for the women entrepreneurs in other industries and updated mitigation methods in the future context.

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