Entrepreneurial Strategies of Quantity Surveyors in Mitigating the Economic Crisis in Sri Lanka's Construction Industry

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Abstract

This study investigates the entrepreneurial strategies of Quantity Surveyors (QSs) in mitigating the economic crisis in Sri Lanka's construction industry, focusing on the specific challenges they encounter. A mixed-method approach was used, involving a questionnaire survey of 46 QS professionals (simple random sampling) and semi-structured interviews with nine experts (purposive sampling), providing a comprehensive understanding of how QSs' entrepreneurial activities influence the crisis. The results indicate that factors such as motivation, demographic aspects, perceived features, and innovativeness significantly impact QSs' entrepreneurial engagement. The research identifies key challenges, including material shortages, regulatory barriers, and financial constraints, and proposes strategies to overcome them. The findings suggest that QSs' entrepreneurial efforts, through the adoption of innovative practices and leveraging new opportunities, play a crucial role in alleviating the economic crisis within Sri Lanka's construction sector.

Keywords: Entrepreneurship, Economic crisis, Quantity Surveyor, Construction, Sri Lanka

Introduction

The year 2019 saw the emergence of COVID-19, a pandemic that disrupted the global economy, impacting various sectors including international trade, healthcare, travel, food, events, education, and construction (Ozili, n.d.). The COVID-19 pandemic severely disrupted Sri Lanka's construction industry by causing delays in projects, material shortages, and a sharp rise in costs, largely due to its reliance on imported goods. Compared to global trends, where some countries quickly recovered by diversifying supply chains, Sri Lanka's limited access to alternative suppliers and reliance on foreign imports worsened the crisis, making recovery slower and more challenging(Group & Bank, 2021).

The construction industry in Sri Lanka has been severely affected since 2020, with projects in recreation, manufacturing, and residential developments halted, while infrastructure projects slowed down (L.P.D.S, 2020). The complete shutdown of the construction sector on March 23, 2020, due to the pandemic, exacerbated the situation. The sector's GDP contribution dropped from 8-10% to 6.2% in 2020 (Parakrama, n.d.). The National Construction Association of Sri Lanka reported that the economic crisis threatens 75% of construction workers' jobs, with 90% of projects currently stalled, leaving many in the industry unemployed.

Rising unemployment has strained the labor market, prompting the government to prioritize entrepreneurship to stimulate economic growth, reduce unemployment, and support prosperity through effective policies(Emmanuel et al., 2020). The economic crisis in Sri Lanka, exacerbated by the COVID-19 pandemic and global supply chain disruptions, has severely impacted the construction industry, making it essential to explore how entrepreneurial strategies employed by Quantity Surveyors (QSs) can mitigate these challenges (Devece et al., 2016).

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The objective of the study

The aim of this research is to investigate the entrepreneurial strategies employed by quantity surveyors in addressing the economic crisis within Sri Lanka's construction industry, focusing on the following specific objectives.

The main objective of this research is to identify the impact of the entrepreneurial strategies employed by Quantity Surveyors (QSs) in mitigating the economic crisis within Sri Lanka's construction industry. The following specific objectives were also established.

i. To identify the key challenges faced by QSs as entrepreneurs in the construction industry during the economic crisis in Sri Lanka's Construction Industry.
ii. To propose strategies for overcoming the challenges faced by QSs in their entrepreneurial role during the economic crisis in Sri Lanka's Construction Industry.

Literature Review

Entrepreneurship typically involves an individual or a small group of partners who employ innovative strategies to create new businesses. Ambitious entrepreneurs actively seek out business ventures and bear the majority of the risks involved (Raza Khoso et al., 2017). According to Cunningham and Lischeron (1991), the term "entrepreneur" often refers to the creator of a new company or someone who establishes a business where none existed before. This definition excludes those who inherit or purchase an existing business or conduct turnarounds as employees.

Previous research has identified several factors that contribute to entrepreneurial strategies in the construction sector during economic crises. These strategies include motivation, demographic and economic characteristics, perceived attributes, and levels of innovativeness. (Devece et al., 2016).

1. *Motivation*

Entrepreneurship can be driven by "push" or "pull" factors, often categorized as necessity versus opportunity reasons. Motivation significantly influences how an entrepreneur manages their business, ultimately impacting performance. Pull factors, such as market opportunities, attract entrepreneurs, while push factors, including unemployment and the desire for independence, drive individuals toward self-employment, particularly during economic crises. Economic crises often push people toward entrepreneurship due to a lack of other viable options (Dawson & Henley, 2012).

2. *Demographic and economic aspects*

Age, gender, education, and income level are significant demographic factors influencing entrepreneurship. Younger individuals, particularly those between 25 and 34, are more likely to start their own businesses, while those over 55 are less inclined, especially during economic downturns. Women consistently exhibit lower rates of entrepreneurial activity than men. Higher education levels correlate with dynamic entrepreneurial behaviours and intrinsic motivation, increasing the likelihood of success. Despite higher-earning entrepreneurs being less likely to engage in new ventures during a crisis, their chances of success tend to improve afterward (Neira, n.d.).

3. *Perceived features*

Perceived traits, such as opportunity recognition, self-confidence, fear of failure, and networking, are critical for starting a new business. Recognizing opportunities is a key step toward entrepreneurship. "Entrepreneurial alertness" describes an entrepreneur's heightened sensitivity to environmental changes, particularly economic ones, which may reveal unsatisfied market needs (Giotopoulos et al., 2017).

4. *Innovativeness*

Innovation plays a crucial role in differentiating new businesses in competitive markets. However, minimal or no innovation is common when competitors offer similar products or services using established technologies. Entrepreneurs with a deep understanding of their industries are better equipped to identify and capitalize on opportunities, preferring specialized markets with growing demand over oversaturated ones (Giotopoulos et al., 2017).

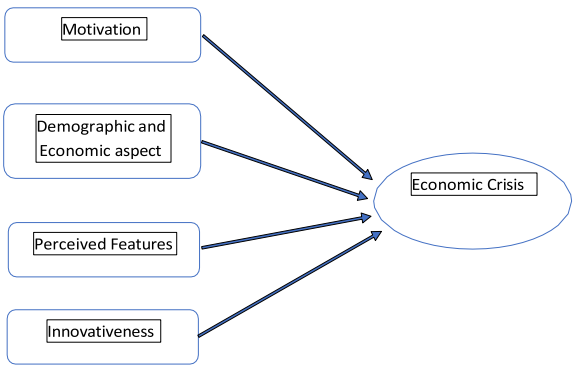
An economic crisis is often characterized by a sharp decline in a nation's total output or real GDP, leading to reduced individual income, rising unemployment, and increased poverty(Funabashi, n.d.). Such crises frequently encourage entrepreneurship as individuals are pushed toward self-employment due to external pressures and a lack of alternative options. In the construction sector, Quantity Surveyors (QSs) play a critical role in managing and controlling project costs throughout the construction lifecycle. Advances in technology have further expanded the QS role to include tasks such as automated measurement, environmental and sustainability analysis, supply chain management, and building information modeling (BIM). The construction industry is a key contributor to any economy, significantly affecting GDP and socioeconomic development. In Sri Lanka, the construction sector's GDP was recorded at 143,035 million LKR as of September 2021(Victar et al., 2022). Promoting entrepreneurship among QSs in this sector has the potential to address a variety of socioeconomic challenges in emerging economies, creating new business opportunities even during times of economic crisis(Raza Khoso et al., 2017).

Methods

The study utilized questionnaire surveys and semi-structured interviews as primary data gathering techniques. 23 closed-ended questions were prepared and distributed via Google Forms to 46 quantity surveying professionals in the industry. Simple random sampling was used for the questionnaire, gathering quantitative data(Mason, 2010). The questionnaire survey was analysed using correlation and regression analysis, providing insights into the responses of quantity surveyors, particularly those engaged in entrepreneurial activities.

In addition to the survey, semi-structured interviews were conducted with nine professionals who had in-depth knowledge of the subject matter. Purposive sampling was employed to select participants, focusing on quantity surveyors who are entrepreneurs, university lecturers, or those aspiring to work as entrepreneurs(Mason, 2010). Content analysis was used to interpret the interview data, further enriching the study's findings. The conceptual framework links these findings to the dependent and independent variables.

Figure 01: Conceptual framework



Results and Discussion

This study combines qualitative and quantitative approaches. The collected data was analyzed using SPSS software for correlation and regression analysis, while the content analysis of qualitative data was conducted manually.

A. Correlation analysis

A correlation coefficient analysis was conducted using SPSS to examine the relationship between the economic crisis (dependent variable) and the entrepreneurial strategies of Quantity Surveyors (independent variables). The independent variables were motivation (MO), demographic and economic aspects (DE), perceived features (PF), and innovativeness (IN). The data, collected via a Likert scale, consisted of responses from 46 participants.

Table 01:Correlation Analysis

Correlations

		AMO	ADE	APF	AIN	AEC
AMO	Pearson Correlation	1	.559**	.379**	.398**	.598**
	Sig. (2-tailed)		<.001	.008	.006	<.001
	N	46	46	46	46	46
ADE	Pearson Correlation	.559**	1	.318*	.255	.471**
	Sig. (2-tailed)	<.001		.031	.087	<.001
	N	46	46	46	46	46
APF	Pearson Correlation	.379**	.318*	1	.083	.463**
	Sig. (2-tailed)	.008	.031		.584	.004
	N	46	46	46	46	46
AIN	Pearson Correlation	.398**	.255	.083	1	.439**
	Sig. (2-tailed)	.006	.087	.584		.002
	N	46	46	46	46	46
AEC	Pearson Correlation	.598**	.471**	.463**	.439**	1
	Sig. (2-tailed)	<.001	<.001	.004	.002	
	N	46	46	46	46	46

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The results revealed that all Sig. values were below 0.05, suggesting a significant correlation between each independent variable and the economic crisis. This indicates that motivation, demographic and economic aspects, perceived features, and innovativeness all have a meaningful impact on QSs' entrepreneurial role during the economic crisis, confirming the H1 hypothesis for all variables.

A. Regression analysis

Regression analysis was performed using SPSS to evaluate the impact of the independent variables (motivation, demographic and economic aspects, perceived features, and innovativeness) on the dependent variable (economic crisis). This method assesses how these variables interact and influence each other.

The regression formula used in this study is: $Y = \{\alpha + (\beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4)\} + Std.E$

According to the Table 02, all β (beta) values are positive, indicating a positive relationship between the independent variables and the economic crisis. The results suggest that each independent variable contributes positively to mitigating the effects of the crisis, confirming the significance of entrepreneurial strategies in the construction sector.

Table 02: Coefficients of Variables

Coefficients						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	1.037	.738		1.404	.168
	AMO	.407	.152	.402	2.670	.011
	ADE	.181	.140	.190	1.296	.202
	APF	.012	.149	.010	1.078	.938
	AIN	.204	.113	.232	1.802	.079

a. Dependent Variable: AEC

B. Content analysis

The content highlights several challenges faced by Quantity Surveyors in Sri Lanka's construction industry during the economic crisis, including shortages of materials like cement and steel, regulatory barriers, price instability, and import restrictions. Quantity Surveyors s also face issues such as limited technology adoption, a shortage of skilled workers, and insufficient government support. To tackle these challenges, strategies such as adopting Building Information Modeling (BIM), pursuing international partnerships, and utilizing digital tools for business growth are suggested. Actions include enhancing BIM training, working with authorities to simplify regulations, and expanding online business platforms to access global markets.

Conclusion

This research effectively examined the entrepreneurial strategies of Quantity Surveyors (QSs) during the economic crisis in Sri Lanka's construction industry, demonstrating the significant impact of external economic conditions on QS entrepreneurship. Correlation analysis revealed strong relationships between motivation, innovativeness, and entrepreneurial success, highlighting how these factors influence QS activities. Key challenges, including material shortages, regulatory barriers, and price fluctuations, were identified. To address these, strategies such as adopting Building Information Modeling (BIM), pursuing international opportunities, and embracing digital tools were suggested.

However, the small sample size of 46 Quantity Surveyor professionals may limit the generalizability of the findings, and future research could expand the scope to explore other challenges. Additionally, investigating the long-term impacts of Quantity Surveyor entrepreneurship post-crisis and the role of policy changes in supporting Quantity Surveyors could enhance understanding of their resilience and adaptability in navigating economic challenges.

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