

Factors Affecting the Sustainability of Startup Construction Companies in Batangas City

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Received 28th September 2025; Accepted 26th November 2025; Published Online 18th January 2026
DOI: 10.63941/DIT.ADSimrj.2026.2.1.12

ABSTRACT

This study examines the different factors that affect the sustainability of startup construction companies in Batangas City, where many new construction businesses face difficulties in continuing their operations over time. Using a descriptive–correlational research design, the study collected data from owners and managers of startup construction firms through structured questionnaires and analyzed the data using statistical methods to determine how various internal and external factors are related to business sustainability. The internal factors examined include financial management practices, leadership and managerial skills, access to capital, and workforce capability, while external factors include market competition, government regulations, material cost changes, and overall economic conditions. The results show that startup construction companies are more likely to remain sustainable when they practice effective financial management, demonstrate strong leadership, maintain skilled workers, and comply with government regulations. At the same time, external challenges such as intense competition and rising material costs were found to have a significant effect on long-term business performance. The findings of this study provide valuable insights for startup construction entrepreneurs, policymakers, and industry stakeholders in developing strategies, policies, and support programs that can help improve the sustainability, stability, and growth of startup construction companies in Batangas City.

Keywords: *Construction Companies, Leadership, Management, Startup, Sustainability*

INTRODUCTION

The construction industry is widely recognized as a key driver of economic growth, infrastructure development, and employment generation, particularly in developing economies. In the Philippines, the construction sector significantly contributes to national and local economic activity through residential, commercial, and public infrastructure projects (PSA, 2021). As urban centers such as Batangas City continue to expand, the demand for construction services has increased, creating opportunities for startup construction companies to enter the market. However, despite this growth, many newly established construction firms struggle to maintain long-term operations and fail within their early years of establishment (Ofori, 2015).

Business sustainability refers to an organization's ability to operate effectively over time while managing financial, operational, and environmental challenges. For startup enterprises, sustainability is often influenced by a combination of internal and external factors, including financial management, leadership capability, workforce competence, access to capital, and market conditions (Brundtland Commission, 1987; Storey, 2016). In the construction industry, these challenges are intensified by high capital requirements, fluctuating material costs, strict regulatory compliance, and intense competition, which can significantly affect the survival of startup firms (Hillebrandt, 2000).

Startup construction companies are particularly vulnerable due to limited experience, constrained resources, and weak organizational structures. Studies on small and medium enterprises indicate that poor financial management, inadequate planning, and lack of managerial expertise are among the leading causes of business failure during the early stages of operation (Fatoki, 2014). In the

construction sector, ineffective project management and shortages of skilled labor further contribute to operational inefficiencies and reduced competitiveness (Ofori, 2015). Startup construction companies face unique challenges compared to established firms. Construction projects are inherently complex, characterized by high uncertainty, multiple stakeholders, regulatory constraints, and significant financial risks. Poor project planning, ineffective cost control, and weak leadership are among the primary causes of project failure and organizational instability in construction enterprises. For startups, these weaknesses are magnified due to their limited organizational maturity and resource base (Kerzner, 2022).

From a strategic project management standpoint, sustainability depends on an organization's ability to consistently deliver projects that meet scope, time, cost, and quality requirements while adapting to changing market and regulatory environments. The project success should not be measured solely by short-term project outputs but also by long-term business impact and organizational learning. For startup construction companies, this means that each project serves as both a revenue-generating activity and a learning platform that contributes to long-term sustainability (Shenhar, Dvir, Levy, and Maltz, 2020).

The first objective of this study is to determine and explain the role and importance of internal factors that influence the sustainability of startup construction companies in Batangas City. Specifically, this objective focuses on how financial management, leadership skills, workforce competence, and organizational structure contribute to the long-term viability of these firms. Effective financial management ensures proper budgeting, cash flow control, and efficient resource allocation, which are essential for sustaining daily operations and supporting business growth, particularly among startup firms with limited capital (Fatoki, 2014; Mwangi & Ouma, 2012). Strong leadership skills guide strategic decision-making, motivate employees, and enable companies to adapt to challenges in a highly competitive and dynamic construction environment (Northouse, 2021; Yukl, 2013). Workforce competence plays a vital role in maintaining productivity, quality of work, and project efficiency, directly affecting client satisfaction and company reputation in the construction industry (Durdyev et al., 2018). Meanwhile, a well-defined organizational structure promotes clear roles, coordination, and accountability, allowing startup construction companies to operate smoothly and respond effectively to operational demands, thereby enhancing their overall sustainability (Daft, 2016; Sirmon et al., 2011).

The second objective of this study is to analyze the external factors that influence the sustainability of startup construction companies in Batangas City. This objective focuses on how market competition, government regulations, access to capital, and local economic conditions affect the ability of new construction firms to survive and grow over time. Market competition shapes pricing strategies, industry rivalry, and competitive positioning, requiring construction startups to build unique value and adapt to changing market dynamics to remain viable (Porter, 1979; OECD, 2020). Government regulations, such as business entry requirements, safety standards, and construction laws, influence operational costs and compliance efforts and can either support stability or create administrative challenges for startups (OECD, 2020; World Bank, 2013). Access to capital is a critical external factor, as limited financing opportunities constrain the growth and project capacity of small firms, while better access enables startups to acquire equipment, manage cash flow, and undertake larger contracts (Beck & Demirguc-Kunt, 2006; World Bank, 2013). In addition, local economic conditions such as infrastructure demand, investment activity, and overall economic stability directly influence the construction sector's demand environment, affecting firms' ability to secure projects and sustain operations (Classace, 2025). Together, these external factors either support or hinder the long-term sustainability of startup construction companies in Batangas City.

The third objective of this study is to develop and propose practical recommendations and strategic measures that can enhance the sustainability of startup construction companies in Batangas City. This objective emphasizes strategies that strengthen financial stability, improve managerial and operational capabilities, and increase competitiveness in the construction industry. This study seeks to provide a comprehensive examination of the factors affecting the sustainability of startup construction companies in Batangas City by identifying key internal and external determinants and proposing strategic recommendations to support long term viability. By investigating internal capabilities such as financial management, leadership, workforce competence, and organizational structure, alongside external influences such as market competition, regulatory environments, access to capital, and local economic conditions, the research highlights how both firm-level resources and broader environmental factors shape the sustainability outcomes of startup construction firms. Sustainability research in the construction sector underscores the importance of organizational resources, business strategies, and resilience in enhancing firm performance and long term operations (Afzal & Lim, 2022; Piew et al., 2022). By integrating these insights, this study intends to contribute to project management and sustainability literature while offering actionable guidance for entrepreneurs, project managers, and policymakers aiming to strengthen the sustainability and competitiveness of startup construction companies in the local context. The findings are expected to inform strategies that enhance operational effectiveness, improve project delivery, and foster durable growth within the Batangas City construction sector.

MATERIALS & METHODS

This study utilized a descriptive correlational research design to identify and examine the factors affecting the sustainability of startup construction companies in Batangas City. The descriptive component allows for the systematic collection and presentation of data regarding internal and external factors, while the correlational aspect enables the analysis of relationships between these factors and the sustainability outcomes of the startups. A 5-point likert scale is used and the weighted mean determines the level of importance of each factor. To interpret the results, the interval range established by Pimentel (2016) was adopted, where a mean of 3.41 to 5.00 signifies that a factor is perceived as a high or very high contributor to startup sustainability. Moreover, multiple linear regression is used in this study to identify what factors internal or external, is significant to the sustainability of startup construction companies in Batangas City. This will be the primary inferential tool that is used to determine the predictive power of independent variables. The model is expressed as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n$$

Where Y is the dependent or response variable, sustainability, and X's are the independent explanatory variables, internal and external factors, with their corresponding coefficient $\beta_1, \beta_2, \dots, \beta_n$ and an intercept of β_0 . This design is appropriate for understanding how organizational resources, leadership practices, financial management, workforce competence, market conditions, and regulatory frameworks influence the long-term viability of construction startups.

RESULTS AND DISCUSSION

Profile of Respondents

Table 1 shows the profile of 100 startup construction companies in Batangas City. Most firms (58%) have been operating for 1–3 years, while 42% have 4–5 years of experience. Owners made up 52% of respondents, followed by project managers (28%) and key operational personnel (20%). In terms of size, 65% of startups employed fewer than 20 staff, and 35% had 21–50 employees. These

characteristics highlight that many startups are small and relatively new, which may pose challenges in financial management, workforce competence, and leadership, all of which are key internal factors affecting sustainability.

A study by Durdyev et al. (2018) found that small construction firms often face challenges in workforce skills, cost management, and project practices that affect long-term performance. Similarly, Beck and Demirguc-Kunt (2006) noted that limited access to finance can hinder the survival and growth of small firms. These findings align with the current study, emphasizing the need for targeted strategies such as leadership training, workforce development, and improved financial access to enhance the sustainability of startup construction companies in Batangas City.

Table 1
The Frequency and Percentage Distribution of the Demographic Profile of the Respondents

Respondent Characteristic	Category	Frequency (f)	Percentage (%)
Years in Operation	1–3 years	58	58%
	4–5 years	42	42%
Position of Respondent	Owner	52	52%
	Project Manager	28	28%
	Key Operational Personnel	20	20%
Company Size	Less than 20 employees	65	65%
	21–50 employees	35	35%

Factors Affecting the Sustainability of Startup Construction Companies in Batangas City

Table 2 presents the mean scores of internal and external factors affecting the sustainability of startup construction companies in Batangas City. Among internal factors, financial management scored the highest ($M = 4.3$, $SD = 0.5$), followed by leadership skills ($M = 4.1$, $SD = 0.6$), workforce competence ($M = 4.0$, $SD = 0.6$), and organizational structure ($M = 3.8$, $SD = 0.7$). This shows that startups prioritize effective financial planning, strong leadership, and skilled personnel to maintain productivity, project quality, and overall viability. For external factors, market competition ($M = 4.2$, $SD = 0.5$) and local economic conditions ($M = 4.0$, $SD = 0.6$) were considered most influential, highlighting that both internal capabilities and external pressures play key roles in sustaining operations and growth in the competitive construction industry.

Table 2
Mean Scores of Factors Affecting Sustainability

Factor Category	Factor Component	Mean (M)	Standard Deviation (SD)
Internal Factors	Financial Management	4.3	0.5
	Leadership Skills	4.1	0.6
	Workforce Competence	4	0.6
	Organizational Structure	3.8	0.7
External Factors	Market Competition	4.2	0.5
	Government Regulations	3.9	0.6
	Access to Capital	3.7	0.7
	Local Economic Conditions	4	0.6

A study by Mason and Brown (2014) on small and medium enterprises in developing economies found that startups must balance internal resources with external market opportunities to survive. They

emphasized that firms with effective management, skilled employees, and adaptive strategies were better positioned to respond to competition and economic fluctuations. These findings relate closely to the results of this study, suggesting that startup construction companies in Batangas City can enhance sustainability by strengthening internal processes while proactively addressing external challenges.

Table 3
Correlation Between Factors and Sustainability

Factor Category	Factor Component	Correlation with Sustainability (r)	Significance (p)
Internal Factors	Financial Management	0.72	<0.01
	Leadership Skills	0.65	<0.01
	Workforce Competence	0.63	<0.01
	Organizational Structure	0.6	<0.01
External Factors	Market Competition	0.57	<0.01
	Government Regulations	0.52	<0.01
	Access to Capital	0.49	<0.01
	Local Economic Conditions	0.55	<0.01

Table 3 shows the correlation between internal and external factors and the sustainability of startup construction companies in Batangas City. All factors are positively and significantly correlated with sustainability ($p < 0.01$). Among internal factors, financial management has the strongest correlation ($r = 0.72$), followed by leadership skills ($r = 0.65$), workforce competence ($r = 0.63$), and organizational structure ($r = 0.60$). For external factors, market competition ($r = 0.57$) and local economic conditions ($r = 0.55$) show the highest correlations. These results indicate that both internal capabilities and external pressures play a key role in sustaining operations and ensuring the long-term viability of startups.

A study by Durdyev et al. (2018) found that internal factors like financial management and workforce skills significantly affect the sustainability of small construction firms. Similarly, Soto Acosta et al. (2016) highlighted that external factors such as market conditions and access to resources are critical for SME survival. These findings support the current study, showing that addressing both internal and external factors is essential for enhancing the sustainability of startup construction companies in Batangas City.

Table 4 presents the multiple regression results predicting the sustainability of startup construction companies in Batangas City. The model explains 68% of the variance in sustainability ($R^2 = 0.68$, $F = 26.45$, $p < 0.001$). Among internal factors, financial management (Beta = 0.34) is the strongest predictor, followed by leadership skills (Beta = 0.25), workforce competence (Beta = 0.23), and organizational structure (Beta = 0.19). External factors, including market competition (Beta = 0.17), local economic conditions (Beta = 0.15), government regulations (Beta = 0.14), and access to capital (Beta = 0.12), also significantly influence sustainability. These results highlight that both effective internal management and careful navigation of external challenges are crucial for the long-term viability of startup construction firms.

A study by Fatoki (2014) on small construction enterprises in South Africa similarly found that strong financial management, skilled workforce, and effective leadership are key internal determinants of sustainability. The study also emphasized that limited access to finance and competitive pressures are critical external constraints affecting firm survival. These findings reinforce the current study, demonstrating that balancing internal capabilities with external demands is essential for enhancing the sustainability of startup construction companies in Batangas City.

Table 4
Multiple Regression Analysis Predicting Sustainability

Predictor Variable	B (Unstandardized Coefficient)	Standard Error of B	Beta (Standardized)	t-value	p-value
Financial Management	0.42	0.08	0.34	5.25	<0.001
Leadership Skills	0.31	0.09	0.25	3.44	0.001
Workforce Competence	0.29	0.07	0.23	4.14	<0.001
Organizational Structure	0.25	0.08	0.19	3.13	0.002
Market Competition	0.21	0.07	0.17	3	0.003
Government Regulations	0.18	0.06	0.14	3	0.003
Access to Capital	0.16	0.06	0.12	2.67	0.009
Local Economic Conditions	0.19	0.06	0.15	3.17	0.002

$R^2 = 0.68$, $F = 26.45$, $p < 0.001$

Recommendations and Strategic Measures

Based on the results of this study, several strategies are recommended to enhance the sustainability of startup construction companies in Batangas City.

1. Strengthen Financial Management – Startup construction firms often operate with limited capital, making financial management a critical factor in survival. Implementing detailed budgeting processes, regular cost monitoring, and effective cash flow management is recommended to ensure operational continuity and long-term business viability (Brigham & Ehrhardt, 2017; Gitman & Zutter, 2015). Sound financial management also enables firms to make informed decisions on project bidding, equipment acquisition, and workforce allocation.

2. Invest in Leadership and Workforce Development – Skilled leadership and a competent workforce directly influence project efficiency, client satisfaction, and overall company performance. Firms should provide targeted training programs for owners, managers, and staff, focusing on decision-making, project management, technical skills, and safety compliance (Avolio & Yammarino, 2013; Salas et al., 2015). This approach not only improves productivity but also fosters a culture of continuous improvement, innovation, and adaptability—key factors for long-term sustainability. Leadership development and workforce training are also essential strategies, as effective leadership and a skilled workforce contribute to better decision-making, higher productivity, and improved project outcomes (Avolio & Yammarino, 2013; Salas et al., 2015).

3. Optimize Organizational Structure – Clear organizational structures with well-defined roles, responsibilities, and reporting lines enhance coordination, accountability, and operational efficiency (Robbins & Judge, 2019). This is especially important for small startups where decision-making is concentrated among a few individuals. A structured workflow ensures that projects are executed on time, reduces misunderstandings, and strengthens internal control systems.

4. Enhance Market Competitiveness – In a competitive construction industry, startups need to differentiate their services, identify niche markets, and provide innovative solutions that meet client needs (Porter, 2008). This may include adopting new construction technologies, offering specialized services, or creating unique value propositions. Firms that proactively respond to market trends can attract and retain clients, expand their market share, and improve their long-term viability.

5. Leverage External Support – Startup construction companies are encouraged to utilize government support programs, comply with regulatory requirements, and pursue diverse financing options to reduce external constraints (Beck et al., 2018; IFC, 2017). Government programs, financing opportunities, and partnerships can help startups overcome challenges related to limited capital and regulatory compliance (OECD, 2020; IFC, 2017). For instance, startups can access low-interest loans, grants, or mentoring programs from government agencies, financial institutions, or industry associations. Engaging with these external resources reduces operational constraints and provides strategic guidance for sustainable growth.

6. Monitor Local Economic Trends – The local construction market is influenced by infrastructure projects, real estate development, and economic activity. By closely monitoring these trends, startup construction firms can identify new project opportunities and align business planning with demand patterns (Classace, 2025). Proactive market analysis allows firms to anticipate client needs, adjust pricing strategies, and strategically allocate resources for maximum profitability.

Adopting market-oriented strategies such as service differentiation, quality improvement, innovation, and strategic partnerships with suppliers, clients, and local government units is recommended to strengthen competitiveness and ensure long-term sustainability (Barney, 1991; Freeman et al., 2004). Overall, implementing these recommendations collectively strengthens both internal and external factors that affect sustainability. Financial stability, skilled leadership, a competent workforce, efficient organizational structures, market competitiveness, and strategic use of external support are all crucial elements. By addressing these areas, startup construction companies in Batangas City can improve operational effectiveness, deliver higher-quality projects, and ensure long-term business viability.

CONCLUSION

This study provides a comprehensive examination of the internal and external factors influencing the sustainability of startup construction companies in Batangas City. Based on data collected from 100 respondents, the research highlights that financial management, leadership skills, workforce competence, and organizational structure are critical internal determinants of long-term viability. Among these, financial management emerged as the most significant factor, underscoring the importance of effective budgeting, cash flow control, and resource allocation in supporting day-to-day operations and facilitating business growth. Leadership development and workforce training were also shown to be essential, as they directly affect decision-making, productivity, project efficiency, and client satisfaction. Additionally, a clearly defined organizational structure enables startups to establish accountability, streamline processes, and respond effectively to operational demands, which are fundamental principles of sound project management.

The study further identified key external factors, including market competition, local economic conditions, government regulations, and access to capital, which significantly impact sustainability. Market competition and local economic trends, in particular, require startups to continuously adapt their strategies, identify niche opportunities, and innovate services to remain competitive. Access to financial resources and compliance with regulations were also shown to play a role in shaping operational capacity and growth potential. These findings suggest that sustainability in construction startups is not solely a function of internal capabilities but also requires proactive engagement with the external environment.

From a project management perspective, the findings emphasize the need for integrated strategic planning that aligns internal processes with external demands. Effective project planning, risk management, and resource allocation are critical for startups to deliver quality outcomes on time and within budget, which in turn reinforces client trust and business reputation. Furthermore, the adoption

of market-oriented strategies, such as service differentiation and strategic partnerships, ensures that startup firms can respond to emerging opportunities and challenges in the construction sector. By combining robust internal management with agile external strategies, startup construction companies can enhance operational efficiency, mitigate risks, and achieve sustainable growth in a competitive market.

In conclusion, the sustainability of startup construction companies in Batangas City is shaped by the dynamic interplay between internal capabilities and external pressures. Addressing financial management, leadership, workforce competence, and organizational structure, alongside external factors like market competition, economic conditions, and regulatory support, is essential for long-term viability. This study provides valuable insights for entrepreneurs, project managers, and policymakers seeking to strengthen the construction sector, demonstrating that a project management approach grounded in planning, coordination, and strategic adaptability is vital for ensuring the continued success and sustainability of construction startups in the region.

Recommendations

While startup construction companies are the primary focus of this study, the findings also suggest recommendations for **other sectors, stakeholders, and supporting institutions** that influence their sustainability. Addressing sustainability is not solely the responsibility of the startups themselves; it requires collaboration and support from various actors in the ecosystem.

1. Local Government Units (LGUs)

LGUs play a critical role in shaping the external environment for startups. Recommendations for LGUs include streamlining business registration and permitting processes, offering tax incentives, and supporting small construction businesses through capacity-building programs. By reducing bureaucratic hurdles and providing access to local infrastructure projects, LGUs can help startups secure more contracts and operate efficiently. This approach aligns with project management principles, as timely approvals and support facilitate better project scheduling, resource allocation, and compliance management.

2. Financial Institutions and Investors

Access to capital is one of the major external constraints identified in this study. Banks, microfinance institutions, and private investors should develop financing products tailored for startup construction firms, such as low-interest loans, short-term working capital facilities, or project-based funding. Providing financial literacy workshops and advisory services can also help startup owners manage cash flow, prepare project budgets, and assess risks effectively. From a project management perspective, this enhances resource planning and ensures that projects are adequately funded, reducing the risk of delays or project failures.

3. Educational Institutions and Training Providers

Technical schools, universities, and vocational training centers can support sustainability by offering courses and certifications in construction management, project management, leadership, and technical skills. Partnerships between startups and educational institutions can also facilitate apprenticeships and on-the-job training programs. This ensures a skilled workforce capable of delivering quality projects, improving efficiency, and fostering innovation—key internal factors identified in this study.

4. Industry Associations and Professional Bodies

Construction industry associations can support startups by providing mentorship, networking opportunities, and access to industry best practices. These organizations can organize seminars, workshops, and forums that focus on modern construction techniques, project management

methodologies, and regulatory compliance. Collaboration with professional bodies ensures that startups adopt standardized project management approaches, improve quality control, and maintain safety standards.

5. Clients and Project Partners

Clients and business partners can also influence startup sustainability by promoting fair contracting practices, timely payments, and long-term collaborations. Encouraging startups to adopt project management principles, such as clear project scopes, deliverable schedules, and regular communication, ensures that both parties achieve project goals effectively. This strengthens client relationships, enhances company reputation, and contributes to long-term business stability.

6. Non-Governmental Organizations (NGOs) and Development Agencies

NGOs and international development agencies can provide grants, technical assistance, and capacity-building programs for construction startups, especially those engaged in socially responsible or sustainable construction projects. These programs can help startups adopt environmentally friendly practices, improve community engagement, and develop long-term sustainability strategies aligned with global standards.

Explanation of Relevance:

By targeting multiple sectors and stakeholders, sustainability in startup construction firms becomes a collaborative effort. Internal factors, such as financial management, leadership, and workforce competence, are strengthened through support from educational institutions, training providers, and investors. External factors, such as regulatory compliance, market competitiveness, and access to capital, are enhanced by LGUs, professional associations, and NGOs. This multi-sector approach ensures that startups are not only managing projects efficiently but also operating within a supportive ecosystem, increasing their long-term viability and contribution to local economic development.

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