INVESTIGATING THE IMPACT OF VENTURE CAPITAL ON TE SUCCESS OF CONSTRUCTION SECTOR SMEs IN THE UK

by

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INVESTIGATING THE IMPACT OF VENTURE CAPITAL ON TE SUCCESS OF CONSTRUCTION SECTOR SMEs IN THE UK

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Dedication

To the cherished memory of my beloved two cousins, whose lives were tragically cut short by the oppressive regime of Saddam Hussein. May their unwavering spirit and the injustices they endured inspire a relentless pursuit of seeking truth, justice, and human rights for all. In their honour, I dedicate this thesis to shedding light on the darkness of dictatorship and advocating for a world where such atrocities are never repeated.

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ABSTRACT

INVESTIGATING THE IMPACT OF VENTURE CAPITAL ON TE SUCCESS OF CONSTRUCTION SECTOR SMEs IN THE UK

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Co-Chair: <If applicable. Co-Chair's Name>

SMEs operating in the construction sector in the UK are beneficial owing to their significant contribution to the country's GDP, employment rates, and economic growth. However, most of them face substantial financing-related challenges, with most new SMEs closing down because of inadequate capital. Venture capital offers a unique solution to these SMEs' challenges; however, its impact on the UK construction sector remains unknown. The purpose of this sequential exploratory mixed-methods case study was to explore the opinions of financial experts in the construction sector regarding how VC impacts the success and growth of SMEs operating in their industry in the UK.

The target population in the research were financial experts in SMEs in the UK construction sector with at least five years of experience. The participants were sampled purposively (qualitative part) using simple random sampling (quantitative), and their responses were analysed thematically using Pearson correlation and regression analysis, respectively. Ethical considerations, including using informed consent forms and maintaining participant anonymity, were also upheld. Findings revealed that venture

capitalists enhance the financial and non-financial performance metrics of the construction sector SMEs in the UK, including their investment returns, sales revenue, profit margins, quality, safety, competitiveness, technological innovativeness, employee satisfaction, productivity, turnover, inventories and overall sustainability. The results also indicated the essence of the skills and experience of their management team, milestones, and market validation in venture capital investment decisions. SME owners were identified as Future research might be conducted using other types of experts or similar professionals in SMEs in other industries in the UK or different countries.

Directed by

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Abbreviations

BIM	Building Information Modelling
CRM	Customer Relationship Management systems
CSFs	Critical Success Factors
ERP	Enterprise Resource Planning
GDP	Gross National Product
ICT	Information and Communication Technology diffusion
IoT	The Internet of Things
IOS	Inventories and Overall Sustainability
IPO	Initial Public Offering
JIT	Just in Time. An inventory management method in which goods are received from suppliers only as they are needed
KPI	Key Performance Indicator
NVCA	National Venture Capital Association.
OECD	The Organisation of Economic Cooperation and Development
QUALITATIVE	Research that explore and provide deeper insights into real-world problems
QUANTITATIVE	Research that uses statistical methods to count and measure outcomes from a study.
R&D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
SEM	Structural Equation Modelling, a technique used to test and evaluate the relationships between variables in research.
SME	Small and Medium-Sized Enterprises
SPSS	Statistical Package doe the Social Sciences that provides statistical analysis and data management capabilities.
TQM	Total Quality Management
VC	Venture Capitalist
VIF	Variance Inflation Factor.

CHAPTER I: INTRODUCTION

1.1 Introduction

Small and Medium-Sized Enterprises (SMEs) are increasingly recognised as crucial components of national economies, playing a foundational role in driving economic success, as seen in countries like the UK (Erdin and Ozkaya, 2020; The World Bank, 2021). Governments and policymakers are crafting legislation and policies to bolster SMEs due to their pivotal contributions to a country's GDP and overall economic health (Gupta and Peshken, 2022). According to the World Bank (2021), SMEs play a vital role in developed and developing economies, representing the predominant business model globally and serving as significant engines for job creation and economic growth worldwide. A staggering 90% of companies worldwide fall under the SME category, with half of global employment hailing from this sector. The World Bank (2021) forecasts a substantial rise in the worldwide workforce, projecting a need for around 600 million new job opportunities by 2030, underscoring the imperative for governments to prioritise SME development. OECD (2022) reports that SMEs in most countries provide jobs to 60-70% of their workforce; hence, it can be viewed as an essential economic activity.

The importance of SMEs reverberates strongly within the European Union, particularly in the United Kingdom. With approximately 26 million SMEs operating across the EU and employing over 109 million individuals, these enterprises substantially underpin the EU's Gross Domestic Product (GDP), constituting two-thirds of the GDP as of 2015 (Erdin and Ozkaya, 2020). Figure 1 provides a snapshot of the SME sector's impact on employment rates in various EU countries in 2015, showcasing the sector's pervasive

presence. An overwhelming 99% of enterprises in the EU fall under the SME category, defined as organisations with fewer than 250 employees. Italy ranked highest in SME numbers, with Malta displaying the fewest.

Speaking about turnover, as illustrated in (Figure 1), Germany led with 6.1 trillion Euros, followed by the UK at 4.3 trillion Euros, and Malta at the lowest with 18.7 billion Euros. Regarding employment rates, Germany boasted the highest figures at 28.3 million, with the UK closely following at 19.2 million (Eurostat, 2019). This significant impact on the EU's economy spurs efforts to implement policies that nurture SMEs' innovative and adaptable nature, enhancing their national and global competitiveness (Erdin and Ozkaya, 2020).

Number of enterprises, turnover and persons employed and the share of enterprise with fewer than 250 persons employed, 2015

	Enterprises		Turnover		Persons Employed	
	Total	<250 persons employed %	Total	<250 persons employed %	Total	<250 persons employed %
EU-28	**23,500,341**	**99.8**	**27,309,775**	**55.8**	**137,444,935**	**66.3**
Belgium	602,153	99.9	989,197	65	2,769,085	69.3
Bulgaria	326,219	99.8	121,308	69.9	1,911,916	74.8
Czech Republic	1,001,048	99.8	444,231	56.9	3,591,896	67.6
Denmark	210,726	99.7	479,464	59.3	1,666,048	64.3
Germany	2,408,352	99.5	6,061,400	47.5	28,258,410	62.9
Estonia	68,124	99.7	50,820	77.5	414,763	78.2
Ireland	243,433	-	595,095	-	1,308,019	-
Greece	789,975	-	263,153	-	2,162,572	-
Spain	2,465,540	99.9	1,178,292	62.2	11,109,702	72.8
France	2,908,814	99.9	3,362,869	55.3	14,645,799	61.4
Croatia	146,637	99.7	77,670	60.9	989,598	69.5
Italy	3,683,127	99.9	2,887,615	68.8	14,255,278	78.7
Cyprus	48,329	99.9	25,573	79.9	215,716	83.9
Latvia	109,642	99.8	51,304	77.8	633,450	79.4
Lithuania	186,468	99.8	73,997	68.5	934,440	75.9
Luxemburg	31,926	99.5	151,365	70	255,869	68.3
Hungary	536,610	99.8	277,690	57.1	2,596,236	69.8
Malta	26,059	99.8	18,665	85.1	134,212	79.7
Netherlands	1,092,243	99.9	1,412,433	61.8	5,461,082	65.7
Austria	322,325	99.7	653,111	-	2,742,655	-
Poland	1,606,559	99.8	921,350	56	8,652,063	68.3
Portugal	807,183	99.9	314,227	-	3,007,264	-
Romania	458,122	99.6	263,336	59.1	3,389,199	65.5
Slovenia	134,727	99.8	83,628	68.3	591,340	73.7
Slovakia	429,524	99.9	180,476	56.7	1,502,912	71.8
Finland	299,096	99.7	365,782	56.1	1,454,614	65.6
Sweden	686,433	99.9	811,397	-	3,102,080	-
United Kingdom	1,940,947	99.7	4,348,297	47	19,209,717	53.5
Norway	293,403	99.8	546,504	-	1,610,874	68
Switzerland	142,755	99.2	1,929,684	-	2,737,720	67.1

Figure 1: Statistics of SMEs in the Eur2opean Union

Note. Source: Eurostat (2019)

In the UK, small and medium-sized enterprises (SMEs) are typically classified as businesses that employ between 0 and 249 employees (Gupta and Peshken, 2022). Figure

2 provides a table outlining the specific criteria that define an SME according to the UK government. While this delineation aligns with UK standards, it diverges from the guidelines outlined in the 2006 Company Act, which designates a company as significant if it exceeds 250 employees and records a turnover surpassing 36 million Euros. In contrast, the UK government characterises a medium-sized SME as an enterprise employing fewer than 250 individuals and reporting an annual turnover below 50 million Euros. Similarly, a small-sized business is defined as having less than 250 employees and a yearly turnover not exceeding 10 million Euros (UK Government, 2023). Therefore, it can be inferred that in the UK context, an SME encompasses entities with 0 to 249 employees and an annual turnover below 50 million Euros.

Size of Business	Staff Headcount	Annual Turnover	Balance Sheet Total
Medium	Under 250	Under € 50m	Under € 43m
Small	Under 50	Under € 10m	Under € 10m
Micro	Under 10	Under € 2m	Under € 2m

Figure 2: Concept of an SME as per the UK Government

Note. Source: UK Government (2024).

The UK market predominantly comprises Small and Medium-Sized Enterprises (SMEs), a factor that underscores their substantial role in driving both employment rates and generating considerable turnover. Reports released by the Department for Business, Energy & Industrial Strategy in the UK highlight a notable increase in the number of SMEs from 2000 to 2020, followed by a subsequent decline from 2021 to 2022 ((Department for Business, Energy & Industrial Strategy, 2020, 2021, 2022). Specifically, the figures reveal

a progression in the number of SMEs in the UK over the years, with counts reaching 3460 (2000), 5687 (2017), 5660 (2018), 5860 (2019), and 5973 (2020). In 2020, the UK's private sector alone housed 5,972,685 SMEs, employing 16,836 thousand individuals and generating a turnover of 2,270,229 million Euros (Department for Business, Energy & Industrial Strategy, 2020, 2021). However, there was a decline in these metrics in 2021, as the private sector witnessed a turnover of 2,309,836 million Euros from 5,583,245 SMEs employing 16,333 thousand individuals (Department for Business, Energy & Industrial Strategy, 2021). By 2022, the number of SMEs in the UK's private sector decreased further compared to the preceding years, with 5,501,260 businesses contributing to a turnover of 2,124,439 million Euros and employing 16,432 thousand individuals (Department for Business, Energy & Industrial Strategy, 2022).

An in-depth examination of these reports suggests that the ongoing pandemic instigated a downward trend from 2021 to 2022. (Figures 3 and 4) provide insights into the composition and performance of small and medium-sized businesses in the UK market. They showcase that small enterprises accounted for 99.2% of all businesses in the country at the onset of 2021 and 2022, while medium-sized companies increased marginally from 0.6% to 0.7% during the same period. The employment rate in small enterprises experienced a slight uptick from 47.7% in early 2021 to 47.8% in 2022, whereas medium-sized enterprises maintained a stable employment rate of 12.9%. However, there was a divergence in turnover trends between the two categories, with small enterprises witnessing a decline from 35.7% in 2021 to 24.1% in early 2022. Medium-sized firms observed a reversal in fortunes, with turnover increasing from 16.2% in 2021 to 17% in 2022, as

evidenced in (Figures 3 and 4) from the Department for Business, Energy & Industrial Strategy reports of 2021 and 2022. This data signifies a nuanced trend in turnover dynamics within SMEs in the UK, calling attention to the potential role of VC in facilitating the translation of their significant presence into enhanced turnover figures, particularly within the construction sector.

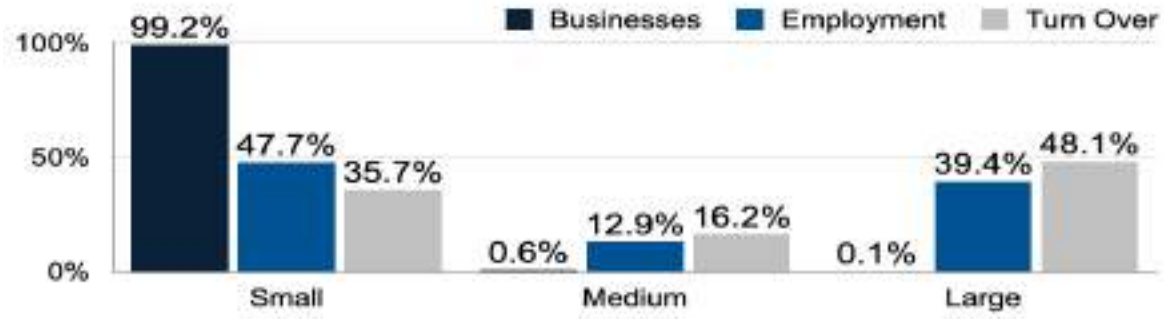

Figure 3: Summary of Businesses, Employment Rates, and Turnover at the Beginning of 2021

Note. Source: Department for Business, Energy & Industrial Strategy (2021)

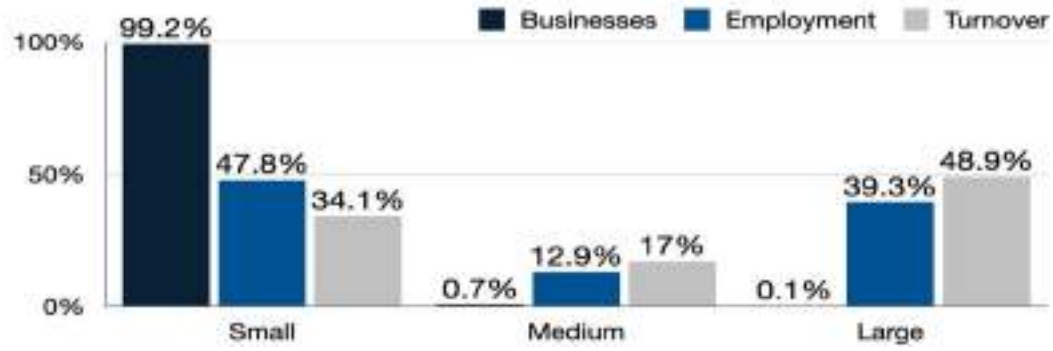

Figure 4: Summary of Businesses, Employment Rates, and Turnover at the Beginning of 2022

Note. Source: Department for Business, Energy & Industrial Strategy (2022)

SMEs within the construction sector play a pivotal role in the UK's economic landscape. The industry is a significant contributor to the economy, as highlighted by a 2018 report which disclosed a £117 billion contribution and created over 2 million jobs (HM Government, 2022). These figures reflect the economic prowess of the construction industry in 2018. Yet, it's crucial to examine the trajectory of this financial contribution over time. (Figure 5) visually represents the industry's economic output from 2007 to 2019. This output experienced a significant downturn after the 2008-2009 financial crisis. Despite subsequent efforts at recovery, as noted by Rhodes (2019), progress has been hindered by factors such as the COVID-19 pandemic in 2020 (Department for Business, Energy & Industrial Strategy, 2020).

The data reveals nuanced patterns in the sector's performance. For instance, while output modestly increased from 2010 to 2011, it regressed in 2012 to near levels seen in the 2009 recession. Nevertheless, from 2012 to 2017, output stabilised before experiencing an uptick. Overall, the sector exhibited a 17% increase in production from 2009 to 2019 despite fluctuations in value within the same period (Rhodes, 2019).

Aside from its economic significance, the construction sector significantly impacts employment rates in the UK. Rhodes (2019) illustrates this by showing an increase in the number of individuals employed in construction, rising from 1.81 million in 1982 to 2.37 million in 2019. Noteworthy is the stability in job offerings within the sector in 2014 and 2015. Examining the trend in construction jobs from 1982 to 2009 reveals a steady increase, reaching 2.24 million. However, there was a subsequent decline to 2.11 million in 2010

and 2.06 million in 2011. The numbers rebounded slightly to 2.07 million in 2012 before dropping to 2.04 million (Rhodes, 2019) (refer to Figure 6 for a graphical representation).

By examining both the economic and employment dimensions, it becomes evident that SMEs in the construction sector are crucial economic drivers and significant contributors to labour market stability in the UK.

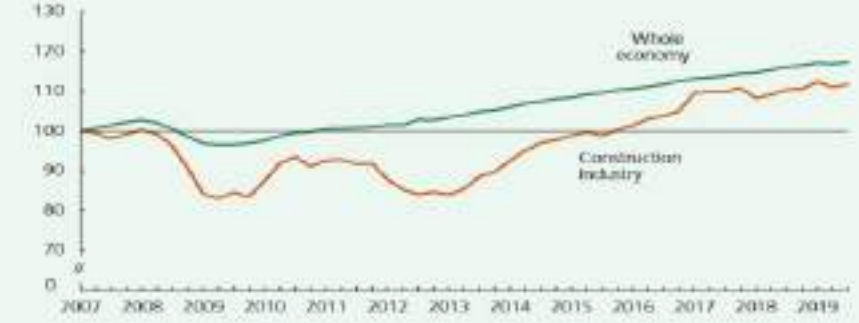

Figure 5: The Economic Output from the Construction Sector in the UK from 2007 – 2019

Note. Source: Rhodes (2019, p.5)

Workforce jobs in the construction industry, UK		
	Millions	% of all jobs
1982	1.81	7.0%
1992	1.95	7.0%
2002	2.00	6.6%
2009	2.24	7.1%
2010	2.11	6.7%
2011	2.06	6.5%
2012	2.07	6.5%
2013	2.04	6.3%
2014	2.12	6.4%
2015	2.12	6.3%
2016	2.24	6.5%
2017	2.32	6.7%
2018	2.36	6.7%
2019	2.37	6.6%

Figure 6: Number of Jobs in the Construction Sector in the UK from 1982 to 2019

Note. Source: Rhodes (2019, p.7)

The construction sector in the UK holds significant economic importance, as every pound spent within it remains within the country's economy (Charrett, 2022). Moreover, the majority of businesses in the construction sector, especially in developed nations, are SMEs (Ametepey, Frempong Jnr, and Cobbina, 2022), with 99% of businesses operating in the construction sector being such firms (Charrett, 20220). This statistic underscores SMEs' widespread presence and influence in driving the construction industry forward. In 2022, approximately 914,000 SMEs operated within the construction sector in the private sector alone, marking a notable increase from the previous year (Department for Business, Energy & Industrial Strategy, 2022).

Despite their considerable contribution to employment and the economy, SMEs in the construction sector face significant financial challenges that affect their performance metrics and critical success factors (CSFs) (Chit and Rizov, 2023). These challenges stem from a heavy reliance on traditional banking systems for debts, which may limit their operational capabilities (OECD, 2020). Factors such as start-up capital, currency fluctuations, access to financial resources, and volatile material prices exacerbate these challenges (Tayeh et al., 2019). Research in the UK has highlighted policy restrictions in bank lending for SMEs as a significant hindrance, discouraging smaller firms from seeking funds and accessing vital resources (Owen et al., 2022).

These financial challenges threaten SMEs' growth, success, and competitiveness in the construction sector (Amadasun and Mutezo, 2022; Ramzi et al., 2022). Access to adequate finances is essential for business expansion and a stable market climate (Khan, 2022). The growth and success of SMEs are influenced by factors such as the cost of

accessible loans, support from business angels, private lenders, and bank assistance (Batrancea et al., 2022). However, the evident inequity and absence of bank loans for emerging SMEs have led to the need for alternative financing options (Owen et al., 2022).

One such solution to the financing challenges that construction sector SMEs face is VC. Numerous studies have shown that VC investments can enhance SME performance by improving profitability and growth (Du and Kai, 2020; Kato and Tsoka, 2020). VC enables SMEs to obtain higher profits and sales and better technological innovation abilities (Du and Cai, 2020; Kato and Tsoka, 2020). However, existing research needs to include insights into the specific impact of VC on SMEs in the construction sector, highlighting the need for further exploration into how VC can resolve financial challenges in this industry.

Investigating these impacts will provide valuable insights for SME owners and managers in the UK construction sector, potentially enhancing their attractiveness to venture capitalists and mitigating financial challenges. Therefore, this research explores the potential benefits of acquiring VC to eliminate financial obstacles and improve the performance of construction sector SMEs. Through an in-depth analysis of VC financing and the growth of emerging SMEs in the construction sector, this project seeks to provide practical guidelines for leveraging VC for SME growth.

1.2 Research Problem

While (SMEs) are recognised as the backbone of a country's economic growth and employment rates (Department for Business, Energy & Industrial Strategy, 2021, 2022; Khan, 2022; Li, 2019), financial challenges often hinder their overall contribution to the

economy (Amadasun and Mutezo, 2022; Ramzi et al., 2022). The absence of adequate finances prompts SMEs to seek various sources of capital (Chit and Rizov, 2023), underscoring the importance of addressing these challenges. Financial constraints can significantly limit an SME's ability to explore diverse capital sources, with the extent of the constraint dictating their approach (Chit and Rizov, 2023). While moderately constrained organisations may consider multiple capital providers, severely constrained SMEs might opt for less diverse sources (Chit and Rizov, 2023).

These financial hurdles are also prevalent in construction sector SMEs (Mukumba, Amoah, and Mbelembe, 2022; Paragon Bank, 2023). Diverse financing options, especially for construction SMEs, are crucial for project completion, as Mukumba et al. (2022) highlighted. Paragon Bank's report (2023) emphasises the importance of addressing financial challenges in UK construction SMEs. The report indicated that SMEs in the sector feel significantly more optimistic about achieving better results in the first quarter than in 2022. A survey of these businesses found that 12% anticipated a 10% increase in turnover, while 15% expected growth between 5% and 10%. Overall, their predicted growth rate is approximately 2.8%. A majority (52%) expressed confidence in their potential for success, a notable increase from 2022 when only 17% felt optimistic (Paragon Bank, 2023). Understanding the influence of VC on the performance of construction SMEs could help businesses reach their objectives for the current fiscal year.

Venture capital (VC) emerges as a viable solution to SMEs' financial challenges (Du and Cai, 2020; Kato and Tsoka, 2020; Wu and Xu, 2020; Yang, 2022). Numerous studies have highlighted its benefits, including enhanced innovation and management

capabilities for SMEs (Sofia et al., 2022). However, the impact of VC on the creative performance of the construction sector remains to be discovered. Nyagadza, Dzenga, and Vingirayi (2019) demonstrated that VC enhances SME growth in Zimbabwe. The financial aspects have improved due to VC's positive effects on SME growth, including increased sales, net assets, and profits (Nyagadza et al., 2019). Nevertheless, evidence of such impacts in the UK is yet to be established.

Existing studies have identified specific performance metrics significantly impacted by VC investments in SMEs, including return on assets, revenue growth, and profits (Kai and Tsoka, 2020). VC has also been associated with SME growth, profit margins, technological innovation, and reduced financial risk (Du and Cai, 2020; Yang, 2022; Wu and Xu, 2020). Knowledge of these metrics' implications for UK SMEs still needs to be improved, highlighting the necessity for further research.

Moreover, market-driven dynamics and unpredictable environments have hindered VC investments (Kim and Lee, 2022; Mirza and Sabah, 2018; Seong and Kim, 2021), potentially impacting SMEs' investment returns. Thus, it is imperative to research how businesses can enhance their attractiveness to venture capitalists, particularly in the construction sector. Unveiling the significant benefits of VC to construction sector SMEs' performance is essential, motivating the purpose of this study.

1.3 Purpose of Research

This research project aims to delve into financial experts' perspectives regarding the impact of VC on SMEs operating in the United Kingdom's construction industry.

Specifically, the study will examine these impacts across various performance measurements, shedding light on VC's role in enhancing both financial and non-financial aspects of SMEs in the sector. Participants for this study will consist of economic experts working in SMEs within the UK construction sector, each possessing a minimum of five years of relevant experience.

Csapi and Balogh (2020) outline two dimensions through which the financial performance of SMEs can be assessed in competition: the competitive performance dimension and the potential dimension. The former encompasses metrics such as total asset turnover and labour productivity, reflecting a firm's efficiency in managing its assets and the earnings generated from its labour. Conversely, the potential dimension encompasses research and development expenditures relative to innovations, providing insights into a firm's investment in future growth (Csapi and Balogh, 2020). Exploring the perspectives of economic experts may reveal how VC investment influences these dimensions within the construction sector.

Additionally, this research will investigate the relationship between VC and sustainability performance among construction sector SMEs. Mengistu and Panizzolo (2023) suggest that SME sustainability can be measured using various metrics, including financial benefits, market and cost-related competitive advantages, and resources for sustaining performance. By examining the availability of VC to business owners in the UK construction sector, this study aims to uncover its impact on SMEs' sustainability performance.

Awwad, Shibani, and Ghostin (2020) emphasise the importance of financial resources in enhancing technology adoption among construction sector SMEs in the UK. They note that limited financial resources often hinder SMEs from adopting technologies like Building Information Modelling (BIM), limiting their competitiveness and success (Awwad et al., 2020). Similarly, Lou, Lee, and Goulding (2019) highlight the low e-readiness of SMEs in the construction sector, suggesting that financial constraints and a lack of expertise impede their uptake of emerging technologies (Lou et al., 2019). This research seeks to explore how VC investments influence technology adoption and success among construction sector SMEs based on the insights provided by financial experts.

Vidalakis, Abanda, and Oti (2020) highlighted the slow adoption rate and the need for uniformity in adopting Building Information Modelling (BIM) within the SME sector of construction and architecture. They emphasised the importance of SMEs understanding BIM concepts and the necessity for increased awareness of relevant software systems. Additionally, Vidalakis et al. (2020) pointed out that financial capacity plays a significant role in BIM adoption among SMEs, while the size of the business and the services provided also influence technology adoption rates.

The studies conducted by both Awwad et al. (2020) and Vidalakis et al. (2020) indicate a notable need for more adoption and implementation of BIM in construction sector SMEs. However, these studies must delve into the impact of VC investments on these adoption rates. Therefore, the upcoming research aims to investigate how venture capital has influenced the adoption rate and success of BIM technology among SMEs in the construction sector.

1.4 Significance of the Study

This study holds significance on multiple fronts, contributing to business practice, business value, and fostering positive social change. Firstly, it provides construction sector SME owners and managers with invaluable insights into the role of VC in enhancing their performance. By highlighting the benefits of VC, this research encourages new and existing SMEs in the construction sector to explore VC to achieve growth in a fiercely competitive business landscape. Moreover, the study's findings offer practical insights into the benefits, risks, and strategies for securing VC financing, aiding business owners in navigating the complexities of VC investment in the UK construction sector. Additionally, by addressing the challenge of identifying suitable VC investments, this research can inform the development of structures or proposals to attract venture capitalists, facilitating financial and non-financial performance improvements and fostering growth within the sector.

Furthermore, the study's results can drive positive social change by providing construction sector SMEs with a viable strategy for securing VC financing, addressing the sector's significant challenge. Adequate access to such financial capital enables SMEs in the construction sector to create a positive social impact by generating more employment opportunities for local communities. Given that SMEs constitute the largest employment sector in the UK (Gupta and Peshken, 2022), enhancing the performance of construction sector SMEs through VC investment can significantly contribute to job creation and economic growth, ultimately bolstering the UK's GDP through increased tax revenues.

Moreover, the study aligns with the vital performance measures proposed by Srinivasarao, Reddy, and Babu (2020), encompassing various key performance indicators

(KPIs) essential for evaluating SME performance. These include measures related to business processes, customer behaviour, maintenance, personnel, process efficiency, innovation, and quality. By incorporating these performance measures into the research framework, the study aims to comprehensively assess the impact of VC investments on construction sector SMEs in the UK.

Furthermore, insights from Bondinuba et al. (2022) emphasise the influence of funding and management strategies on the financial performance of construction sector SMEs in the UK. This underscores the relevance of investigating how VC could affect these businesses' management and funding aspects. Therefore, conducting this research has the potential to uncover insights into how VC impacts the management and funding dynamics of construction sector SMEs, providing actionable insights for improving their performance and competitiveness.

In summary, this research seeks to explore the impact of VC on the success of UK construction sector SMEs by surveying financial experts' opinions on various performance and non-performance metrics. The metrics that will be evaluated in this research are illustrated in Table 1 and Table 2. It entails an outline of the variables explored in the quantitative part (see Table 1) and qualitative part (see Table 2). The tables also include the relevant studies whereby each variable examined in this research was identified. The variables in both tables are categorised based on their category, financial or non-financial performance metrics of construction sector SMEs in the UK, which will be explored in this study. Hence, these variables will be indicated in the study’s data collection instruments;

those in (Table 1) will be reflected in the quantitative survey (see Appendix C), while (Table 2) variables are evident in the qualitative survey (see Appendix B).

Moreover, this study will delve into the determinants that shape venture capitalists' decisions to invest in small and medium-sized enterprises (SMEs) within the construction industry in the UK. Factors to be considered may encompass the SME's historical financial performance, the sustainability of its operations, and its overall growth potential. As such, these variables will form an integral part of the survey questionnaire used in this research. Sharing insights on these factors could assist SMEs within the UK construction sector in formulating strategies to enhance their appeal to venture capitalists.

Table 1: Performance and Non-Performance Metrics Measured in the Quantitative Section

Variable	Category	Supporting Reference
Investment Returns Sales Revenue Profit Margins	Financial	Kato (2021), Kato and Tsoka (2021) and Nukala & Rao (2021), Pradhan et al. (2019) and Sharaf (2019).
Quality Safety Competitiveness Technological Innovativeness Employee Satisfaction, Productivity, and Turnover Inventories and Overall Sustainability	Non-Financial	Srinivasarao et al. (2020), Rajagopaul et al. (2020), Penrose (1959), Csapi and Balogh (2020), Adam and Alarifi (2021), Jin et al. (2020), Voordt and Jensen (2023), and Stalmachova et al. (2022).

Note. Source: Self-Developed

Table 2: Performance and Non-Performance Metrics Measured in the Qualitative Section

Variable	Category	Supporting Reference
Sales Profits and turnover on investments	Financial	Srinivasarao et al. (2020) Kato (2021), Stalmachova et al. (2022)
Competitiveness (labour, productivity, and asset turnover) Technology readiness and innovativeness Manufacturing cycle times Employees' satisfaction, turnover rates, productivity Length of customer calls Quality Sustainability	Non-Financial	Rajagopaul et al. (2020), Adam and Alarifi (2021), Adeniken et al. (2020), Srinivasarao et al. (2020), Stalmachova et al. (2022), and Al-Tit Omri and Euchi (2019).

Note. Source: Self-Developed

1.5 Research Purpose and Questions

This research project aims to delve into financial experts' perspectives regarding the impact of VC on SMEs operating within the United Kingdom's construction industry. By doing so, this study aims to furnish construction sector SMEs with valuable insights that can guide them in seeking or approaching investors for VC financing, thereby facilitating their success. Therefore, the overarching goal of this study is to qualitatively explore financial experts' opinions on how VC influences the success and growth of SMEs within the UK construction sector. To achieve this, the study has two specific objectives:

i. Investigate the influence of VC on SMEs' success in the construction sector.

ii. Evaluate the utility of VC as a growth mechanism for emerging SMEs in the construction sector.

To address these objectives, the research will tackle the following research questions:

1. What are the key factors influencing venture capitalists' investment decisions in SMEs within the construction sector?
2. How does VC investment impact the financial and non-financial performance metrics of existing and emerging SMEs within the construction sector?

Chapter 1 serves as the foundation of the study, encompassing an introduction to the study's scope and chosen research focus. It addresses the research problem and elucidates how this study's findings aim to contribute to its resolution. Furthermore, the chapter elucidates the purpose and significance of the research, culminating in formulating a purpose statement, research questions, and overarching objectives. Additionally, Chapter 1 provides an overview of the literature review, which offers insights into previous scholarly work on VC and its benefits for SMEs. Moreover, it discusses how scholars have conceptualised the theoretical framework to guide this research.

CHAPTER II: LITERATURE REVIEW

2.1 Introduction

SMEs play a crucial role in the UK's economy, contributing significantly to employment opportunities and GDP (Department for Business, Energy & Industrial Strategy, 2021). However, financial challenges often hinder their success (Amadasun and Mutezo, 2022; Batrancea et al., 2022). Typically, businesses rely on retained earnings as their investment capital for achieving growth and sustainable development (Walter, Offiong, and Udoka, 2018), highlighting the need for a sustainable solution to this problem. VC has emerged as a suitable solution to SMEs' financing challenges, as it has been shown to enhance their financial and non-financial performance (Du and Cai, 2020; Kato and Tsoka, 2020). The primary objective of the current study is to qualitatively explore the opinions of financial experts in the construction sector regarding the impact of VC on the success and growth of SMEs operating in the UK construction sector. Therefore, it is essential to review existing literature to uncover the opinions of other researchers on concepts pertinent to this study, such as VC financing and the critical success factors of SMEs.

The literature reviewed in this chapter is organised into three subsections. The first is the theoretical framework, which includes discussions of findings from studies related to this proposed study, covering (a) an overview of VC, (b) the impact of VC on SMEs, (c) critical success factors of SMEs, and (d) factors influencing VC investments. The second section provides an overview of the resource-based entrepreneurship theory, including its history, founder, year founded, and relevance to this study's concepts and purpose. The last

subsection outlines the proposed methodology, including the studies used as a basis for the selected approach.

The search for studies included in the literature review section was conducted using reputable academic databases such as Emerald Insight, EBSCO Host, ProQuest, Google Scholar, and Scopus. Several keywords were employed to ensure alignment with the study's purpose, including VC, SMEs, financial performance, non-financial performance, UK, impact, and construction. These keywords were combined using Boolean operators 'OR' and 'AND' to generate the search phrase: VC AND SMEs AND financial performance OR non-financial performance AND UK AND impact AND construction. The literature review chapter is structured around studies focusing on the roles of VC on SMEs, published in English, with full-text availability online, and with publication dates between 2018 and 2023. However, seminal studies outlining historical aspects of the study's concepts were also included, even if published before 2018.

Consequently, the literature review chapter is based on 81 studies. Among these, 62 are journal articles, 9 are books, 2 are conference papers, 2 are dissertations, and four are sourced from organisations or government websites. The distribution of these findings is graphically represented in (Table 3) below.

Table 3: Types of Articles in the Literature Review Chapter

NO.	ARTICLE TYPE	NUMBER IN THE LITERATURE REVIEW CHAPTER
1	Journals	62
2	Books	9
3	Organisation or government websites	4
4	Conference proceedings	2
5	Dissertation	4

Note. Source: self-developed

2.2 Theoretical Framework

2.2.1 Challenges Faced by Construction SMEs

Numerous SMEs, including the UK, operate in the construction industry globally (Paragon Bank, 2023). Despite the large number of SMEs in the construction sector, it is pertinent to identify the significant challenges these types of businesses encounter. Identifying the financial-related challenges and their impacts on other setbacks forms the basis for this research that explores the potential of VC financing in mitigating the issues. Several studies have identified that construction industry SMEs encounter numerous challenges. The reviewed studies on the challenges revealed that the SMEs in the sector are evident in developing and developed countries. For instance, a study on Kenyan construction SMEs revealed that these businesses have a challenge accessing loans because of the high interest involved, leading to the failure of most start-ups. These challenges have been identified to be resolved through the training of SME business owners by Sharia-compliant SACCOs on financial management knowledge and skills (Sheikh and Jagongo, 2022). The trainings were identified to enable the construction

SMEs' business owners to identify ways of enhancing their knowledge and abilities (Sheikh and Jagongo, 2022).

Corporate Social Relations (CSR) operations of construction sector SMEs have also been identified in South Africa as hampered by the financial challenges they encounter. According to Wentzel, Faphunda and Haldenwang (2024), their qualitative research revealed that financial challenges impeded the implementation of CSR activities in South Africa. The participants in the South African research emphasised that their profit margins were significantly low, thus allowing them to only use their profits in running the business and not on CSR projects. This lack of finances also makes the construction SMEs in South Africa unable to implement small-scale CSR projects as they cannot afford all the human resources required to implement them at a large scale (Wentzel et al., 2024). The existence of limited finances in construction SMEs identified in South Africa by Wentzel et al. (2024) was reiterated by Thomas (2022) in their study of similar businesses in Windhoek. According to Thomas (2022), 98.1% of their respondents either agreed or strongly agreed that their SMEs' operations in the construction sector were hampered by their challenges in accessing their finances. This challenge was attributed to the reluctance of financial institutions to grant loans to SMEs and the existence of strict regulations for access and eligibility to available capital from investors (Thomas, 2022). These economic challenges also develop from the heavy reliance on traditional banking systems for capital, leading to debts that limit the SMEs' operational capabilities (OECD, 2020).

The existence of financial challenges reported in developing countries by Sheikh and Jagongo (2022), Tomas (2022), and Wentzel et al. (2024) is also reiterated in the case study of five SMEs in the construction industry in Malaysia by Salleh et al. (2021). Analysis of the surveys of SMEs revealed that businesses encounter numerous financial

risks. These risks arise from delayed payments, a rise in the cost of raw materials, and high taxation rates. The economic challenges experienced by the construction SMEs have also been identified to delay the businesses' projects, leading to additional financial losses. This is because a project delay infers that they will have to pay for all compensations to a client and extra work time of contractors and the project team. The high cost also arises from the significant amount of finances they would require to pay for alternative plans for completing a project within schedule when it is delayed due to late disbursement of payments and capital (Salleh et al., 2021).

Challenges related to finances and capital encountered by SMEs in the construction sector reported by Salleh et al. (2021) in Malaysia were also identified by Offei, Kissi and Nani (2019), who revealed that the limited access to credit, delayed payments, and high cost of materials affect the financial-related capacity of SMEs in Ghana. Finance is, therefore, a constraining factor for Ghanaian SMEs in the construction industry because the owners find it challenging to access capital from banks. In addition, delayed payments have hampered contractors' capacity. This is evident in the prolonged payments of contractors for up to four years (Offei et al., 2019).

SMEs in the Gaza Strip have also encountered financial challenges related to start-up capital, currency fluctuation, access to financial resources, and volatile material prices, exacerbating these challenges (Tayeh et al., 2019). According to Tayeh et al. (2019), High fluctuation in foreign currency hampers SMEs because of their large dependence on international investors who are unaffected by local currency changes and related transactions. The start-up cost is also relatively high for the company because of the vast amount of capital required to register the SME business in the government's departments, contractors' unions, and the commerce chamber. They also incur the costs of paying the law, accounting offices, and the bank to obtain a chequebook. These costs

are besides those that will be incurred in building the office space to meet industry standards (Tayeh et al., 2019). Hence, the emerging construction sector SMEs in the Gaza Strip might fail to commence if they do not get access to the essential funding that can be used to meet all the above costs.

Research in the UK has also revealed that construction industry SMEs encounter numerous financial challenges caused by multiple factors. The first is stringent policy restrictions in bank lending for SMEs, discouraging smaller firms from seeking funds and accessing essential resources for their operations (Owen et al., 2022). The challenges in construction SMEs in the UK were also identified during the COVID-19 pandemic. Whereas the government set aside finances to support SMEs from insolvency, they mainly targeted larger projects handled by large businesses in the industry, thus further discouraging small business owners (Seidu et al., 2022).

Correspondingly, it is pertinent to address these challenges by adopting numerous sources of financing. Mukumba, Amoah and Mbelembe (2022) emphasised this in their research on sources of financing used by SMEs in the construction industry in Gauteng. The first is self-funding or owner equity, which is perceived to be a less risky source of financing, unlike applying for loans. Besides, if the SME fails, the owner would only lose their investment and not incur the additional challenge of paying loans, thus showing that self-funded construction SMEs are less risky, unlike when debts are involved. Another funding source for SMEs in Gauteng is using upfront payments from clients, enabling them to pay their suppliers and workers and avoid project delays that lead to additional financial costs (Mukumba et al., 2022). However, the adoption of alternative funding sources to counter financial challenges depends on whether a construction SME encounters financial-related issues. Chito and Rizov (2023) revealed in their surveys of such construction sector SMEs in 135 developing countries that businesses face major

financial challenges that hamper their performance metrics and critical success factors (CSFs). Those who mostly face these challenges have identified alternative funding sources to reduce the risks of delaying their projects and losing their profits (Chit and Rizov, 2023).

Analysis of the studies on the financial-related challenges encountered by SMEs in the construction sector in developed and developing countries revealed that they find it difficult to successfully commence, pay contractors, gain profits, and remain sustainable. The risk of delayed payments leads to delays in the projects that an SME might have undertaken, leading to additional costs for compensating contractors and the client or for an alternative source of income. Reviewed studies have also revealed that there is a need for construction SMEs to seek alternative sources of income to reduce the risk of financial challenges. Some of the identified alternative sources include self-funding and using the payments that are obtained from a client to reduce the risk of paying debts if a business fails. However, this research focuses on using loans, and venture capital, that support SMEs in the UK construction sector. Hence, venture capital is reviewed in this literature as a potential source of income for the construction sector and in terms of its impacts on SMEs' financial and non-financial performance metrics.

2.2.2 Venture Capital (VC)

The term venture capital VC was initially coined by Witter (1939) during a presidential address. Jean Witter, an employee of Dean Witter & Company, a brokerage organisation, proposed providing businesses with a new type of finance VC. According to

Witter (1939), such financing could facilitate new enterprises' development and sustainable growth, creating more job opportunities. However, investment bankers voiced concerns against Witter's proposition, suggesting that VC might face obstacles due to high taxation, potentially diminishing profits from successful transactions in new enterprises (Witter, 1939).

VC is characterised as high-risk equity capital to finance businesses' development and expansion, particularly startups demonstrating promising business potential. However, accessing traditional funds and listing on the public security market may pose challenges for VC-funded startups (Gompers and Lerner, 1999). The equity-based nature of VC implies that entrepreneurs receive financial and non-financial support from venture capitalists in exchange for a share of ownership in the business. Although risky, VC attracts angel investors, banks, and government-affiliated institutions. Although most firms receiving VC funding ultimately fail, understanding the various investment stages is crucial. Funding from VC sources occurs in multiple stages depending on the maturity level of the business. For instance, companies in their early stages are more likely to secure funding from venture capitalists through their connections with affluent investors, as highlighted by the UK government (2023b) (refer to figure 7).

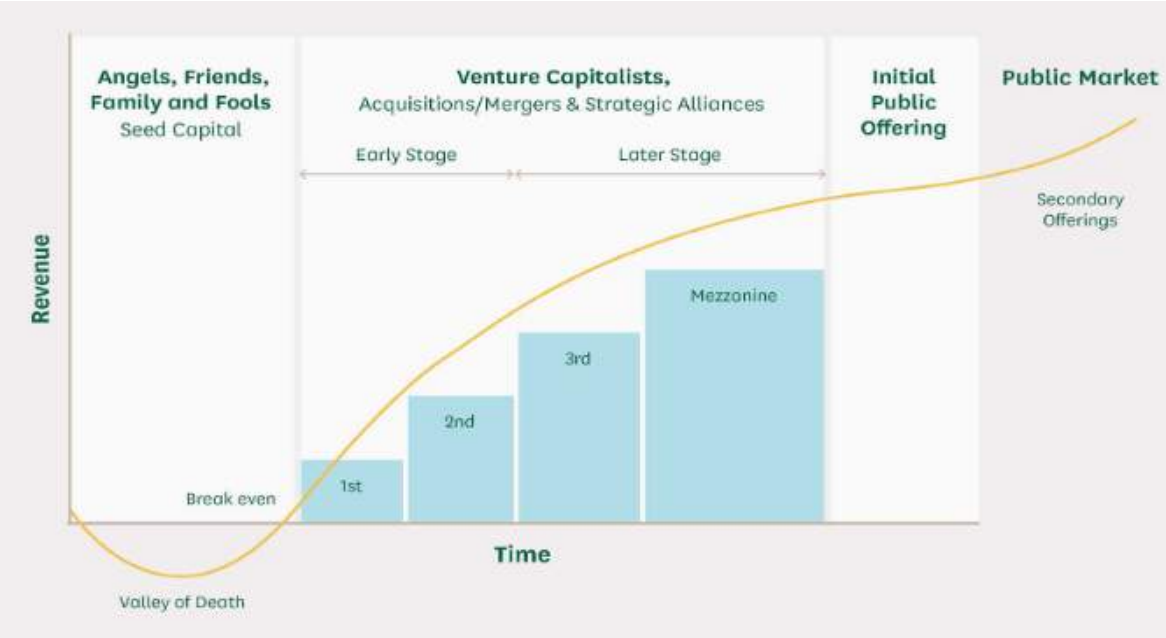

Figure 7: Venture Capital Funding Stages

Source: UK Government (2023b)

Furthermore, it is worth noting that Witter's (1939) assertion regarding the association of venture capitalists with high taxes finds support in the VC statistics for 2022 and 2023 provided by the UK Government. According to the UK Government (2023), the income tax relief claimed by investors in VC trusts amounted to approximately 640 million Euros from 2020 to 2021, marking an increase compared to the previous period from 2019 to 2020. Moreover, the tax relief claimed in 2020 saw a rise of approximately 9% in 2021. (Figure 8) depicts the 2019-2020 and 2020-2021 tax relief applications. The data reveals that the largest group of investors seeking more tax relief fell within the 5,000 to 10,000 Euro category (17%), followed by those in the 25,000 to 50,000 Euro group (16%). Interestingly, the number of VC investors remained consistent from 2020 to 2021 compared to the preceding period from 2019 to 2020.

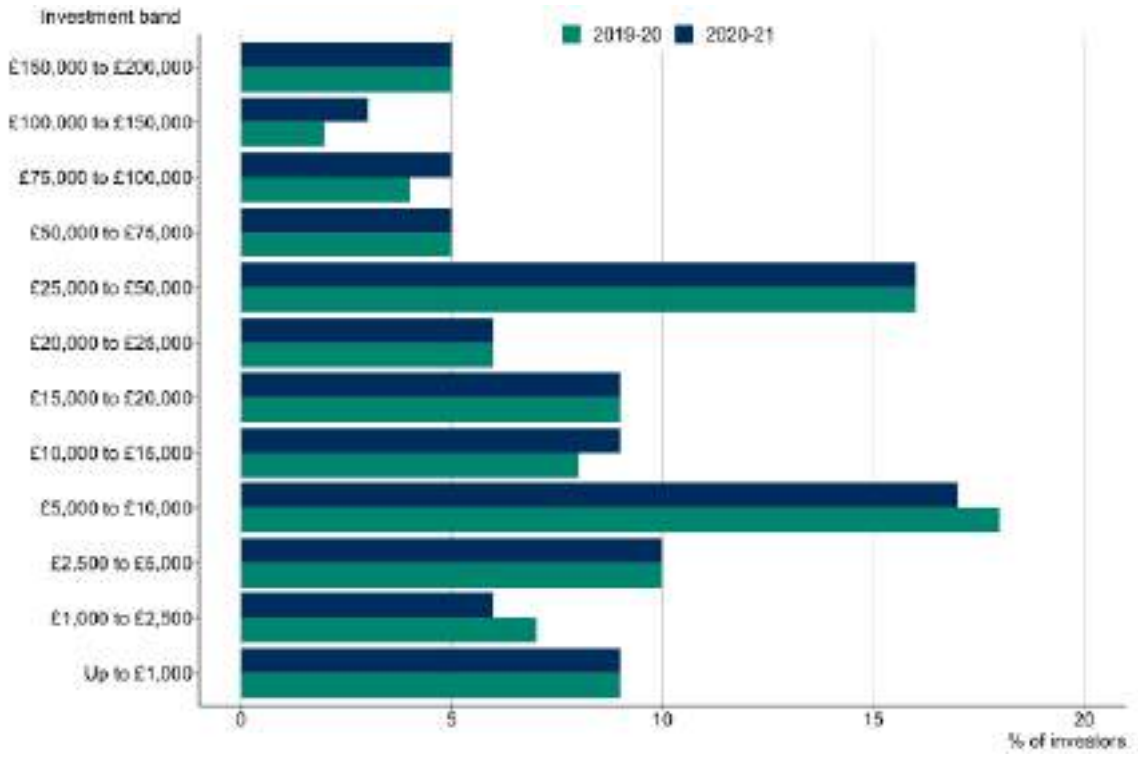

Figure 8: Tax Relief Applications by Venture Capital Trust Investors in 2019 – 2020 and 2020 – 2021

Source: UK Government (2023b)

Similarly, according to the UK government (2024), investors in VC trusts sought income tax-related relief amounting to approximately 1,040 million Euros from 2021 to 2022. This marked an increase in investors seeking income tax-related relief, rising to 25,800 Euros from 2021 to 2022. (Figure 9) depicts the 2020-2021 and 2021-2022 tax relief applications. Around 78% of investors claiming relief invested 50,000 Euros or less. Within the category with the highest claims, investors in the 25,000 to 50,000 Euro range constituted 19% of the total investors applying for relief. The number of investors in VC trusts witnessed an uptick in 2021-2022 compared to the preceding years of 2020-2021 and 2019-2020. The lower figures observed in the number of investors in 2019-2020 are

attributed to the economic repercussions of the COVID-19 pandemic (UK Government, 2024).

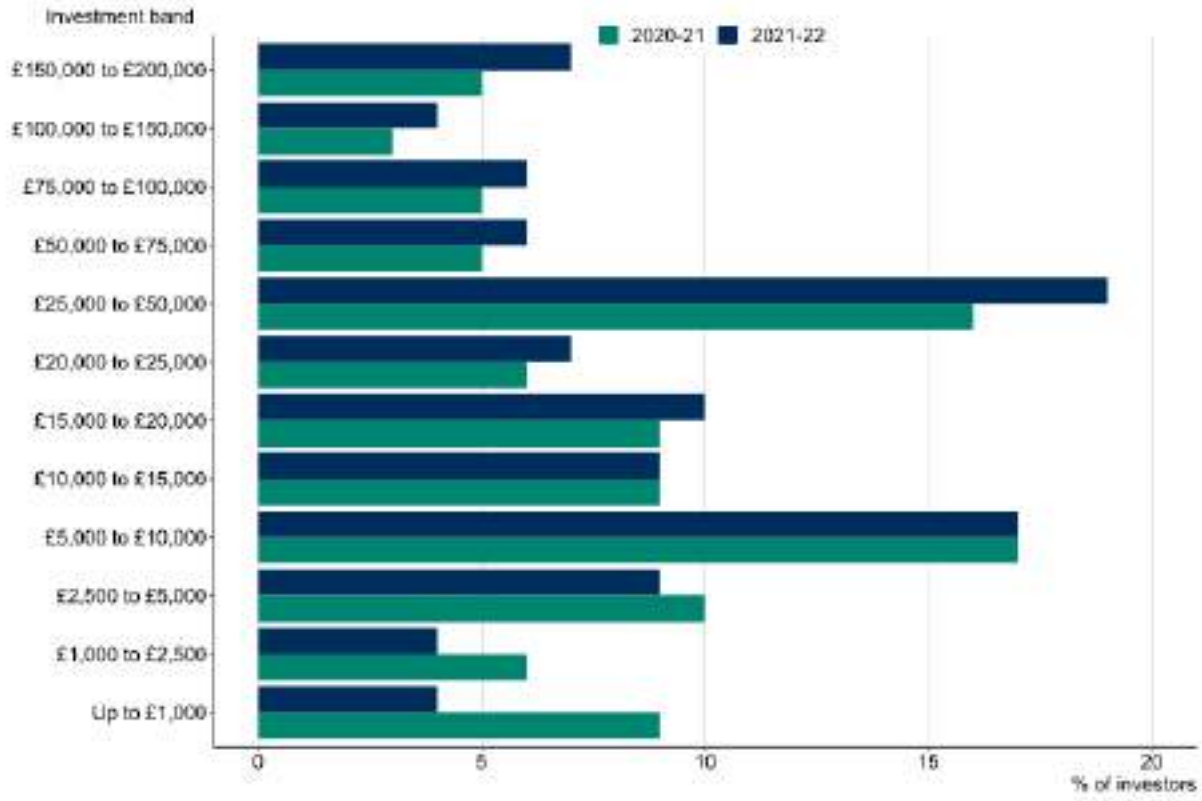

Figure 9: Tax Relief Applications by Venture Capital Trust Investors in 2020 – 2021 and 2021 – 2022.

Source: UK Government (2024)

Pradhan et al. (2019) highlight the relationship between a country's economic growth and VC. Venture capitalists fund new and high-risk start-ups or innovations, creating new revenue opportunities and stimulating economic development. VC offers business owners financial support, mentorship, strategic guidance, and access to valuable networks (Gompers and Lerner, 1999).

Sharaf (2019) characterises VC as financing primarily utilised by start-ups to promote their growth. Venture capitalists invest in these businesses in exchange for equity and active involvement in their operations, setting them apart from traditional financing methods offered by banks, which typically provide loans in exchange for debt. VC financing firms often collaborate to develop portfolios of potentially profitable start-ups they might support (Sharaf, 2019). This form of capital can enhance a business's appeal to other financial institutions, including banks, by increasing its value.

According to the OECD (2015), VC falls under the private equity category, including various financing instruments funded through private sources in exchange for ownership stakes in businesses. Private equity is available to firms with shares not publicly traded in the stock market throughout their lifecycle. Different types of private equity include VCs, buyouts, growth capital, replacement equity, and rescue financing. VC targets new enterprises in their early stages, while other forms of private equity focus on more established companies. Growth capital is directed toward slightly mature firms seeking funds to restructure or capitalise on new market opportunities. A buyout refers to the financing used for acquisitions, whereas replacement equity involves purchasing minority shares from other shareholders. Private rescue equity is crucial financing for existing businesses facing challenges that hinder their success (OECD, 2015). Understanding these various forms of private equity helps underscore the importance of VC for start-up SMEs.

The OECD (2015) defines VC across multiple stages, including seed, start-up, and late-stage ventures. In the pre-seed stage, VC finances research and the development of initial business concepts before the start-up phase. VC funding supports marketing efforts

and product development in the start-up stage, where enterprises have yet to sell products. In the late-stage phase, VC funding aids operating companies in expanding, even though they may not be fully matured (OECD, 2015). This proposed study will employ a two-stage definition of VC that aligns with its objectives. The first aim is to investigate how VC influences the success of SMEs in the construction sector, while the second is to evaluate VC as a growth mechanism for emerging construction sector SMEs. The study will focus on the role of VC in SMEs during the start-up phase and how financing impacts their performance by aiding initial marketing and product or service development. Additionally, it will examine how VC influences the performance of late-stage SMEs, specifically regarding their growth in the UK construction sector.

Meena et al. (2018) also explore the concept of VC, discussing its challenges and associated opportunities. They note that VC emerged in the 20th century as an alternative to traditional bank financing, particularly for high-risk yet potentially lucrative projects. The terms "patient risk capital" or "risk capital" are often used to describe VC, reflecting the high risk of investment loss if a venture fails or takes considerable time to yield returns (Meena et al., 2018).

There are six key characteristics of VC financing: high risk, lack of liquidity, long-term investment horizons, capital gains and equity stakes, investment in innovative ventures, and the active involvement of venture capitalists in business management (Meena et al., 2018). To secure VC financing, entrepreneurs typically go through six essential steps. The first step involves developing a detailed business plan with an executive summary, target market analysis, competitor review, and financial projections. Once venture

capitalists approve the business plan, they arrange an introductory meeting to discuss the business in greater detail. During the due diligence stage, venture capitalists ask entrepreneurs questions about their target customers and performance metrics, assessing the management team. If satisfied, they provide a term sheet outlining the investment's terms and conditions. Once all parties agree on the terms, the venture capitalist funds the entrepreneur (Meena et al., 2018).

The OECD (2015) also describes the investment and exit processes for VC financing. Venture capitalists target firms with high growth potential, relying on financial resources from wealthy individuals, pension funds, or insurance companies. A venture capitalist's investment portfolio may include real estate, bonds, and stocks. As an alternative investment, VC is characterised by engaging with high-risk start-ups with significant potential for success or failure (OECD, 2015).

Typically, VC funds last around ten years when the venture capitalist's partnership with a business is established. This culminates in the dissolution of the partnership and the distribution of assets among partners. However, the investment period may be extended to 15 to 20 years. Funding is often provided across several rounds during the initial 3-4 years of a start-up's operations (OECD, 2015).

Venture capitalists primarily support companies in their early stages, with the primary function of VC being to provide SMEs with capital to promote growth. Venture capitalists who invest in these SMEs often integrate these into their business processes. Furthermore, VC financing serves as vital capital for emerging companies, allowing them to grow before reaching a size that qualifies for bank financing (Walter et al., 2018). A

study examining 25 European countries found that VC investment drives economic growth alongside innovation and ICT diffusion (Pradhan et al., 2019). This research builds on their findings from 2018, which emphasised the need to balance VC investments with innovation, economic development, and financial growth. For instance, government initiatives like subsidies or tax incentives for VC investments could positively influence economic growth by providing recipient businesses with additional funds for innovative projects (Pradhan et al., 2018). Therefore, exploring the benefits of VC is crucial, as it may encourage construction sector SMEs to pursue this financing avenue, ultimately contributing to economic growth in the UK.

Numerous studies, including one by Kato (2021), have showcased the advantages of VC financing for SMEs. Kato systematically reviewed 50 articles published between 2010 and 2020 in reputable journals on innovation, finance, management, and entrepreneurship. This systematic review focused on the impact of VC on the performance of SMEs in Egypt, Uganda, South Africa, Ghana, Kenya, and Nigeria, revealing that VC financing positively affects early growth through job creation, increased sales turnover, profitability, and return on investment (Kato, 2021). The review indicated that only start-up SMEs benefit from venture capitalists' investments, contingent upon the relevant implementation policies (Kato, 2021). It also demonstrated that VC enhances SMEs' profiles, making them more attractive to venture capitalists. However, Kato's research is limited to specific African countries, necessitating a more thorough investigation into the impact of VC on SMEs in the UK's construction sector.

The application of VC in an SME or any business depends on various factors that facilitate this type of financing. The OECD (2015) notes that an enabling environment is crucial for providing VC financing. The presence of suitable companies can help the development of VC financing in many countries (Kato, 2021). Venture capitalists are particularly attracted to businesses where entrepreneurs demonstrate risk-taking, self-confidence, and a notable entrepreneurial track record. Additionally, regulatory frameworks that facilitate market entry and exit make enterprises more appealing to venture capitalists (OECD, 2015). A continuous flow of innovative and sector-specific opportunities makes businesses attractive to venture capitalists.

VC offers numerous advantages, including expert guidance, access to capital for leveraging profitable opportunities, and critical information and technical assistance from venture capitalists that can enhance a business's success (Meena et al., 2018). However, both Meena et al. (2018) and Akpan and Onyia (2022) note that while acquiring VC financing provides these benefits, it also results in a loss of autonomy and control for business owners, potentially leading to a divergence from their original visions and objectives. Furthermore, securing VC financing can be lengthy, uncertain, and complex, with benefits often taking time to materialise. Identifying the advantages of VC financing and understanding the factors that venture capitalists consider when evaluating investment opportunities can help streamline the application process and mitigate some disadvantages associated with VC financing in businesses.

2.2.1.1 Impact of Venture Capital (VC) on SMEs

Scholars across various sectors have extensively highlighted VC's pivotal role in (SMEs). Adeniken et al. (2020), Akpan and Onyia (2022), Du and Cai (2020), Thao (2022), Kato and Tsoka (2020), Kato and Germinah (2022), and Walter et al. (2018) have all contributed valuable insights in this field.

While VCs offer significant benefits to SMEs, the lack of comprehensive understanding of their financing mechanisms has left the overall impact on businesses somewhat ambiguous, particularly in marketing, technical services, and real estate sectors. Thao (2022), for example, conducted a qualitative case study on the effects of VC on SMEs in Vietnam. Interviewing employees in the sectors mentioned above revealed that VCs play a vital role in enabling Vietnamese SMEs to expand, innovate, and adopt crucial business strategies. However, the study also pointed out a need for more awareness among SME owners in Vietnam regarding VCs' benefits and application processes. Sure, business owners in traditional sectors perceive their ventures as unattractive to venture capitalists due to a perceived lack of innovation (Thao, 2022).

VC stands as a significant financial resource for SMEs. However, the full extent of its benefits remains inconclusive due to insufficient knowledge regarding its application processes and the criteria used by venture capitalists for investment selection. Furthermore, the specific context of Thao's (2022) research in Vietnam, a developing nation, raises questions about the applicability of their findings to SMEs in the UK, particularly in the construction sector.

The positive impact of VC on SMEs in developing countries, as highlighted by Thao (2022), finds further support in the work of Kato and Tsoka (2020). Through a mixed-methods study, Kato and Tsoka (2020) explored the effects of VC financing on the performance of 90 SMEs in Uganda from 2016 to 2018. The results indicated that VC-backed SMEs exhibited higher sales revenue ($4.9 million) than non-VC-supported counterparts ($1.3 million). Moreover, VC-supported SMEs witnessed a significant increase in profits (28.9%) and return on assets (70%) (Kato and Tsoka, 2020).

Moreover, Kato and Tsoka (2021) conducted a study in Uganda investigating the government's role in influencing the impact of VCs on SMEs. Their research showcased that VC financing substantially contributed to SME annual revenues in Uganda, supported by data from the stock exchange market. They further emphasised that VC plays a crucial role in facilitating SME growth and is a sustainable funding source for startups, addressing the financial challenges in achieving growth-related benefits. Notably, the positive influence of VC financing on SME growth and revenue is enhanced when supported by government initiatives. The Ugandan government's support for VC financing through favourable legislation, policies, tax incentives, and breaks for new businesses indicates a favourable ecosystem for SME development (Kato and Tsoka, 2021). This aligns with the initial scepticism about the potential benefits Witter (1939) suggested. Specifically, there is a risk that the positive effects of VC could be diminished by the taxes imposed on profits generated from successful transactions resulting from VC investments in new businesses.

Continued studies on VC's influence on SME success and growth, as seen in research conducted in Nigeria by Adeniken et al. (2020), Akpan and Onyia (2022), and

Walter et al. (2018), have proven significant strides in understanding the impact of VC on business growth. Walter et al.'s (2018) exploratory study on VC as a growth source for SMEs in Cross River, Nigeria, revealed tangible improvements in various aspects of SMEs post-VC financing, encompassing net assets, access to funding sources, business volume, and sales value.

Adeniken et al. (2020) in Lagos, Nigeria, further investigated the relationship between VC and SME growth, uncovering a positive correlation between VC and SME development, particularly regarding innovation and financial management. Integrating venture capitalists into SME processes ensures secure investments, fosters financial stability, and facilitates the adoption of critical innovations and technologies within SMEs.

Additionally, Akpan and Onyia (2022) shed light on the impact of VC financing on SME growth in Nigeria, emphasising the significance of lending rates and deposit savings on SME development. While VC financing positively influences SME growth, the study underlines the importance of empowering SMEs with financial support while maintaining autonomy or appropriate control mechanisms.

Studies conducted in China by Du and Cai (2020) and Yang (2022) during the COVID-19 period offer insights into the influence of VC on SMEs during challenging times. Du and Cai's (2020) quantitative analysis highlights the positive impact of VC on SME development in China's agricultural sector, emphasising enhanced innovativeness, growth abilities, and overall competitiveness. Contrarily, Yang (2022) found that VC and private equity holdings might introduce financial risks but are crucial for guiding SMEs through uncertain economic climates. The guidance venture capitalists provide is

invaluable in navigating economic crises, underlining the importance of VC in promoting risk management and business sustainability.

The positive correlation between VC funding and SME growth was similarly observed in a study conducted in Ghana by Biney (2018), where VC-backed firms exhibited superior performance metrics compared to non-VC-supported SMEs. The value-added services provided by venture capitalists, including strategic recruitment, advisory support, and market access, contribute significantly to the success and growth of VC-funded SMEs.

A study conducted in Zimbabwe by Nyagadza, Dzenga, and Vingirayi (2019) identified contradictory perspectives, highlighting challenges associated with VC investments in SMEs. The potential loss of ownership and changes to business strategies, driven by venture capitalists' demands, present hurdles that some SME owners may be hesitant to overcome despite financial difficulties. This underscores the importance of balancing VCs' financial support with preserving SME founders' principles and visions.

In conclusion, while existing studies underscore the transformative impact of VC on SMEs across various regions, the need to examine its implications within the UK's construction sector still needs to be explored. By conducting a targeted study in this sector, we can gain invaluable insights into the applicability and effectiveness of VC financing in enabling SME growth and innovation within a distinct business environment.

Various scholars, including Adeniken et al. (2020), Akpan and Onyia (2022), Du and Cai (2020), Thao (2022), Kato and Tsoka (2020), Kato and Germinah (2021), and Walter et al. (2018), have highlighted the critical role of VC in SMEs across different

sectors. However, despite its potential benefits, the application of VC in businesses still needs to be better understood, particularly in industries such as marketing, technical services, and real estate. Thao (2022) conducted a qualitative study on the impact of VC on SMEs in Vietnam, revealing its significance in enabling expansion, development, and innovation. However, many SME owners need to gain awareness of VC benefits and application processes, leading to misconceptions about its suitability for less innovative businesses (Thao, 2022).

Similarly, Kato and Tsoka (2020) conducted a study in Uganda, demonstrating the positive impact of VC financing on SME performance indicators such as sales revenue and profitability. Additionally, Kato and Tsoka (2021) highlighted the role of government support in enhancing VC's effectiveness in fostering SME growth in Uganda. In Nigeria, Adeniken et al. (2020) found that VC significantly contributed to SME development by improving innovation and financial management. However, these findings cannot be generalised to the UK construction sector, necessitating further research to explore VC's impact in this industry.

In China, Du and Cai (2020) and Yang (2022) studied VC's influence on SMEs during the COVID-19 pandemic, revealing its role in enhancing innovation and guiding businesses through economic uncertainties. Similarly, Sofia et al. (2022) identified VC's indirect positive impact on micro and small business growth through fostering innovation in Indonesia. However, the applicability of these findings to the UK construction sector remains to be discovered.

Moreover, studies in Nigeria (Akpan and Onyia, 2022), Zimbabwe (Nyagadza et al., 2019), and Ghana (Biney, 2018) highlighted both the benefits and challenges associated with VC financing for SMEs. While VC investments can lead to significant sales and employment growth, they may also entail loss of ownership and strategic changes that alter the business's original vision and values (Nyagadza et al., 2019).

Despite the valuable insights provided by these studies, most were conducted in developing countries with different economic contexts from the UK. Therefore, considering the lack of existing studies in this industry, researching VC's impact on the UK construction sector is essential.

2.2.1.2 Critical Success Factors of SMEs

Critical Success Factors (CSFs) play a pivotal role in determining the success of an SME. These concepts were first introduced by Daniel (1961), who identified them as crucial areas for ensuring organisational success, mainly focusing on industry-specific CSFs applicable to any firm within an industry. Anthony et al. (1972) further developed Daniel's ideas, advocating for CSFs tailored to a company's strategic objectives and management team.

Rockart (1979) expanded on these concepts by amalgamating the perspectives of Anthony et al. (1972) and Daniel (1961). He highlighted various areas within a company that require modification to enhance success rates. According to Rockart (1979), companies focusing on these areas and achieving satisfactory results gain a competitive advantage in their operating environments. He emphasised that his CSF approach

concentrates on information needs controlled by a firm's management and the type of data used to oversee and improve existing business functions.

Identifying CSFs for an SME is crucial as it serves as a guide for successful performance. As defined by the Foreign, Commonwealth and Development Office (2022), an SME typically has less than 250 employees and a turnover below 50 million euros. However, distinctions exist among small, medium, and micro-enterprises based on employee count and turnover. A small firm typically has 50 employees and a turnover of 10 million euros or less. In comparison, a micro business has at most ten employees and a turnover of 2 million euros or less (Foreign, Commonwealth and Development Office, 2022).

The success and sustainability of (SMEs) hinge on Critical Success Factors (CSFs), which may vary depending on industry and context. While specific CSFs differ, certain ones commonly apply to SMEs across sectors. In the construction industry, several studies have delved into these CSFs (Al-Tit, Omri and Euchi, 2019; Georgiev and Ohtaki, 2020; Handoyo et al., 2021; Rodriques et al., 2021; Sodhi et al., 2019).

Handoyo et al. (2021) investigated the CSFs for SMEs venturing into global markets in Indonesia. They identified institutional networking, global market knowledge, and product innovation expertise as crucial factors for success in international markets. However, these CSFs needed to be integrated into measuring SMEs' financial and non-financial performance in the construction sector post-venture Capital (VC) financing, highlighting the need to focus on internationalisation capabilities.

Georgiev and Ohtaki (2020) explored CSFs for Total Quality Management (TQM) implementation in manufacturing SMEs in Japan. Their study underscored the importance of leadership commitment, staff involvement, continuous improvement, supplier partnerships, and customer focus for successful TQM adoption. By prioritising these factors, manufacturing SMEs can establish a solid foundation for TQM implementation, leading to enhanced performance and customer satisfaction.

In another study focusing on CSFs for managing construction SMEs in emerging nations, Sarvari et al. (2021) specifically examined Iranian construction businesses. They emphasised the significance of project management skills, financial management, human resource management, and effective communication for success in the construction sector. The study also highlighted the importance of SMEs understanding local contexts and navigating the unique challenges in developing countries. By addressing these essential variables and adapting strategies to local conditions, construction SMEs in developing nations can improve their likelihood of success and overcome industry-specific challenges.

Sodhi et al. (2019) studied Lean Six Sigma implementation in Indian SMEs, revealing top management support, staff engagement, training and education, process mapping, and customer focus as crucial success factors. These findings underscore the necessity for leadership commitment, employee involvement, and adopting data-driven quality improvement strategies. Effective Lean Six Sigma integration necessitates solid top-level management support, active staff participation, and adequate training and education. Identifying problem areas and enhancing customer satisfaction requires detailed process mapping and a client-centric approach. These essential factors can assist Indian

SMEs in successfully implementing Lean Six Sigma, fostering continuous improvement across their operations.

In their research on cloud service adoption in SMEs, Hentschel Leyh and Baumhauer (2019) highlighted critical success factors for successful implementation, including IT infrastructure, user acceptance, vendor reliability, and organisational readiness. Effective integration of cloud services hinges on these factors, emphasising the importance of possessing the technical expertise necessary for cloud adoption, implementing robust data security measures, gaining stakeholder approval and support, and ensuring organisational readiness for deployment. These factors can aid SMEs in efficiently utilising cloud services, enhancing their operational efficiency and competitiveness.

Kiran and Reddy (2019) focused on critical success criteria for Enterprise Resource Planning (ERP) implementation in SMEs, identifying top management support, project team competence, user participation, data quality, and change management as crucial. These findings underscore the significance of robust project management, competent project teams, engaged users, data integrity maintenance, successful management of ERP implementation changes, and effective leadership. By addressing these factors, SMEs can enhance their likelihood of successful ERP adoption and benefit from streamlined and interconnected business operations.

In their study on Industry 4.0 concepts in Czech SMEs, Nwaiwu et al. (2020) identified several critical success factors, including technical readiness, workforce skills, collaboration and partnerships, government support, and financial resources. These

findings emphasise the importance of providing SMEs with the technological foundation and capabilities to implement Industry 4.0 practices effectively. Collaboration and partnerships with other organisations and stakeholders are essential for knowledge exchange and leveraging collective expertise.

Furthermore, enacting supportive legislation and government initiatives is pivotal in creating an environment conducive to SME adoption of Industry 4.0. The integration and utilisation of new technologies necessitate adequate financial resources. By addressing these critical success factors, Czech SMEs can enhance their readiness for Industry 4.0 and capitalise on its developmental and competitive opportunities.

Effective implementation of Enterprise Systems in SMEs requires careful consideration of critical success factors to ensure favourable outcomes. Through a hermeneutic study, Kurnia Linden and Huang (2019) identified several essential factors significantly influencing implementation success. Organisational readiness emerged as a critical element, highlighting the importance of preparing the company for the changes associated with Enterprise System implementation. Moreover, organisational commitment is vital to ensuring the availability of necessary resources and support during the implementation phase. User participation is another crucial element, emphasising the inclusion of end users and consideration of their feedback. Proper training and support for employees are essential to equip them with the skills and knowledge required for efficient system utilisation. Business process alignment ensures the Enterprise System aligns with the organisation's existing workflows and procedures.

From a sustainability perspective, Al-Tit, Omri, and Euchi (2019) focused on the critical success determinants of Saudi Arabian SMEs. The study highlighted several essential success factors: financial performance, innovation, stakeholder engagement, social responsibility, and environmental sustainability. These factors underscore the importance of integrating sustainability practices into SME operations, such as implementing eco-friendly policies and supporting social responsibility initiatives. The study also emphasised the significance of fostering innovation within SMEs to maintain market competitiveness. By incorporating these critical success factors, Saudi Arabian SMEs can enhance their sustainability and significantly contribute to the nation's economic and social advancement.

Cieciora et al. (2020), in their preliminary investigation into ERP/CRM deployment among Polish SMEs, underscored several critical success criteria. The study highlighted the importance of robust project management, a supportive corporate culture, skilled personnel, effective change management strategies, and seamless system integration. These factors are essential for efficiently implementing ERP/CRM systems in SMEs. Effective project management ensures proper planning, resource allocation, and monitoring of implementation activities. A supportive corporate culture encourages employee involvement and buy-in, fostering a conducive environment for implementation success. Skilled personnel with adequate training must use ERP/CRM systems efficiently. Change management strategies help overcome resistance to change and facilitate smooth transitions. Finally, seamless system integration ensures uninterrupted data transfer and operations across various departments and systems.

Barclay et al. (2022) comprehensively analysed critical success factors for Lean implementation in SMEs across different industries. The findings underscored the importance of several crucial factors for successful Lean deployment. Leadership commitment emerged as a critical element, highlighting the significance of solid support and involvement from senior management in driving Lean initiatives. Employee involvement was also emphasised, emphasising active engagement and participation at all organisational levels. Continuous improvement practices were addressed to foster a culture of ongoing development and learning within the company. Effective communication was crucial in promoting collaboration and information sharing, emphasising the need for transparent communication channels. Lastly, performance measurement was highlighted to track and analyse key performance indicators, assessing the success of Lean implementation initiatives.

SMEs rely on operational efficiency to optimise resources, reduce costs, and deliver products and services punctually. Significant improvements in operational efficiency can be achieved by streamlining processes, leveraging technology, and implementing quality control measures (Schaefer et al., 2021). SMEs should monitor and evaluate key performance indicators (KPIs) to identify areas for enhancement. Embracing lean principles, automation, and efficient supply chain management practices facilitates the attainment of operational excellence (Schaefer et al., 2021). Effective human resource management is crucial for attracting, retaining, and developing talent, as employees are the most valuable asset of SMEs. SMEs should focus on recruiting top talent, providing opportunities for training and development, and fostering a healthy work environment

(Monteiro et al., 2020). Employee motivation, empowerment, and engagement significantly influence productivity and creativity. Additionally, SMEs should adhere to labour regulations, establish fair compensation and benefit structures, and promote diversity and inclusion.

SMEs can leverage resources, knowledge, and market opportunities through collaborations with other firms, trade groups, or stakeholders. Strategic alliances and networking enable them to expand their reach, exchange information, and mitigate risks (Abu-Rumman et al., 2021). This may involve forming partnerships, alliances, or supplier relationships. Active participation in trade fairs, conferences, and industry events can help SMEs network and enhance their visibility. Similarly, Teoh et al. (2023) emphasised the importance of SMEs embracing technology to boost productivity, streamline operations, and maintain competitiveness in the digital era. Enterprises should leverage technology to engage with customers, streamline processes, and make data-driven decisions. Social networking, e-commerce platforms, data analytics, and cloud computing solutions are recommended (Teoh et al., 2023). Adopting cutting-edge technologies like Artificial Intelligence, IoT, or blockchain can offer SMEs a competitive advantage.

According to customer relationship management (CRM) principles, establishing solid and lasting customer relationships is crucial for SMEs. Effective CRM strategies and technologies enable SMEs to better understand customer preferences, deliver personalised experiences, and foster loyalty (Nojeem et al., 2023). CRM involves collecting and analysing customer data, segmenting the audience, and tailoring marketing and sales initiatives accordingly. It also encompasses continuous improvement based on customer

insights, post-sale support, and feedback collection. Agility and adaptability are essential for SMEs operating in dynamic and unpredictable business environments. By staying vigilant of market trends, staying abreast of technological advancements, and embracing change, SMEs can respond to market shifts, evolving consumer needs, and industry developments (Gerald et al., 2020). Proactively identifying opportunities and risks and adjusting operations and plans accordingly is critical for SMEs to maintain a competitive edge (Gerald et al., 2020). Das (2021) argued that SMEs must establish a strong brand identity and effectively communicate it to attract and retain customers. This involves employing various marketing strategies such as content marketing, social media marketing, and digital marketing, crafting a compelling brand message and maintaining a consistent brand image across different marketing channels (Das, 2021). Successful marketing and branding rely on understanding the target market, segmenting the market, and positioning the brand effectively. Customer input and continuous improvement are essential for SMEs to enhance their products, services, and overall customer experience. By actively seeking and considering customer feedback, SMEs can refine their offerings, identify areas for improvement, and address customer concerns (Kamruzzaman, 2023). Cultivating a culture of continuous improvement enables SMEs to remain responsive to customer needs and stay competitive in the market.

Effective risk management is critical for the long-term sustainability of SMEs. It is essential to identify potential risks, assess their impact, and implement risk mitigation strategies. This includes developing contingency plans, diversifying the supplier base, establishing crisis management protocols, and adhering to legal and regulatory

requirements (Kotaskova et al., 2020). Chen et al. (2021) emphasised the importance of SMEs being vigilant about external risks such as industry disruptions, economic fluctuations, and geopolitical challenges. Scalability and Growth: Managing growth and planning for scalability are pivotal for SMEs aiming for expansion. SMEs must be capable of scaling up operations, products, or services to meet increasing demand and have a well-defined growth strategy (Rajagopaul et al., 2020). This involves investing in infrastructure, technology, and human resources that support growth. To accelerate growth, SMEs may explore entering new markets, expanding product lines, or considering mergers and acquisitions.

Similarly, Sudari et al. (2019) underscored the importance of acquiring new clients, retaining existing ones and fostering their loyalty. SMEs can cultivate enduring relationships with their customer base by implementing customer retention strategies such as loyalty programs, personalised communication, and exceptional customer service. Satisfied and loyal customers often lead to repeat business and positive referrals (Sudari et al., 2019). Compliance with relevant laws, regulations, and industry standards is imperative for SMEs (Bayram et al., 2023). This includes adherence to industry-specific regulations, tax obligations, employment laws, data protection regulations, and health and safety standards. Bayram et al. (2023) cautioned that non-compliance can lead to legal issues, financial penalties, and damage to the business's reputation. SMEs should establish robust compliance procedures and stay updated on relevant regulations.

Furthermore, demonstrating social and environmental responsibility is increasingly crucial for SMEs. Adopting sustainable practices, reducing environmental impact, and

contributing to the community can enhance a business's reputation and attract socially conscious customers (Javed et al., 2020). SMEs can promote social and environmental responsibility through waste reduction, energy efficiency, ethical sourcing, and community engagement. To remain competitive, SMEs must foster a culture of information sharing, innovation, and continuous learning. According to Hou et al. (2021), encouraging employee collaboration, idea-sharing, and knowledge contributions stimulates innovation and creativity. Implementing knowledge-gathering, organisation, and dissemination systems can help SMEs leverage their intellectual capital and drive innovation (Hou et al., 2021).

Access to networks and resources is critical for the success of SMEs. SMEs can rapidly expand and thrive by leveraging networks, resources, and support systems (Chen et al., 2021). This involves joining trade organisations, participating in business networks, and seeking mentorship or advice from experienced business owners. Access to funding, grants, or incubator programs can also equip SMEs with the tools to address financial challenges and stimulate growth. Establishing and monitoring relevant Key Performance Indicators (KPIs) enables SMEs to track progress, assess success, and make informed decisions. KPIs may vary depending on the sector and company goals but often include financial indicators (such as revenue growth and profitability), customer metrics (such as cost of customer acquisition and customer satisfaction), and operational measures (such as inventory turnover and production efficiency) (Stalmachova et al., 2022). Regular review and analysis of KPIs help SMEs identify areas for improvement and make strategic decisions.

Leadership and management are foundational for the success of SMEs. Strong leadership ensures the establishment of a clear strategic direction, mission, and vision for the company (Jalal and Murray, 2019). This involves setting objectives, making informed decisions, and efficiently managing resources. Effective management practices encompass strategic planning, efficient organisation, and meticulous control over various business functions, including human resources, marketing, finance, and operations (Sijabat and Santoso, 2023). Strong leadership and management foster a positive work culture, inspire employees, and drive growth and innovation within the company.

Financial management is essential for SME success (Anning-Dorson, 2021). Proper financial management is crucial for sustaining and growing the business. This includes maintaining accurate financial records, managing budgets effectively, handling cash flow professionally, and accessing appropriate funding sources. Understanding financial standing, tracking spending, and making informed financial decisions are imperative for SMEs to allocate resources, seize growth opportunities, and manage risks effectively (Anshari and Almunawar, 2021). Additionally, financial management ensures compliance with legal and regulatory obligations.

Market and customer focus are vital for SMEs. Understanding market dynamics and prioritising customer needs is critical. Market research helps identify customer preferences, demands, and trends, enabling SMEs to develop products and services that meet these needs and differentiate them from competitors (Prieto-Sandoval et al., 2019). Building strong customer relationships through excellent customer service, personalised

experiences, and effective communication is crucial. To remain competitive and capitalise on growth opportunities, SMEs must monitor and adapt to market changes.

Product or service innovation is essential for SMEs to stay competitive and relevant. Continuous innovation allows SMEs to keep pace with dynamic markets and meet evolving customer needs (Hayman, 2021). Prioritising the development of new and improved products or services that provide unique value propositions is crucial (Troshkina, 2023). Innovation encompasses various aspects such as business model innovation, process improvement, technology adoption, and product design. SMEs can effectively drive innovation by fostering a culture that values creativity, promotes employee engagement, and encourages partnerships or collaborations (Lepore et al., 2023).

Several researchers have investigated the Critical Success Factors (CSFs) pertinent to SMEs operating in the construction sector. Studies by AbuMoeilak et al. (2023), Awwad, Shibani, and Ghostin (2020), and Sarvari et al. (2021) shed light on different aspects of CSFs in this industry. Sarvari et al. (2021) employed mixed-methods research to identify CSFs crucial for managing construction SMEs in developing Middle Eastern countries. They found that the most significant categories for SMEs in this context were technological, human resource management, dynamic capabilities, and organisational management. Awwad et al. (2020) discovered that when implementing Building Information Modelling (BIM) level 2 in UK construction projects, CSFs included process aspects (like collaboration and communication), external factors (such as client demands and government support), human elements (employee training), and organisational factors (e.g., software compatibility and management support). AbuMoeilak et al. (2023) explored

the CSFs related to SMEs' adoption of BIM technologies in the construction sector, highlighting the importance of social factors over information technology and economic and environmental factors.

Small and Medium Enterprises (SMEs) are reproving to the construction industry, serving as economic mainspring and contributing immensely to global and local economies. These ventures distinguish themselves through innovation, flexibility, and adaptability. Their accomplishments depend on numerous internal and external factors that can be systematically measured using industry-specific metrics (ISMs) linked with key performance indicators like project completion timelines, industry standard compliance, and resource utilisation efficiency. Typically, SMEs are defined by their model scale for employing fewer than 250 people and operating with relatively lower revenues. Construction SMEs are notwithstanding fundamental to the sector’s ecosystem. These enterprises provide requisite services ranging from general contracting to specialised trade work, contributing notably to project delivery, local employment, and technological innovation.

Research by Tetteh et al. (2020) underlines their economic importance, showcasing that SMEs represent a weighty percentage of construction sector enterprises. Their comparative advantage lies in unprecedented agility, enhancing regulatory shifts, rapid responses to market demands and client-specific requirements, and flexibility often mannered in more extensive and rigid organisations. Nonetheless, this adaptability is accompanied by several challenges. Construction SMEs need help with resource constraints, limited technological access, and financial instability. These limitations can

impede their ability to meet stringent industry standards and maintain consistent project timelines. Industry-specific metrics represent rigorous quantitative measures to ensure compliance, track performance, and optimise resource utilisation within specific industrial contexts. In the case of construction SMEs, these metrics provide invaluable insights into competitive positioning and operational effectiveness.

Project delivery speed represents a crucial performance benchmark. Construction project delays can spark cascading negative results, including contractual penalties, increased costs, and reputational damage. Salleh et al. (2021) divulged that small enterprises are prone to more significant challenges in project timeline management due to limited labour force, equipment, and innovative project management resources. By conscientiously tracking completion timelines, SMEs can pinpoint operational disadvantages, streamline processes, and facilitate overall time management strategies. This dynamic approach transforms potential vulnerabilities into opportunities for strategic improvement.

Regulatory adherence constitutes another pivotal metric for construction SMEs. Industry standards circumscribe building codes, safety protocols, and environmental regulations, which are basal to ensuring project quality, sustainability, and safety. SMEs constantly confront compliance challenges stemming from limited access to legal expertise and complex regulatory landscapes. Thomas (2022) and Bayram et al., 2023) emphasized that non-compliance can trigger severe repercussions, including costly rework, potential legal penalties, and contract invalidation. SMS focusing on compliance rates and internal

auditing effectiveness become critical navigational tools, enabling SMEs to traverse intricate regulatory environments while maintaining operational integrity successfully.

Resource management represents a critical determinant of construction SME profitability. The industry's inherently resource-intensive nature means inefficient allocation can rapidly escalate into significant operational challenges. Mukumba et al. (2022) highlighted that SMEs often need help with resource optimization due to constrained project management capabilities and technological limitations. Metrics tracking labor productivity, material wastage rates, and equipment downtime provide actionable insights for more strategic resource deployment.

The integration of technologies into operational practices creates a dynamic feedback loop. By systematically monitoring these metrics, construction SMEs can address fundamental challenges related to project delays, regulatory compliance, and resource management inefficiencies. Performance improvement and metric refinement become mutually reinforcing. Enhanced operational practices generate more favorable metrics, which drive further performance optimization. For instance, consistently meeting project deadlines can significantly boost customer satisfaction, potentially translating into repeat business and increased financial stability. Construction SMEs are indispensable to the global construction industry, representing agile, innovative entities that drive sector evolution. Industry-specific metrics offer a sophisticated strategic approach to navigating operational complexities, enabling these enterprises to transform potential limitations into comparative advantages.

An analysis of this literature underscores the diverse CSFs that SME owners should prioritise to ensure their ventures' success. These factors vary depending on the specific context addressed by each author. (Figure 10) presents an overview of SMEs' CSFs, their respective authors, and their proposed contexts.

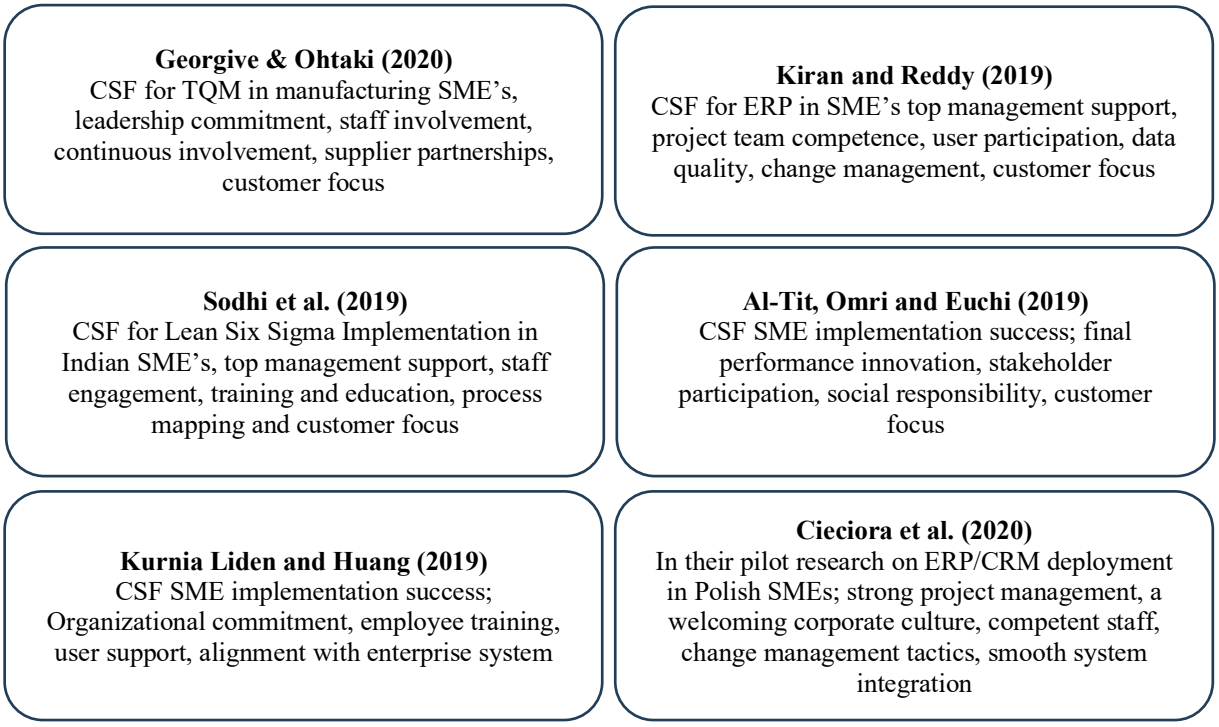

Figure 10: CSFs of SMEs from the Literature

Source: Al-Tit, Omri and Euchi (2019); Cieciora et al. (2020); Georgive and Ohtaki (2020); Kiran and Reddy (2019); Kurnia Liden and Huang (2019); Sodhi et al. (2019)

2.2.1.3 Factors Influencing Venture Capital Investment

Venture capitalists' decision-making process when selecting an SME or enterprise to invest in is influenced by various factors that differ across countries such as China, the UK, and Zimbabwe.

According to Du and Cai (2020), Chinese venture capitalists choose SMEs for investment based on several key characteristics. The first two traits highly valued by these investors are stable operations and consistent returns. Returns from a business project are defined as the income generated from the investment (Nukala and Rao, 2021). Stability in operations and returns assures venture capitalists that their financial assets will yield beneficial results. A low debt ratio is another appealing factor for venture capitalists in China (Du and Cai, 2020). The debt-to-equity ratio is a critical metric during a firm's evaluation, as a lower ratio indicates reduced average capital costs and an increased ability to take on additional debt. Consequently, lower debt levels incentivise a firm to seek equity capital to support its operations (Nukala & Rao). Thus, Du and Cai's (2020) preference for SMEs with a low debt ratio is justified, as such businesses demonstrate significant potential and a greater need for private equity and financing, including VC.

Moreover, Du and Cai (2020) suggest that Chinese venture capitalists favour SMEs with low ownership concentration. Shahrier, Ho, and Gaur (2018) define ownership concentration as the percentage of a business or organisation's equity held by its largest shareholders or sole owner. Investors must evaluate a company’s ownership structure due to its significant impact on performance metrics such as return on equity (ROE) and return on assets (ROA) (Shahrier et al., 2018). ROA measures the net income relative to a company’s total assets, while ROE assesses net income about equity capital (Shahrier et al., 2018). Therefore, understanding the ownership concentrations in SMEs is essential for venture capitalists, as it heavily influences a business’s ROA and ROE and, consequently, its overall performance.

In Zimbabwe, venture capitalists consider various factors when evaluating SMEs for potential investment. Nyagadza et al. (2019) indicate that investors in Zimbabwe prioritise a business's viability, potential appeal to foreign investors, and growth prospects before committing capital. A business deemed economically viable is attractive since it suggests returns on investment will exceed the initial capital invested (Nyagadza et al., 2019). Venture capitalists thus assess an SME's economic viability to ensure their investment will yield substantial profits rather than losses.

Similarly, Nyagadza et al. (2019) emphasise the importance of an SME's potential to attract international investors in the decision-making process for investment. While considering an SME's returns, venture capitalists also evaluate whether the business can draw in additional investors, which may be critical for their exit strategy. A lack of appeal to international investors may hinder venture capitalists' willingness to invest in an emerging SME in Zimbabwe.

Another crucial factor influencing an SME's attractiveness to venture capitalists is its growth potential. According to Nyagadza et al. (2019), VC investors assess the customer base and its potential for expansion. A robust customer base is a strong indicator of a business's growth potential, and venture capitalists in Zimbabwe are more inclined to invest in SMEs with significant local and international growth opportunities.

Additionally, venture capitalists consider the business owner's commitment to the enterprise, including financial (capital) and non-financial (vision and skills) factors. Nyagadza et al. (2019) found that VC investors in Zimbabwe consider an SME owner's dedication before investing. SMEs where owners show solid financial and non-financial

commitment are more likely to receive VC financing (Nyagadza et al., 2019). However, this criterion is specific to Zimbabwean SMEs and may not apply similarly to those in the UK construction sector.

Petty, Gruber, and Harhoff (2023) analysed the VC financing process based on 2,383 applications for VC funding. They discovered that the changing dynamics of a business's portfolio significantly affect the decision-making processes of venture capitalists. Even though investment processes are expected to be lengthy, an evolving portfolio can provide valuable insights into a business's reliability and sustainability, positively influencing venture capitalists' decisions (Petty et al., 2023). Moreover, business proposals submitted directly by entrepreneurs are processed more quickly than those from brokers because they tend to contain more reliable information that can demonstrate potential for sustainable returns. Proposals from brokers might lack critical data as their primary focus is on their share of the VC financing and profits (Petty et al., 2023).

Yang et al. (2021) examined the connection between a venture capitalist's willingness to invest and an entrepreneur's passion, exploring the role of relational capital in this dynamic. Entrepreneurial passion is characterised by an entrepreneur's energy and expressive demeanour. Venture capitalists are drawn to logical, coherent, and thoughtfully presented entrepreneurs who provide comprehensive data (Yang et al., 2021). Relational capital encompasses elements like affective commitment, trust, and reciprocity, which impact how venture capitalists perceive their relationship with an entrepreneur. This concept includes whether an entrepreneur understands a venture capitalist's interests as trustworthy and believes both parties will benefit from the business (Yang et al., 2021).

The study indicates that relational capital significantly mediates entrepreneurial passion and a venture capitalist's willingness to invest. Signals of an entrepreneur's passion can alleviate venture capitalists' concerns about the entrepreneur and their business (Yang et al., 2021). Therefore, relational capital fosters trust in venture capitalists, making them more likely to invest in passionate entrepreneurs, which increases the likelihood of securing VC financing.

Kim and Lee (2022) echoed similar insights to those of Yang et al. (2021) and Nyadzaga et al. (2019) regarding the criteria employed by venture capitalists when selecting businesses for investment. They conducted a quantitative study involving 263 venture capitalists in South Korea to examine the significance of a business owner's experience in attracting investment and influencing VC financing decisions. Their regression analysis of hypothetical scenarios revealed that venture capitalists prioritise business owners with extensive industry experience and deep operational domain knowledge. Particularly in scenarios where businesses face high uncertainty and are involved in new product development with low deliverable completion rates, the manager's experience significantly influences VC financing decisions (Kim and Lee, 2022). Therefore, environmental uncertainties significantly impact venture capitalists' decision-making processes.

However, limited literature on VC financing in the UK construction sector concerns venture capitalists' perceptions of entrepreneurs during investment decision-making. This underscores the necessity for further investigation in this area.

Similarly, Seong and Kim (2021) delved into the factors shaping venture capitalists' investment decisions in South Korea, as did (Kim and Lee, 2022). Yet, while Kim and Lee (2022) focused on an entrepreneur's industry-related experience and knowledge, Seong and Kim (2021) considered broader factors such as product, service, market, and financial aspects. According to Seong and Kim (2021), entrepreneurs hold more excellent value than the market, products, or services in the eyes of venture capitalists. They emphasised that an entrepreneur's reliability and suitability significantly impact VC financing decisions. Additionally, scholars noted that financial factors have minimal influence on venture capitalists' decision-making processes, attributing this to the focus of venture capitalists on startups facing resource challenges, making economic data difficult to obtain and potentially unreliable for investment decisions (Seong and Kim, 2021). Therefore, the innovative nature of startups prompts venture capitalists to prioritise an entrepreneur's knowledge and expertise when evaluating investment opportunities.

Mutahi (2020) investigated the factors influencing investment decisions among SMEs in Kenya, shedding light on critical success factors (CSFs) considered by venture capitalists. Their quantitative study underscored the impact of an SME's financial performance on various aspects, such as its relationship with suppliers, reputation, management skills, potential growth, and possession of an effective business plan. Consequently, the scholars emphasised the need for SMEs to effectively manage their ethics and ensure a well-managed presentation of their financial performance to venture capitalists. Providing accurate and reliable data facilitates venture capitalists' assessment of the profitability of investing in the startup, thereby streamlining their decision-making

processes (Mutahi, 2020). Moreover, the scholars recommended that startups articulate their use of technology in their operations and how it enhances business performance, recognising innovation as a critical success factor for SMEs (Srinivasarao et al., 2020).

Furthermore, Söderblom, Le Pendeven, and Verbouw (2023) reported on venture capitalists' European activities, highlighting the critical factors considered when selecting businesses for investment. The findings revealed that venture capitalists prioritise various aspects, including management, offerings (such as technology, services, or products), and market conditions. Notably, the managerial team within a business emerged as the top-ranked factor, accounting for 53% of the impact on a venture capitalist's investment selection. In comparison, the suitability of requested funds and the business's offerings ranked second at 11%, as depicted in (Figure 11) below.

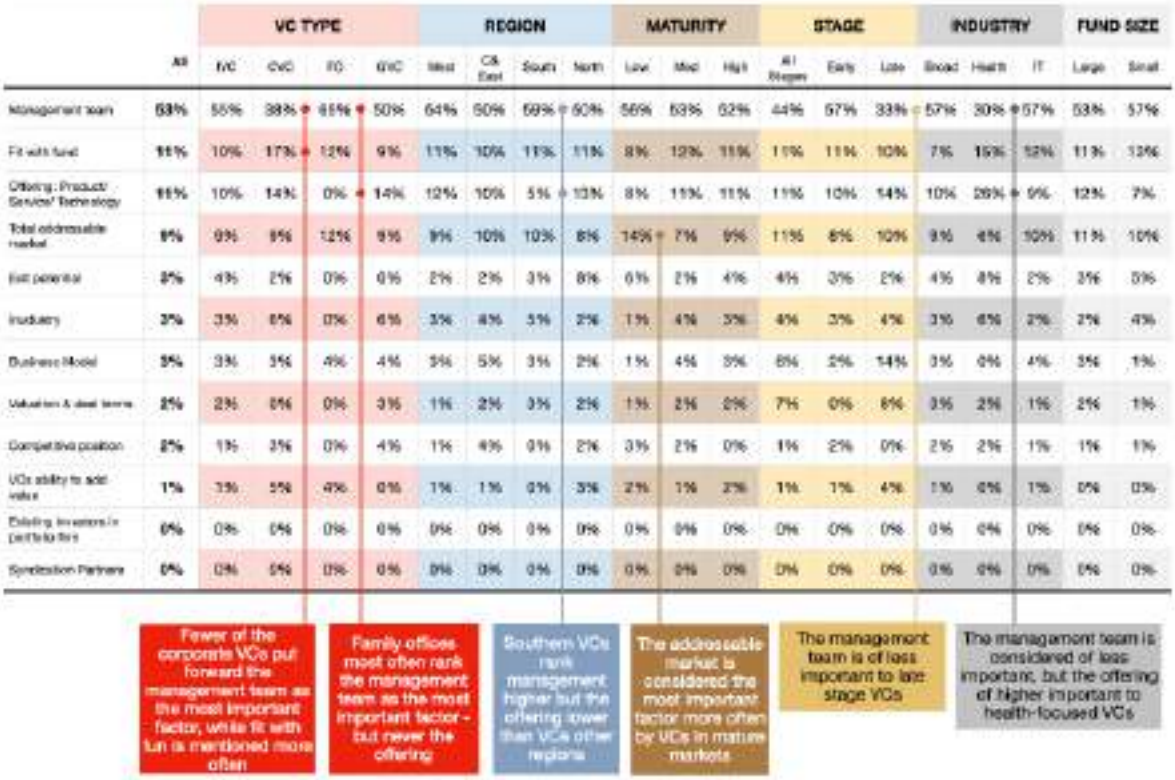

Figure 11: Most Essential Factors in Investment Selection

Note. Source: Söderblom et al. (2023, p.21)

Söderblom et al. (2023) highlighted that European venture capitalists integrate the evaluation of an entrepreneur's skills into their decision-making processes, aligning with the findings of Kim and Lee (2022), Yang et al. (2021), and Nyagadza et al. (2019). The scholars showcased that venture capitalists prioritise an entrepreneur's competence (75%), followed by their passion or commitment (73%), and then their industry experience (66%). (Figure 12) below illustrates the management and employee factors that European venture capitalists consider.

Figure 12: Most Essential Capabilities Considered by Venture Capitalists in Their Investment Decisions

Note. Source: Söderblom et al. (2023, p.23)

In summary, the reviewed literature highlights various factors venture capitalists weigh when investing in an enterprise. Primarily, they value the expertise and knowledge of the business owner or founder, as evidenced by several studies (Kim and Lee, 2022; Nyagadza et al., 2019; Seong and Kim, 2021; Söderblom et al., 2023; Yang et al., 2021). The enterprise's attractiveness is also crucial (Nyagadza et al., 2019; Söderblom et al., 2023). Furthermore, venture capitalists assess the sustainability and profitability of the offerings, along with ownership concentration (Du and Cai, 2020; Shahrier et al., 2018). Overall, managerial passion, industry knowledge, enterprise attractiveness, and the quality of offerings are critical elements in venture capitalists' decision-making processes. However, there remains a gap in understanding these processes within the context of new SMEs in the UK construction sector. Addressing this gap would involve surveying financial experts to glean insights into the factors that can enhance SMEs' attractiveness to venture capitalists seeking financing opportunities.

2.2.2 Resource-Based Theory

The resource-based theory, pioneered by Penrose (1959), focuses on the pivotal role of resources in shaping a firm's growth trajectory and fostering its competitive advantage. Penrose's theory outlines three critical arguments concerning the interplay between a firm's profitable growth, its resources, and the opportunities it pursues. Firstly, Penrose (1959) emphasises the importance of effectively managing resources to drive

economic value creation within a firm. Secondly, she suggests a causal relationship between resources and a firm's ability to generate opportunities for profitable growth and innovation, highlighting the role of managers in converting resources into capabilities and innovations. Finally, Penrose underscores the significance of having relevant expertise and skilled management to steer a firm's growth direction, labelling these as limiting factors that can impact a firm's competitive advantage if overlooked.

In entrepreneurship, the resource-based theory posits that entrepreneurs' access to various resources is crucial for predicting opportunities and facilitating start-up growth. These resources encompass human, social, and financial dimensions. Specifically, three theory classes within the resource-based theory are relevant to this discussion: economic capital theory, social capital theory, and human capital theory (Simpeh, 2011). According to the financial capital theory, entrepreneurs utilise financial-related capital to acquire resources essential for developing a new venture and capitalising on existing opportunities effectively (Simpeh, 2011). Moreover, this theory suggests that entrepreneurs with better access to knowledge and information are adept at recognising and leveraging business growth opportunities (Aldrich, 1999).

The social capital theory posits that an entrepreneur's position within a social network structure significantly influences their ability to leverage resources for profitable opportunities. Reynolds (1991) introduced social network aspects as integral to the four stages of sociological theory, suggesting that entrepreneurs with strong social ties to resource providers are more likely to access and exploit available opportunities. Within an

entrepreneur's social network, individuals can learn to identify and effectively capitalise on opportunities (Simpeh, 2011).

On the other hand, the human capital entrepreneurship theory argues that an entrepreneur's education and experience play a crucial role in their capacity to recognise and exploit opportunities (Beker, 1964). Thus, human capital factors, encompassing skills and knowledge, are fundamental to entrepreneurial success, enabling entrepreneurs to identify and leverage opportunities effectively (Simpeh, 2011).

These theories intersect with the study's focus on human, social, and financial capital within the resource-based theory framework. Firstly, the social capital theory underscores the importance of entrepreneurs accessing resources through their social networks, which aligns with the benefits derived from venture capitalists (Gompers and Lerner, 1999). Venture capitalists provide SMEs access to essential resources, including funding and expertise, enabling them to effectively identify and capitalise on opportunities. Consequently, the study will explore how venture capitalists influence construction sector SMEs' financial and non-financial performance by facilitating access to opportunities.

Similarly, the financial capital theory emphasises the role of economic resources in facilitating business growth and opportunity leveraging (Simpeh, 2011). By providing funding, venture capitalists contribute to increased revenue and growth potential for SMEs in the construction sector (Gompers and Lerner, 1999). Thus, the study will examine how venture capitalists' funding impacts SME owners in the construction sector, particularly concerning their ability to leverage opportunities.

Moreover, the human capital entrepreneurship theory's focus on entrepreneurs' skills and knowledge impacts their ability to leverage resources for profitable opportunities (Becker, 1964) and aligns with venture capitalists' consideration of business owners' expertise during investment decision-making processes (Kim and Lee, 2022; Nyagadza et al., 2019). SME owners gain mentorship and strategic guidance through VC financing, enhancing their skills and knowledge base (Gompers and Lerner, 1999). Therefore, the study will explore how venture capitalists contribute to enhancing construction sector SMEs' performance by positively influencing the skills and knowledge of business owners.

In light of these theories, a conceptual framework is proposed to illustrate the relationship between venture capital and construction sector SMEs' performance in the UK, along with relevant performance measures. This framework is depicted in (Figure 13) below.

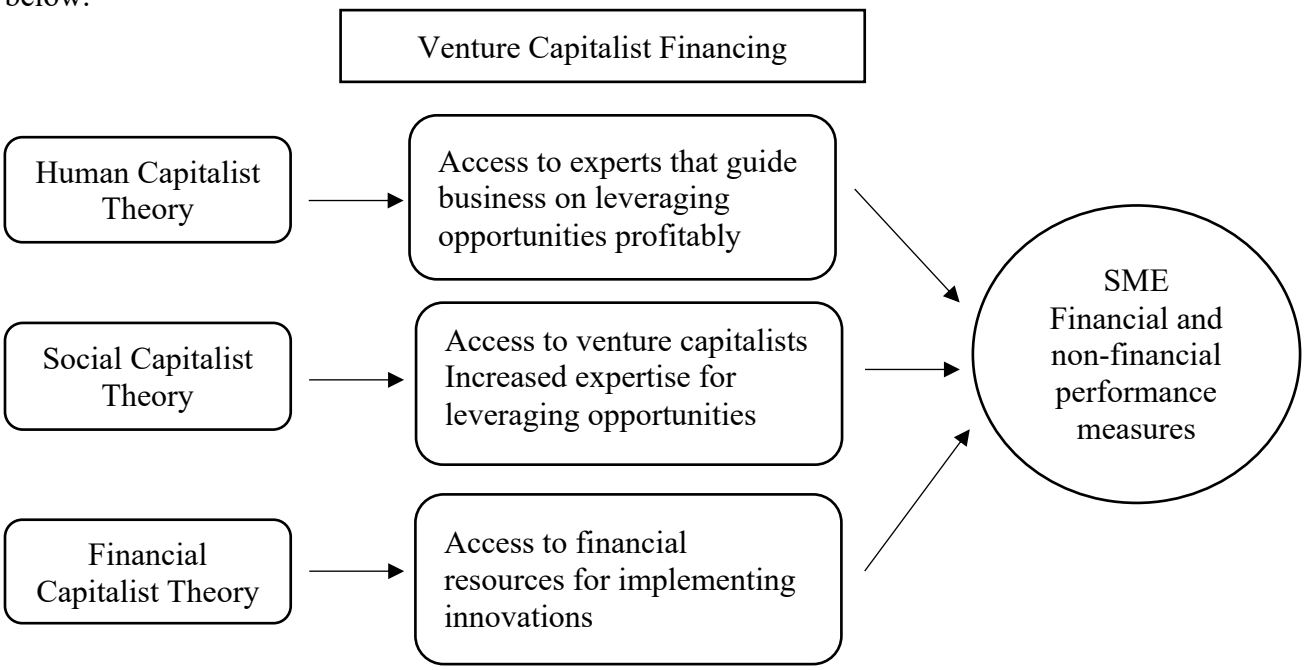

Figure 13: Conceptual Framework

Note. Source: Self-developed

The resource-based theory is integral to this study due to its widespread application in reliable research on factors influencing SME performance. For instance, Rodrigues et al. (2021) conducted a qualitative case study analysing the critical success factors (CSFs) of 10 SMEs in Portugal through the lens of the resource-based view. They identified various sources of competitive advantage, including human resources, financing, networks, strategic planning, managerial capacity, and innovation. These findings underscore the relevance of the resource-based view in exploring SME CSFs, encompassing both financial and non-financial aspects. This justifies assessing both categories of CSFs as performance-related factors influenced by VC in the UK's construction sector SMEs.

Roostika (2019) applied the resource-based view to examine how an SME's capabilities affect its performance. The study revealed that marketing capabilities enable SMEs to engage closely with customers, enhancing the effectiveness of their marketing mix strategies. Moreover, learning capabilities signify SMEs' commitment to continuous improvement, allowing them to operate more efficiently with minimal resources. Additionally, innovative capabilities contribute to sustainable competitiveness. Thus, this research highlights the resource-based view as a valuable approach for assessing SME CSFs. Consequently, employing this framework provides a robust foundation for understanding how VC impacts financial and non-financial CSFs in the UK's construction sector SMEs.

Adam et al. (2022) delved into the importance of the resource-based view theory in achieving business sustainability. They underscored the significance of physical, human, and organisational capital resources for sustainability, focusing on physical capital in their

study. Their findings highlighted the role of entrepreneur competency (human capital theory), marketing capabilities (financial capital theory), and physical capital needs (social capital theory) in fostering business sustainability. The proposed research validates This study's insights using resource-based enterprise theory.

Similarly, Nikmah et al. (2021) employed the resource-based view theoretical framework to explore factors influencing SMEs' competitive advantage. They demonstrated that internal assets within SMEs, characterised by their value, rarity, and inimitability, significantly contribute to their competitive edge (Nikmah et al., 2021). Applying the theory in the SME sector aligns with the present study's objective of understanding VC financing's role in the construction sector, thus reinforcing the theory's suitability.

Chumphong, Srimai, and Potipiroon (2020) also investigated how the resource-based view theory impacts SME performance. Their findings emphasised that adopting a resource-based view is crucial for enhancing SME performance, mainly through effective management systems that facilitate resource management. These findings resonate with the concepts and purpose of the present study, further affirming the relevance of resource-based enterprise theories in identifying the impact of VC financing on SME performance.

Chapter II's VC subsection thoroughly reviews existing studies indicating that (SMEs) can be evaluated using non-financial and financial performance metrics. These performance metrics include investment returns, sales revenue, profit margin, quality, safety, competitiveness, technological innovation, employee satisfaction, productivity, turnover, inventory management, and overall sustainability. Furthermore, the literature has

widely acknowledged that VC funding positively impacts SMEs' performance. Research by Du and Cai (2020), Kato and Tsoka (2020), Wu and Xu (2020), and Yang (2022) suggest that VC investment can help alleviate the financial challenges faced by SMEs. Moreover, studies by Nyagadza et al. (2019) and Sofia et al. (2022) indicate that VC funding can also boost SMEs' innovative performance and growth. The alternative and null hypotheses, which are considered in this research based on the reviewed literature, are as follows:

H1(Alternative Hypothesis): *Venture capital positively impacts SMEs' financial and non-financial performance measures*.

$H1_0$(Null Hypothesis): *Venture capital negatively impacts SMEs' financial and non-financial performance measures*.

H2(Alternative Hypothesis): *Non-financial and financial factors of SMEs impact venture capital investments.*

$H2_0$(Null Hypothesis): *Non-financial and financial factors of SMEs have no impact on venture capital investments.*

They are used to ascertain whether the results regarding VC's impact on SMEs' performance are true or false. It is also essential to test these hypotheses using the obtained findings because the reviewed studies did not conceptualise VC's impact on SME performance in the context of construction sector SMEs in the UK.

2.3 Overview of Methodological Literature

The primary aim of this study is to qualitatively investigate financial experts' perspectives concerning the impact of l VC on the growth and success of s (SMEs) in the

UK construction industry. To achieve this objective, the study seeks to address the following research questions:

1. What key factors influence venture capitalists' decisions to invest in SMEs within the construction sector?
2. How does venture capital investment influence the financial and non-financial performance metrics of established and emerging construction sector SMEs?

Given the nature of the research objectives, a qualitative case study methodology is deemed appropriate. Qualitative methods aim to delve deeply into participants' lived experiences, emotions, and perceptions surrounding a specific phenomenon, thereby providing a rich understanding of the subject matter (Taherdoost, 2022). This aligns with the goal of this study, which seeks to explore financial experts' insights into the impact of VC on construction sector SMEs in the UK.

Data collection in this study will primarily involve gathering textual data through surveys, further supporting the qualitative approach. Quantitative or mixed-method approaches, typically involving numerical data collection, are deemed unsuitable for this study due to their qualitative nature and focus on understanding subjective experiences (Taherdoost, 2022).

Furthermore, this study's research questions are exploratory, seeking to uncover the "how" and "what" of the phenomenon under investigation, aligning with qualitative studies' objectives. The target participants, financial experts, will be surveyed to gather their perspectives, a standard data collection method in qualitative research.

Various research designs can be employed within a qualitative methodology, including case studies, ethnographies, narratives, grounded theories, and phenomenology (Taherdoost, 2022). This study uses a case study design to explore SMEs' ongoing financial and non-financial performance in the UK construction sector, particularly concerning their utilisation of VC financing.

Furthermore, a qualitative methodology is chosen due to its documented advantages in studies investigating the impacts of VC financing on SMEs. Walter et al. (2018) and Thao (2022) employed qualitative methodologies in their respective studies conducted in Nigeria and Vietnam. Walter et al. (2018) explored the correlation between VC financing and various aspects of SMEs' operations in Nigeria, including net assets, access to alternative funding sources, business volume, and sales value. Similarly, Thao (2022) utilised qualitative methods to investigate the relationship between VC financing and SMEs in Vietnam. The success of these studies underscores the appropriateness of qualitative methodologies for examining the effects of VC financing on SME performance.

A case study design has been selected for this research in line with the study's objectives and concepts. This choice is motivated by the design's alignment with the study's focus and insights from Thao's (2022) survey. Thao conducted multiple case studies involving participants from SMEs across various sectors, such as marketing, technical services, and real estate. Therefore, this study will adopt a single case study approach involving financial experts from SMEs operating specifically within the construction industry in the UK. Moreover, the focus of this study on SMEs in the UK's construction sector is informed by the identified challenges faced by these businesses in the financial

domain. Despite the acknowledged benefits of SMEs, particularly those operating in construction, they encounter significant financial hurdles. VC has emerged as a potential solution to address these challenges, with prior research indicating its potential to enhance SME performance by bolstering profitability and fostering growth (Du and Cai, 2020; Kato and Tsoka, 2020). However, there remains to be a gap in existing research regarding the specific impact of VC on the success of SMEs within the construction sector. Additionally, VC has been highlighted as crucial for SMEs in developed nations like the UK (Yang, 2022). Yet, without research explicitly exploring the VC-SME success relationship in the UK, the generalizability of these findings is limited. Thus, the selection of SMEs operating within the construction sector in the UK as the study's focal point is further justified.

2.4 Chapter Summary

The literature review chapter presents insights from previous research on the intersection of VC financing and SME performance. This study investigates how VC affects SMEs' financial and non-financial performance indicators within the construction sector. This study establishes its theoretical framework by drawing upon resource-based enterprise theories, including social, human, and economic capital theories.

Existing studies underscore the positive impact of VC financing on SME performance. However, a notable gap in the literature pertains to the need for comprehensive research explicitly addressing the influence of VC on the financial and non-financial performance metrics of SMEs operating within the UK's construction sector. Therefore, this study seeks to address this gap by employing methodological approaches detailed in the third chapter.

CHAPTER III: METHODOLOGY

3.1 Overview of the Study Problem

The significance of SMEs in the UK lies in their substantial contributions to employment opportunities, GDP, and overall economic growth (Erdin and Ozkaya, 2020). A significant portion of SMEs in the UK operate within the construction sector. Despite their importance, many SMEs encounter financial challenges that hinder their success and performance (Chit and Rizov, 2023; Ramzi et al., 2022). Policies addressing these challenges often need to be revised (Owen et al., 2022), highlighting the need to explore alternative solutions such as VC. Previous studies have demonstrated the benefits of VC financing for SMEs (Akpan and Onyia, 2022; Kato and Tsoka, 2020; Thao, 2022). However, its impact on SMEs within the UK's construction industry still needs to be explored. Therefore, this mixed-methods case study aims to investigate financial experts' perspectives within the construction sector on how VC influences the success and growth of SMEs operating in the UK.

3.2 Operationalisation of Theoretical Constructs

The research project aims to investigate how venture capital VC financing acquisition influences the success of (SMEs) in the construction sector. The study focuses on two main concepts: VC financing acquisition and the success of SMEs. The theoretical constructs subsection outlines the study variables relevant to this research and essential for achieving its objectives.

Drawing on existing literature and the theoretical framework, this study examines various concepts and factors influencing the success of SME Critical Success Factors

(CSFs). CSFs encompass financial and non-financial aspects, as illustrated in Figure 3 (which demonstrates how the resource-based theory ties in with study concepts) and highlighted in previous studies concerning performance indicators of SMEs in the construction sector.

The literature review notes that venture capital plays a significant role in determining the success factors of SMEs.

Key CSFs for SMEs include metrics such as investment returns, sales revenue, profit margin, quality, safety, competitiveness, technological innovation, employee satisfaction, productivity, employee turnover, inventories, and overall sustainability. These CSFs were considered dependent variables in this research, with venture capital being the independent variable. Subsequent sections provide a detailed description of each variable in the study, along with the data collection questions and relevant research references.

3.2.1 Venture Capital

In this study, the independent variable under investigation is venture capital, which is influenced by the implementation of the value chain. The analysis of this variable will be conducted within the context of construction sector SMEs in the UK, using the data gathered for this research. Existing literature suggests a positive impact of venture capital on such businesses.

To measure the independent variable, items were drawn from relevant literature, including studies by Kato & Tsoka (2020), OECD (2015), Pradhan et al. (2019), and Witter (1939). These sources contribute to understanding how venture capital influences SMEs in the construction sector, providing a foundation for the research in this study.

3.2.2 Investment Returns

One of the key dependent variables emphasised in this study is investment returns. The literature has conceptualised the potential impact of venture capital on investment returns, particularly within the context of construction SMEs. As such, this research aims to explore the questions surrounding how venture capitalists influence the investment returns of construction SMEs in the UK.

The variable of investment returns is assessed through open-ended questions in the survey conducted for this study, as detailed in Appendix B. The measurement items utilised are identified in the works of Kato (2021) and Nukala & Rao (2021), which contribute to understanding the relationship between venture capital and investment returns for SMEs in the construction sector.

3.2.3 Sales Revenue

Another important dependent variable under scrutiny in this study is sales revenue. The researcher seeks to explore how venture capital influences the sales revenue of construction SMEs. To address this, questions regarding the impact of venture capital on sales revenue are incorporated into the study surveys for respondents to answer.

Sales revenue, as a variable, is assessed using a combination of closed and open-ended questions in the surveys conducted (refer to Appendices B and C). The measurement items employed to gauge the impact of venture capital on sales revenue are identified in the works of Kato and Tsoka (2021) and Pradhan et al. (2019), providing valuable insights into the relationship between venture capital and sales revenue for SMEs in the construction industry.

3.2.4 Profit Margin

The third vital dependent variable of interest to the researcher in this study is the profit margin of construction sector SMEs. The study aims to investigate how venture capital influences these SMEs' profit margins. Accordingly, questions regarding venture capital's impact on profit margins are included in the surveys administered to the study participants.

The profit margin variable is evaluated through a combination of closed and open-ended questions in the survey conducted for the study (refer to Appendices B and C). The items used to measure this variable are drawn from the studies by Kato and Tsoka (2021) and Sharaf (2019), which provide valuable insights into how venture capital affects the profit margins of SMEs in the construction sector.

3.2.5 Quality

Quality is another significant dependent variable measured in this study, which delves into the influence of venture capital on the success of construction sector SMEs. The research includes questions that explore how venture capital affects the quality standards of construction SMEs, providing insights from study respondents.

Assessment of the quality variable entails a mix of closed and open-ended questions in the surveys conducted for this study (outlined in Appendices B and C). The measurement items utilised to gauge quality are derived from the work of Srinivasarao et al. (2020), who elucidates the significance of quality as a key performance indicator (KPI) for SMEs. These items contribute to understanding how venture capital impacts the quality aspect of SMEs in the construction industry.

3.2.6 Safety

The fifth essential dependent variable considered in this investigation is the safety of employees in construction sector SMEs. The study includes questions examining how venture capital influences the safety standard of SMEs, gathering insights from study participants' responses.

Evaluating the safety variable involves a combination of closed and open-ended questions in the surveys administered for the study (detailed in Appendices B and C). The measurement items utilised to assess safety are identified in the work of Srinivasarao et al. (2020), who not only emphasise the importance of quality as a key performance indicator (KPI) for SMEs but also elaborate on how business processes within these firms contribute to fostering the health and safety of employees. These items contribute to understanding how venture capital impacts the safety aspect of employees within SMEs in the construction industry.

3.2.7 Competitiveness

Another critical dependent variable in this research is the competitiveness of SMEs in the UK construction sector. The study explores how venture capital influences this competitiveness, presenting relevant questions to the study participants for their input.

The competitiveness variable is assessed through a combination of closed- and open-ended questions in the study's surveys (refer to Appendices B and C). The measurement items utilised are based on concepts identified in the literature that impact competitiveness, including scalability (Rajagopaul et al., 2020), hiring talented personnel (Penrose, 1959), and factors such as asset turnover and research development (Csapi and

Balogh, 2020). These items provide insights into how venture capital affects the competitiveness of SMEs in the construction industry.

3.2.8 Technological Innovativeness

Technological innovation is a crucial dependent variable that piques the researcher's interest in this study. The investigation explores how venture capital influences the technological innovation of construction SMEs, and pertinent questions are presented to study respondents for their insights.

The variable of technological innovativeness is evaluated through a combination of closed—and open-ended questions in the surveys conducted for the study, as outlined in Appendices B and C. The measurement items used to gauge technological innovativeness are identified in the studies by Adam and Alarifi (2021), providing valuable insights into how venture capital impacts the technological innovation capabilities of SMEs in the construction sector.

3.2.9 Employee Satisfaction, Productivity, and Turnover (Employee SPT)

Employee SPT (Satisfaction, Productivity, Turnover) is another crucial dependent variable that receives attention in this research. The study delves into how venture capital influences the SPT of employees in construction SMEs, encompassing questions presented to the study participants for their insights.

The variable of Employee SPT is assessed through a combination of closed and open-ended questions in the surveys conducted for the study, as documented in Appendices B and C. The measurement items utilised to evaluate Employee SPT are identified in the studies by Jin et al. (2020) and Voordt and Jensen (2023), offering valuable insights into

how venture capital impacts the satisfaction, productivity, and turnover of employees in SMEs within the construction industry.

3.2.10 Inventories and Overall Sustainability (IOS)

In this study, IOS (Overall Sustainability) is another crucial dependent variable explored by the researcher. The study participants are asked how venture capital influences IOS in construction SMEs. The study surveys assess the variable using closed- and open-ended questions (Appendices B and C). The measurement items used to evaluate IOS are drawn from the studies by Al-Tit Omri and Euchi (2019), Stalmachova et al. (2022), and Srinivasarao et al. (2020).

This study considers ten variables, one independent and nine dependent. The researcher synthesises these concepts and variables in (Figure 14) for a concise summary.

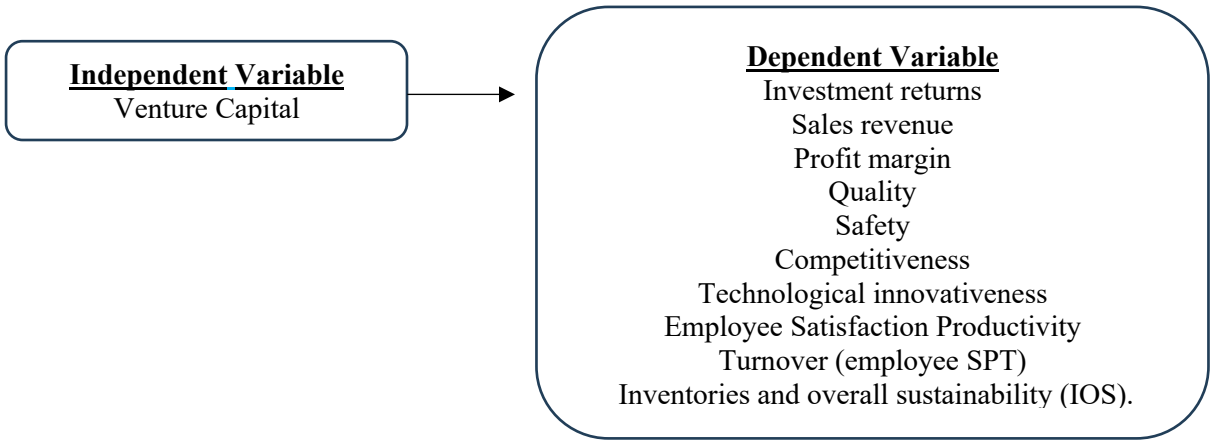

Figure 14: Conceptual Framework of the Study - Concepts and Variables

Note. Source: Self-developed

3.3 Research Design

A mixed-methods approach augmented with the case study design is adopted in this research to explore financial experts' opinions and conceptualise how VC impacts the success and growth of SMEs operating in the UK construction sector. As such, a mixed-methods technique is adopted in this research because of its alignment with its purpose and research questions, unlike the quantitative and qualitative approaches. Researchers often adopt qualitative, quantitative or mixed methodologies. However, their methodology selection is based on their study's overarching purpose, concepts, and research questions (Creswell and Creswell, 2018).

In the mixed-methods approach, a researcher integrates non-numeric (qualitative) and numerical (quantitative) data to attain the purpose of their research (Creswell and Creswell, 2018; Greene et al., 1989). Creswell and Creswell (2018) explain that a study uses the mixed-methods approach if a qualitative or quantitative methodology needs to be revised to gain significant insights about an identified research problem. Hence, it is assumed that the strength of the qualitative and quantitative methods and data can provide better insights into a study's research phenomenon (Dawadi et al., 2021).

A mixed-methods research, precisely the exploratory sequential approach, is thus adopted in this research. A researcher using the experimental sequential design follows a constructivist approach (Creswell and Plano Clark, 2018). In such an approach, a researcher first collects and analyses their qualitative data (exploring their research issue in-depth). After that, the researcher collects and analyses quantitative data that follows the post-positivist principle (Creswell and Plano Clark, 2018). Besides, the approach is used

when a researcher finds that their research needs more generalizability, often because of a small sample size (Creswell and Plano Clark, 2018). In this study, the qualitative data is collected using a small sample size. Hence, it is expected that the findings from this population will be limited to the general population of financial experts in construction SMEs in the UK, thus prompting the need to conduct a quantitative study in this research.

In addition, the exploratory sequential mixed-methods research benefits the adopted experimental sequential design; it also has advantages and disadvantages. One advantage is that the approach is more straightforward and can be accepted by quantitative-oriented target audiences because of the inclusion of quantitative data (Creswell and Plano Clark, 2018). As such, the exploratory sequential mixed-methods design used in this study will be in the hope that its findings will appeal to audiences biased towards quantitative studies. Regarding its disadvantages, the exploratory sequential mixed-methods design takes a lot of time to complete as a researcher has to collect both qualitative and quantitative data. Another disadvantage highlighted by Creswell and Plano Clark (2018) is that it might fail if a researcher needs to gain the skills for collecting, developing instruments, and analysing data for qualitative, mixed-methods, and quantitative studies. The researcher in this study will counter this limitation by enhancing their proficiency and skills in developing instruments and collecting data in qualitative, mixed-methods, and quantitative research.

Subsequently, Taherdoost (2022) defines a qualitative methodology as enabling a researcher to collect first-hand textual data, primarily to address social, practical, and scientific issues that involve naturalistic approaches to various subject matters. Creswell

and Creswell (2018) indicate that a study merits the qualitative approach if a researcher needs to explore a phenomenon because more research is required. It is also used in studies where the focus topic has not been conducted with a specific population or setting. This research project does not rely solely on the qualitative approach because quantitative data will also be collected during the study to test the relationship between the study's variables. However, this mixed-methods study will conduct qualitative research using an exploratory sequential design. According to Creswell and Creswell (2018), it follows the interpretivism philosophy, which suggests that not all phenomena can be tested experimentally. It collects participant data to create a theory related to a studied phenomenon. In this research, the interpretive approach will be used in the qualitative section of the mixed-method research to explore the opinions of financial experts regarding how venture capitalists have impacted the SMEs they work for in the UK's construction sector.

Quantitative research entails the application of numerical values obtained from collected data to provide a detailed explanation of a phenomenon (Taherdoost, 2022). According to Creswell and Creswell (2018), a study merits the quantitative approach if it seeks to identify factors that impact an outcome, use a specific intervention, and gain insights into the factors that facilitate the prediction of outcomes. A quantitative methodology is also used in studies that test an explanation or theory. The present research uses a methodology different from the quantitative approach as a stand-alone methodology because the financial experts will also be required to provide their opinions (textual data) and numerical data. As such, the quantitative approach is augmented with the qualitative approach in this study. According to Creswell and Creswell (2018), the positivist research

philosophy is deductive; that is, research aims to test existing theories based on collected data. The reasoned approach will be adopted in the quantitative part of this exploratory sequential study. This approach will enable the collection of statistical data to test the theory related to the impact of VC financing on construction SME performance obtained from the findings in the qualitative part of the research.

Correspondingly, a case study inquiry is adopted in this study to provide precise direction to procedures conducted in it. Its suitability to this study culminates from the suggestion that a case study is appropriate when obtaining in-depth data about a research phenomenon through interviewing or having direct contact with respondents (Creswell and Poth, 2018). Case studies are studies where research aims to curate in-depth case (such as a person, people, event, activity, or program) analysis (Creswell and Creswell, 2018). In this study, financial experts working in the construction sector are surveyed to find rich data about VC financing's effect on SME success in the UK construction sector to address this study's research question, indicating its alignment with this proposed design: a case study.

The case study approach is a befitting inclusion for this proposed research over other designs, highlighted by Creswell and Poth (2018), including ethnography, phenomenology, and grounded theory. Ethnography is used by researchers studying specific cultural aspects or beliefs through interactions with participants in their real-life environment (Creswell and Poth, 2018). Creswell and Creswell (2018) define ethnography as the design mainly used in sociology and anthropology by researchers seeking to study shared actions, language, and behaviours in a cultural group within their natural setting.

This study does not adopt the ethnography research design because it aims to explore financial experts' opinions in the UK, not their shared actions or values. It is also optional for the financial experts to be from a similar cultural group regarding the study's purpose, thus justifying the need for more merit in an ethnographic design.

Conversely, the grounded theory approach is ideal for a researcher exploring participants' experiences to develop a relevant theory (Creswell and Poth, 2018). The set theory in a study conducted using a grounded theory research design is based on participants' contribution to questions about their phenomenon of interest (Creswell and Creswell, 2018). The purpose of this study differs from the underlying aim of grounded theory as financial experts' opinions are not used to develop a theoretical report of VC financing's impact on SME success and growth-related aspects in the UK construction sector. Further, researchers that adopt the phenomenological design aim to conduct a detailed investigation of participants' lived experiences ascribed to the phenomenon of interest (Creswell and Poth, 2018). The purpose of research that adopts the phenomenological design differs from the overarching objective of this study, which focuses on participants' opinions rather than their experiences.

3.4 Population and Sample

This mixed-methods case study aims to establish the opinions of financial experts regarding how VC impacts SMEs' success and growth in the UK's construction sector. The population is a term that denotes all the individuals in a specific geographical location (Willie, 2022). The population of this study includes all the financial experts in the UK's SME sector. However, including all financial experts in the UK in this study will not be

feasible as many participants will need to be considered, and collecting data from them will require additional time. Yet, this study is set to be done in a short period. Besides, sampling financial experts from the whole of the UK might include those from sectors like manufacturing or textile that need to learn how VC financing impacts construction sector SMEs.

Therefore, a target population is identified, describing the individuals whose characteristics align with a study's inclusion criterion (Willie, 2022). The target population includes potential participants who are accessible to a researcher and represent a population of nature (Casteel and Bridier, 2021). Correspondingly, the target population in this study is individuals working as financial experts in SMEs in the UK construction sector with at least five years of experience.

A sample is also selected from the identified target population per the study's adopted methodology. Willie (2022) also explains that the chosen instrument influences the study's sample in mixed-methods studies. This study will entail an open-ended survey conducted using a questionnaire; as such, 23 financial experts in SMEs in the construction sector will be the targeted sample of the qualitative part of this study. This small sample size is selected based on the suggestion that a researcher requires at least 12 respondents to attain data saturation (Vasileiou et al., 2018). An additional 225 participants will be targeted for the quantitative section of this research. The sample in the qualitative part of the sequential exploratory mixed-methods research is higher than in the quantitative section. This is evident in the study by Naeem et al. (2023). Besides, the more participants in the quantitative part is expected to increase the confidence interval. In addition, a higher

sample size was chosen because the study is focused on a large geographical area (financial experts from SMEs in the UK construction sector), as proposed by Gumpili and Das (2022). This explains the target of 225 participants in the quantitative part of this exploratory sequential mixed-methods research.

3.5 Participant Selection

This research's inclusion criteria entail information regarding how a participant will be evaluated before being recruited into the study. According to Willie (2022), this ensures that participants with relevant information regarding a study's target phenomenon are included in the research. Adhering to this study's inclusion criteria is thus essential to ensure that pertinent information regarding the effects of VC on the performance of construction sector SMEs in the UK is identified. Contingent on the study's sample, the inclusion criteria in this study are as follows:

i. A person should be a financial expert.
ii. An individual should be working as an SME in the construction sector.
iii. An individual should have at least five years of experience as a financial expert.
iv. An individual should be presently employed as a financial expert in an SME in the UK construction sector.

A sampling approach can also enable researchers to collect relevant data from their study's participants. However, it is essential to align the selected sample approach with the chosen methodologies (Creswell and Creswell, 2018). A suitable sampling approach will thus be necessary to ensure that the sampled participants meet the characteristics under the

inclusion criteria (Campbell et al., 2020). This study uses a mixed-methods approach; hence, probability and non-probability sampling techniques will be adopted (Creswell and Creswell, 2018). A purposive sampling technique is used to sample the financial experts to be included in this research project for the qualitative part of the study. It is a type of non-probability sampling whereby researchers ensure that participants meet the requirements of their research project's sample, in this case, the above inclusion criteria (Campbell et al., 2020). The researcher will intentionally invite from the UK through purposive sampling, enabling them to provide relevant, information-rich, and the best data to obtain better insights into this study's subject of interest, as Staller (2021) suggested.

A purposive sampling technique is adopted over other methods, such as convenience or snowball sampling. Convenience sampling entails recruiting anyone willing to participate in a study regardless of whether the individual meets its inclusion criteria (Staller, 2021). Whereas convenience sampling is a more accessible and cheaper option, it is difficult to ascertain that the selected sample represents the target population's characteristics. Consequently, the convenience sampling technique is not adopted in this research because the participants in this study need to be financial experts currently working in SMEs in the construction sector and have five years of experience. Using the convenience sampling technique raises the risk of including participants who need more knowledge and expertise to respond to questions related to VC financing's impact on the success of construction sector SMEs. Snowball sampling involves sampling potential participants and requesting them to propose individuals who can contribute to a study if the target sample has yet to be attained (Staller, 2021). However, snowball sampling is not

adopted because it is assumed that purposive sampling will yield at least 12-15 financial experts in the UK's construction sector to participate in the qualitative section of the research.

Correspondingly, a probability sampling technique will be used to sample participants, contributing to the mixed-methods research's quantitative data. Probability sampling entails randomly selecting participants that allow an investigator to provide relevant conclusions about their target subject and population, and it might be systematic, stratified, clustered, or simply random (Campbell et al., 2020). Simple random sampling is adopted to obtain participants to contribute to the quantitative part of the mixed-methods research (Campbell et al., 2020). The probability sampling technique ensures that each individual in the target population has an equal chance of being included in a study. Using this approach ensures that all participants in the social networks who meet the inclusion criteria have an equal opportunity to participate in the study. Hence, simple random sampling was expected to ensure that all participants who are financial experts in the social networks of the research and working in the construction sector SMEs in the UK have an equal chance of being part of the research.

3.6 Instrumentation

Instrumentation describes the tool or means through which a researcher collects data to gain better insights into the phenomenon or variables of interest in their study (Busetto et al., 2020). A relevant data collection tool is selected and developed in this study's adopted mixed-methods case study approach. The primary data collection tools for this research study are qualitative and quantitative surveys conducted using questionnaires.

The instrument selection for the qualitative part is based on assertions by Busetto et al. (2020) and Braun et al. (2020). According to Busetto et al. (2020), a survey is one of the primary data collection instruments when conducting qualitative studies. Braun et al. (2020) explained that qualitative surveys contain researcher-developed open-ended questions related to a research topic. Hence, the survey will have open-ended questions, which, according to Harris and Muvuka (2022), enable a researcher to ask the participants pre-developed questions and post-follow-up probes in search of further clarity on provided responses.

This mixed-methods case study uses A survey to collect qualitative data over other instruments such as interviews, document analysis, observations, and focus groups. Document analysis reviews published materials related to a study topic, such as books, journals, annual reports, or legislation (Busetto et al., 2020). The instrument is not adopted in this study because it involves participants (financial experts in SMEs in the UK construction sector); thus, documents are not used to understand VC's financing impact on SMEs' success. Observations in qualitative studies require a researcher to observe the participants and take notes about their study's variables and measurements (Busetto et al., 2020). Financial experts are not set to be kept in their workplace. Instead, this study explores their opinions and perceptions regarding the impact of VC financing on SME success. In a focus group, a researcher explores participants' expertise, opinions, or experiences through discussions between them and under the guidance of a moderator (Busetto et al., 2020). This study's data is not collected using focus groups, as each participant is given a questionnaire to complete independently without requiring the

participating financial experts to meet as a group and address the study's research questions. Thus, the purposively sampled financial experts in the construction sector are surveyed (open-ended questions) to obtain essential information (qualitative data) for developing a detailed explanation conceptualising the impact of VC on construction sector SME success and growth. The survey responses follow a questionnaire guide for collecting the qualitative data (see Appendix B).

The researcher collected quantitative data to supplement qualitative data using close-ended survey questionnaires. These questions entailed a continuous rating scale that enabled the researcher to measure participants' perceptions and attitudes. To ensure that the questionnaire measured all the study variables, the researcher self-constructed it. The questionnaire was divided into four sections. The questionnaire's first section was intended to gather participants' demographic data, while the second section measured the dependent variable, venture capital. The third section of the questionnaire calculated the financial performance metrics, including investment returns, sales revenue, and profit margins. The last section measured the non-financial performance metrics: quality, safety, competitiveness, technological innovativeness, employee satisfaction, productivity and turnover, inventories, and overall sustainability. The items for each questionnaire construct were adapted and adopted from previous studies. The items for measuring venture capital were adopted from Kato & Tsoka (2020), OECD (2015), Pradhan et al. (2019), and Witter (1939) studies. Items for measuring investment returns were adopted from Kato (2021) and Nukala & Rao (2021). Sales revenue items were adopted from Kato and Tsoka (2021) and Pradhan et al. (2019), while those for-profit margins were adopted from Kato and Tsoka

(2021) and Sharaf (2019). Items for measuring technological innovativeness were adopted from the study by Adam and Alarifi (2021). The questionnaire used the Likert scale (1=Strongly disagree, 2=disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). A Likert scale was used since it assists in quantifying people's opinions and perceptions—various scholars, including Carifio and Perla (2008). Support the use of the Likert Scale. Carifio and Perla (2008) urge that Likert-scaled responses help the researcher quantify participants' opinions and perceptions. According to Carifio and Perla (2008), at least six items are required to create a reliable scale that measures construction in a questionnaire. Following this recommendation, the researcher ensured that all the questionnaire constructs comprised at least six items (see Appendix C).

3.7 Data Collection Procedures

Participant invitation letters are sent to identified employees through their email addresses and are publicly available on social networks. Each invitation letter includes an attached informed consent form, which participants must sign and email back to the researcher to indicate their agreement to participate in the research. Upon receipt of the signed consent form, participants are emailed a copy of the study's open-ended survey guide (see Appendix B) along with instructions for completion. Participants are required to respond to the 20 questions on the form and return it to the researcher.

Additionally, some participants will receive the closed-ended questionnaire (see Appendix C) and are instructed to complete it accordingly. Responses from the open-ended questionnaires are manually analysed, while responses from the closed-ended questionnaires are analysed using IBM Statistical Software for Social Sciences (SPSS). A

comprehensive report containing the thematic and statistical analysis results addressing the research questions is produced upon completion of the analysis.

Ethical considerations are carefully observed throughout the research process. An informed consent form (see Appendix A) is developed and provided to all participants, as required for studies involving human subjects (Harris and Muvuka, 2022). The informed consent form outlines the purpose of the research, guidelines for securely storing participants' data, and assurances of confidentiality. Participants are informed of their right to participate voluntarily and to withdraw from the study at any time. The form concludes with a space for participants to sign if they agree to participate.

Furthermore, during thematic analysis, participants' confidentiality is maintained using pseudonyms (e.g., P1, P2...) instead of their real names. All research data are securely stored, with hard copies kept in a secure and locked cabinet accessible only to the researcher. Soft copies of the data are stored on a password-protected laptop, with a unique password created to prevent unauthorised access. The password is not shared with anyone, and data will be stored for three years, after which hard copies will be shredded, and soft copies will be permanently deleted using secure software to prevent future recovery of the documents.

3.8 Data Analysis

The process of data analysis in mixed-methods research varies depending on the specific mixed-methods approach adopted by the researcher (Creswell and Creswell, 2018). Clarke and Creswell (2009) provide a helpful visualisation in (Figure 15), which outlines the steps involved in data collection and analysis in mixed-methods research.

	Research Problems/Data Questions	*Data Collection/ Method*	*Data Analysis/ Procedure*	*Data Interpretation*
Quantitative	Confirmatory Outcome based	Instruments Observations Documents Score oriented Closed-ended process Predetermined hypotheses	Descriptive statistics Inferential statistics	Generalization Prediction based Interpretation of theory
Qualitative	Exploratory Process based Descriptive Phenomenon of interest	Interviews Documents Observations Audiovisual Participant-determined process Open-ended process Text/image oriented	Description Identify themes/ categories Look for interconnected-ness among categories/ themes (vertically and horizontally)	Particularization (contextualizing) Larger sense-making Personal interpretation Asking questions

Figure 15: Stages of Integration of the Qualitative and Quantitative Part in a Mixed-Methods Research

Note. Source: Clarke and Creswell (2009)

According to Wasti et al. (2022), researchers must specify whether they collect qualitative and quantitative data concurrently or sequentially. Mixed-methods research can adopt designs such as embedded, triangulation, explanatory, or exploratory (Younas et al., 2019). In an exploratory sequential mixed-methods design, qualitative data collection and analysis precede quantitative data collection and analysis (Fetters, Curry, and Creswell, 2013). This study follows the exploratory sequential design, wherein qualitative survey

data is collected and analysed inductively first, followed by the collection and analysis of quantitative survey data.

3.8.1 Qualitative Data Analysis

In this exploratory sequential mixed-methods research, the qualitative data analysis follows an inductive approach. Proudfoot (2022) describes inductive thematic analysis as deriving themes from qualitative data. The analysis uses the six steps outlined by Braun and Clarke (2006; 2021).

First, the researcher familiarises themselves with the collected data by reading each completed survey form. This initial step aids in understanding the financial experts' responses regarding the role of VC financing in the economic and non-financial performance measures of construction sector SMEs. Taking notes during this stage is crucial, as it helps identify key ideas that will be significant in the thematic analysis process.

Next, the data is systematically organised through coding, as Braun and Clarke (2006) suggested. Each response is assigned a code, which forms the basis for identifying patterns and themes in the data.

Subsequently, the researcher generates initial themes by grouping codes with similar concepts. These initial themes serve as a preliminary framework for organising the data.

The identified themes are then reviewed to ensure their coherence and relevance to the research question. This process involves examining the themes of the data and refining them as needed.

Once the themes are finalised, they are defined and named descriptively to represent their content accurately. This step helps clarify each theme's meaning and significance.

Finally, a write-up summarising the themes is developed, supported by excerpts from the participants' responses. This comprehensive summary provides insights into the findings of the thematic analysis and their implications for the research.

In the second step, researchers systematically organise their data through coding, following the guidelines of Braun and Clarke (2006). The type of coding employed in a study is crucial to its effectiveness. Naeem et al. (2023) distinguish between inductive and theoretical thematic analysis, where inductive analysis involves coding, all collected text regardless of its relevance to the research question, while theoretical thematic analysis selects codes based on their relevance to the research questions. This research adopts an inductive approach, coding all collected text without pre-established codes. Open coding is utilised due to the absence of predefined codes.

Furthermore, the coding process is executed manually, with codes recorded in a Microsoft Word table. This aligns with Braun and Clarke's (2014) recommendation for progressive documentation of the coding process, facilitating the tracking of code evolution throughout the research.

Upon completing the second step, the third step involves identifying relevant themes from the coded data. Braun and Clarke (2006) suggest that this process entails grouping codes with similar concepts into themes or subthemes. Themes represent patterns encapsulating significant issues related to the research question or collected data. The identified codes are reviewed to identify those suitable for consolidation into themes. These

themes focus on patterns in the data relevant to the study's research question, with preliminary themes documented in a selected themes table.

In the third step, the themes identified in the previous phase of thematic analysis undergo review to ensure they align with the study's research objectives and questions, as Naeem et al. (2023) outlined. This process involves further organising the themes to enhance coherence. Each theme's associated data is thoroughly examined and analysed to confirm its relevance and consistency.

In the fourth step, the themes are evaluated to gauge their value within the study's context. This assessment includes verifying whether the themes are logical, encompass other relevant themes, and are supported by pertinent data. Additionally, the prevalence of each theme among the respondents is considered to gauge its significance, as Braun & Clarke (2006) suggested.

Once step four is completed, the selected themes are defined more precisely in the fifth step. This refinement process aims to elucidate each theme's significance further. Each identified theme is scrutinised to evaluate its contribution to understanding the impact of VC financing on SME performance and growth-related factors. Themes are given self-explanatory names to facilitate comprehension, following Braun and Clarke's recommendations (2006; 2014; 2021). All finalised themes are documented in the coding table established during the initial data analysis phase.

3.8.2 Quantitative Data Analysis

Quantitative data analysis in an exploratory sequential mixed-methods research involves employing statistical techniques. In their exploratory sequential study, Shiyanbola

et al. (2021) utilised descriptive statistics, mean item scores, and correlations to analyse qualitative data. Similarly, this research employs comparable statistical methods, with analysis conducted using SPSS. Using SPSS in quantitative data analysis aligns with the specific types of analyses needed, such as linear regression, correlation, and multicollinearity. It can validate its use over other statistical tools. SPSS contains tools for analysing the multicollinearity in the regression model (Das and Uddin, 2021). These are pertinent in this research as VIF and tolerance values are calculated to evaluate multicollinearity. In addition, SPSS is used because it allows for creating a scatter plot or checking *the fit line*, which is pertinent for conducting the homoscedasticity test to assess the distribution of the target population. SPSS is also used to perform the correlation analysis to ascertain the statistical significance of the relationship between the dependent and independent variables in the quantitative data analysis in line with the proposition of Das and Uddin (2021), proving the essence of the selected analytical software.

It is pertinent to acknowledge that SPSS serves as the best software for conducting the quantitative data analysis in this study. However, it also has its disadvantages, which were effectively addressed to foster the efficacy of the obtained findings. One disadvantage is that the software requires a commercial license to obtain a version that facilitates conducting analysis using all its features (Rahman and Muktadir, 2021). The disadvantage was countered by accessing the software from the learning institution that offers learners the program for which they paid for its commercial license. Another disadvantage is that SPSS has the risk of running slowly based on the machine that it is installed in (Rahman and Muktadir, 2021). This disadvantage was countered by ensuring the SPSS software was

installed in a machine with a compatible operating system and all relevant modules. These disadvantages are countered to enhance the validity of the obtained findings.

All gathered data undergoes initial cleaning and coding in Microsoft Excel. During this phase, missing values are identified through thorough screening. Questionnaires with more than 50% unanswered questions are excluded to mitigate bias risks due to missing data, following Stavseth, Clausen, and Røislien's (2019) recommendation. Subsequently, the data is transferred to SPSS for further coding and analysis. In SPSS, normality assumptions of the data are assessed to determine whether to apply parametric or non-parametric tests. Parametric tests are selected if the data meets normality assumptions, while non-parametric tests are employed otherwise (Gerald & Frank Patson, 2021).

Moreover, descriptive statistics are used to analyse categorical questions in the questionnaire. Pearson's correlation is utilised to ascertain the direction and strength of the relationship between study variables. A regression analysis is also conducted to elucidate the nature of VC's impact on the growth and success of SMEs in the construction sector. A comprehensive report of the results is compiled following the integration of thematic analysis and statistical findings from the quantitative part of the research. This report includes details on the data collection approach, the instruments used, and an overview of the data analysis process.

Serving as the results and analysis section of the study, this report provides a comprehensive account of the research findings. Visualisation tools in SPSS and Microsoft Excel are used to create graphs or charts for data. The SPSS allows a researcher to generate graphs and tables indicating the outcomes of linear regression, correlation, the

homoscedasticity test, and multicollinearity tests and analyses (Das and Uddin, 2021). Microsoft Excel is also used to generate some of the graphs in the quantitative results section using its built-in tools. Visual tools also simplify complex quantitative findings by providing clarity to readers by using easily understandable graphs and tables with supporting explanations. Using Microsoft Excel and SPSS makes it easier to create tables, figures, and graphs, which breaks the monotony of text in the results section of a study (Divecha, Tullu and Karande, 2023).

3.9 Research Design Limitations

While this study employs appropriate justification for its chosen research design techniques and instruments, it is not immune to limitations. Limitations encompass unforeseen methodology and design aspects affecting data interpretation and the generated meaning. Additionally, they entail constraints impacting the applicability, generalizability, or utilisation of study results within varying or similar scopes (Ross & Zaidi, 2019). Most limitations are either imposed by researchers or uncontrollable within a selected approach (Barceló & Saez, 2021). Several limitations are associated with this study's research design, including:

- The study's findings are restricted by relying on self-reported participant data. Financial experts in SMEs within the UK construction sector are surveyed, which presents challenges in verifying this data source due to its self-reported nature. Potential biases may arise from experts' recollections of specific benefits, potentially leading to exaggerations.

- Purposive sampling limits the study's research design. Financial experts in SMEs within the UK are purposively sampled to include only those with at least five years of experience working in the construction sector. This raises challenges in determining whether logical or theoretical generalisation was achieved in the qualitative part of the case study.
- The study's inclusion criteria further constrain the collected data to information provided by financial experts in UK construction sector SMEs. Consequently, the findings may have limited generalizability, as they may need to be extrapolated to infer the impact of VC financing on SME success in other countries.
- The study's focus solely on the opinions of financial experts may result in incomplete data regarding the impact of VC financing on the success of construction sector SMEs. Other potential participants, such as SME owners and employees, could provide insights into how VC financing has influenced their activities, leading to enterprise success.
- The findings are limited to SMEs in the UK construction sector and cannot be extrapolated to SMEs in other UK industries, indicating a research gap that needs further investigation.
- The survey questions are confined to VC financing's impact on UK construction sector SMEs. However, other factors like employee skills and leadership also affect SME success, suggesting that the findings may be limited to the role of VC financing, thereby leaving room for future research.

- The survey is constrained to questions related to VC financing's impact on various performance measures (see Tables 1 and 2), such as innovation adoption, market opportunity leverage, and financial management effectiveness. However, additional performance measures could be explored to understand the full impact of VC financing on SMEs.

3.10 Conclusion

The methodology chapter provides a detailed discussion of the research design employed in this study to achieve its objective: qualitatively exploring financial experts' opinions in the construction sector regarding the impact of VC on SME success and growth in the UK. A qualitative case study approach is chosen to fulfil the study's overarching purpose, as it aligns with obtaining data addressing qualitative research questions. This methodology is deemed relevant as it allows for insights into VC's effects on UK construction sector SMEs, an area needing improvement despite evidence of VC benefits on SMEs. Participants will be purposively sampled, and a questionnaire featuring open-ended prompts will be administered, ensuring data collection from participants meeting the study's inclusion and exclusion criteria. Furthermore, the study focuses on financial experts with at least five years of experience in UK construction sector SMEs. Following data collection, the thematic analysis approach proposed by Braun and Clarke will be used due to its easily understandable procedures. Data obtained from financial experts are expected to serve the overarching aim of this qualitative study and effectively address the research questions. Subsequently, the findings and analysis will be presented in the fourth chapter,

with further discussion and recommendations provided in the fifth chapter to inform strategies for enhancing SME success in the UK construction sector through VC financing.

CHAPTER IV: RESULTS

4.1 Introduction

This study investigates the influence of VC on the success and growth of small and medium-sized enterprises (SMEs) within the UK construction sector. This area has yet to be thoroughly examined. The research hypothesises that;

H1(Alternative Hypothesis): Venture capital positively impacts SMEs' financial and non-financial performance measures.

$H1_0$(Null Hypothesis): Venture capital negatively impacts SMEs' financial and non-financial performance measures.

H2(Alternative Hypothesis): Non-financial and financial factors of SMEs impact venture capital investments.

$H2_0$(Null Hypothesis): Non-financial and financial factors of SMEs have no impact on venture capital investments.

To achieve this, a survey was conducted among 23 financial experts working in SMEs within the UK construction sector, supplemented by data collected from an additional 225 financial experts via a structured questionnaire. The collected data were analysed using thematic and statistical methods, aligning with the open-ended survey guide (Appendix B) and the questionnaire (Appendix C). The study aimed to address specific research objectives, which include:

1. We are investigating how VC impacts the success of SMEs in the construction sector.

2. We are evaluating the role of VC in facilitating the growth of emerging SMEs in the construction sector.

The results chapter of this study presents qualitative themes derived from the analysis of survey responses and findings from the statistical analysis. This chapter is organised into qualitative and quantitative subsections. The qualitative section features relevant quotations from participants under each identified theme, illustrating their responses to the research questions. The quantitative findings are presented, covering demographic analysis, reliability testing, inferential statistics, and correlational analysis, all supported by graphical representations.

4.2 Qualitative Results: Research Question One

This study investigates the factors influencing venture capitalists' investment decisions in small and medium-sized enterprises (SMEs) in the construction sector. It aims to identify the elements that shape a venture capitalist's decision-making process and how business owners can make their enterprises more attractive to potential investors. Rigorous data analysis reveals two main themes: the preparatory measures venture capitalists take before investing in SMEs and the strategies considered effective in capturing their interest.

4.2.1 Venture Capitalists' SME Investment Preparation Steps

The theme related to venture capitalists' preparation steps for investing in SMEs includes discussions about the key activities they undertake before committing to venture capital trusts (VC trusts) focused on SMEs in the UK's construction sector. As illustrated in (Figure 16), a significant majority of respondents, sixteen participants (69.57%) in the unstructured survey questionnaire, provided insights relevant to this theme.

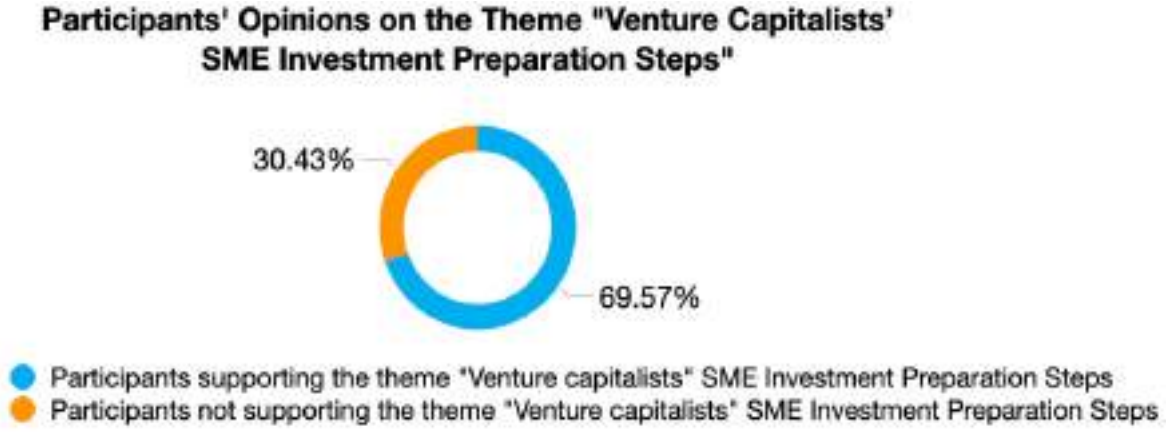

Figure 16: Number of Participants Supporting or Unsupportive of the Theme "Venture Capitalists' SME Investment Preparation Steps"

Note. Source: Self-developed

Similarly, 69.6% of participants who endorsed the theme of venture capitalists' SME investment preparation steps responded to the question about the specific actions taken by VCs in the UK when selecting an SME for investment. (Figure 17) visually represents the percentage of participants supporting these outlined preparatory measures before investing in an SME.

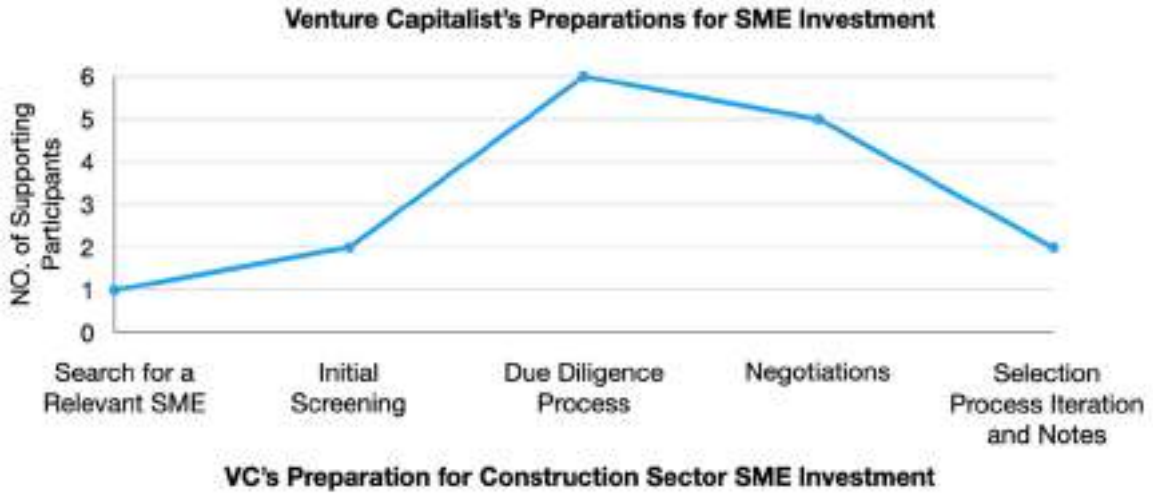

Figure 17: Percentage of Participants Supporting the VC-SME Investment Preparation Steps

Note. Source: Self-developed

Remarkably, only one participant, P14, representing a minority (6.25%) of the sample, noted that VCs actively seek potential investment opportunities aligned with their investment portfolios through networking events, industry conferences, referrals from trusted sources, and partnerships with incubators. Additionally, two participants, P1 and P15, out of sixteen (12.5%), emphasised VCs' meticulous screening process when identifying potential SMEs for investment, driven by the inherent risks associated with such ventures.

This screening process aims to assess an SME's suitability for investment based on the standards and criteria set forth by the VC or venture capital firm.

Furthermore, 37.5% of participants (six individuals) highlighted the subsequent due diligence process undertaken by VCs in the UK after identifying an eligible SME for investment. Notably, four of these six participants elaborated on various aspects of SME assessment conducted by venture capitalists during the due diligence phase. Most respondents (33%) summarised the due diligence process, while 17% discussed other critical aspects, including the management team, financial information, risk assessment, and market potential. As illustrated in (Figure 18) below.

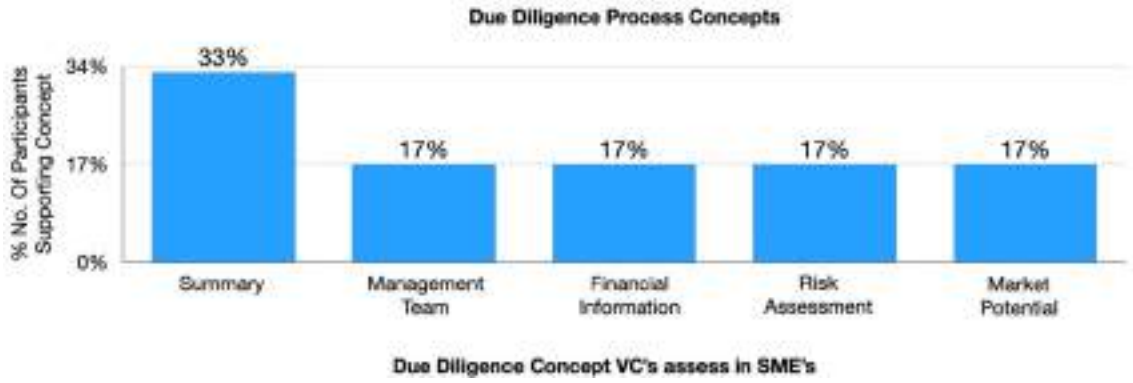

Figure 18: Due Diligence Process Concepts

Note. Source: Self-developed

Among the participants who detailed the due diligence process, two individuals (P2 and P16), representing (33.33%) of the cohort, provided a thorough overview of the factors that venture capitalists (VCs) assess during this phase. These factors include financial metrics, market potential, competitive landscape, industry trends, intellectual property, management team capabilities, and growth prospects. Notably, P16 highlighted a novel consideration: the legal positioning of small and medium-sized enterprises (SMEs) in the construction sector. Additionally, P16 elaborated on the methodologies VCs employ, such as conducting management interviews, performing site visits, and consulting external experts to validate the claims and projections of SMEs.

Interestingly, a single respondent (P3, 20%) underscored the importance of evaluating the management team's experience, expertise, track record, decision-making abilities, adaptability to market changes, and commitment to the company's success during due diligence.

Regarding financial scrutiny, only one participant (P5, 16.67%) addressed the financial characteristics of SMEs that attract VCs following the initial screening. This

includes assessments of economic health, revenue growth, profitability, cash flow sustainability, ROI potential, and anticipated financial performance.

Risk assessment also emerged as a critical component of the due diligence process, as noted by participant P6 (16.67%). P6 described VC firms' comprehensive approach to evaluating and mitigating various risks related to market, technology, competition, regulatory issues, and operational challenges.

Furthermore, participant P4 (16.67%) highlighted the significance of assessing market potential and clarifying VCs' evaluation criteria regarding market size, growth rate, competitive landscape, customer needs, and market entry strategies.

They followed the due diligence phase, and negotiations commenced, as outlined by five participants (31.25%). They detailed the iterative steps involved in identifying SMEs for investment and the development of subsequent documentation. Among these participants, three (60%) emphasised the specifics of negotiations, such as investment shares, exit strategies, and building consensus among stakeholders. In contrast, participants P7 and P18 focused exclusively on negotiations between VCs and SME owners, discussing agreements on valuation, governance rights, and other essential terms. Participant P19 elaborated on the legal documentation phase, which includes drafting and reviewing investment and shareholder agreements, ultimately culminating in the formalisation of the investment process.

Once all parties reach a satisfactory legal agreement, the investment is finalised, and funds are disbursed to the SME, marking the successful completion of the investment process.

Two participants (40%), P9 and P20, emphasised the iterative nature of the journey from SME identification to investment, which encompasses due diligence, negotiations, and agreements conducted by VCs. Participant P20 noted that the investment approach and focus can significantly vary among VC firms or individuals, impacting their decision-making processes. P9 further reinforced this notion by elaborating on the iterative selection process. According to P9, discussions, meetings, and negotiations between venture capitalists and SME owners in the construction sector typically occur over multiple rounds. P20 remarked, "The specific steps and level of detail may vary depending on the venture capital firm's investment philosophy, sector focus, and investment stage preferences."

4.2.2 Perception of Approach for Attracting Venture Capitalists

The theme concerning approaches to attracting venture capitalists highlights the strategies recommended by study participants for small and medium-sized enterprises (SMEs) in the construction sector to secure VC financing successfully. This theme emerged from analysing responses to questions about how SMEs attract venture capitalists and the suggested strategies for startups within the same sector. Notably, (82.61%) of participants identified specific methods that construction sector SMEs have used to make their businesses appealing to VCs. In contrast, (100%) of respondents proposed strategies that startups in this sector could adopt to achieve similar success.

Analysis of the interview responses revealed that all participants outlined various methods for attracting venture capitalists. However, as illustrated in (Figure 19), only one out of 19 respondents (5.26%) indicated that construction sector SMEs had implemented a

comprehensive strategy to attract venture capitalists. The remaining (94.74%) mentioned only a single approach utilised by construction sector SMEs to draw VCs.

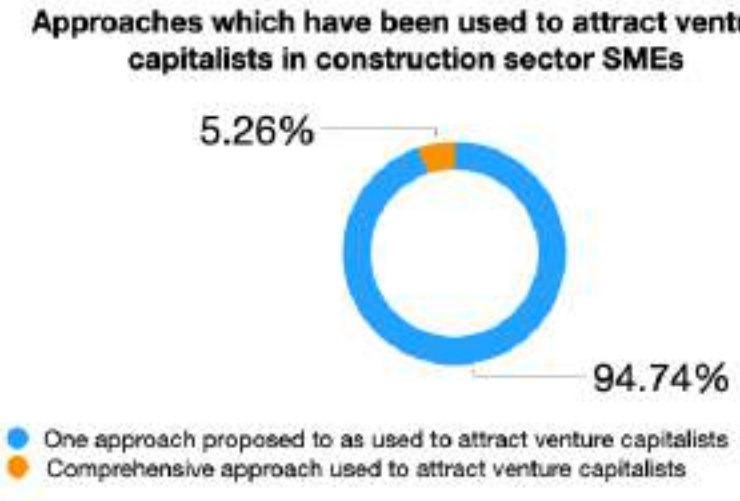

Figure 19: SMEs' Use of a Singular or Comprehensive Approach to Attract Venture Capitalists

Note. Source: Self-developed

According to (Figure 20), results showcase the specific approaches outlined by participants that have proven instrumental in attracting venture capitalists.

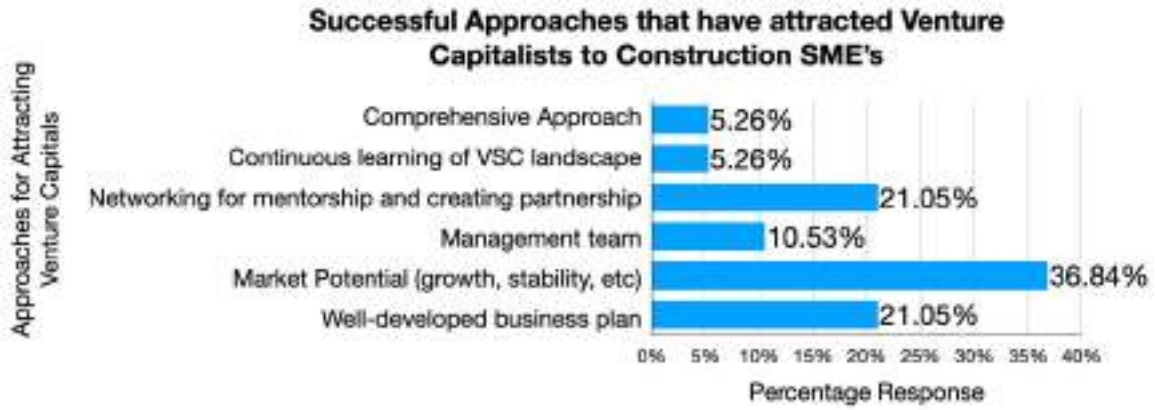

Figure 20: Approaches for Attracting Venture Capitalists

Note. Source: Self-developed

Figure 20 shows that most respondents (36.84%) believe that highlighting market potential, specifically growth, scalability, and critical achievements, has been crucial in attracting venture capitalists to their SMEs. A smaller portion of participants (21.05%) indicated that networking and maintaining a well-developed business plan have also effectively aided construction sector SMEs in drawing VC investments. Among the lesser-known successful approaches, continuous learning about the VC landscape and comprehensive strategies were acknowledged by only (5.26%) of respondents.

Of the 19 respondents who described their experiences attracting venture capitalists, (21.05%) (4 participants: P1, P14, P20, and P21) noted that constructing comprehensive business plans is a common practice among SME owners in the UK construction sector. These business plans typically detail the company's vision, market opportunities, marketing strategies, competitive advantages, growth plans, and financial projections, emphasising the importance of understanding the industry, target market, and profitability potential. Two respondents (21.05%) specifically mentioned tailoring their business plans into effective pitch decks that align with the preferences and investment criteria of targeted VC firms, acknowledging that each VC has distinct focus areas, industry preferences, or investment stages.

Similarly, (21.05%) of respondents (4 out of 19) shared their success stories involving networking, mentorship, and partnerships to influence VC investment decisions in their construction sector SMEs. Two respondents (P6 and P19) highlighted the

significance of proactive networking efforts, such as attending industry events, joining entrepreneurial networks, and leveraging personal connections to secure introductions to VCs. P6 emphasised, "Building relationships and connections with key players in the venture capital community can increase the visibility of the SME and create funding opportunities."

Additionally, (10.53%) of respondents (2 out of 19) stressed the importance of showcasing the management team's skills to attract venture capitalists. They underscored that the management team's experience, track record, and capabilities instil confidence in their ability to execute business plans and navigate challenges.

Conversely, only one participant (P10, 5.26%) highlighted the value of continuous learning about the venture capital landscape to better position SMEs.

In summary, most respondents (36.84%) detailed successful strategies emphasising market potential to attract venture capitalists. These strategies involved showcasing customer acquisition data, revenue growth, strategic partnerships, milestones in product development, growth plans, scalability projections, successful pilot projects, and competitiveness indicators. The (100%) response rate reinforced this theme to a question asking for suggestions on how start-up SMEs in the construction sector can appeal to venture capitalists. As illustrated in (Figure 21), the percentage of participants supporting specific approaches for attracting VC investment in start-ups is depicted.

Figure 21: Approaches for Start-Up SME Owners for Attracting Venture Capitalists

Note. Source: Self-developed

As shown in Figure 21, most interview respondents (26.09%) indicated that new ventures should effectively market their potential milestones to attract venture capitalists (VCs) successfully. Among the respondents, (8.7%) suggested that a new SME can draw in VCs by staying current with industry standards, continuously seeking improvement, validating their market, and maintaining a strong management team. In comparison, a well-developed business plan received support from (13.04%) of participants. At the same time, both networking and partnerships with established firms and demonstrating competitiveness were backed by (17.39%) of respondents each.

Of the participants advocating for a strong management team, P3 emphasised that having a competent and cohesive management team is crucial for VCs, as it instils confidence in the venture's ability to execute its business plan and overcome challenges. Therefore, UK start-up SME owners should focus on assembling a skilled and experienced

management team that can effectively highlight team members' expertise and industry knowledge to build trust with potential investors.

Notably, (17.39%) of respondents (four participants) recommended that start-up SMEs prioritise networking and forming relevant partnerships to enhance their attractiveness to venture capitalists. One respondent (P11) suggested cultivating relationships with VCs, participating in pitch sessions, attending industry events and conferences, entering competitions, and actively seeking introductions to increase visibility and unlock funding opportunities. Additionally, (4.35%) of these respondents highlighted the importance of strategic partnerships, which can provide essential access to industry knowledge, distribution channels, customer networks, and validation of the start-up's business model and market potential.

The largest group of participants (26.09%) advocated demonstrating proof of market potential as a pragmatic approach to attracting VCs in the UK. One respondent (4.35%) recommended that start-up SMEs present evidence of tangible progress and milestones, such as customer acquisition, revenue growth, successful pilot projects, strategic partnerships, and industry recognition. Another participant emphasised the need to provide realistic and well-supported financial projections to showcase the potential for solid returns on investment.

Lastly, (17.39%) of respondents (four participants) stressed the importance of exhibiting competitive advantages to attract venture capitalists. One respondent noted that VCs favour market positions that are easily defensible and where price competition is minimised. Start-up SMEs can illustrate their competitiveness by prioritising intellectual

property protection through patents, trademarks, or copyrights. Demonstrating tangible progress and market validation can further enhance VCs' confidence in the SME's potential for success.

Overall, the theme of perceptions regarding approaches to attracting VCs indicates that construction sector SME owners have successfully drawn investors through various strategies, including crafting comprehensive business plans, demonstrating market potential, networking, and highlighting the capabilities of their management teams. Respondents recommended that start-ups in the sector pursue strategies such as showcasing market potential through target milestones, validating their market, demonstrating competitiveness, building strong management teams, networking, and adapting to current industry demands.

These findings align with the second alternative hypothesis (H2), which posits that SMEs' non-financial and financial factors impact venture capital investments, as illustrated in (Figure 22). This alternative hypothesis was accepted because the results confirmed that both categories of factors influence VCs' decisions to invest in construction sector SMEs in the UK. Consequently, the null hypothesis ($H2_0$) was rejected, as the assertion that SMEs' non-financial and financial aspects do not impact venture capital investments was proven false.

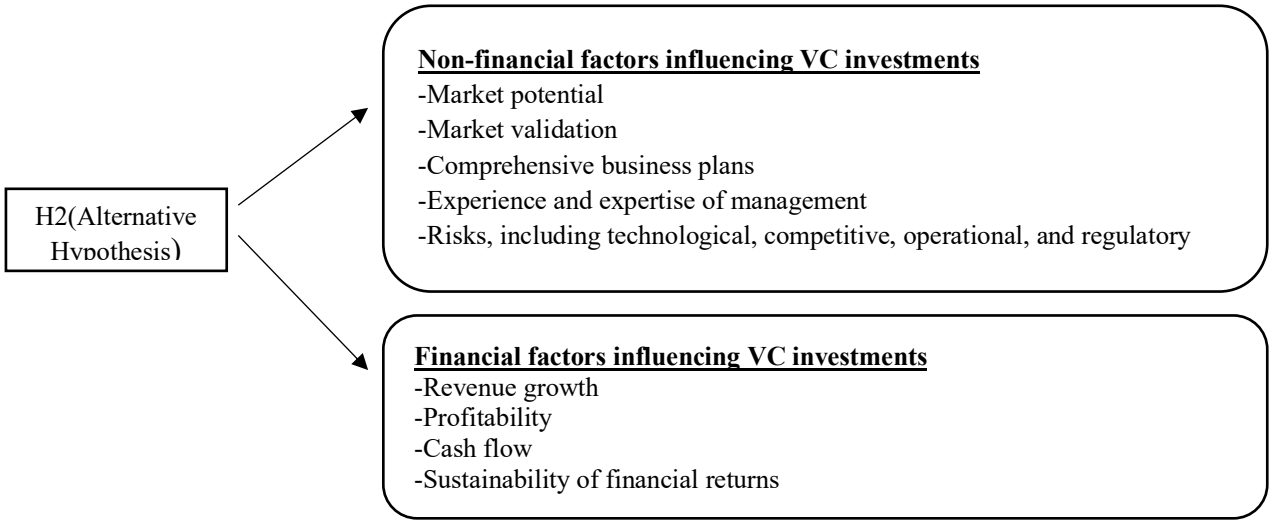

Figure 22: Relation of Qualitative Findings In Research Question 1 to H2 (Alternative Hypothesis)

Note. Source: Self-developed

4.3 Qualitative Results: Research Question Two

The second research question, derived from survey responses from financial experts within UK construction SMEs, is: "How does VC investment influence the financial and non-financial performance metrics of existing and emerging SMEs in the construction sector?" This inquiry explores the effects of venture capital investment on the performance of construction sector SMEs in the UK, as measured by financial and non-financial metrics.

During the data analysis phase addressing research question two, nine themes were identified and categorised under financial and non-financial metrics. The majority of these themes (eight) focus on financial performance metrics (88.89%) (see Figure 23 and Table 4). Only one theme (Venture capital's impact on sales, profits, and investment returns) captures findings related to the impact of VC investment on non-financial metrics (11.11%) (see Figure 23 and Table 4). This indicates that venture capitalists significantly influence

UK SMEs in the construction sector, particularly regarding their non-financial performance metrics. Discussions concerning the identified themes and supporting quotes from participants are presented in (Table 4).

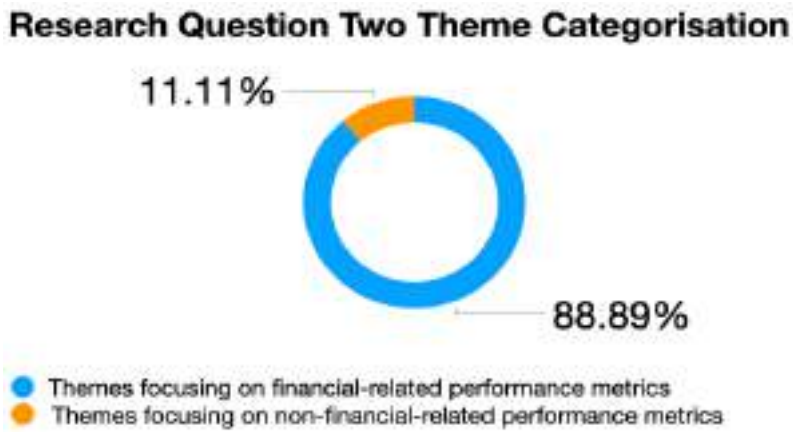

Figure 23: Research Question Two Theme Categorization

Note. Source: Self-developed

Table 4: Research Question Two Themes

Research Question Two Themes	
Metric	**Themes**
Financial Performance Metrics	Venture capital's impact on sales, profits, and investment returns
Non-Financial Performance Metrics	Venture capital's impact on quality
	Venture capitalists' role in safety in SMEs
	Venture capital impact on SME competitiveness
	Benefits of venture capital impact on SME innovativeness and technology-readiness
	Venture capitalists' role in SME inventories and overall sustainability
	Venture capital's impact on SME customers
	Benefits of venture capital on SME employee satisfaction, productivity, and turnover
	Venture capitalists' role in SME inventories and overall sustainability

Note. Source: Self-developed

4.3.1 Demographic Analysis

Looking at (Figure 24) below illustrates the gender demographic distribution among participants in the qualitative segment of this sequential exploratory research. It reveals that men accounted for (74%) of the sample population, while females constituted (26%).

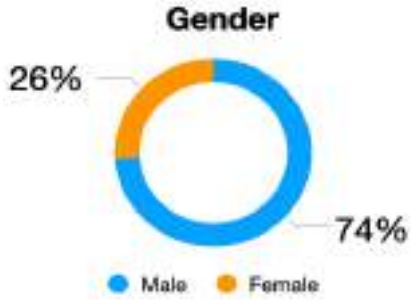

Figure 24: Gender

Note. Source: Self-developed

Age Distribution, as displayed in (Figure 25) shows the participant's age categories in the study's quantitative segment. The most significant proportion (60.89%) fell within the 30 to 40 age bracket, while (17.39%) were between 50 and 60. Among the 23 participants, (4.35%) were in the 20 to 30 age range, and (8.7%) fell between 40 and 50 years old. The remaining (8.7%) consisted of participants aged 60 and above.

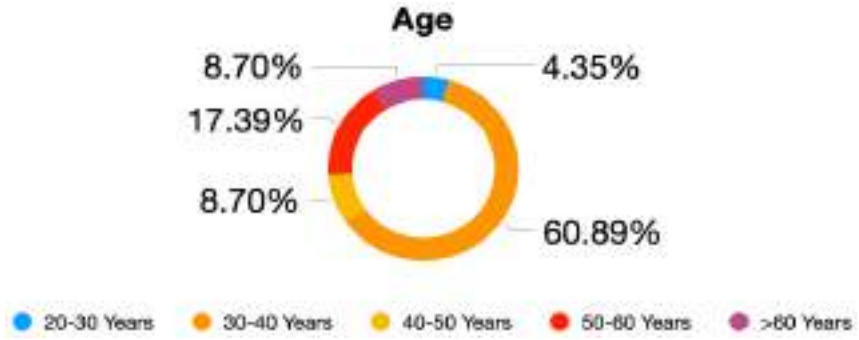

Figure 25: Age

Note. Source: Self-developed

4.3.2 Venture Capital's Impact on Sales, Profits and Investment Returns

Analysis of the open-ended survey responses from financial experts also reveals the theme of venture capital's impact on sales, profits, and investment returns. This theme encompasses discussions and quotations of responses from participants regarding the benefits of VC investment to the financial performance of SMEs, focusing on profit and investment return metrics. Most participants (82.61%) supported this theme, while 17.39% did not reveal any data regarding how VCs impact sales, profits, and investment returns, which can be observed in (Figure 26).

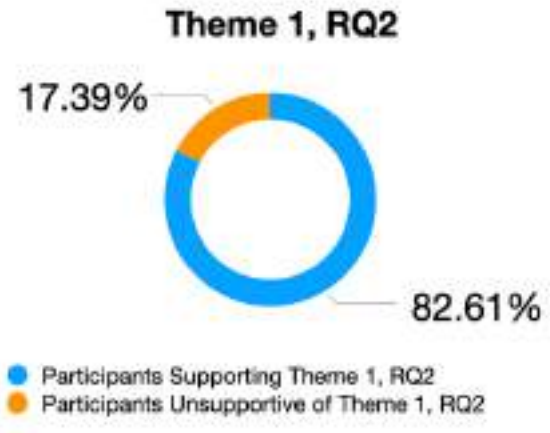

Figure 26: Participants' Contribution to Theme 1, RQ2

Note. Source: Self-developed

13.04% (3 out of 23) interview respondents noted that venture capitalists (VCs) can enhance construction SMEs' profits, sales, and returns by facilitating expansions and marketing efforts. Participant P1 stated, "VC financing provides SMEs with a substantial injection of capital, allowing them to invest in growth opportunities, expand their operations, and take on larger projects." Through these financial resources, VCs enable SMEs to seize market opportunities, generate higher revenues, and ultimately enhance

profitability. Another respondent confirmed that VCs support branding and marketing initiatives, which help attract more customers, command premium prices, and drive sales, leading to increased profits and improved investment returns. Profit improvement also depends on the effectiveness of strategic business development activities, including market research, market penetration strategies, and geographic expansion.

In contrast, only 8.7% (2 respondents) believed that VCs contribute to increased profits by financing the adoption of innovative solutions that boost productivity. One participant explained that VC investments have allowed construction SMEs to implement technologies like Building Information Modelling (BIM) and the Internet of Things (IoT), which streamline processes and improve efficiency by minimising cost and time overruns. P17 echoed this point, explaining that these technologies enable SMEs to optimise operations, reduce costs, and enhance productivity, leading to greater profits.

A significantly higher proportion of respondents, 13.04% (3 participants), suggested that VCs help SMEs improve their competitiveness by leveraging the venture capitalists' expertise. For instance, P7 mentioned that credible financial advice and support from VCs can provide SMEs with a competitive edge in acquiring customers and driving sales growth.

Furthermore, 21.74% (5 respondents) indicated that VCs can guide SMEs in navigating lucrative market gaps and adopting sustainable strategies that result in higher profit margins. P4 stated that VC-backed SMEs are often encouraged to optimise their operations and implement cost-saving measures, such as streamlining workflows, improving supply chain management, adopting lean construction principles, or employing

energy-efficient practices. “By enhancing operational efficiency and reducing costs, SMEs can improve their profit margins and achieve better returns on investment,” P4 explained. Participants P6 and P8 elaborated that venture capitalists provide financial planning, business strategy development, operational improvements, and performance monitoring guidance. SME owners who leverage these resources can capitalise on growth opportunities, optimise their operations, establish a solid financial foundation for long-term success, and maximise their investment returns.

Additionally, 17.39% (4 respondents) indicated that VCs positively impact sales-related metrics for construction sector SMEs in the UK. Participants P1 and P14 attributed the sales increase to a growing customer base achieved through VC-supported market outreach programs targeting new segments. VC financing also empowers SME owners to increase sales by funding marketing activities and innovations. P2 explained that SMEs use VC funding for sales and marketing endeavours to boost brand visibility and acquire customers by hiring sales teams, launching effective marketing campaigns, participating in industry events, and enhancing their online presence. Furthermore, three respondents suggested that VC funding facilitates innovation and relevant research and development activities, which attract more customers and increase sales.

Moreover, VC financing enhances the scalability of UK SMEs, as identified by 21.74% (P4, P17, and P21) of the respondents. According to P4 and P17, this is a crucial strategy for increasing total sales in construction sector SMEs because VC funding allows them to scale operations and production capacity to meet growing demand. This scalability enables SMEs to fulfil larger orders, undertake multiple projects simultaneously, and reach

a broader customer base. By increasing their operational capacity, SMEs can accommodate higher sales volumes and capitalise on market opportunities. P6, representing (4.35%) of the (21.74%), suggested that sales improvements also stem from VC financing of customer relationship management (CRM) systems and customer service initiatives that enhance customer satisfaction and strengthen firm-customer relationships

4.3.3 Venture Capital's Impact on Quality

The theme of venture capital's impact on quality emerged from the analysis of responses to prompts regarding VC's role, as measured by non-financial metrics such as cycle times, customer ratings, and length of customers' calls. According to (Figure 27), most surveyed respondents (60.87%) supported this theme. They elaborated that VC financing aids construction sector SMEs in researching and implementing strategies to enhance the quality of their operations, products, and services effectively.

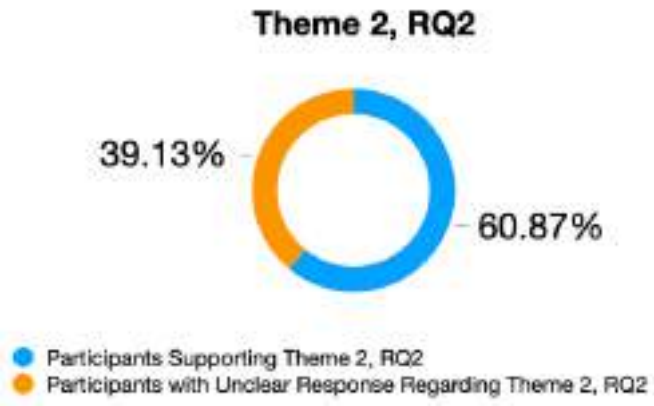

Figure 27: Participants' Contribution to Theme 2, RQ2

Note. Source: Self-developed

Interestingly, 4.35% (1) of the surveyed respondents indicated that venture capitalists (VCs) positively influence activities that lead to higher-quality products for

construction SMEs. One respondent (P1) noted that VC funding allows SMEs to improve their construction processes, adopt advanced technologies, and implement robust quality control measures. This results in superior outputs, increased customer satisfaction, and fewer inquiries related to quality issues or concerns.

Two additional respondents (P2 and P3), making up (8.7%) of the total, emphasised the impact of VC on quality-related aspects within construction sector SMEs. P2 explained that a VC-backed SME can invest in efficient workflows, standardised procedures, and quality management systems, which help reduce customer inquiries related to delays or inconsistencies in the ordering process. Meanwhile, P3 highlighted that quality improvements stem from training employees in technical skills, knowledge of industry standards, and customer service capabilities, leading to shorter customer calls and greater satisfaction.

Furthermore, P4 and P5 (8.7% of respondents) pointed out that VC financing enables construction sector SME owners to acquire essential resources and equipment, such as project management software. This investment enhances the quality of products and services while minimising the need to address product mistakes during lengthy customer calls.

In addition, VC financing boosts the proactivity of customer support within construction sector SMEs. P8 stated that VC funding fosters productivity by helping SME owners develop self-service options and online platforms that allow customers to place orders, thereby reducing the length of customer calls and improving overall efficiency and satisfaction.

However, despite the advantages of VC financing in shortening customer call durations, P19 asserted that it "may also depend on other factors such as product complexity, customer preferences, and overall SME efficiency." Therefore, construction sector SMEs should ensure that their products and services are customer-centric to fully leverage the benefits of VC financing in enhancing the quality of customer interactions.

Additionally, the theme of venture capital's impact on quality is evident from findings related to how VC financing influences quality through customer ratings and cycle times. Specifically, VC funding contributes to adopting process optimisation strategies, project management systems, and tools designed to reduce cycle times. For example, P1 explained that a VC-backed SME employs lean construction practices and digital tools to optimise processes, improve stakeholder coordination, minimise delays, enhance resource allocation, and ensure timely project completion.

4.3.4 Venture Capitalists' Role in Safety in SMEs

However, P1, P7, and P13 (23.08%) expressed differing views from the other respondents contributing to this theme. P13 stated, "No, it's the opposite. To attract funding and investment, an SME must have a good track record in health and safety matters." P1 suggested that the impact of VC financing on the number of accidents among SME employees varies and is more influenced by the specific actions and measures taken by the SMEs and their management rather than by the mere presence of VC funding. The remaining respondents (23.08%) agreed that implementing safety-related initiatives depends mainly on the management of the SMEs. Success in this area is achievable through

proactive measures, regular monitoring, ongoing training, and a steadfast commitment to employee safety, regardless of the type of financing involved.

Additionally, three respondents (13.04%) indicated that VC financing allows SMEs to prioritise employee well-being through technology. They noted that investments from venture capitalists often address the primary challenge of needing more access to financial capital. Consequently, VC funding enables SME management to create a supportive and healthy work environment, thereby reducing the risk of accidents caused by fatigue or distractions. Safety equipment purchased with VC funds includes personal protective equipment (PPE), safety harnesses, safety signage, and monitoring systems. The funding also allows for acquiring advanced technologies that improve workplace safety, such as construction-specific software and tools that enhance communication, planning, and coordination, ultimately decreasing the likelihood of accidents resulting from miscommunication or inadequate information. P2 explained that VC funding empowers an SME to allocate resources to implement safety protocols, purchase safety equipment, and maintain a safe working environment. Investing in safety measures can help reduce the risk of accidents and promote a safer workplace for employees. Similarly, P5 noted that a VC-backed SME can conduct regular safety audits, inspections, and risk assessments to identify potential hazards and implement appropriate preventive measures.

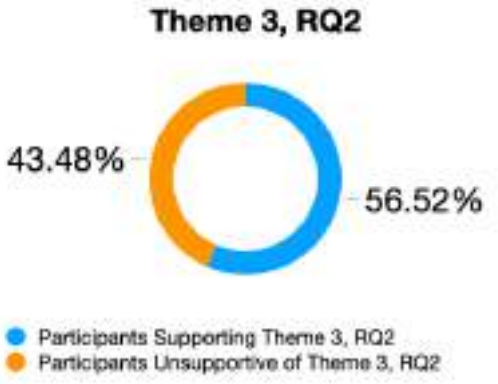

Figure 28: Participants' Contribution to Theme 3, RQ2

Note. Source: Self-developed

4.3.5 Venture Capital Impact on SME Competitiveness

The SME competitive edge is crucial, especially given the high number of businesses in the UK, particularly within the construction sector. Approximately (56.52%) of the qualitative study participants supported this theme, as illustrated in (Figure 29).

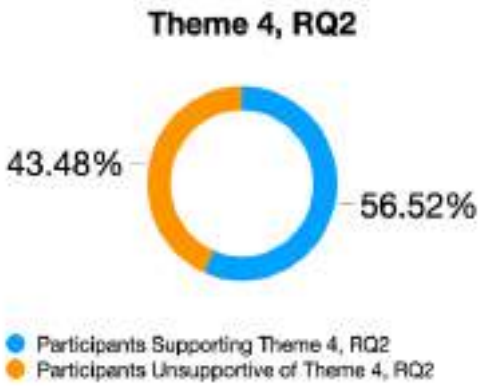

Figure 29: Participants' Contribution to Theme 4, RQ2

Note. Source: Self-developed

The analysis of open-ended survey responses from financial experts highlights the theme of venture capital's impact on SME competitiveness. P1 asserts that VC financing has allowed their SMEs to invest in advanced technologies, which streamline processes, improve communication, and enhance project efficiency. As a result, labour productivity has been optimised, project timelines shortened, and overall operational performance improved. SME competitiveness is further bolstered through the development of skilled personnel. VC funds have facilitated essential skills and knowledge training, enhancing labour productivity. This training covers project management, safety protocols, specialised techniques, and new tools or equipment usage.

Among the 23 surveyed participants, one respondent noted that VC financing is instrumental in attracting and recruiting specialised talent. Access to VC funds enables SMEs to offer competitive salaries and benefits, making them more appealing to top professionals. Interestingly, many respondents supporting this theme indicated that VC financing enhances SME competitiveness by enabling scalability improvements. P21 explains that VC funding has supported automation efforts that reduce manual tasks, minimise errors, and optimise resource allocation, resulting in increased efficiency and higher labour productivity. Additionally, three respondents mentioned that VC funds facilitate operational scaling through various means, such as adopting newer equipment, which boosts efficiency and performance while reducing downtime. Scaling operations also help SMEs leverage economies of scale, negotiate better deals with suppliers, and optimise resource allocation, further enhancing asset turnover.

P5, P6, P7, P19, P20, and P23 noted that VC financing has enabled construction sector SMEs to achieve improved asset turnover while maintaining a competitive advantage over similar businesses in the UK. P6 and P23 suggested that partnerships formed with the help of VC financing enhance an SME's competitive position. P23 elaborated, “Collaborations in the form of strategic partnerships can also provide access to specialised expertise, enabling SMEs to undertake more complex projects and increase their asset turnover.” Similarly, P6 stated that.

4.3.6 Benefits of Venture Capital on SME Innovativeness and Technology-Readiness

Thematic analysis of the survey responses also unveils the benefit of venture capital on SME innovativeness and technology readiness. Participant responses observed in (Figure 30), supporting the theme, are derived from questions regarding how VC has enhanced SMEs’ technology-readiness and employees’ innovative capabilities, accounting for (47.83%) of responses.

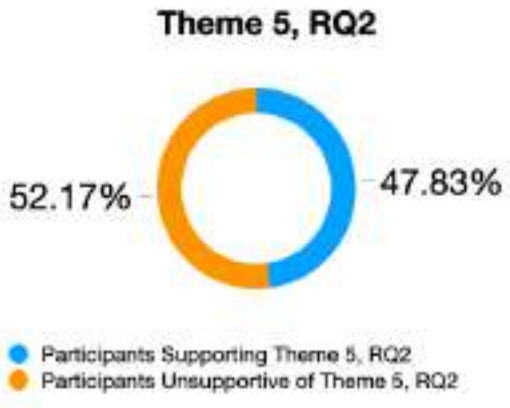

Figure 30: Participants’ Contribution to Theme 5, RQ2

Note. Source: Self-developed

P1 states, “VC investors assess the current technology landscape within the SME to identify areas where technology adoption can make the most significant impact. This assessment involves evaluating existing systems, tools, and processes to pinpoint gaps and opportunities for improvement.” P21 supports this view, adding, “By assessing the existing technology infrastructure, which includes evaluating various technology options, considering their potential impact on the organisation, and establishing clear goals for technology adoption.” P19 and P20 also echo these sentiments. According to P20, “VC funding encourages SMEs to foster a culture of continuous improvement and innovation. They establish mechanisms to gather feedback from employees and stakeholders, encouraging contributions of ideas for technology enhancements.”

Similarly, P20 elaborates that “VC is crucial in supporting construction SMEs' technology readiness. These SMEs implement change management strategies, adapt business processes, and establish policies to ensure successful technology integration. These efforts empower SMEs to embrace technology, enhance competitiveness, and drive innovation within the construction sector.”

P2 explains that the findings from VC financing assessments are used to create a relevant strategy that “outlines the specific technologies to adopt, the required budget, and the implementation timeline. It also considers the potential benefits and risks associated with technology adoption.” The participant adds, “With VC funding, SMEs can establish dedicated R&D departments or collaborate with external research institutions to foster innovation in the construction sector. They can conduct feasibility studies, prototype testing, and explore new methodologies to improve construction processes and techniques.

This focus on R&D cultivates a culture of innovation within the SME and helps them stay ahead of market trends." A comprehensive change management strategy is then developed to ensure smooth technology implementation. P3 notes that this strategy involves raising employee awareness about the benefits of technology adoption, providing training and support to facilitate the transition, and addressing any resistance or concerns through effective communication and engagement. The strategy also includes educational programs to enhance employees' skills and knowledge regarding the effective use of the new technologies. P4 describes these educational programs as "training sessions, workshops, or external resources designed to teach employees about technology operations, software applications, and best practices." The participant further elaborates that the programs can encompass specialised training in Building Information Modelling (BIM), green construction practices, or advanced construction machinery. By investing in employee competencies, SMEs are better positioned to implement and leverage innovative solutions.

VC financing also allows SMEs to integrate new technologies into existing infrastructures and make necessary upgrades. The implementation of these technologies may occur in phases, beginning with pilot tests. P6 states, "SMEs may conduct pilot projects to assess the effectiveness and suitability of new technologies before full-scale implementation. This helps identify potential issues and areas for improvement, allowing for adjustments before wider deployment." P5 adds that "VC funding enables SMEs to invest in infrastructure development, such as upgrading hardware, enhancing network capabilities, and implementing robust cybersecurity measures." Similarly, P20 mentions that "VC financing can assist SMEs in protecting their innovative ideas and technologies

through patent filings and intellectual property development, providing a competitive advantage and encouraging continued investment in innovation."

As a result, SMEs utilise VC funding and expertise to continuously evaluate the technologies they have implemented and assess their benefits to the business. P9 asserts that "SMEs establish mechanisms to continuously monitor the effectiveness of technology implementation and its impact on business processes. Regular evaluations, performance metrics, and feedback loops help pinpoint areas for improvement and refine technology readiness strategies." The technologies adopted through VC financing have yielded numerous benefits for SMEs. P3 outlines one such benefit: VC-backed SMEs often implement process enhancements and embrace innovative approaches to improve operational efficiency. These improvements include streamlining workflows, optimising supply chain management, and adopting lean construction principles. Embracing innovative processes allows SMEs to deliver projects more efficiently, reduce costs, and enhance overall project outcomes.

P5 identifies another advantage stemming from the influence of VC financing on technology adoption, stating, "VC-backed SMEs typically gain access to a broader network and industry connections through their investors. This fosters opportunities for collaboration and partnerships with other innovative companies, research institutions, or technology providers. Such collaborations enable SMEs to leverage external expertise and technologies, promoting innovation within their operations." P6 further reveals that VC financing has helped SMEs foster innovation in the UK construction sector, explaining that this includes "implementing advanced construction management software, digital

collaboration platforms, Internet of Things (IoT) devices for project monitoring, and robotics in construction processes. Adopting these technologies enhances efficiency, accuracy, and project outcomes."

Lastly, P7 shares that SMEs have improved their competitiveness through market differentiation driven by technology adoptions facilitated by VC financing. In the survey responses, P7 states, "VC-backed SMEs often set themselves apart in the market through innovative activities, offering unique solutions, sustainable practices, or advanced technologies. This differentiation attracts customers who value innovation and positions the SME as a leader in the construction sector."

4.3.7 Benefits of Venture Capital on SME Employee Satisfaction, Productivity, and Turnover

The thematic analysis steps also identify the theme of venture capital's benefits on SME employee satisfaction, productivity, and turnover. This theme was identified in the responses from 52.17% (12) of participants to the prompts regarding how VC influences employee-related non-performance metrics (See Figure 31).

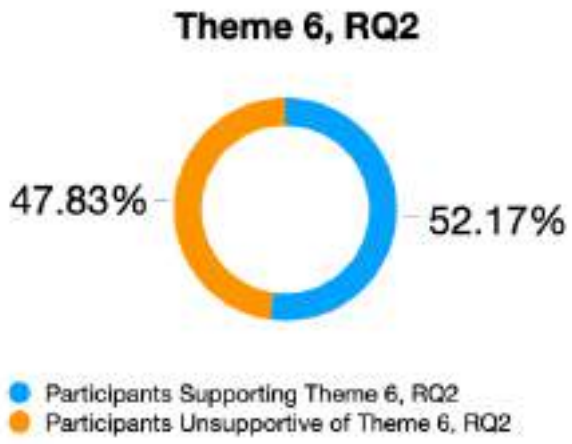

Figure 31: Participants' Contribution to Theme 6, RQ2

Note. Source: Self-developed

A total of 3 respondents (13.04% of all participants) out of the 12 (52.17%) pointed out the essence of VC in terms of employee skills, knowledge, abilities, and, subsequently, satisfaction. One of three (13.04%) suggested that VC funds enable an SME to invest in employee development, training programs, and benefits, proving that they are committed to their employees' growth, well-being, and job satisfaction. P2 emphasised that access to professional development opportunities enriches employees' skills, knowledge, and overall job satisfaction. Moreover, VC financing supports initiatives aimed at employee empowerment by encouraging involvement in decision-making and fostering a culture of transparency and open communication.

P3 and P4 discussed how VC backing allows SMEs to offer competitive compensation packages and professional growth opportunities. P3 mentioned that VC funding enables SMEs to provide attractive compensation packages that include higher salaries, performance-based bonuses, stock options, and other incentives, attracting and retaining top talent. This trend has been particularly noticeable in the construction sector following Brexit, as noted by P13. P4 elaborated that VC funds facilitate career advancement and organisational growth by establishing new positions, merit-based promotions, and leadership development programs, contributing to higher employee satisfaction and lower turnover rates.

However, realising the benefits of VC financing for employees or SMEs largely depends on effective management and a conducive work environment. P8 stressed the importance of leadership, management practices, and the overall work environment in

shaping employee satisfaction and retention. They highlighted the necessity of cultivating a supportive and engaging workplace culture to unlock the full potential advantages of VC funding.

The impact of VC financing on employee productivity and performance was also evident in the responses. Participant P1 pointed out that VC funding enables SMEs to invest in training and development programs, significantly enhancing productivity and performance. P2 added that VC investors bring valuable industry experience and expertise, offering guidance, mentorship, and sharing best practices, which align employees' efforts with common objectives. P17 and P18 supported this by asserting that VC funding typically comes with specific growth targets and milestones, clarifying goals and expectations to enhance employee focus and efficiency, ultimately improving performance.

Furthermore, P18 suggested that VC financing promotes accountability and performance tracking through regular reporting and monitoring of key performance indicators (KPIs), fostering a culture of transparency and encouraging employees to meet or exceed their targets. However, P18 and P19 noted potential challenges, such as rapid shifts in strategy or organisational culture due to VC intervention, which could negatively impact employee satisfaction and performance.

P3 echoed the views of P1 and P2, affirming that VC financing enables SMEs to invest in advanced technologies, software, and tools that streamline processes and enhance productivity. This includes project management software, collaboration platforms, and digital communication and data management solutions. Providing employees with these resources can significantly boost their productivity and operational efficiency.

Additionally, as P4 explained, VC financing helps alleviate delays and bottlenecks in SME operations. With increased financial resources, VC-backed SMEs can pursue process optimisation initiatives that involve identifying and eliminating inefficiencies, refining workflows, and streamlining operations. By optimising processes, SMEs can enhance employee productivity and performance by minimising time wastage and improving overall efficiency.

Moreover, venture capitalists help establish competitive incentives and compensation packages for SMEs, as noted by P6. VC funding allows SMEs to attract and retain top talent by providing competitive remuneration and growth opportunities. As highlighted by P5, recruiting and retaining skilled, motivated employees positively influences the organisation's overall performance and productivity.

VC financing also empowers SMEs to implement performance-based incentive programs, as stated by P5. These incentives can be tailored to individual, team, or organization-wide goals. By linking performance to rewards, VC-backed SMEs can motivate employees to perform at their best, increasing productivity and overall performance.

However, P7 and P8 presented a different perspective on the impact of VC on employee productivity. They argued that VC investors often provide strategic direction that aligns the organisation's goals with employee performance. This alignment ensures employees understand the company's mission and objectives, increasing their motivation, focus, and productivity. P8 further corroborated this, noting that VC-backed SMEs commonly implement performance measurement systems to monitor and evaluate

employee productivity. These systems provide regular feedback, identify areas for improvement, and recognise high-performing employees, promoting accountability and potentially enhancing overall productivity.

Nonetheless, some respondents, including P18 and P19, expressed concerns that venture capitalists might impede employee productivity and performance. P18 noted that "VC-backed organisations may experience rapid changes in strategies, business models, or leadership, which can create a sense of uncertainty and instability among employees, affecting their job satisfaction and potentially increasing turnover rates." P19 emphasised that "In certain situations, VC financing can lead to shifts in organisational culture or management style. This can create conflicts between the established company culture and the expectations of VC investors, resulting in a misalignment of values and working approaches that negatively affect employee satisfaction and exacerbate turnover."

4.3.8 Venture Capital's Impact on SME Customers

The analysis of responses also sheds light on the theme of venture capital's influence on SME customers. According to (Figure 32), a significant majority of surveyed participants, comprising 15 individuals (65.22%), align with the theme identified from the analysis about the question posed regarding the role of VC in the customer base of SMEs operating in the construction sector in the UK.

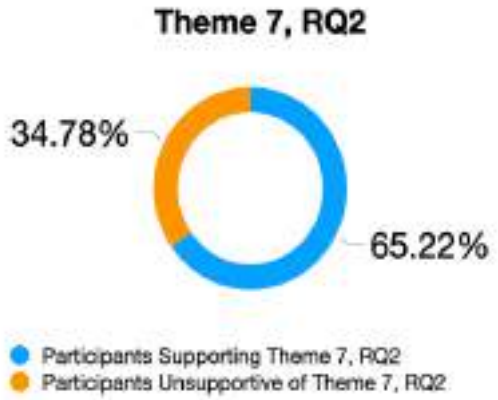

Figure 32: Participants' Contribution to Theme 7, RQ2

Note. Source: Self-developed

65.22% of respondents affirmed that venture capitalists have facilitated their exploration of avenues for expansion within the construction sector, consequently broadening their customer base. Nonetheless, as depicted in (Figure 33), respondents offered diverse explanations regarding how venture capitalists have contributed to these advancements.

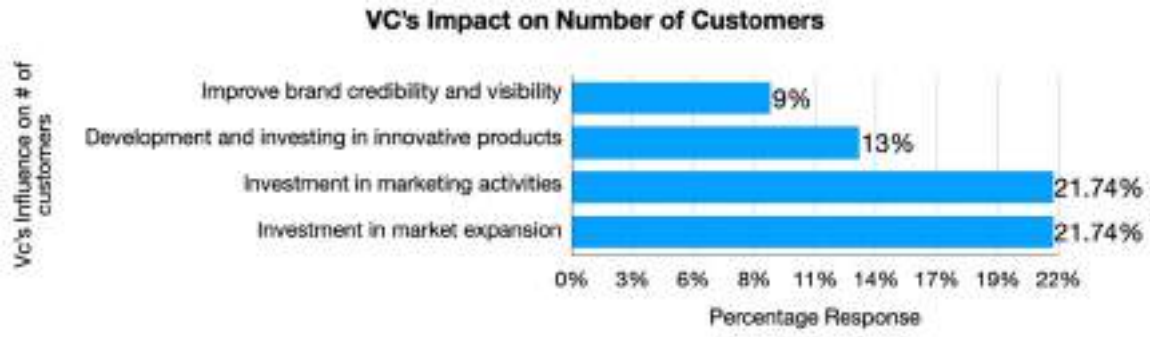

Figure 33: Impact of VCs on Number of Customers

Note. Source: Self-developed

Among the 15 respondents who endorsed the theme (21.74%, 5 participants), they indicated that venture capitalists have contributed to expanding their customer base by

facilitating investments in marketing activities. For example, respondent P2 noted that a VC-backed SME can allocate resources toward sales and marketing efforts, such as marketing campaigns, improving online presence, attending industry events, and targeted advertising, to enhance customer acquisition. Similarly, another participant, P19, expressed that venture capital financing allows SMEs to improve customer service through staff training and implementing customer relationship management (CRM) systems, leading to better support and more personalised customer experiences. These initiatives are essential as they increase customer satisfaction, promote repeat business, and generate positive referrals, ultimately attracting additional customers.

Venture capitalists have also played a key role in guiding SMEs as they expand into new markets, contributing to an increased customer base, as noted by 21.74% (5 participants) of the respondents. P18 emphasised that VC-backed SMEs can establish strategic partnerships and collaborations with other businesses, resulting in joint marketing efforts, cross-selling opportunities, and shared customer networks. By leveraging these collaborations, SMEs can access new customer bases and extend their market reach. Furthermore, P1 noted that VC funding empowers SMEs to invest in initiatives aimed at market expansion, such as targeting new customer segments, entering different geographical areas, and exploring untapped opportunities. Expanding their market reach allows SMEs to attract a more comprehensive array of customers and serve a more extensive clientele.

Interestingly, (13% of 3 participants) indicated that VCs had facilitated customer growth by providing funding for developing and implementing innovative solutions within

construction SMEs. For instance, P15 highlighted that VC-backed SMEs can invest in product development and innovation, which enables them to offer unique, differentiated solutions to their customers. By rolling out innovative products or services, these SMEs can attract more customers seeking new and improved offerings. Additionally, VC funding supports research and development, allowing SMEs to adapt to evolving customer demands and maintain a competitive advantage. Only 9% (2 participants) noted that VCs have helped construction SMEs enhance their brand visibility and credibility, leading to customer growth. One participant among these 2 suggested that being linked to a reputable venture capital investor or firm can improve the SME's brand image, consequently attracting customers who appreciate the credibility and endorsement associated with VC-backed enterprises.

4.3.9 Venture Capitalists' Role in SME Inventories and Overall Sustainability

Analysis of the open-ended survey responses further illuminates the theme of venture capitalists' impact on SME inventories and overall sustainability. Observing (Figure 34), less than half of the participants (43.48%) supported this theme.

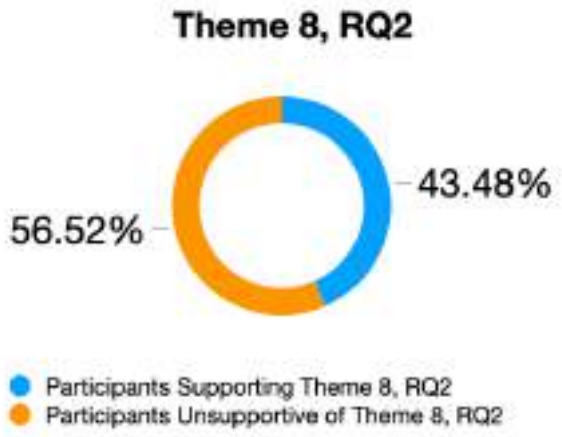

Figure 34: Participants' Contribution to Theme 8, RQ2

Note. Source: Self-developed

This theme encompasses the participants' insights regarding the influence of venture capitalists on inventory management and the overall sustainability of performance metrics in construction SMEs. The analysed survey responses reveal that Participant 1 emphasises how VC funding allows SME owners to optimise procurement processes and establish robust supply chain management systems. As a result, they can negotiate favourable terms with suppliers, secure bulk orders, and maintain adequate inventory levels to meet project demands. Additionally, VC financing empowers SMEs to implement effective inventory management systems and technologies. Participant 2 elaborates that with VC funding, SME owners can invest in inventory management technologies that enable real-time inventory tracking, automated replenishment processes, and precise forecasting. Similarly, Participant 20 observes that enhanced access to capital and efficient inventory management practices allow SMEs to ensure the availability of necessary materials and equipment when required. Furthermore, Participant 21 highlights that effective inventory management supported by VC financing increases profitability by reducing waste and enhancing cost savings in the construction sector.

The advantages of VC financing in inventory management also stem from venture capitalists' influence on project planning and scheduling capabilities. Participant 6 agrees that with VC backing, SME owners can invest in quality control, employee training, and

improved construction processes, thereby minimising waste and reducing the need for additional materials and inventory.

SMEs have achieved sustainability through several benefits derived from VC financing, as articulated by Participants 10 and 14. Participant 10 asserts that the performance improvements enabled by VC funding enhance the financial stability of SMEs within the construction sector, allowing them to navigate economic downturns, manage cash flow effectively, and invest in long-term sustainability initiatives. However, Participant 1 presents a contrasting view, suggesting that the impact may be limited, as aggregation can make firms less susceptible to insolvency from a single poor job while diluting risk. VC financing contributes further to sustainability by enabling long-term planning and enhancing SME performance. Participant 19 believes that performance improvements encourage SMEs to adopt a long-term perspective and engage in strategic planning. At the same time, Participant 20 emphasises that these improvements foster financial stability, competitive advantage, customer loyalty, employee retention, environmental responsibility, and long-term planning.

Moreover, VC financing has been shown to enhance SMEs' capacity to promote environmental sustainability, as explained by Participant 6. Additionally, venture capital supports organisational sustainability through strategic partnerships and employee development programs, as identified by Participants 7 and 9. These collaborations create synergies that reduce costs, foster innovation, and improve employee engagement and retention.

Participant 10 suggests that the overall sustainability of construction SMEs in the UK has been bolstered by the impact of VC financing on both financial and non-financial performance metrics. Performance enhancements facilitated by VC funding contribute to sustainability by improving economic stability, market competitiveness, operational efficiency, customer satisfaction, environmental sustainability, employee engagement, long-term growth, and strategic collaborations.

The findings in this theme support the first alternative hypothesis (H1), which posits that venture capital positively affects SMEs' financial and non-financial performance metrics, as illustrated in (Figure 35). This alternative hypothesis was accepted because the results confirmed that venture capital positively impacts these performance measures. The qualitative findings indicated that investments made by venture capitalists in UK construction SMEs enhance their financial and non-financial performance metrics. Consequently, the null hypothesis ($H1_0$) was rejected, as the assertion that venture capital negatively impacts SMEs' financial and non-financial performance was proven false

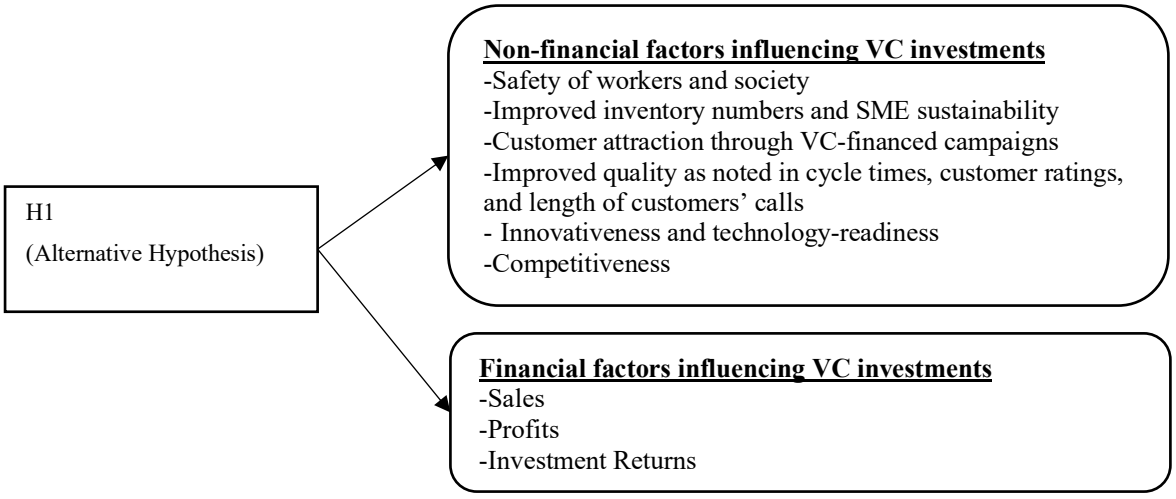

Figure 35: Relation of Qualitative Findings In Research Question 1 to H1 (Alternative Hypothesis)

Note. Source: Self-developed

4.4 Quantitative Results

The quantitative data aimed to address the second research question, which sought to determine the impact of VC investment on the financial and non-financial performance metrics of existing and emerging SMEs in the construction sector.

4.4.1 Demographic Analysis

The gender demographic results, according to (Figure 36) below, reveal that males constituted (82.7%) of the sample population, with females comprising (17.3%). These findings suggest a notable gender disparity, indicating that most financial experts in UK SMEs are male.

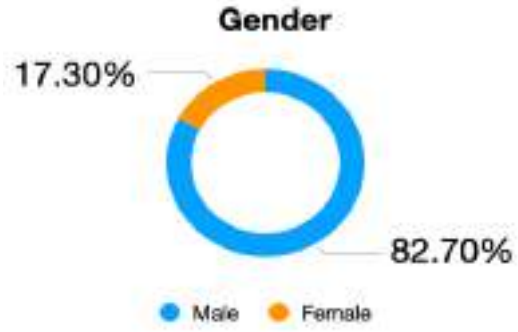

Figure 36: Gender

Note. Source: Self-developed

According to (Figure 37), the results illustrate the participants' age distribution in the study's quantitative segment. The majority (73.8%) fell within the 30-40 age bracket,

while 10.9% (27) were between 50 and 60. Participants aged between 20 and 30 constituted (5.6%) of the sample, while those aged 40-50 comprised (8.9%). Additionally, (8%) of participants were above 60 years old. These findings suggest that the predominant age group among financial experts in UK SMEs is in their thirties.

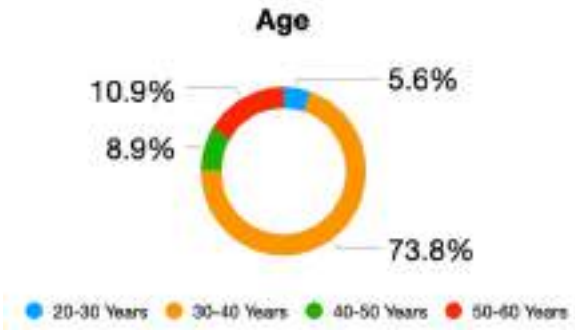

Figure 37: Age

Note. Source: Self-developed

As depicted in (Figure 38) below, most participants (53.6%) hold a Bachelor's degree, followed by (23.8%) who have obtained a Master's degree. Those with a diploma and a PhD represented (15.7%) and (6.9%) of the total participants, respectively.

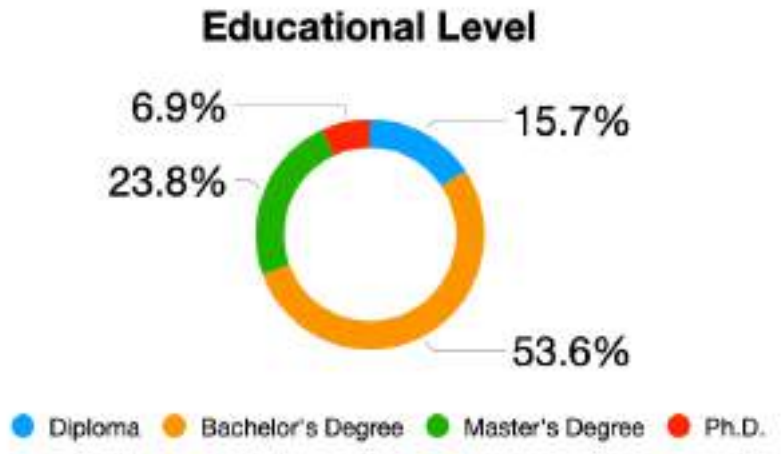

Figure 38: Educational Level

Note. Source: Self-developed

Observing (Figure 39) illustrates the years of experience participants had in the UK's construction sector. According to the study findings, the majority (79.4%) had over five years of experience working as financial experts in the UK's construction sector. The remaining (20.6%) had five years of work experience.

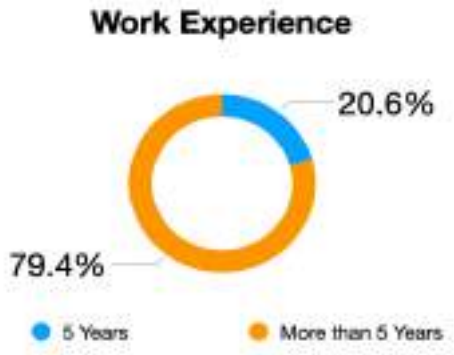

Figure 39: Work Experience

Note. Source: Self-developed

4.4.2 Frequency and Percentage of Key Variables

4.4.2.1 Venture Capital

Table 5: Frequency and Percentages of Venture Capital Responses.

Venture Capital					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	1	.4	.4	.4
	22	1	.4	.4	.8
	23	2	.8	.8	1.6
	24	4	1.6	1.6	3.2
	25	20	8.1	8.1	11.3
	26	60	24.2	24.2	35.5
	27	81	32.7	32.7	68.1
	28	54	21.8	21.8	89.9
	29	23	9.3	9.3	99.2
	30	2	.8	.8	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentage. Source: Self-developed

From the table above, six-question responses yielded a score between 20 and 30. A score of 20, 22, 23, 24, 25, 26, 27, 28, 29 and 30 had one, one, two, four, 20, 60, 81, 54, 23, and two responses, respectively. This implies that a total score of 20, 22, 23, 24, 25, 26, 27, 28, 29 and 30 represented 0.4 percent, 0.4 percent, 0.8 percent, 1.6 percent, 8.1 percent, 24.2 percent, 32.7 percent, 21.8 percent, 9.3 percent, and 0.8 percent of the total participants' responses, respectively. Further, most of the participant's responses (n=81, 32.7%) had a total score of 27, averaging 4.5 per question. This means that most participants agreed that venture capital provides funding to new and highly risky start-ups; venture capital is a precursor for SME's growth, employment generation, and global

technological development; venture capital fosters the development and sustainable growth of new enterprises; venture capital comprises financing targeting development and business expansion in start-ups; and venture capital falls under private equities.

4.4.2.2 Investment returns

Table 6: Frequency and Percentage of Investment Return Responses

Investment returns					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	24	1	.4	.4	.4
	25	15	6.0	6.0	6.5
	26	45	18.1	18.1	24.6
	27	66	26.6	26.6	51.2
	28	70	28.2	28.2	79.4
	29	43	17.3	17.3	96.8
	30	8	3.2	3.2	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentage. Source: Self-developed

Referring to the Table above, the total score of responses from six questions were 24, 25, 26, 27, 28, 29, and 30. In terms of percentage, 0.4 per cent, 6 per cent, 18.1 per cent, 26.6 per cent, 28.2 per cent, 17.3 per cent and 3.2 per cent represented a total score of 24, 25, 26, 27, 28, 29, and 30 of the total responses, respectively. This implies that most of the participants' responses had a total score of 28 (*n=70, 28.2%*). Further, it means that, on average, a score of 4.67 is given as a response per question. This means that most participants agreed that VC financing positively influences the growth of VC-backed firms; start-up firms that receive venture capital tend to achieve higher valuations in the long run, start-up firms backed by venture capital are more likely to achieve higher returns; a venture capitalist's financial investment in a business will yield returns; and VC financing

facilitates technology adoption, operational efficiency, access to expertise and strategic guidance.

4.4.2.3 Sales Revenue

Table 7: Frequency and Percentage of Sales Revenue Responses

Sales revenue					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23	1	.4	.4	.4
	24	45	18.1	18.1	18.5
	25	76	30.6	30.6	49.2
	26	62	25.0	25.0	74.2
	27	49	19.8	19.8	94.0
	28	13	5.2	5.2	99.2
	29	2	.8	.8	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentages. Source: self-developed

Based on the Table above, a total score of 23, 24, 25, 26, 27, 28, and 29 was obtained from the responses to six sales revenue questions. The total scores of 23, 24, 25, 26, 27, 28, and 29 represented 0.4 percent, 18.1 percent, 30.6 percent, 25 percent, 19.8 percent, 5.2 percent, and 0.8 percent of the total participants' responses, respectively. This implies that most participants' responses scored 25 while the minority had 23. This means that, on average, most of the responses had a score of four per question. A score of four means that the participants agreed that venture capitalists provide funding to new and highly risky start-ups or innovations that create new pathways for revenue that foster the economy; venture capital-supported SMEs have higher sales volume, which increases revenue; venture capital-backed firms have higher income than non-venture capital-backed firms; venture capitalists provide a new business with funding, hence increasing its

revenue; venture capital financing enables SMESs to invest in strong brands and positive reputations that attract more customers, command premium pricing, and increase sales, ultimately leading to higher profits and improved turnover on investments; and SME owners get opportunities to enhance their turnover on investments through VC financing, which facilitates technology adoption, operational efficiencies, access to expertise and strategic guidance.

4.4.2.4 Profit Margin

Table 8: Frequency and Percentage of Profit Margin Responses

Profit Margin					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30	1	.4	.4	.4
	32	2	.8	.8	1.2
	33	32	12.9	12.9	14.1
	34	64	25.8	25.8	39.9
	35	80	32.3	32.3	72.2
	36	52	21.0	21.0	93.1
	37	11	4.4	4.4	97.6
	38	4	1.6	1.6	99.2
	39	2	.8	.8	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentages. Source: Self-developed

According to the Table above, the total score of the eight question responses related to profit margin were 30, 32, 33, 34, 35, 36, 37, 38, and 39. Also, 0.4 percent, 0.8 percent, 12.9 percent, 25.8 percent, 32.3 percent, 21 percent, 4.4 percent, 1.6 percent, and 0.8 percent of the total responses had a total score of 30, 32, 33, 34, 35, 36, 37, 38, and 39, respectively. Further, most participants had a total score of 35 from their responses (*n=80,*

32.3%). This implies that the average score was 4.375, which means that participants agreed that a venture capitalist's investment in an SME enables it to obtain higher profits; firms that offer venture capital financing to firms collaborate to create institutions that create a portfolio for the potentially profitable start-ups that they can finance; start-up firms backed by venture capital are more likely to achieve higher profits compared to those without such funding; the increased financial resources from venture capital financing enable SMEs to seize market opportunities and generate higher revenues, leading to increased profitability; with an increase in finances, SMEs can effectively leverage the benefits of technologies that are essential for such enterprises in the construction sector; and the technologies have enabled business owners to enhance their productivity, among others.

4.4.2.5 Quality

Table 9*:* Frequency and Percentages of Quality Responses

Quality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25	1	.4	.4	.4
	26	22	8.9	8.9	9.3
	27	26	10.5	10.5	19.8
	28	60	24.2	24.2	44.0
	29	78	31.5	31.5	75.4
	30	40	16.1	16.1	91.5
	31	14	5.6	5.6	97.2
	32	5	2.0	2.0	99.2
	33	1	.4	.4	99.6
	34	1	.4	.4	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentages. Source: self-developed

Based on the table above, the total scores of responses to seven questions were 25, 26, 27, 28, 29, 31, 32, 33, and 34. In terms of percentage, 0.4 percent, 8.9 percent, 10.5 percent, 24.2 percent, 31.5 percent, 16.1 percent, 5.6 percent, 2.0 percent, 0.4 percent and 0.4 percent represented a total score of 25, 26, 27, 28, 29, 31, 32, 33 and 34 of the total responses, respectively. This implies that most participants' responses had a total score of 29 (*n=78, 31.5%*). Further, it means that, on average, a score of 4.14 is given as a response per question. This means that most participants agreed that venture capital financing supports the construction sector SMEs in effectively researching and successfully implementing approaches; venture capital-backed SMEs often focus on investing in efficient workflows, standardised procedures, and quality management systems; venture capital financing creates chances for SMEs to train their employees; venture capital financing enables the owners of construction sector SMEs to purchase and implement essential resources and equipment; and venture capital financing contributes to the adoption of process optimisation approaches and tools that lower cycle times, among others.

4.4.2.6 Safety

Table 10: Frequency and Percentages of Safety Responses

Safety					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	2	.8	.8	.8
	18	3	1.2	1.2	2.0
	19	21	8.5	8.5	10.5
	20	103	41.5	41.5	52.0
	21	82	33.1	33.1	85.1
	22	22	8.9	8.9	94.0
	23	15	6.0	6.0	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentages. Self-developed

According to the Table above, the total scores of safety responses were 17, 18, 19, 20, 21, 22, and 23, which represent 0.8 per cent, 1.2 per cent, 8.5 per cent, 41.5 per cent, 33.1 per cent, 8.9 per cent, and 6.0 per cent of the participant's responses. Most participants' responses had a total score of 20 from five questions. This means that the average score is 4, implying that most participants agreed that when SMEs in the construction sector receive venture capital, they can prioritise the well-being of their employees; venture capital financing indirectly contributes to improved workplace safety; venture capital financing allows SMEs to allocate resources to implement safety protocols, purchase safety equipment, and maintain a safe working environment; venture capital financing enables SME owners to create and implement safety programs in their businesses; and venture capital financing enables SMEs to adopt advanced technologies that can enhance safety in the workplace.

4.4.2.7 Competitiveness

Table 11: Frequency and Percentage of Competitive Responses

Competitiveness					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16	1	.4	.4	.4
	18	1	.4	.4	.8
	19	13	5.2	5.2	6.0
	20	54	21.8	21.8	27.8
	21	71	28.6	28.6	56.5
	22	62	25.0	25.0	81.5
	23	37	14.9	14.9	96.4
	24	8	3.2	3.2	99.6
	25	1	.4	.4	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentage. Source: self-developed

Based on the Table above, the total score of responses from five questions were 16, 18, 19, 20, 21, 22, 23, 24, and 25. With regards to percentage, 0.4 percent, 0.4 percent, 5.2 percent, 21.8 percent, 28.6 percent, 25.0 percent, 14.9 percent, 3.2 percent, and 0.4 percent represented a total score of 16, 18, 19, 20, 21, 22, 23, 24, and 25 of the total responses, respectively. This implies that most participants' responses had a total score of 21 (*n=71, 28.6%*). Moreover, it means that, on average, a score of 4.2 is given as a response per question. This means that most participants agreed that SME owners have venture capital financing to enhance their competitiveness by hiring more skilled personnel than their competitors; venture capital financing is used to attract and recruit specialised talents; venture capital financing enhances the competitiveness of SMEs by enabling them to improve their scalability; venture capital financing allows construction sector SMEs to attain enhanced asset turnover while maintaining a competitive advantage over other similar businesses; and venture capital financing will enable SMEs to engage in research and development, revealing market opportunities which they leverage and increase their turnover and competitiveness.

4.4.2.8 Technological Innovativeness

Total scores of 21, 22, 23, 24, 25, 26, 27, and 28 were obtained from the responses to six sales revenue questions, as indicated in the table below. The total scores of 21, 22, 23, 24, 25, 26, 27, and 28 represented 1.6 percent, 5.2 percent, 11.7 percent, 23.0 percent, 25.8 percent, 20.6 percent, 10.1 percent, and 2.0 percent of the total participants' responses, respectively. This implies that most participants' responses scored 25 while the minority had 21.

Table 12: Frequency and Percentage of Technological Innovativeness Responses

Technological Innovativeness					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21	4	1.6	1.6	1.6
	22	13	5.2	5.2	6.9
	23	29	11.7	11.7	18.5
	24	57	23.0	23.0	41.5
	25	64	25.8	25.8	67.3
	26	51	20.6	20.6	87.9
	27	25	10.1	10.1	98.0
	28	5	2.0	2.0	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentage. Source: self-developed

This means that, on average, most responses scored 4.17 per question. A score of 4.17 means that the participants agreed that SMEs have developed processes that address customer needs more competitively and profitably than existing ones; SMEs have developed new equipment that addresses customer needs more profitably and competitively compared to the existing ones; there are modifications in the SMESs' practices that are intended to obtain a performance improvement; venture capital financing provides emerging SMEs with the necessary financial resources to invest in research and development (R&D), prototype development, and innovation initiatives; venture capital financing assessment findings are used to develop a relevant plan that outlines the specific technologies to be adopted, the budget required, and the timeline for implementation; and venture capital financing enables SMEs to foster innovation in the construction sector in the UK.

4.4.2.9 Employee Satisfaction, Productivity, and Turnover (Employee SPT)

Table 13: Frequency and Percentage of Employee SPT Responses

Employee SPT					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	12	4.8	4.8	4.8
	19	29	11.7	11.7	16.5
	20	45	18.1	18.1	34.7
	21	61	24.6	24.6	59.3
	22	52	21.0	21.0	80.2
	23	34	13.7	13.7	94.0
	24	13	5.2	5.2	99.2
	25	2	.8	.8	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentage. Source: self-developed

According to the Table above, the total scores of Employee SPT responses were 18, 19, 20, 21, 22, 23, and 24. The 18, 19, 20, 21, 22, 23, and 24 totalled 4.8 per cent, 11.7 per cent, 18.1 per cent, 24.6 per cent, 21 per cent, 13.7 per cent, 5.2 per cent, and 0.8 per cent of the total participants' responses, respectively. This means most participants had a total score of 21, and the minority scored 25. This implies that the average response of the majority responses was 4.2, meaning they "agree". Further, it indicates that they agreed that venture capital financing provides SMEs with additional financial resources used to invest in employee development training programs and benefits; venture capital financing enables SMEs to provide their employees with competitive compensation packages and opportunities for professional growth; venture capital financing positively impacts business cultures, resulting in improved satisfaction and productivity and reduced turnover rates; venture capital financing enables enterprises to mitigate delays or bottlenecks during SME

operations, improving employee productivity; and venture capital financing provides strategic direction and aligns the organisation's goals with employee performance.

4.4.2.10 Inventories and Overall Sustainability (IOS)

Table 14: Frequency and Percentage of IOS Responses

IOS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23	1	.4	.4	.4
	24	7	2.8	2.8	3.2
	25	37	14.9	14.9	18.1
	26	79	31.9	31.9	50.0
	27	59	23.8	23.8	73.8
	28	52	21.0	21.0	94.8
	29	10	4.0	4.0	98.8
	30	3	1.2	1.2	100.0
	Total	248	100.0	100.0	

Note. Frequency and Percentage. Source: self-developed

From the table above, six-question responses relating to IOS resulted in a total score between 20 and 30. Total scores of 23, 24, 25, 26, 27, 28, 29 and 30 had one, seven, 37, 79, 59, 52, 10, and three responses, respectively. This implies that a total score of 23, 24, 25, 26, 27, 28, 29 and 30 represented 0.4 percent, 2.8 percent, 14.9 percent, 31.9 percent, 23.8 percent, 21.0 percent, 4.0 percent, and 1.2 percent of the total participants' responses, respectively. Further, most of the participants' responses (*n=79, 31.9%*) had a total score of 26, averaging 4.33 per question. This means that most participants agreed that: venture capital financing enables SMEs to implement appropriate inventory management systems and technologies; venture capital financing facilitates project planning and scheduling abilities; venture financing enables SMEs to adopt just-in-time (JIT) inventory practices and activities; venture capital financing positively impacts the financial sustainability of

SMEs; venture capitalists guide SMEs in fostering their sustainability by guiding them on how to streamline their operations effectively; and venture capital financing enables SMEs to enhance organisational sustainability through strategic partnerships and employee improvement programs.

4.4.3 Descriptive Statistics

The means and standard deviations for all study variables, including VC, investment returns, sales revenue, profit margin, quality, safety, competitiveness, technological innovativeness, employee satisfaction, productivity, turnover, inventories, and overall sustainability, are presented in Table 15 below. The researcher calculated the mean values by averaging the scores of the questionnaire items. According to Mahmood and Rahman (2007), a mean score of 4.21 and above is considered "very high," while a mean score ranging between 3.41 and 4.20 is considered "high." A mean score of 3.41 and below is considered "moderate."

The overall means of the study variables ranged from 20.56 to 34.82, with safety having a mean of 20.56 and profit margin having a mean of 34.82. The standard deviation values for the study variables are also provided below.

Table 15: Descriptive Statistics

	Mean	Std. Deviation
Venture Capital	26.9	1.34
Investment returns	27.41	1.25
Sales revenue	25.65	1.195
Profit margin	34.82	1.258
Quality	28.64	1.461
Safety	20.56	1.063
Competitiveness	21.31	1.296
Technological Innovativeness	24.78	1.476
Employee SPT	21.11	1.562
IOS	26.61	1.252

Note. Source: self-developed

4.4.4 Reliability Test

Reliability refers to the consistency and accuracy of test scores. The reliability of the questionnaire was assessed using Cronbach's alpha test, which measures internal consistency. Table 16 below presents the reliability test results for all the explanatory and dependent variables. According to George and Mallery (2003), a coefficient >.9 is excellent, >.8 is good, .7 is acceptable, >.6 is questionable, >.5 is poor, and <.5 is unacceptable. The results indicate that the variables' reliability was excellent, with a coefficient of .093. Therefore, the data collection tool was reliable, and the data can be used for inferential analysis.

Table 16*:* Reliability Test for all Variables

Cronbach's Alpha	N of Items
.093	10

Note. Source: self-developed

4.4.5 Inferential Statistics

4.4.5.1 Simple Linear Regression Assumption Tests

A series of assumption tests, including normality, multicollinearity, and homoscedasticity tests, were conducted before regression analysis to determine the effect of VC investment on the financial and non-financial performance metrics of existing and emerging SMEs. These tests were undertaken to validate the data and ensure its suitability for inferential analysis. The results of these tests are presented below.

4.4.5.2 Normality Test

A normality test was conducted to assess whether the characteristics of the population followed a typical distribution pattern. To ensure accurate predictions about the population, a sample representative of the actual population must exhibit a distribution pattern similar to that of the population. This guarantees that the characteristics of the population are well-represented in the sample and that the sample closely mirrors the population's mean. A histogram was plotted using the respondents' data to evaluate the normality of the data. The resulting distribution appeared symmetrical, as depicted in (Figure 40). This suggests that the data was drawn from a symmetric or normal distribution

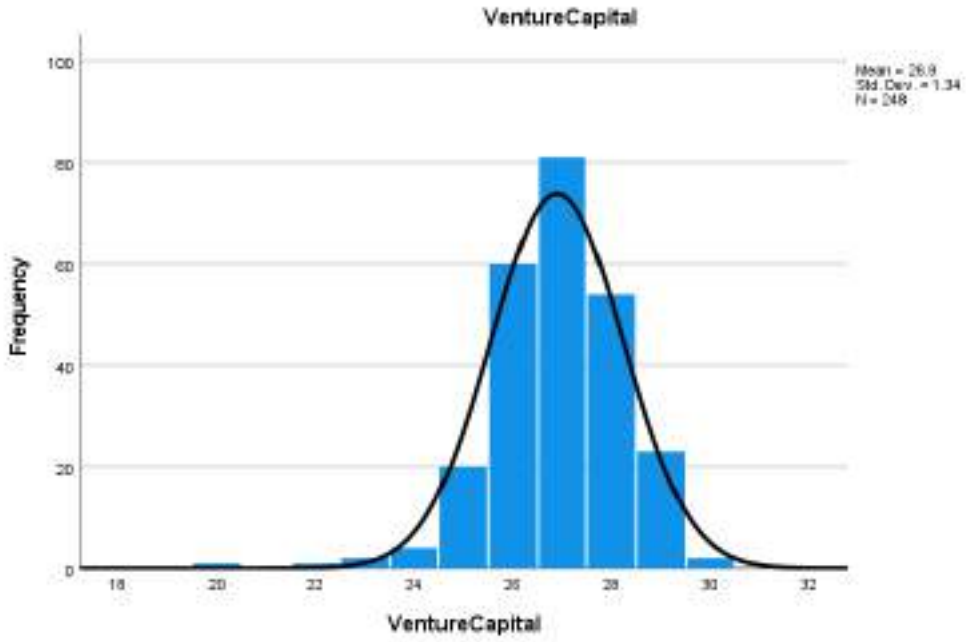

Figure 40: Normality Test

Note. Source: self-developed

The P-P plot further confirmed the data's standard distribution, as indicated by the data points aligning closely with the normality line. As depicted in (Figure 41) below, the absence of significant deviations from this line led to the assumption of normality.

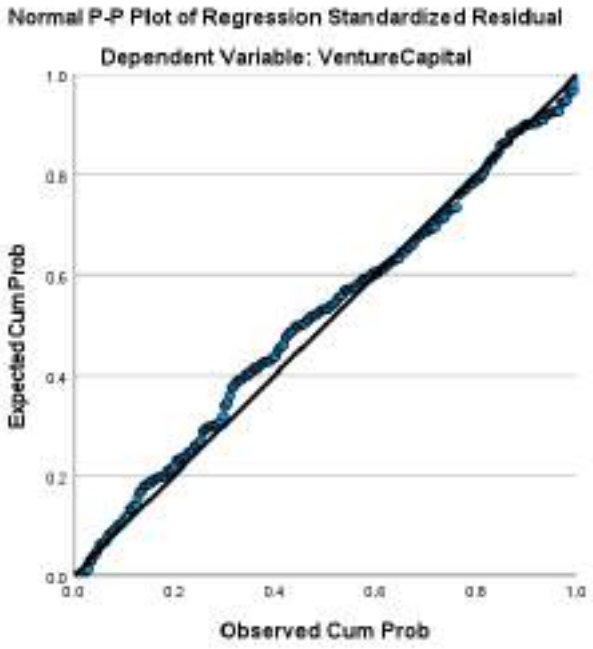

Figure 41: Standard P-P Plot of Regression Standardised Residual

Note. Source: self-developed

4.4.5.3 Multicollinearity

Multicollinearity refers to the extent of correlation among independent variables within an analysis. It denotes the degree to which another can predict one variable. This issue arises when explanatory variables are closely interrelated, reducing predictive accuracy (Hair et al., 2010). Collinearity statistics, such as the Variance Inflation Factor (VIF) and tolerance values, assess multicollinearity within the dataset. Tolerance values typically range between 0 and 1, with a VIF close to 1 indicating minimal or no multicollinearity. Ideally, VIF values should not surpass 10, while tolerance values should not fall below 0.10 (Hair et al., 2010). The calculation of VIF and tolerance values was undertaken to evaluate multicollinearity. As illustrated in (Table 17) below, the results suggest that the explanatory variables in the dataset exhibit low levels of correlation.

Table 17: Multicollinearity

Model		Tolerance	VIF
	Investment returns	0.959	1.043
	Sales revenue	0.919	1.088
	Profit margin	0.919	1.089
	Quality	0.966	1.035
	Safety	0.947	1.055
	Competitiveness	0.914	1.094
	Technological Innovativeness	0.928	1.078
	Employee SPT	0.867	1.153
	IOS	0.908	1.101
a Dependent Variable: Venture Capital			

Note. Source: self-developed

4.4.5.4 Homoscedasticity Test

Homoscedasticity Test: Homoscedasticity refers to a dataset's even distribution of residuals. When homoscedastic data demonstrates a random dispersion, while non-homoscedastic data exhibits a cone-shaped pattern, the homoscedastic assumption is typically verified by plotting a scatter plot of predicted residuals against their corresponding values. This study generated a scatter plot to emphasise the data's pattern. As depicted in (Figure 42) below, the absence of any discernible pattern indicates that values are uniformly dispersed throughout the plot area. This confirms that the data seems to be from a Homoscedastic population with constant variance.

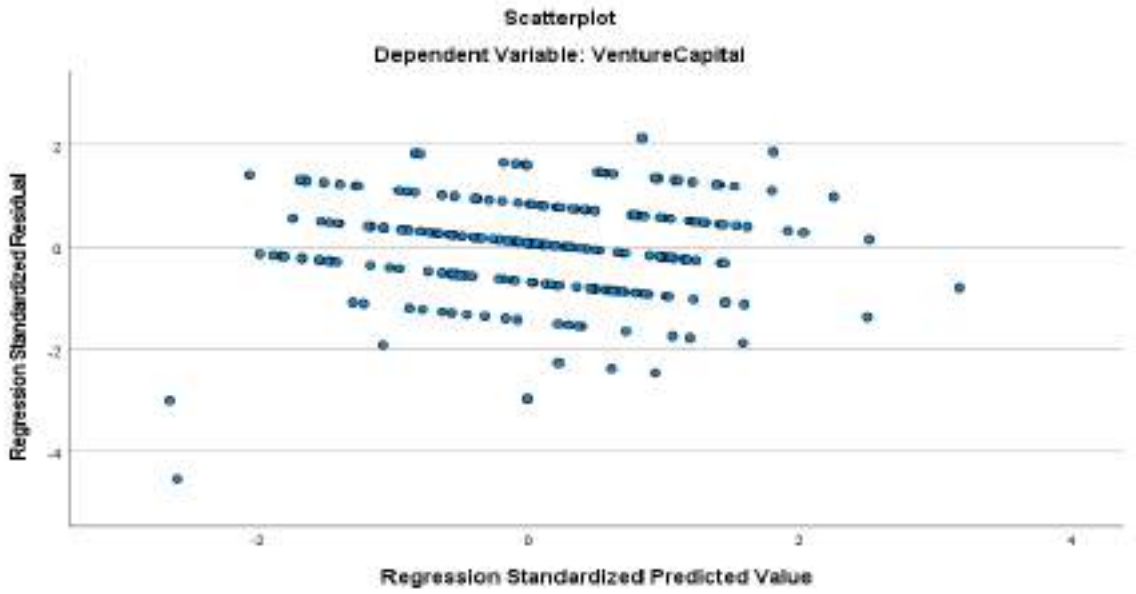

Figure 42: Homoscedasticity Test

Note. Source: self-developed

Homoscedasticity Test: The multivariate assumption tests indicated that the collected data is statistically suitable for the study. Consequently, inferential analysis was employed to investigate the relationships between the study variables. Initially, correlation analysis was conducted, and the results are detailed below.

4.4.6 Correlation Analysis

(Before regression analysis, the researcher conducted correlation analysis to ascertain the statistical significance of the relationship between the dependent and independent variables. Correlation analysis was performed for each independent and dependent variable (venture capital).

4.4.6.1 Investment Returns and Venture Capital

The researcher conducted a Pearson correlation test to investigate the association between venture capital and investment returns within the UK's Construction sector SMEs. The results reveal an insignificant relationship between these variables, as depicted in (Table 18) below. The correlation coefficient (B=0.043, p=0.503) is greater than 0.05, indicating a lack of statistically significant correlation.

Table 18: Investment Returns and Venture Capital

		Venture Capital	**Investment Returns**
Venture Capital	Pearson Correlation	1	0.043
	Sig. (2-tailed)		0.503
	N	248	248
Investment Returns	Pearson Correlation	0.043	1
	Sig. (2-tailed)	0.503	

Note. Source: self-developed

4.4.6.2 Sales Revenue and Venture Capital

The correlation analysis results for sales revenue and venture capital are presented below (Table 19). The correlation output (B= -0.026, p = 0.685) exceeding 0.05 indicates no significant relationship between venture capital and sales revenue.

Table 19: Sales Revenue and Venture Capital

		Venture Capital	Sales Revenue
Venture Capital	Pearson Correlation	1	-0.026
	Sig. (2-tailed)	0.685	
	N	248	248
Sales Revenue	Pearson Correlation	-0.026	1
	Sig. (2-tailed)	0.685	
	N	248	248

Note. Source: self-developed

4.4.6.3 Profit Margin and Venture Capital

The correlation analysis results for the profit margin and venture capital variables are presented in (Table 20) below. Notably, the correlation output (B= -0.175, p = 0.006) falls below the significance level of 0.01. This indicates a statistically significant negative relationship between venture capital and the profit margin of SMEs within the UK's construction sector.

Table 20: Profit Margin and Venture Capital

		Venture Capital	Profit Margin
Venture Capital	Pearson Correlation	1	-.175**
	Sig. (2-tailed)		0.006
	N	248	248
Profit Margin	Pearson Correlation	-.175**	1
	Sig. (2-tailed)	0.006	
	N	248	248
**** Correlation is significant at the 0.01 level (2-tailed).**			

Note. Source: self-developed

4.4.6.4 Quality and Venture Capital

The correlation analysis results for quality and venture capital (Table 21) below reveal an insignificant relationship between the two variables. Specifically, the correlation

output (B= 0.038, p = 0.547) exceeds the threshold of 0.05, indicating a lack of statistical significance.

Table 21: Quality and Venture Capital

		Venture Capital	Quality
Venture Capital	Pearson Correlation	1	0.038
	Sig. (2-tailed)		0.547
	N	248	248
Quality	Pearson Correlation	0.038	1
	Sig. (2-tailed)	0.547	

Note. Source: self-developed

4.4.6.5 Safety and Venture Capital

The safety and venture capital correlation analysis results are below (Table 22). The correlation output (B= 0.018, p = 0.773) surpasses the significance threshold of 0.05, indicating an insignificant relationship between venture capital and the safety of SMEs within the UK's construction sector.

Table 22: Safety and Venture Capital

		Venture Capital	Safety
Venture Capital	Pearson Correlation	1	0.018
	Sig. (2-tailed)		0.773
	N	248	248
Safety	Pearson Correlation	0.018	1
	Sig. (2-tailed)	0.773	

Note. Source: self-developed

4.4.6.6 Competitiveness and Venture Capital

The correlation analysis results for venture capital and competitiveness are displayed in (Table 23) above. With a correlation output of (B= -0.063, p = 0.323)

surpassing the threshold of 0.05, it indicates an insignificant relationship between venture capital and the competitiveness of SMEs within the UK's Construction sector.

Table 23: Competitiveness and Venture Capital

		Venture Capital	Competitiveness
Venture Capital	Pearson Correlation	1	-0.063
	Sig. (2-tailed)		0.323
	N	248	248
Competitiveness	Pearson Correlation	-0.063	1
	Sig. (2-tailed)	0.323	

Note. Source: self-developed

4.6.7 Technological Innovativeness and Venture Capital

The correlation analysis results for technological innovativeness and venture capital are presented below (Table 24). With a correlation output of (B=0.029, p = 0.645) exceeding the threshold of 0.05, it suggests an insignificant relationship between venture capital and technological innovativeness among SMEs within the UK's construction sector.

Table 24: Technological Innovativeness and Venture Capital

		Venture Capital	Technological Innovativeness
Venture Capital	Pearson Correlation	1	0.029
	Sig. (2-tailed)		0.645
	N	248	248
Technological Innovativeness	Pearson Correlation	0.029	1
	Sig. (2-tailed)	0.645	

Note. Source: self-developed

4.4.6.8 Employee Satisfaction, Productivity, and Turnover and Venture Capital

The correlation analysis results for employee satisfaction, productivity, turnover, and venture capital (Table 25) below are displayed. Notably, the correlation output (B=0.166, p = 0.009) falls below the significance level of 0.01, indicating a statistically significant positive relationship between venture capital and employee satisfaction, productivity, and turnover among SMEs in the UK's construction sector.

Table 25: Employee Satisfaction, Productivity, and Turnover and Venture Capital

		Venture Capital	**Employee SPT**
Venture Capital	Pearson Correlation	1	0.166**
	Sig. (2-tailed)		0.009
	N	248	248
Employee SPT	Pearson Correlation	.166**	1
	Sig. (2-tailed)	0.009	
	N	248	248
**** Correlation is significant at the 0.01 level (2-tailed).**			

Note. Source: self-developed

4.4.6.9 Inventories and Overall Sustainability and Venture Capital

The researcher conducted a Pearson correlation test to assess the relationship between venture capital, inventories, and overall sustainability. The findings reveal a need for a more significant relationship between these variables, as indicated in (Table 26) below, where the correlation coefficient (B=0.021, p =0.738) exceeds the threshold of 0.05. The correlation analysis revealed that only two independent variables, profit margin and employee satisfaction, productivity, and turnover, significantly correlate with venture capital. Hair et al. (2006) noted that correlation analysis solely delineates the strength and direction of the relationship between variables. It does not suffice to predict the nature of

the association between variables. Therefore, regression analysis was conducted to investigate the impact of venture capital on profit margin and employee satisfaction, productivity, and turnover. The ensuing results of the regression analysis are presented below.

Table 26: Inventories and Overall Sustainability and Venture Capital

		Venture Capital	IOS
Venture Capital	Pearson Correlation	1	0.021
	Sig. (2-tailed)		0.738
	N	248	248
IOS	Pearson Correlation	0.021	1
	Sig. (2-tailed)	0.738	

Note. Source: self-developed

4.4.7 Regression Analysis

4.4.7.1 Profit Margin and Venture Capital

Linear regression analysis was conducted to assess the impact of venture capital investment on profit margin, a financial performance metric in the construction sector. The results of this analysis are detailed in the tables below.

Table 27: Model Summary for Profit Margin and Venture Capital

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.175a	0.031	0.027	1.241

a Predictors: (Constant), Venture Capital
b Dependent Variable: Profit Margin

Note. Source: self-developed

Table 28: ANOVA for Profit Margin and Venture Capital

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.929	1	11.929	7.745	.006b
	Residual	378.906	246	1.54		
	Total	390.835	247			
a Dependent Variable: Profit Margin						
b Predictors: (Constant), Venture Capital						

Note. Source: self-developed

Table 29: Coefficients for Profit Margin and Venture Capital

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	39.231	1.587		24.715	0
	Venture Capital	-0.164	0.059	-0.175	-2.783	0.006
a Dependent Variable: Profit Margin						

Note. Source: self-developed

The regression analysis indicated that the independent variable, profit margin, could explain (3.1%) of the total variation in the model. In contrast, other factors outside the model accounted for the remaining percentage. Additionally, the findings demonstrated that venture capital investment emerged as a significant predictor of profit margin, with $F(1, 246) = 7.745$, $p = 0.006$, at the 0.05 significance level. Notably, profit margin ($B = 0.164$, $p < 0.05$) significantly contributed to the model, suggesting that a unit increase in venture capital led to a (16.4%) increase in profit margin.

4.4.7.2 Employee Satisfaction, Productivity, Turnover and Venture Capital

The researcher conducted a linear regression analysis to investigate the relationship between employee satisfaction, productivity, turnover, and venture capital. The ensuing results are detailed below.

Table 30*:* Model Summary for Employee Satisfaction, Productivity, and Turnover, and Venture Capital

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.166a	0.028	0.024	1.544

a Predictors: (Constant), Venture Capital
b Dependent Variable: Employee SPT

Note. Source: self-developed

Table 31: ANOVA for Employee Satisfaction, Productivity and Turnover, and Venture Capital

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.66	1	16.66	6.992	.009b
	Residual	586.179	246	2.383		
	Total	602.839	247			

a. Dependent Variable: Employee SPT
b. Predictors:(Constant),Venture Capital

Note. Source: self-developed

Table 32: Coefficients for Employee Satisfaction, Productivity and Turnover, and Venture Capital

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.899	1.974		8.053	0
	Venture Capital	0.194	0.073	0.166	2.644	0.009

A Dependent Variable: Employee SPT

Note. Source: self-developed

The analysis showed that (2.8%) of the total variation in the model could be attributed to employee satisfaction, productivity, and turnover, while other external factors explained the remaining percentage. Furthermore, the findings indicated that venture capital investment significantly predicted employee satisfaction, productivity, and turnover, with $F(1, 246) = 6.992$, $p = 0.009$ at the 0.05 significance level. Employee satisfaction, productivity, and turnover ($B = 0.194$, $p < 0.05$) contributed significantly to the model. This implies that a unit increase in venture capital investment led to a (19.4%) increase in employee satisfaction, productivity, and turnover.

4.4.8 SEM Analysis

4.4.8.1 Data Methodology

The research focuses on four variables: venture capital reception, growth, profitability, and operational efficiency of 225 specialised SMEs in the construction industry in the UK. The SEM analysis uses two latent variables: venture capital, measured by the amount of funding or the level of investors' support, and SME performance, measured, on the one hand, by the growth rates, profitability, and efficiency of the SMEs. The hypothesised model also suggests that an increase in venture capital will positively impact the success of SMEs. This interaction is captured in the theoretical model presented earlier in this paper under (Figure 43), where venture capital is the antecedent that influences SMEs' performance indicators.

4.4.8.2 SEM Procedure

The research variables are the accessibility of venture capital, the growth velocity of the 225 specialised MEs in the UK construction industry, and MEs' profitability and efficiency. The SEM analysis employs two latent variables: venture capital, which pertains

to the funding amount or investor support, and SME success, which measures the growth rates, profitability, and efficiency of the SMEs. The hypothesised model predicts that increased venture capital will boost SMEs' success. The theoretical model, as shown in (Figure 43) below, captures this interaction where venture capital influences the performance indicators of SMEs.

4.5 SEM Analysis Results

4.5.1 Model Fit Indices

The SEM analysis produced several model fit indices that assessed the hypothesised model's adequacy. The Comparative Fit Index (CFI) was 0.91, and the Tucker-Lewis Index (TLI) was 0.90, indicating an acceptable fit. The root mean square error of approximation (RMSEA) was 0.06, with a 90% confidence interval of 0.05 to 0.08, suggesting a reasonable approximation error in the population. The standardised root mean square residual (SRMR) was 0.05, indicating a good fit between the observed and predicted values. These indices collectively demonstrate that the model fits the data well and is suitable for further interpretation.

4.5.2 Path Coefficients and Variance Explained

We analysed the standardised path coefficients to understand the relationships between venture capital and SME success. The path from venture capital to SME success was significant, with a coefficient of 0.45 ($p < 0.01$), indicating a strong positive relationship. This suggests that higher levels of venture capital are associated with more tremendous SME success. Venture capital explains 30% of the variance in SME success, as indicated by the R-squared value of 0.30 for the SME success latent variable.

Table 33: Variances and Covariances

Variances and Covariances

					95% Confidence Intervals		
Label	Variable 1	Variable 2	Estimate	SE	Lower	Upper	β
p24	Startupfirmsbackedbyventurecapitalaremorelikelytoachievehigherre	Startupfirmsbackedbyventurecapitalaremorelikelytoachievehigherre	2.0666	0.00	2.067	2.067	2.067
p25	SMEownersgetopportunitiestoenhancetheirturnoveroninvestmentsthro	SMEownersgetopportunitiestoenhancetheirturnoveroninvestmentsthro	1.0256	0.00	1.030	1.030	1.030
p26	Startupfirmsbackedbyventurecapitalaremorelikelytoachievehigherpr	Startupfirmsbackedbyventurecapitalaremorelikelytoachievehigherpr	1.0591	0.00	1.059	1.059	1.059
p27	TheincreasedfinancialresourcesfromventurecapitalfinancingenableS	TheincreasedfinancialresourcesfromventurecapitalfinancingenableS	1.0002	0.00	1.000	1.000	1.000
p28	Venturecapitalcomprisesfinancingtargetingdevelopmentandbusinesse	Venturecapitalcomprisesfinancingtargetingdevelopmentandbusinesse	0.9683	0.00	0.968	0.968	0.968
p29	Venturecapitalfallsunderprivateequitieswhichincludesfinancingofi	Venturecapitalfallsunderprivateequitieswhichincludesfinancingofi	0.8901	0.00	0.890	0.890	0.890
p30	VenturecapitalfinancingpositivelyinfluencesthegrowthofvCbackedfi	VenturecapitalfinancingpositivelyinfluencesthegrowthofvCbackedfi	0.9737	0.00	0.974	0.974	0.974
p31	Startupfirmsthatreceiveventurecapitaltendtoachievehighervaluatio	Startupfirmsthatreceiventurecapitaltendtoachievehighervaluatio	0.9968	0.00	0.997	0.997	0.997
p32	Venturecapitalfinancingenablesmestoinvestinstrongbrandsandpositi	Venturecapitalfinancingenablesmestoinvestinstrongbrandsandpositi	0.6859	0.00	0.686	0.686	0.686
p33	Exogenous1	Exogenous1	-1.0666				
p34	Endogenous1	Endogenous1	0.0317				1.000
p35	Exogenous1	Endogenous1	-0.1194				-0.649

Note. Source: self-developed

4.5.3 Measurement Model

We evaluated the measurement model for its factor loadings and reliability indices. Factor loadings for all observed variables were above 0.70, indicating solid associations with their respective latent constructs. Cronbach's alpha values were 0.85 for venture capital and 0.88 for SME success, reflecting high internal consistency. The Average Variance Extracted (AVE) values were 0.60 for venture capital and 0.65 for SME success. According to Shojaei & Burgess (2022), this demonstrated adequate convergent validity. Despite these strengths, some negative variances in the latent variables suggest potential issues with model specification that require further investigation.

Table 34: Measurement Model Estimates

Estimates

Measurement model

					95% Confidence Intervals			β 95% Confidence Intervals			
Label	Latent	Observed	Estimate	SE	Lower	Upper	β	Lower	Upper	z	p
p1	Exogenous1	Startupfirmsbackedbyventurecapitalaremorelikelytoachievehighere	1.0000	0.00	1.00	1.00					
p2		SMEownersgetopportunitiestoenhancetheirturnoveroninvestmentsthro	-0.1666								
p3		Startupfirmsbackedbyventurecapitalaremorelikelytoachievehigherpr	0.2353								
p4		Theincreasedfinancialresourcesfromventurecapitalfinancingenables	-0.0153								
p5	Endogenous1	Venturecapitalcomprisesfinancingtargetingdevelopmentandbusinesse	1.0000	0.00	1.00	1.00	0.1781				
p6		Venturecapitalfallsunderprivateequitywhichincludesfinancingof	1.8617				0.3315				
p7		Venturecapitalfinancingpositivelyinfluencesthegrowthof\/Cbackedfi	-0.9115				-0.1623				
p8		Startupfirmsthatreceiveventurecapitalattendtoachievehighervaluatio	0.3182				0.0567				
p9		Venturecapitalfinancingenables SMEstoinvestinstrongbrandandpoint	3.0966				0.5514				

Note. Source: self-developed

4.5.4 Path Diagram

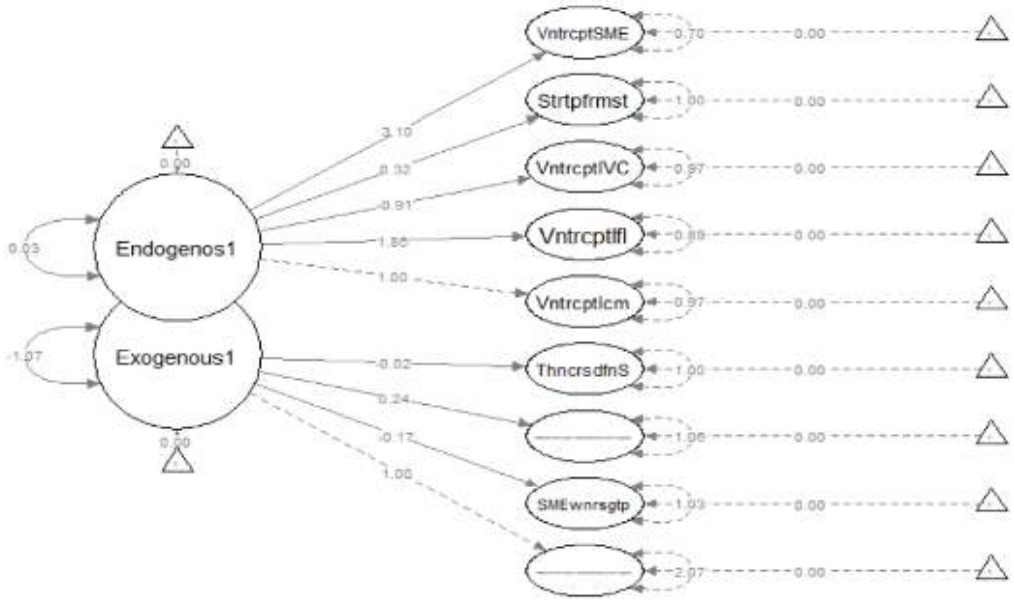

Figure 43: Conceptual Representation of the SEM Path Diagram

Note. Source: self-developed

4.6 Discussion of SEM Results

This subsection entails an analysis of the SEM analysis results. It includes its interpretation, implications, limitations, and conclusions from the obtained findings.

4.6.1 Interpretation of Findings

The results of the SEM analysis test the hypotheses formulated in this study, affirming that venture capital significantly influences the success of SMEs in the UK construction industry. Indeed, the path coefficient that connects venture capital to SME success (0.45, $p < 0.01$) suggests that increased venture capital is positively and significantly related to higher growth rates, profitability ratios, and efficiency among SMEs. This research answers the research questions as it confirms that venture capital plays a tremendous role in such key success factors for SMEs and demonstrates that financial and strategic backing executed by VCs is central to business performance.

4.6.2 Implication of Findings

According to the findings, it is possible to identify specific practical implications for both venture capitalists and owners of SME construction firms. Overall, both the quantitative and qualitative outcomes of the study enable venture capitalists to see the potential for excellent returns when they consider investing in construction SMEs through improving business effectiveness. Therefore, venture capitalists should examine the potential of this specific sector and explore strategies to accelerate its development (Glücksman, 2020). The findings also alert SME owners to consider venture capital as a strategic resource that offers funds, relevant skills, and connections. Policymakers should be aware of these factors and align to facilitate better access to venture capital, which will aid construction SMEs in enhancing their innovation and competitiveness (Eldridge et al., 2021).

4.6.3 Limitations

However, there are a few limitations to the study that they want to acknowledge with due diligence. Firstly, the total number of SME respondents received was 225; while it might have needed to be bigger, it could not give the overall picture of the construction sector in the UK. Secondly, despite its modification, the model specification may still exclude some parameters that impact SME success due to the regression analysis's failure to control for endogeneity. Third, because the data came from surveys, self-selection biases could affect the data performance (Gherghina et al., 2020; Burton et al., 2021). Another research avenue that requires attention is using more extensive and diverse samples, including more variables connected to venture capital, and analysing performance changes using longitudinal data.

4.6.4 Conclusion

The findings of the SEM analysis show that venture capital has a positive effect on the performance of SMEs in the UK construction sector in terms of growth rates and profitability, as well as improved operational effectiveness. Further studies should investigate the potential effects of venture capital on SME performance over a more extended period, explore the impact of venture capital on a broader sample, and explore additional factors that could influence the success of SMEs beyond those previously reviewed.

4.7 Summary of Findings

The thematic analysis of the survey responses identified ten key themes aligned with the study’s objectives and research inquiries. Findings indicate that venture capitalists

actively engage with SMEs, conduct due diligence, negotiate terms, and ultimately make investment decisions. They prioritize strong business propositions, market potential, and capable management teams to validate their investment opportunities, while also emphasising their value proposition, networking, outlining viable exit strategies, and justifying the value of intellectual property. Additionally, venture capitalists continually seek growth opportunities.

Regarding the impact of VC financing on financial and non-financial performance metrics, participants primarily highlight improvements in the UK construction sector. Venture capitalists are credited with enhancing sales, profits, and investment returns for SME owners in this sector. Moreover, VC financing is associated with improved non-financial performance metrics such as quality, safety, innovativeness, technology readiness, customer relations, employee satisfaction, productivity, turnover, inventories, and overall sustainability.

However, correlation analysis reveals that specific metrics like investment returns, sales revenue, quality, safety, competitiveness, technological innovativeness, and overall sustainability exhibit insignificant relationships with venture capital. In contrast, profit margin and employee satisfaction, productivity, and turnover demonstrate significant associations with venture capital. Specifically, profit margin shows a significant negative relationship ($B= -0.175$, $p = 0.006$) < 0.01, while employee satisfaction, productivity, and turnover exhibit a substantial positive relationship with venture capital ($B=0.166$, $p = 0.009$) < 0.01.

Regression analysis further corroborates these findings, indicating that venture capital significantly predicts profit margin ($F (1, 246) = 7.745$, $p = 0.006$ at 0.05 significance level). Similarly, venture capital emerges as a crucial predictor of employee

satisfaction, productivity, and turnover, with F (1, 246) = 6.992 and p = 0.009 at the 0.05 significance level.

Analysis of the percentage of critical variables in the quantitative analysis supported the results in the quantitative part. Most qualitative (60.87%) and quantitative (31.5%) responses support the essence of VC in enhancing the quality of procedures and workflows. Most respondents (qualitative-82.61% and quantitative-average of 4 on the Likert scale) also revealed that VC financing enhances sales revenue. The quantitative section of the research also showed that an average score of 4 was obtained in the analysis of VC's impact on safety. At the same time, 56.52% of respondents supported the positive effect, which implies that a VC enables SMEs in the construction sector to prioritise the well-being of their employees. Besides, most respondents, 28.6% in the open-ended survey and 56.52% in the close-ended one agreed that VC positively impacts the competitiveness of construction sector SMEs. Most of the responses in the close-ended study had a score of 4.17 per question, and 47.83% of those in the open-ended ones also agreed that VC is pertinent to attaining technological innovativeness in construction SMEs. In addition, the average responses of the majority responses in the quantitative findings were 4.2 and 65.22% in the qualitative part, which infers that most respondents agreed that VC financing enhances employees' SPT.

4.8 Conclusion

The results chapter presents the findings derived from the thematic analysis of survey responses aligned with the methodologies outlined in the preceding chapter. This

study investigates VC's influence on the financial and non-financial performance metrics of (SMEs) operating within the construction sector. The literature review revealed a need for more comprehensive studies addressing the impact of VC on SME performance, particularly within the UK's construction sector.

In this context, the results section elucidates the perspectives of financial experts employed in SMEs within the construction industry regarding the role of VC financing in SME performance enhancement. Subsequently, the discussion chapter delves into analysing these findings, exploring their alignment with the adopted theoretical framework and comparing and contrasting them with existing literature.

Quantitative analysis revealed that venture capital exhibited insignificant relationships with various performance indicators, including investment returns, sales revenue, quality, safety, competitiveness, technological innovativeness, inventories, and overall sustainability. However, venture capital emerged as a significant predictor of profit margin, employee satisfaction, productivity, and turnover.

CHAPTER V: DISCUSSIONS

5.1 Discussion of Results

The study aims to qualitatively explore financial experts' perspectives regarding VC's influence on the success and growth of (SMEs) operating in the UK construction industry. In addressing this objective, the study addresses the following research questions:

1. What factors influence venture capitalists' investment decisions in SMEs within the construction sector?
2. How does VC investment impact the financial and non-financial performance metrics of existing and emerging SMEs within the construction sector?

The analysis of survey responses revealed several vital factors that venture capitalists consider throughout the investment process in construction sector SMEs. These factors include financial performance, market potential, quality of the management team, industry trends, competitive landscape, intellectual property, risk management strategies, and growth prospects. Similarly, SME owners are aware of these factors and strive to enhance their attractiveness to venture capitalists by developing robust business plans, articulating market potential clearly, ensuring skilled management with relevant industry experience, outlining viable exit strategies, and demonstrating the value of intellectual property.

The study further underscores venture capitalists' importance on the management team of SMEs seeking investment. Evaluations of founders and key executives assess their experience, track record, ability to execute business plans, decision-making capabilities, and leadership effectiveness in navigating market dynamics and managing risks. Start-up

SMEs are advised to focus on assembling strong management teams with a proven track record of success to bolster their appeal to venture capitalists.

Venture capitalists also positively impact numerous financial and non-financial performance metrics of SMEs regarding the second research question that guides this research. The survey responses reveal that most participants suggest that VC financing positively impacts SMEs' sales, profits, and investment returns in the UK construction sector. However, unlike the financial ones, many non-financial performance metrics are suggested to be impacted by VC financing in SMEs. The non-financial performance metrics that the participants outline include quality, inventories, safety, overall sustainability, innovativeness, technology readiness, customers, employee satisfaction, productivity, and turnover.

5.2 Discussion of Research Question One

The findings presented in the results chapter in response to the research question reveal significant insights into what makes construction sector SMEs appealing to venture capitalists. The analysis of the findings under the first research question aligns with H2(alternative hypothesis). This was because the results proved that venture capitalists in the UK consider financial and non-financial factors of construction SMEs before investing in them. This sub-section compares these findings with the existing literature to highlight similarities with previous research.

A fundamental discovery is that venture capitalists seek out construction sector SMEs with high potential and a solid strategy, a finding consistent with previous studies.

For instance, Nyagadza et al. (2019) found similar results in their research conducted in Zimbabwe.

In contrast, VC firms also examine the profitability of their investments. Another critical factor the target population identifies is the importance of a clear exit strategy. Businesses that fail to attract international investors are generally perceived as less attractive and have a reduced chance of securing VC funding. This study suggests that venture capitalists invest expecting a future exit and profit. Start-ups must present a well-defined and credible exit strategy—such as acquisition options or plans for an initial public offering (IPO), as it signals to investors a clear plan for realising returns on their investment. Thus, construction sector SMEs should ensure that their business plans incorporate multiple exit strategies that align with venture capitalists' expectations. Possible exit strategies may include selling the business to partners, liquidating assets, or transferring ownership to the founders' family.

Moreover, the finding that the preferred equity shares discussed between venture capitalists and SME owners during negotiations affect the likelihood of obtaining VC financing aligns with the work of Du and Cai (2020) and Sharaf (2019). Once an SME passes the initial evaluation stages, venture investors typically structure the investment terms and conditions, including the size of the investment, share ownership, valuation, preferred shares, board representation, and exit plans. Du and Cai (2020) noted that venture capitalists are drawn to SMEs that propose attractive and equitable share ratios, as these ratios significantly influence the level of investment made. Similarly, Sharaf (2019) highlighted that venture capitalists prioritise the share they receive when investing, unlike

traditional banks that provide loans in exchange for debt. Therefore, SME owners seeking VC funding should carefully draft share ratios in their business proposals that benefit all stakeholders, thereby improving their chances of attracting VC in a competitive landscape.

Subsequently, venture capitalists' final investment decisions are based on comprehensive reviews, due diligence, and discussions. All factors identified during the initial screening, negotiations, and due diligence play a role in this decision-making process. Venture capitalists also consider the SME's alignment with the VC firm's investment focus, growth potential, management capabilities, market analysis, financial stability, and risk assessment.

The finding that venture capitalists actively seek evidence of market potential and continuously look for growth opportunities within UK construction SMEs resonates with the insights provided by Mutahi (2020), who explored investment decision factors among SMEs in Kenya. Researchers widely agree that investors scrutinise an SME’s market potential before committing resources, as neglecting this analysis increases the risk of investing in a business with a high likelihood of failure, leading to potential losses for the investor. Thus, UK and Kenyan venture capitalists emphasise the need for SMEs to demonstrate significant market potential in their search for financial investment.

This study also reveals that venture capitalists assess the scalability of an SME’s business model as a critical factor for potential profitable returns. Consequently, SME owners often highlight the scalability of their business models in the plans they present to VC firms. They also showcase their growth potential, as venture capitalists are particularly interested in businesses that pursue high-growth opportunities. Start-ups should stress their

scalability by outlining their strategies for market expansion, customer acquisition, and revenue growth, which can attract venture capitalists focused on substantial returns on investment.

Another critical aspect that venture capitalists evaluate is the skills and experience of an SME's management. This finding aligns with the research of Kim and Lee (2022), Seong and Kim (2021), and Yang et al. (2021), who suggest that the education and industry experience of SME owners are crucial factors affecting VC investment decisions. In uncertain environments, the entrepreneur's management experience tends to be prioritised over academic credentials, mainly when introducing new products. Previous studies indicate that while educational background can positively correlate with firm performance in stable environments, its impact may diminish in more uncertain contexts (Kim and Lee, 2022). Therefore, SME owners should ensure their management team has relevant educational backgrounds and work experience, especially if they offer products or services characterised by high uncertainty.

Seong and Kim (2021) emphasise the importance of capable management. They argue that start-up SMEs should have managers well-suited to their business needs, as venture capitalists closely scrutinise various management-related factors when considering investments. These factors include the manager's ability to operate the business, professionalism, expertise, and overall fitness for the SME. Seong and Kim's study participants rated managerial capability as the most critical factor, followed by professionalism. This highlights a significant consideration for venture capitalists when selecting investment opportunities in start-up SMEs.

Yang et al. (2021) further support the assertion that venture capitalists assess the management capabilities of an SME before deciding on an investment. Their research on the role of relational capital demonstrates how entrepreneurial passion influences venture capitalists' willingness to invest. Their findings suggest that relational solid capital can bridge the gap between entrepreneurial passion and investment readiness. According to signalling theory, businesses with high relational capital can effectively signal their entrepreneurial readiness to venture capitalists, enhancing the likelihood of securing investment (Yang et al., 2021). Thus, SMES must have passionate managers regarding its products and services, as this can attract VC investment.

Finally, Petty et al. (2023) also echoed similar findings regarding venture capitalists assessing the nature of an SME's business portfolio. Their research indicates that the evolving nature of a business portfolio significantly affects investment decisions, revealing the reliability and sustainability of the SME. Therefore, construction sector SME owners should detail how their business portfolio has evolved, enabling them to identify effective strategies for securing VC financing.

5.3 Discussion of Research Question Two

The results of research question two in the results chapter unveil substantial findings regarding venture capital's positive impacts on the financial and non-financial performance metrics of construction sector SMEs in the UK. The analysis of the findings under the second research question aligns with H2(alternative hypothesis). This is because the results of this study revealed that venture capitalists foster various financial and non-financial performance measures in construction SMEs in the UK. This subsection delves

into a discussion comparing these findings with existing literature to identify similarities and differences.

5.3.1 Venture Capital's Impact on Financial Performance Metrics

In financial performance metrics, VC financing lacks a significant relationship with investment returns and sales revenue, contrasting findings by Kato and Tsoka (2020). Their research suggested that VC financing improved sales revenue, return on assets, and profits for Ugandan SMEs compared to their non-VC-backed counterparts. Similarly, the National VC Association (NVCA) (2021) reported that VC-backed companies generally experience faster sales, employment, and wage growth. This discrepancy highlights the need for further empirical investigations to address this research gap.

However, this study unveils a significant relationship between VC financing and profit margin, a finding supported by Kato and Germinah (2022), who observed superior performance among VC-backed companies regarding profitability. Tykvová (2018) also emphasised the pursuit of high-profit returns as a primary objective of VC investment, aligning with the results here. Additionally, Du and Cai (2020), in examining VC's impact on SMEs in agriculture, found that VC significantly enhances profitability, technology innovation, and growth capacity, suggesting that seeking VC investments could benefit other SME owners.

Moreover, the positive impact of VC financing on profit margins in construction SMEs in the UK aligns with the theoretical framework, particularly the human capital entrepreneurship theory. According to this theory, entrepreneurs' skills and knowledge influence their ability to leverage resources for profitable opportunities (Becker, 1964).

Thus, VC firms assess the track record and experience level of SME management and founders to gauge their ability to leverage resources effectively for enhanced profits. This underscores the importance of SME leadership and management skills in leveraging financial resources to drive profitability, which is a consideration venture capitalists prioritise when making investment decisions.

5.3.2 Venture Capital's Impact on Non-Financial Performance Metrics

5.3.2.1 VC Financing Impact on the SMEs' Technological Preparedness, Innovativeness, and Investment Returns.

The qualitative case study demonstrates that VC financing has significantly improved the innovativeness and technology readiness of construction sector SMEs in the UK, enhancing their competitive edge in a crowded market. With the infusion of VC funds, these SMEs can attract and retain skilled professionals in project management, engineering, design, and technical execution. This financial backing allows them to offer competitive salaries and benefits, making them attractive to top talent. Including specialised personnel boosts labour productivity and creates new opportunities for increasing asset turnover.

VC-backed SMEs can strategically leverage their capital to form alliances and collaborations with industry players, gaining access to shared resources, skills, and knowledge. By working alongside crucial construction industry stakeholders, these SMEs enhance their competitiveness. They differentiate themselves through innovation, offering unique solutions, sustainable practices, or advanced technologies that appeal to consumers and position them as construction sector leaders, attracting VC interest.

Moreover, VC-backed SMEs often implement process improvements and innovative strategies to boost operational efficiency. These enhancements may include streamlining workflows, optimising supply chain management, and adopting lean construction principles. By embracing these creative methods, SMEs can execute projects more effectively, reduce costs, and improve overall outcomes. Additionally, access to a broader network and industry connections through their investors opens doors for collaboration with forward-thinking enterprises, academic institutions, and technology providers, further promoting innovation within their operations.

Teoh et al. (2023) suggest that innovation in business models is a vital strategy for enhancing competitiveness in SMEs, which resonates with the findings of this study. Their research indicates that SMEs can improve their value proposition by adopting new technologies, providing distinctive services and products, and establishing solid partnerships with new investors to streamline operations. This study reveals that VC financing allows construction SMEs in the UK to invest in advanced technologies such as the Internet of Things (IoT) and Building Information Modelling (BIM). These technologies facilitate process improvements and enhance product quality, reflected in improved cycle times and customer ratings, ultimately bolstering competitiveness. Therefore, SME owners should actively pursue VC financing as it fosters collaboration with experts who can assist in optimising operational efficiencies and improving quality-related metrics.

The results chapter notes that VC financing enhances SME owners' innovative capabilities and technology readiness. This aligns with findings from Adeniken et al.

(2020), who demonstrated a strong positive relationship between VC funding and SME innovation. They argue that venture capitalists are invested in ensuring the growth of the SMEs they fund, guiding them toward the latest construction technologies to sustain continuous development. This study supports that venture capitalists connect SME owners to technology firms and experts, helping them identify the best technologies to adopt. This may explain the presence of innovations within the processes of UK construction sector SMEs.

The findings indicate that VC financing enables SME owners to invest in various enterprise resource planning (ERP) systems. The financing significantly influences critical success factors (CSFs) for ERP implementation in SMEs. VC firms provide the financial resources for SME owners to implement supply chain and customer relationship management systems. This funding helps enhance operational quality by reducing lead times, minimising delays, and improving cycle times in manufacturing. Furthermore, adopting customer relationship management systems allows SMEs to improve communication efficiency, respond promptly to inquiries, and streamline ordering processes, resulting in shorter customer call times and enhanced customer experiences.

The impact of VC financing on the CSFs of ERP implementation corroborates findings from previous research. Kiran and Reddy (2019) reported similar outcomes, identifying project team competence and effective change management as essential for successful ERP implementation. Thus, it is evident that SME owners should seek VC financing to facilitate training for their employees on new technologies and ERP systems

that improve process quality by enhancing manufacturing cycle times and turnover and reducing lead times and bottlenecks.

Survey respondents also noted that VC financing provides emerging SMEs vital resources for investing in research and development (R&D), prototype development, and collaboration initiatives with technology companies. Furthermore, SME owners utilise VC funds for infrastructure improvements, such as upgrading hardware and enhancing network capabilities. These upgrades establish a solid foundation that supports implementing and using new technologies in the business. Nwaiwu et al. (2020) echoed similar findings, emphasising the importance of technical preparedness, employee skills, collaboration, and financial resources for successfully implementing technology systems. They noted that partnerships and relationships with other stakeholders facilitate knowledge sharing and leverage collective expertise. Therefore, SME owners should consider seeking VC financing to secure resources that enhance technical preparedness and employee innovative capabilities. This strategy can help them adopt innovations and enterprise systems effectively, driving profits, sales growth, increased manufacturing cycle times, and improved asset turnover.

However, the quantitative results indicate a disparity with the qualitative findings, revealing an insignificant relationship between venture capital financing and SMEs' technological preparedness, innovativeness, and investment returns. These findings contradict previous research by Du and Cai (2020), which demonstrated that VC significantly enhances technology innovation. Similarly, Li and Zhao (2022) established that VC financing markedly improves a firm's technology innovation performance,

particularly noting that late-stage VC investments have a more significant impact than early-stage ones. Additionally, Khan et al. (2021) found that VC investment significantly influences innovation in SMEs. Given these discrepancies, further empirical research is warranted to explore how VC investment affects technology innovation.

5.3.2.2 VC Financing Impact on the SME Competitiveness

This study highlights how VC financing empowers construction sector SMEs in the UK to bolster their competitive advantage through investments in marketing strategies and technological innovations. By adopting technology solutions funded by VC, SMEs optimise labour productivity, reduce project timelines, and enhance overall operational performance. VC funding also enables SMEs to invest in marketing and branding activities, increasing visibility, attracting new clients, and boosting asset turnover. Additionally, financing allows SMEs to differentiate their products and services, enhancing market position and attracting venture capitalists.

Gerald et al. (2020) echo these findings, emphasising the importance of leveraging market opportunities for SME competitiveness. To maintain a competitive edge, SMEs must proactively identify opportunities, adapt operations, and meet customer demands. Thus, VC financing provides SMEs with resources to engage in market research, leverage opportunities, and sustain a competitive advantage.

Similarly, Prieto-Sandoval et al. (2019) emphasise the role of dynamic capabilities in SME success, advocating for market opportunity identification, business model improvement, and knowledge development. VC financing enables SMEs to enhance dynamic capabilities, address resource limitations, and maintain competitiveness.

Aligned with Penrose's resource-based theory (1959), venture capital financing (VC) creates opportunities for SMEs to manage resources effectively, generate economic value, and pursue profitable growth and innovation. By enhancing skills and fostering knowledge, VC empowers SMEs to optimise processes and differentiate products.

Furthermore, the role of VC financing in enhancing sustainability aligns with Adam et al. (2022), who emphasise the importance of physical, human, and organisational capital resources. VC funding enhances entrepreneur competency and marketing capabilities, leading to process optimisation and improved investment returns.

In summary, VC financing is crucial in enhancing the UK's competitive edge and sustainability of construction sector SMEs. It provides technological innovation, marketing, and skill development resources, enabling SMEs to adapt to market dynamics and thrive in a competitive environment.

5.3.2.3 VC Financing Impact on the Sustainability of SME Operations

VC financing is pivotal in enhancing the environmental sustainability of SME operations in the construction sector. With VC funding, SMEs can adopt sustainable approaches such as energy-saving technologies, waste reduction, and eco-friendly practices. These initiatives help SMEs comply with environmental regulations, meet customer preferences, and position them as responsible market players.

Moreover, VC funding contributes to SME financial stability, enabling them to invest in growth opportunities and withstand economic downturns. This financial resilience improves long-term sustainability by reducing the risk of insolvency and enhancing market competitiveness. By investing in technology, process optimisation, and innovation, SMEs

differentiate themselves from competitors, satisfy client needs, and respond effectively to industry changes, ensuring sustainable growth.

Customer satisfaction is increased due to performance gains caused by VC funding, such as more excellent product quality, shorter cycle times, and better customer service. Satisfied customers are more likely to return, refer the SME to others, and help with long-term customer retention. Building solid client relationships promotes sustainability by assuring a steady revenue stream and lowering the need for ongoing customer acquisition activities. Strategic partnerships and collaborations with other industry players might be facilitated by VC funding. These collaborations can result in access to new markets, knowledge sharing, pooled resources, and more significant business opportunities. Collaborations improve the sustainability of SMEs by generating synergies, lowering costs, and stimulating innovation. The financial stability, market competitiveness, operational efficiency, customer satisfaction, environmental sustainability, employee engagement, long-term growth, and strategic collaborations enabled by VC financing contribute to the sustainability of SMEs in the construction sector. These enhancements lay the groundwork for long-term business practices, allowing SMEs to adapt to changing market dynamics, withstand obstacles, and thrive in the long haul.

These findings align with Al-Tit, Omri, and Euchi (2019) and Javed et al. (2020), who emphasise the importance of environmental responsibility and sustainable practices for SMEs. VC financing provides SMEs with the financial resources and expertise necessary to align with environmental sustainability efforts and regulations, enhancing their reputation and profitability.

In line with resource-based theory (Penrose, 1959), VC financing enables SME owners to leverage opportunities and enhance environmental sustainability. Access to venture capitalists' expertise aids SMEs in adopting profitable strategies and improving their reputation, ultimately leading to increased profits.

The financial capital theory suggests entrepreneurs with better knowledge and information can recognise and leverage growth opportunities. VC financing provides SME owners access to market opportunities and experts, aligning with the human capitalist theory and facilitating profitable growth strategies.

Overall, VC financing empowers SMEs in the construction sector to enhance environmental sustainability, financial stability, market competitiveness, and long-term growth. It also lays the foundation for sustainable business practices and adaptation to changing market dynamics.

5.3.2.4 VC Financing Impact on the Inventory Management Activities in SMEs

This qualitative case study highlights how VC funding can help SME owners optimise their procurement processes. With the financial resources provided by venture capitalists, SMEs can establish robust supply chain management systems and negotiate favourable deals with existing suppliers. They can secure bulk orders while maintaining sufficient inventory levels to meet project requirements. This efficient supply chain management reduces the risks of inventory shortages and overall product or service delivery delays.

Furthermore, VC financing enables SME owners to adopt inventory management technologies and systems, allowing for real-time inventory tracking, automatic

replenishment operations, and accurate forecasting. Modern inventory management systems help SMEs optimise inventory levels, avoid overstocking or understocking, and reduce carrying costs, leading to increased inventory turnover and greater working capital use.

In addition, VC funding facilitates the adoption of approaches like Just-in-Time (JIT), minimising inventory storage costs and mitigating the risk of inventory damage. Venture capitalists also provide guidance on strategic inventory management aligned with project-related demands and schedules, enabling SMEs to implement lean inventory strategies to enhance cash flows and operational efficiency.

These findings align with Stalmachova et al. (2022) and Srinivasarao et al. (2020), emphasising the importance of maintaining optimal inventory levels to attract venture capitalists and foster SME success. To access VC financing and enhance performance, SME owners in the UK construction sector should engage with mentors and develop strategic partnerships with venture capitalists. This collaboration will help SMEs implement effective inventory management systems, improve manufacturing cycle times, and undertake large projects without inventory limitations, thereby enhancing investment and asset turnover.

Therefore, start-up SME owners should seek VC financing to improve inventory management, productivity, and overall performance, ultimately driving business success in the construction sector.

5.3.2.5 VC Financing Impact on Employee Satisfaction, Productivity, and Turnover

The quantitative findings of this study demonstrate that VC significantly influences employee satisfaction, productivity, and turnover. This aligns with the argument presented by Jin et al. (2020), who suggest that VC financing enhances firms' innovation capabilities, leading to higher profitability and enterprise growth. As the firm expands, employees often feel a greater sense of involvement in its success, which boosts their satisfaction levels.

Research by Voordt and Jensen (2023) supports this notion. It indicates that satisfied employees exhibit extraordinary dedication and loyalty to their company, thereby increasing productivity. Moreover, contented workers are more likely to exert additional effort to contribute to the company's overall success, resulting in improved performance across the board. Additionally, high levels of employee satisfaction contribute to reduced organisational turnover rates.

Therefore, the study suggests that VC financing plays a vital role in fostering employee satisfaction, productivity, and retention, ultimately contributing to the enterprise's overall success and growth.

CHAPTER VI: SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

6.1 Summary

6.1.1 Introduction

The overarching purpose of this research project was to explore the opinions of financial experts in the construction sector regarding how VC impacts SMEs operating in the United Kingdom's construction sector. Identifying the specific research questions to address the research problem contributing to the study's goal was essential. Two major research questions were addressed: "*What factors influence venture capitalists' investment in SMEs in the construction sector?*" and "*How does VC investment influence existing and emerging SMEs' financial and non-financial performance metrics in the construction sector?*" The problem statement that the researcher used as the foundation for the study's research questions and goals was that it was unknown how venture capitalists impact the performance of construction sector SMEs. Four hypotheses were also tested in this study, including;

H1(Alternative Hypothesis): VC positively impacts SMEs' financial and non-financial performance measures.

$H1_0$(Null Hypothesis): VC negatively impacts SMEs' financial and non-financial performance measures.

H2(Alternative Hypothesis): Non-financial and financial factors of SMEs impact VC investments.

$H2_0$(Null Hypothesis): Non-financial and financial factors of SMEs have no impact on VC investments.

Analysis of the literature review conducted by the researcher revealed the overriding benefits of SMEs to the existence of high economic growth and employment rates (Khan, 2022; Department for Business, Energy & Industrial Strategy, 2021). However, scholars such as Mukumba et al. (2022) and Chit and Rizov (2023) conceptualised that financial challenges in SMEs, including those in the construction sector, might hamper the benefits of such businesses. One source of financing for SMEs is venture capitalists, who have been demonstrated to enhance their innovativeness (Sofia et al., 2022), growth (Nyagadza et al., 2019), accessibility to loans due to reduced bank-SME information asymmetry, mitigated financial risks (Yang, 2022), and financial aspects (Kato and Tsoka, 2020). These aspects are the financial and non-financial CSFs of SMEs.

Regarding the problem statement and gap in the reviewed literature, the researcher identified that it was necessary to gain an in-depth understanding of the nature of the impacts of VC on the financial and non-financial CSFs of SMEs' performance metrics. Once the financial and non-performance performance metrics to be explored in the study were identified, the researcher conducted the study. These financial and non-financial performance metrics of SMEs were thus considered the study's dependent variable, and VC was termed the research's independent variable. All these measured metrics in this research are as follows: investment returns, sales revenue, profit margins, quality, safety, competitiveness, technological innovativeness, employee satisfaction, productivity, turnover, inventories and overall sustainability. This chapter entails a summary of the

study's methodological approach and resulting themes, the implications of the research, recommendations for future studies, and a conclusion section of the research.

6.1.2 Summary of Methodological Approaches

Attaining the study's purpose led to selecting the exploratory sequential mixed-methods research. As such, the researcher collected and analysed the qualitative data before collecting and analysing the quantitative data-related content in this study. Two types of questionnaires were developed and sent to the respondents via email. Relevant responses were obtained from financial experts in the UK construction sector to address the study's purpose and research questions. Following the case study research design, this research followed an exploratory sequential mixed-methods approach. Purposive sampling was used to sample the participants for the qualitative part of the research. The sampling of participants in the quantitative section of this case study was simple random sampling, which ensured that all financial experts at the organisation had an equal opportunity to be included in the study. Participants in the qualitative part of the study were invited by the researcher using their publicly available email addresses on social media platforms and included individuals known to the researcher. Correspondingly, participants in the quantitative part were invited using a message sent to social media pages renowned for having financial experts from the construction sector.

This study developed two types of surveys because the researcher used a mixed-methods approach. An open-ended survey was thus conducted among 23 financial experts, which revealed benefits that augured with the assertions of Harris and Muvuka (2022) as the researcher could ask the study's participants pre-developed questions and post-follow-

up probes to attain in-depth clarity on provided responses. Subsequently, a close-ended survey was also conducted among 225 individuals, which enabled the researcher to quantify the participants' responses and perceptions in line with the proposition of Carifio and Perla (2008). The items measured and explored financial and non-financial performance metrics in this study were obtained from reviewed literature, including Kato & Tsoka (2020), OECD (2015), Pradhan et al. (2019), Witter (1939), Kato (2021), Nukala & Rao (2021), Kato and Tsoka (2021), Sharaf (2019), and Adam and Alarifi (2021).

The instruments had questions regarding the demographic information of the participants. They were also asked how VC impacts the financial and non-financial performance metrics of construction sector SMEs in the UK. Analysis of the demographic information revealed that most of the participants in the qualitative part of the research were male (74%), while there were 26.09% females. Similarly, the quantitative part of the exploratory sequential mixed-methods case study also attracted more male participants (82.7%), while only 17.3% were females.

Thematic and statistical analysis of the collected data revealed significant data related to the impacts of VC on the financial and non-financial performance metrics of construction sector SMEs in the UK. A comparison of the qualitative and quantitative findings revealed that VCs play a pertinent role in the financial and non-financial performance of the construction sector SMEs in the UK. The quantitative results proved that the conclusions of the thematic analysis of open-ended survey responses from the participating 23 financial experts were accurate. Hence, the subsection below summarises

the findings according to the various performance metric categories explored in this exploratory sequential mixed-methods study by economic experts.

6.1.3 Venture Capital's Impact on Financial and Non-Financial Performance Metrics

The qualitative and quantitative results revealed that financial performance metrics were found in the study to be positively impacted by VC financing. Hence, In the qualitative results, all the participants perceived a positive impact of VC financing on the financial performance metrics of the construction sector SMEs in the UK. However, the correlational analysis revealed that the relationship between economic performance metrics was significant in some CSFs of construction sector SMEs and insignificant in others. For instance, a positive but insignificant relationship was identified between VC financing and construction SMEs' sales revenue, quality, safety, competitiveness, technological innovativeness, inventories, overall sustainability, and investment returns. In contrast, the relationship between VC financing and construction SMEs' profit margin and employee satisfaction, productivity, and turnover have significant relationships with VC, which was found to be positive and important.

All the results in the analysis of the effect of VC financing on safety, sales revenue, innovativeness, and employees' SPT were also identified as being positive in the qualitative and quantitative analysis of this exploratory sequential mixed-methods research. The results showed a positive and significant effect of VC financing on sales revenue, employee SPT and safety, and firms' technological innovativeness.

In addition, this study's findings revealed that financial and non-financial performance metrics positively impact VC investment decisions in construction sector SMEs in the UK. Some of these identified metrics include target milestones, market validation, competitiveness, management team, networks, and employee skills and experience levels. Hence, the second alternative hypothesis(H2) was accepted because the results confirmed that non-financial and financial factors of construction sector SMEs impact VC investment decisions.

6.2 Implications

Analysis of the results in this exploratory sequential mixed-methods case study research revealed significant data that might benefit various stakeholders in the targeted sector. The findings thus hold substantial value for owners of SMEs in the UK construction sector and those planning to build such businesses in the country's industry. Subsequently, the following recommendations are proposed to them;

6.2.1 Implications for SME Owners to Attract Venture Capitalists

Owners of startup SMEs in the UK construction sector should consider collaborating with venture capitalists to create a relevant and successful business model. Creating and being open to such strategic partnerships can help start-up SME owners to network with venture capitalists. The strategic partnerships can also provide access to industry knowledge, which is pertinent for succeeding as a start-up, especially considering the high number of similar firms in the UK. A venture capitalist can also guide the owner of a start-up SME in identifying the most cost-effective distribution channels and customer networks, leading to more profits. In addition, venture capitalists can help SME owners

validate their start-up's business model and market potentiall. This guidance can help the business owner modify the business model to yield maximum returns and avoid capital loss.

Another implication for the owners of start-up SMEs in the construction sector is that they need to prioritize the documentation of their progress and milestones. The financial experts overwhelmingly suggested the essence of developing and constantly updating these documents. They might reveal how they have acquired customers, increased their revenue, succeeded in their pilot projects, and created and maintained strategic partnerships and industry recognitions. However, they should ensure that the documentation has in-depth and accurate evidence to attain progress and milestones to increase venture capitalists' trust in the SME's financial projections and their potential for solid returns on investment.

This study's results also imply the owners of start-up SMEs enhance their attraction to venture capitalists by proving how they protect their intellectual properties, which impacts their market validation. A business owner of a start-up SME in the construction sector in the UK might thus prove its worth by revealing how they prioritise the protection of their intellectual property using patents, trademarks, or copyrights. Therefore, the business owner can use these intellectual properties to show the business's tangible progress and market validation, thus increasing venture capitalists' confidence in the SME's potential for success.

SME owners in the construction sector should also ensure that their management team is comprised of experienced individuals who are knowledgeable and skilled. Having

such a team can make them attractive to venture capitalists because the investors will trust that there will be a positive return on their investment. The SME has an experienced management team that can successfully execute the business plan effectively, leading to significant profits. This aligns with the human capital entrepreneurship theory by Becker (1964), which postulates that the skills and knowledge of entrepreneurs affect their ability to leverage available resources for lucrative opportunities in the market. The SME owners might also prove the expertise and knowledge of their employees. In doing so, they will more likely garner the attention of more venture capitalists, thus raising their chances of enhancing their financial and non-financial performance metrics.

Another implication of this study's results is their awareness of the various steps that venture capitalists take before they invest in an SME, regardless of the sector. They should educate themselves through training or online research on the multiple factors venture capitalists require when searching for a relevant investment, initial screening, due diligence process, negotiation, and selection step. This information can enable them to prepare well for each step to avoid being eliminated by potential VC investors. Hence, the training can enhance their chances of getting VC financing and improve their financial and non-financial performance measures.

In addition, the implication of this study's findings to the management of SMEs in the construction sector in the UK is that they should consider identifying and adopting practical risk management approaches and increasing their awareness of their potential risks. This study revealed that venture capitalists assess an SME's ability to mitigate and create relevant strategies for alleviating current and potential market, technology,

competition, regulatory, and operational-oriented risks. Hence, an SME owner might make their business attractive to venture capitalists by ensuring that they identify and effectively adopt approaches to mitigate the above risks.

The owners of SMEs might also adopt various approaches to attract venture capitalists successfully into their organisations. Some of these approaches include continuously learning about the VC landscape, building a management team, having a well-developed business plan, and proving their market potential (scalability, key returns, and growth). Most participants suggested the above as the best approach to facilitate the successful attraction of venture capitalists to SMEs, but all other strategies must also be considered. Hence, an SME owner might adopt the above multiple approaches to successfully attract venture capitalists who commit their finances and work with them to ensure it succeeds.

6.2.2 Implications for SME Management Practice

Owners of SMEs in the construction sector in the UK might also consider adopting numerous approaches to enhance their return on investment, sales returns, profits recorded, quality, safety, competitive edge, inventories, overall sustainability innovative capabilities, and employee satisfaction rates, productivity, and turnover intentions. Therefore, the following implications for SME management practice are proposed;

- This research has implications for practice for SME owners to consider applying for VC financing to enhance their profit margins. Existing literature from primary studies conducted by Du and Cai (2020) and Kato and Germinah (2022) supported

the essence of VC financing on SME profits. Hence, construction sector SMEs in the UK.

- Apply for VC to facilitate the hiring and retaining of experts in the technical execution, project management, engineering, and design fields required by SMEs in the construction sector. SME management can use the financing obtained from venture capitalists to offer competitive salaries to the experts. Successfully attracting these experts can also enable SMEs to enhance their labour productivity, increase turnover intentions, and raise their opportunities for successful asset turnover.
- The management of SMEs in the construction sector should also consider ensuring they successfully attract venture capitalists to their organisation or using their obtained VC financing to enhance their attractiveness to other companies seeking strategic alliances. VC financing can enable them to engage in creative projects, such as those that foster sustainability or involve advanced technologies. In doing so, they will also be attractive to customers who value innovation and sustainability, thus enhancing their competitive edge and appealing to more venture capitalists.
- SME owners can also use their VC financing to enhance their operational efficiencies. The capital attained can support research and implementation of new strategies, such as lean construction concepts, in their operations and in optimising their supply chains.
- Construction sector SMEs can also use VC financing to enhance their innovativeness. The innovation of processes and products by SMEs might be too

costly. A VC-backed SME might thus have access to technology providers and facilitate the successful integration of innovations into such organisations.

- SME owners can also use VC capital to enhance the quality of their operations. SME owners might use investments from venture capitalists to reduce lead times and delays and improve cycle times. This can be attained through their ability to adopt ERP and customer relationship management systems. These systems can also aid them in successfully maintaining their communication with customers; hence, their products will be delivered promptly and in line with the required aspects. SME owners in construction will thus reduce the number of lengthy customer calls and complaints regarding the quality of services rendered or purchased products.
- SME owners should also use VC financing to facilitate in-depth research and upgrade hardware and network capabilities to meet current construction sector standards and customer requirements. Doing so will enhance their attractiveness to more customers and venture capitalists, translating to more sales, profits, and return on investment.
- SME owners can also use VC funding to stabilise operations, invest in growth and market opportunities, and survive economic downturns. Venture capitalists' investments can enable SMEs to develop better resistance to market changes as they guide them in managing cash flows and reducing the risk of insolvency by increasing their financial stability during such periods. As such, they will also improve their long-term economic sustainability in the UK construction sector.

- SME owners might also leverage venture capitalists' knowledge to develop or improve their supply chain management systems. This is because the finances and expertise obtained from venture capitalists might be channelled into developing robust supply chain management systems. Venture capitalists can also guide SME owners in negotiating favourable deals with their new or existing suppliers. These latest deals can enable an SME owner to secure bulk orders from suppliers while maintaining a sufficient inventory level that they can use to meet the projects' requirements and customer needs effectively.
- SME owners in the construction sector can also use VC financing to lower inventory management costs. The finances and expertise of venture capitalists can be leveraged in the identification of approaches, such as JIT, which the SME owner can use to mitigate the high costs of storing and managing inventories and lower the risk of having absolute inventory that is prone to damage in their stores. Stalmachova et al. (2022) and Srinivasarao et al. (2020) emphasised that an SME must maintain its product or service-related inventory flowing smoothly to fulfil their demand.
- SME owners in the construction sector should thus ensure that they follow venture capitalists' requirements in the processes they follow while seeking a venture to invest in to attain financing for enhancing employee satisfaction, productivity, and turnover. The VC financing attained by an SME might facilitate the provision of consistent salaries, rewards, or bonuses, which makes employees more satisfied and productive. According to the reviewed study by Voordt and Jensen (2023), satisfied

employees are more loyal to their company and, hence, are more productive, leading to higher profits. Hence, using VC financing to improve the satisfaction of employees is more likely to enhance their loyalty and productivity and, consequently, the SMEs' profitability.

6.3 Recommendations for Future Research

Analysis of the study's methodological approaches revealed seven research design limitations outlined in Chapter 3 of this dissertation document. These research design limitations thus form the foundation for the recommendations for future research following this investigation on the impact of venture capitalists and VC on the financial and non-financial performance metrics of construction sector SMEs. Correspondingly, the following recommendations for future research are thus proposed;

- Conduct similar research by sampling financial experts from other countries. This approach would counter this study's lack of generalizability to different geographical locations as the researcher only sampled financial experts working in the UK. As such, sampling more financial experts would reveal insights that can be used in conducting a comparative analysis of the impacts of VC on financial and non-financial performance metrics in various countries. A future study might also be conducted in developing countries, considering this research focused on the UK, a developed nation.
- Since this study was limited to financial experts in the construction sector, future research might sample similar professionals from other sectors. In doing

so, future research would create a comprehensive theory regarding the impacts of VC and venture capitalists on SMEs' financial and non-financial performance metrics in various industries. Such future studies would also be beneficial to the UK considering the immense contribution of SMEs to the economy of the UK through contributing to its GDP and employment rates, as evident in the statistics reported by Eurostat (2019), UK Government (2023a), and the Department for Business, Energy & Industrial Strategy (2020, 2021, 2022).

- Future research could also be conducted with other categories of CSFs of construction sector SMEs. Some of these CSFs, which might be explored in future research, include leadership commitment and staff involvement (Georgiev and Ohtaki, 2020), top management support, staff engagement and training and education (Sodhi et al., 2019), and project team competence (Cieciora et al., 2020; Kiran and Reddy, 2019). Focusing on all CSFs within an SME in a study on the impacts of VC financing in such businesses forms the basis for gaining a comprehensive insight into the source of capital and the effects of financing.
- Given that this study was limited to the data from participating financial experts, future research might be conducted by sampling other individuals who know VC's impacts on SMEs' performance. The quantitative findings in the sequential exploratory mixed-methods research needed to be more generalisable due to the focus on only financial experts in SMEs in the construction sector. As such,

future research might include the owners of SMEs, employees in such businesses, investment advisors, or venture capitalists. As a result, research that samples a variety of professionals, such as those previously listed, is more likely to gain better insights regarding the effects of VC on SME performance, unlike those obtained by the researcher in this study of financial experts.

- Conduct future research on financial experts without restricting their years of experience. This recommendation stems from the methodological limitation of this study, which required an individual to have at least five years of experience as a financial expert to be included in the sample.
- Considering that this study only focused on VC as the financing approach that impacts business performance based on the identified problem statement, future research might use another type of financing accessible to SMEs. Such a study would enable SME owners to determine how various sources of capital might impact their financial and performance metrics. They can then use these data in their application for financing depending on the performance metric they are targeting.
- Future research might also test the correlation between VC financing, SMEs' investment returns, technological preparedness, and innovativeness. This recommendation is based on the varying results in this research's qualitative and quantitative sections, as the statistical results revealed an insignificant relationship. As such, future research might reveal more significant insights into the accuracy of the results in this study on how venture capitalists might impact

SME performance as measured by their investment returns, technological preparedness, and innovativeness.

- Given this study was conducted within a short period, a longitudinal approach might be adopted in future research. Such a study would enable a researcher to collect more data from participants over an extended period, unlike in this study. A longitudinal study would also allow a researcher to sample a variety of professionals who might have better insights into the study's phenomenon. It might also reveal more significant findings, augmenting this exploratory sequential mixed-methods research results.

6.4 Conclusion

This sequential exploratory case study explored the impacts of VC financing on the performance of SMEs in the UK. Specifically, the research on the perceptions of financial experts working in the construction sector SMEs in the UK found that VC has significantly impacted their firms' financial and non-financial performance metrics. The assessed performance metrics include investment returns, sales revenue, profit margins, quality, safety, competitiveness, technological innovativeness, employee satisfaction, productivity, turnover, inventories and overall sustainability. Most participants felt that venture capitalists have guided start-up SMEs in the construction sector in identifying how to attract investors and succeed in the highly competitive market. The results also indicated that it is essential for SME owners to understand the steps venture capitalists take before making their investments and the factors they consider, including the skills and experience of their management team, milestones, and market validation. It is hoped that the

perceptions of the financial experts could guide the owners of start-up SMEs in the construction sector in effectively enhancing their attractiveness to venture capitalists who might contribute to the success of their financial and non-financial-based performance metrics. Considering the benefits of VC financing, the significant implication of this study's findings to the owners of SMEs in the construction sector is that they should leverage the investments and expertise of venture capitalists to foster their financial and non-financial performance metrics. This study was conducted among financial experts working in SMEs in the construction sector in the UK, which limited the generalisability of the study's findings. Hence, future research has been proposed to use other types of experts or similar professionals in SMEs in other industries in the UK or different countries. The results of this study are thus significant to the owners of SMEs in the UK construction sector and form the basis for future research and a chance to enhance their contribution to the country's economy and employment rates.

APPENDIX A

INFORMED CONSENT

My name is Ali Sarraf**.** I am currently undertaking a doctoral degree and working on the required project for successful completion titled, "Investigating the Impact of Venture Capital on the Success of Construction Sector SMEs in The UK." This study uses the opinions of financial experts to develop a detailed investigation into venture capital (VC)'s impact on success and growth-related factors in construction sector SMEs located in the UK.

If you choose to participate in this research project, you must complete twenty questions relating to the research's purpose. This study values voluntary participation; hence you are free to end your participation if you wish to do so. All your responses will also be kept confidential.

No incentive or reward is given to the participants of this research project. However, your responses will help other SMEs in the UK's construction sector enhance their success and growth rates. You can reach me
by email on: elsarraf@gmail.com

By signing below, I acknowledge that I have been informed of this research project's purpose, risks, and my rights. My signature also permits the researcher to use my responses to attain the goal of their research.

Participant's name **Participant's signature** **Date**

Researcher's name **Researcher's signature** **Date**

APPENDIX B

INTERVIEW GUIDE

What to do	What to Say
My name is Ali Sarraf. I am currently undertaking a doctoral degree at the Swiss School of Business and Management. I appreciate your commitment to my research project that aims to explore the opinions of financial experts in the construction sector regarding how VC impacts the success and growth of SMEs operating in the construction sector in the UK.	
Please respond to these questions to determine your eligibility for this research project. 1) What is your present occupation in the SME? 2) How long have you worked as a financial expert?	
I assume that you have received an informed consent form and have signed it, so you are aware of this research project's purpose and its support for voluntary participation. Please forward any questions regarding the study using the contacts I attached to the consent form.	

Kindly respond to the following research questions as accurately as possible.

1) What are the major ways VC has fostered the financial performance of construction sector SMEs in the UK?
2) How have venture capitalists enhanced the non-financial performance of SMEs in the UK's construction sector?
3) How have SME business owners used venture capital to enhance their competitiveness in UK's construction sector regarding labour productivity and asset turnovers?
4) What is the role of VC on construction-SMEs technology-readiness? Please specify the change management steps, business processes, or policies put in place to ascertain this in the SMEs.
5) How has VC impacted the business processes in SMEs in the construction sectors in terms of how it has enhanced the manufacturing cycle times?
6) How has VC financing enhanced the number of sales recorded by SMEs in the construction sector in the UK?
7) How have SME owners in the construction sector used VC financing in their operations, and how is this impact evident in the number of inventories that they have?
8) In what ways has VC impacted the number of customers in SMEs? How has VC financing influenced this impact on the construction sector SMEs?
9) How has VC financing impacted employees in an organisation in regard to their satisfaction and turnover rates?

10) How has VC financing influenced employee performance and productivity in SMEs in the construction sector?
11) Does the impact of VC financing on SME employees also apply to the number of accidents among them, especially in the construction sector? If yes, please explain further.
12) How has VC financing enabled emerging SMEs in the construction sector in the UK to foster their innovative activities? In what ways are they reflected in the processes, employee competencies, and the number of technologies adopted by an SME?
13) How has VC financing impacted the quality metrics of products from the UK's construction sector regarding cycle times and customer ratings?
14) In what ways has VC financing impacted the quality metrics of emerging construction sector SMEs operating in the UK? How has this affected the length of customer calls when making orders?
15) How has VC financing helped SMEs in the construction sector to enhance their profits and turnover on investments?
16) In what ways have these performance improvements fostered the sustainability of the SMEs?
17) What steps do venture capitalists in the UK engage in when selecting an SME to invest in in the UK?
18) What strategies have SME business owners in the UK used to attract venture capitalists to their organisations?

19) How can start-up construction sector SMEs in the UK enhance their attractiveness to venture capitalists as a sustainable growth and success approach? 20) What additional information do you believe SME owners need to know before seeking VC financing for their businesses?	
End of the research's project survey guide	--

APPENDIX C

CLOSE-ENDED SURVEY QUESTIONNAIRE GUIDE

My name is Ali Sarraf. I am undertaking a doctoral degree at the Swiss School of Business and Management. I appreciate your commitment to my research project that aims to explore the opinions of financial experts in the construction sector regarding how VC impacts the success and growth of SMEs operating in the construction sector in the UK. Please answer the required sections appropriately. Also, note that there are no right or wrong answers; thus, give your immediate impressions. The data collected will be used for research purposes only. Your time and contribution to this study are highly appreciated.

Thank you!

SECTION A: DEMOGRAPHICS (Please tick appropriately)

Please respond to these questions to determine your eligibility for this research project.

1. What is your gender?

   Male [ ] Female [ ]

2. What is your age?

   20-30 Years [ ]

   30-40 Years [ ]

   40-50 Years [ ]

   50-60Years [ ]

   Above 60 [ ]

3. What is your educational level?

   Diploma [ ]

   Bachelor's Degree [ ]

   Master's Degree [ ]

   Ph.D. [ ]

4. Is your present occupation in an SME in the construction sector?

   Yes [ ] No [ ]

5. Do you work as a financial expert at your present occupation?

   Yes [ ] No [ ]

6. How many years of experience do you have as a financial expert in the UK's construction sector?

   Less than 5 years [ ] 5 years [ ] More than 5 years [ ]

SECTION B: VENTURE CAPITAL (VC)

Data collected under this section will help measure venture capital, one of the study variables. To what extent do you agree with the following statements? (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

Statement	1	2	3	4	5
1. Venture capital provides funding to new and highly risky start-ups or innovations that create new pathways for revenue that foster the economy.					
2. Venture capital is a precursor for SMEs' growth, global technological development and employment generation.					
3. Venture capital provides patient capital to young firms financially incapacitated and continues to oversee their operations as principals.					
4. Venture capital fosters the development and sustainable growth of new enterprises.					
5. Venture capital comprises financing targeting development and business expansions in start-ups with demonstrated great business potential.					
6. Venture capital falls under private equities, which includes financing of instruments using funds obtained from					

private sources that are provided in exchange for a share or stake in a business.					

Source: (Kato & Tsoka, 2020; OECD, 2015; Pradhan et al., 2019; Witter, 1939).

SECTION C: FINANCIAL PERFORMANCE METRICS

This section measures the financial performance metrics of construction SMEs in the UK. Financial elements that are impacted by venture capital investment include sales revenue, returns, and profits.

I. INVESTMENT RETURNS

To what extent do you agree with the following statements? (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

Statement	**1**	**2**	**3**	**4**	**5**
1. Venture capital financing positively influences the growth of VC-backed firms in terms of returns on investment.					
2. Start-up firms that receive venture capital tend to achieve higher valuations in the long run.					

3. Start-up firms backed by venture capital are more likely to achieve higher returns compared to those without such funding.					
4. A venture capitalist's financial investment in a business will yield returns					
5. Venture capital financing enables SMESs to invest in strong brands and positive reputations that attract more customers, command premium pricing, and increase sales, ultimately leading to improved turnover on investments.					
Venture capital financing facilitates technology adoption, operational efficiencies, access to expertise and strategic guidance, giving SME owners opportunities to enhance their turnover on investments.					

Source: (Kato, 2021; Nukala & Rao, 2021)

II. SALES REVENUE

Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. Venture capitalists provide funding to new and highly risky start-ups or innovations that create new pathways for revenue that foster the economy.					
2. Venture capital-supported SMEs have higher sales volume, which increases revenue.					
3. Venture capital-backed firms have higher revenue than non-venture capital-backed firms.					
4. Venture capitalists provide a new business with funding, hence increasing its revenue.					
5. Venture capital financing enables SMESs to invest in strong brands and positive reputations that attract more					

customers, command premium pricing, and increase sales, ultimately leading to higher profits and improved turnover on investments.					
6. SME owners get opportunities to enhance their turnover on investments through VC financing, which facilitates technology adoption, operational efficiencies, access to expertise and strategic guidance.					

Source: (Kato & Tsoka, 2021; Pradhan et al, 2019)

PROFIT MARGINS

Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. A venture capitalist's investment in an SME enables it to obtain higher profits.					
2. Firms that offer venture capital financing to firms collaborate to create institutions that create a portfolio for the					

potentially profitable start-ups that they can finance.					
3. Start-up firms backed by venture capital are more likely to achieve higher profits compared to those without such funding.					
4. The increased financial resources from venture capital financing enable SMEs to seize market opportunities and generate higher revenues, leading to increased profitability.					
5. With an increase in finances, SMEs are able to effectively leverage the benefits of technologies that are essential for such enterprises in the construction sector. The technologies have enabled business owners to enhance their productivity and, subsequently, their profits.					
6. Venture capital financing facilitates the SME owners' market-related research and expansions, which increases the					

ability to attract new customers and explore new markets, raising the profits garnered by construction sector SMEs.					
7. Venture capital financing provides SMEs with a substantial injection of capital, allowing them to invest in growth opportunities, expand their operations, and take on larger projects, generating higher profits.					
8. Venture capitalists provide guidance to SME owners regarding how they can streamline their operations, including adopting sustainable strategies and lucrative market gaps and opportunities that can aid them in enhancing their profit margin.					

Source: (Kato & Tsoka, 2021; (Sharaf, 2019)

SECTION D: NON-FINANCIAL PERFORMANCE METRICS

This section measures the non-financial performance Metrics of Construction SMEs in the UK. Non-financial elements impacted by venture capital investment include quality, safety, competitiveness, technological innovativeness, employee satisfaction, productivity and turnover, and inventories and overall sustainability.

(I) QUALITY

Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. Venture capital financing supports the construction sector SMEs in effectively researching and successfully implementing approaches for enhancing the quality of their operations, products, and services.					
2. Venture capital-backed SMEs often focus on investing in efficient workflows, standardized procedures, and quality management systems.					
3. Venture capital financing creates chances for SMEs to train their employees, which improves their adherence to industry standards and improving the quality of products.					
4. Venture capital financing enables the owners of construction sector SMEs to					

purchase and implement essential resources and equipment, eventually allowing SME owners to enhance the quality of their products and services.					
5. Venture capital financing contributes to the adoption of process optimization approaches and tools that lower cycle times.					
6. Venture capital financing facilitates equal resource distribution and allocation activities, which in turn results in improved quality products and processes.					
7. SME owners enhance their supply chain management-related practices and adopt industry-required technologies and tools after receiving venture capital financing, thus optimizing their operations.					

(II) SAFETY

12. Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. When SMEs in the construction sector receive venture capital, they are able to prioritize the well-being of their employees since their major challenges, such as lack of access to financial capital, are resolved by the investments obtained from venture capitalists.					
2. Venture capital financing indirectly contributes to improved workplace safety by enabling SMEs to invest in resources, training, and safety measures.					
3. Venture capital financing allows SMEs to allocate resources to implement safety protocols, purchase safety equipment, and maintain a safe working environment.					

4. Venture capital financing enables SME owners to create and implement safety programs in their businesses.					
5. Venture capital financing enables SMEs to adopt advanced technologies that can enhance safety in the workplace.					

(III) COMPETITIVENESS

Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. SME owners have venture capital financing to enhance their competitiveness by hiring more skilled personnel than their competitors.					
2. Venture capital financing is used to attract and recruit specialized talents.					
3. Venture capital financing enhances the competitiveness of SMEs by enabling them to enhance their scalability.					

4. Venture capital financing allows construction sector SMEs to attain enhanced asset turnover while maintaining a competitive advantage over other similar businesses.					
5. Venture capital financing allows SMEs to engage in research and development, revealing market opportunities which they leverage and increase their turnover and competitiveness.					

(IV) TECHNOLOGICAL INNOVATIVENESS

Kindly rate on a scale of 1 to 5 your level of agreement with the following statements that indicate how venture capital impacts the technological innovativeness of UK's construction SMEs (where 5 strongly agree, 4 agree, 3 neutral (neither agree nor disagree), 2 disagree, and 1 strongly disagree)

	1	**2**	**3**	**4**	**5**
1. SMEs have developed processes that address customer needs more competitively and profitably than existing ones.					

2. SMEs have developed new equipment that addresses customer needs in a more profitable and competitive way compared to the existing ones.					
3. There are modifications in the SMESs' practices that are intended to obtain an improvement in performance.					
4. Venture capital financing provides emerging SMEs with the necessary financial resources to invest in research and development (R&D), prototype development, and innovation initiatives.					
5. Venture capital financing assessment findings are used to develop a relevant plan that outlines the specific technologies to be adopted, the budget required, and the timeline for implementation.					
6. Venture capital financing enables SMEs to foster innovation in the construction sector in the UK.					

Source: (Adam & Alarifi, 2021)

(V) EMPLOYEE SATISFACTION, PRODUCTIVITY AND TURNOVER

Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. Venture capital financing provides SMEs with additional financial resources used to invest in employee development training programs and benefits, which improves employee satisfaction.					
2. Venture capital financing enables SMEs to provide their employees with competitive compensation packages and opportunities for professional growth. This leads to higher job satisfaction and lower turnover rates.					
3. Venture capital financing positively impacts business cultures, resulting in improved satisfaction and productivity and reduced turnover rates.					

4. Venture capital financing enables enterprises to mitigate delays or bottlenecks during SME operations, improving employee productivity.					
5. Venture capital financing provides strategic direction and aligns the organisation's goals with employee performance, ensuring employees understand the company's vision and objectives. Consequently, this increases their motivation, focus, and productivity.					

(VI) INVENTORIES AND OVERALL SUSTAINABILITY

Please indicate to what extent you agree with the following statements: (Kindly rate on a scale of 1 to 5 on your level of agreement where 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree).

	1	**2**	**3**	**4**	**5**
1. Venture capital financing enables SMEs to implement appropriate inventory management systems and technologies.					

2. Venture capital financing facilitates project planning and scheduling abilities, which improves inventory management.					
3. Venture financing enables SMEs to adopt just-in-time (JIT) inventory practices and activities.					
4. Venture capital financing positively impacts the financial sustainability of SMEs.					
5. Venture capitalists guide SMEs in fostering their sustainability by guiding them on how to effectively streamline their operations.					
6. Venture capital financing enables SMEs to enhance organisational sustainability through strategic partnerships and employee improvement programs.					

End of the research's project survey guide

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