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SMEs' Innovativeness and Technology Adoption as Downsizing Strategies during COVID-19: The Moderating Role of Financial Sustainability in the Tourism Industry Using Structural Equation Modelling

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Abstract: This study aims to identify why firms, specifically SMEs in the hospitality and tourism industry, downsized during the recent global economic distress caused by COVID-19. This study applied a quantitative methodology by distributing online questionnaires to SME owners and managers who operate in the tourism industry of the UAE. We analysed the collected data using structural equation modelling. A total of 320 questionnaires were analysed using the PLS-SEM analytic tool. Our findings revealed that the investigated constructs, namely financial sustainability, SMEs' innovativeness, and technology adoption predict the implementation of downsizing strategies during economic distress. However, financial sustainability failed to expedite SMEs' innovativeness and technology adoption during this period. Therefore, the findings of this study show the impacts of financial strength, technology adoption, and innovativeness on implementing downsizing strategies, and provide suggested recommendations in light of the observed results.

Keywords: financial sustainability; SMEs' innovativeness; technology adoption; economic distress; COVID-19

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1. Introduction

One of the most constant organizational strategies is change. As history has shown, firms that have refused to change often face bankruptcy; a typical example of this is the company Nokia [1,2]. Organizational history suggests that change can be either premeditated or due to an emergency. Given these trends, the reasons for and rates at which firms change their modus of operandi, especially during the recent COVID-19 outbreak, demands further empirical investigation, with specific attention given to downsizing [3].

Within the past few years, global firms not limited to multinational cooperation (MNCs), private and public firms, and small and medium enterprises (SMEs) have invariably adjusted their operating protocols. One of the most popular adopted organizational strategies has been to downsize [4–7] because of the economic stagnation caused by COVID-19. During the height of COVID-19, many employees were relieved of their posts because

either their services were no longer needed due to firm innovativeness, technology adoptions, or their firm's need to sustain their financial streams [8–11].

Downsizing, according to [12–14], is a strategic organizational practice employed to balance or maintain the relationship between employees and resource allocation, and to maintain economic and strategic relevance during turbulence and downturn. Despite the significance of downsizing, scholars warn firm owners and managers about its implementation as a core organizational strategy because of its potential to demotivate remaining employees by creating feelings of job insecurity. In addition, the cost and legal implications of downsizing are substantially higher than the proposed cost reductions when litigation processes are involved [8,9,11].

Nevertheless, downsizing strategies were brought back to the limelight during and after the recent global coronavirus pandemic (COVID-19) [15]. The COVID-19 pandemic occurred when managers and business owners least expected the occurrence of such an event [16–18]. During this period, managers and firm owners found it crucial to redress their strategic plans by cutting off less relevant business units or employees and adopt technology that included the use of Zoom, social media, and Microsoft Teams to arrange meetings, share information, and conduct general business processes [19–21]. However, business processes are not as smooth as they were before what has become the 'new normal.' Nevertheless, firm and business owners realized that they were able to cut operating costs and reduce resources specifically when they had a reduced workforce, all of which are considered downsizing strategies.

Insights into the available literature reveal several reasons why managers and firm owners who choose to downsize are not limited to a reduction in production costs, in rapid innovation leading to employees' redundancy, and in technology adoption [22–24]. Furthermore, factors such as limiting the effect of redundancy among employees due to operation outsourcing, financial stream sustainability, mergers and acquisitions, firm resource availability, market governance, environmental turbulence, and employees' demands for flexible working conditions were found to influence firms in choosing to downsize [11,25–29].

Considering the economic impact of COVID-19, we decided to investigate the roles of innovativeness and technology adoption as factors that predict whether firms will downsize. Additionally, since managers' major reason for downsizing during the economic downturn is to sustain their financial stream, we introduce this construct as a potential moderator that influences the relationship between the investigated constructs and strategic implementation of downsizing. The moderation construct of financial sustainability is the key focus of this study as it was not tested as a moderator in earlier studies. This study introduces the significant moderating effect of financial sustainability on SMEs' innovativeness and technology adoption during economic distress. Further, this study aims to examine the significant effects of technology adoption, innovation, and financial sustainability on downsizing strategies among SMEs in the developing economy.

2. Review of Relevant Literature

As all studies require reviewing the related literature, this paper details a thorough review of existing scholarly literature that is relevant to downsizing strategies. In the following sections, we present knowledge and findings from the existing literature.

2.1. Why Firms/Managers Downsize

Insights from the reviewed scholarly works reveal several reasons that organizations make the strategic decision to downsize. The most prevalent among them include unfavorable economic conditions, severe competition, enhancing products or service quality, retaining the best minds, technology adoption, and financial sustainability [11,25,26]. Furthermore, enhancing product performance, improving overall approaches to a firm's strategic decisions, and service innovation, to name a few, can also be gleaned from the literature. [1,11,25,26,30]. Despite these reasons, scholars not limited to [31,32] note that

implementing a strategic downsizing decision might cost the firm more than it plans to save, if not adequately implemented, or if such moves are politically motivated.

Evidence from the study by [14,22,33] reveals that downsizing is a corporate restructuring strategy implemented during a downturn and a state of financial distress. Likewise, firm restructuring processes might include mergers and acquisitions [28,34,35]. During a merger and acquisition, the less productive employees, or those with the least expertise, are identified and advised to relieve their current positions.

Also, when a significant event disrupts the firm's production or supply chain system, the best way to cope according to [36,37], is to reduce the workforce to achieve work efficiency and efficacy. Furthermore, decreasing demands in products and services technically leads to downsizing [13,14]. As evident from the study of [8], less demand for a previously booming product requires less staff, and the surge in other products requires more. Thus, reshuffling employees becomes a crucial process. Nevertheless, the recent global pandemic has made managers and firm owners implement downsizing, with or without proper implementation, because of the urgency to save their businesses and avoid bankruptcy.

2.2. Technology Adoption and Downsizing

The relationship between technology adoption/implementation and employees' retrenchment/layoffs has received considerable attention from previous scholars. Examples of empirical works investigating this relationship include [32,38,39], who conclude that there is a significant relationship between technology adoption/implementation and employee layoffs/downsizing.

A similar investigation by [40,41] opined that adopting technology to perform employees' tasks will make employees redundant; hence, their services will no longer be required. For example, information flows in the digital economy over mobile phones and computers with internet access; hence, office messengers are advised to vacate their responsibilities in such organizations [42,43]. Further reasons why technology adoption leads to downsizing were also evident in [44]. According to these scholars, managers keen to compete by sustaining their profits and mass production will agree to redesigning or restructuring their traditional in-house jobs to information technologies.

Insights into studies such as [45–47] acknowledge that technology adoption in organizations expedites the redundancy rate among a firm's employees. Hence, it is a significant source of downsizing. Given the above review, we posit the following hypothesis:

Hypothesis 1 (H1). *There is a significant relationship between technology adoption and downsizing strategy implementation.*

2.3. SMEs' Innovativeness and Downsizing

Literary evidence reveals that the only constant is change. Due to rapid environmental dynamism, firms are left with no option but to improvise their operations effectively and efficiently. One of the strategies to achieve this is to innovate [48–50]. Innovation, according to [48,49], is the process of improvising the procedures and processes of improving products and service performance to enhance customers' or users' perceived value.

Evidence from earlier investigations revealed that innovation in an organization leads to the redundancy and dismissal of employees [51,52]. Therefore, studies not limited to [53–55], over the years, examined the relationship between firm innovativeness and layoffs or downsizing. According to [50], there is a significant adverse effect on firm innovativeness if managers choose to downsize. Similar investigations by [56,57] reveal that the remaining employees hamper innovativeness in the organization because those who remain in the firm perceive less job security. The study by [50], however, recorded the negative significance of downsizing on firm innovativeness. They further related that labour flexibility could mitigate this negative impact and enhance the relationship over time.

Contrarily, the investigation by [54] argues that the relationship between firm innovation and downsizing is contingent. Therefore, they conclude that the motives, speed, and needs for downsizing affect innovativeness. Another study by [58] in 2010 argues that the negative influence of downsizing on firm innovativeness observed by [56,57] is temporary. They conclude that a significant positive relationship exists between firm innovativeness and downsizing in the long run. Consequently, we propose a second hypothesis.

Hypothesis 2 (H2). *Innovativeness among SMEs significantly leads to downsizing implementation strategies*.

2.4. Financial Sustainability and Downsizing

One of the reasons managers provided for downsizing prior to and during the recent global COVID-19 pandemic was economic distress. According to scholars, economic distress is when the macro economy fails to support a firm's 'normal' operations; thus, warranting a redress to the firm's operating costs and strategies [59–61]. Therefore, scholars not limited to [22,23,62] developed an interest in examining the significant relationship between sustaining a firm finances during economic turbulence and downsizing.

One of the methods firms used to sustain their operating costs was to downsize and outsource their production lines to other firms [63–65], especially when there is low demand or the cost of production is high. The production line unit is crucial to firm performance [66,67]. A recent investigation by [61] argues that it is not only during financial distress that a firm downsizes. The authors argue that to enhance competitiveness and maintain operating costs, firms downsize and outsource such business units to other firms. Considering this, [61,68] reports a significant positive relationship between a firm's financial sustainability and competitive advantage via downsizing. Also, a recent study by [65] argues that downsizing in the form of outsourcing enhances overall internal firm managerial practices after investigating listed firms in the US.

Due to the evidence from the reviewed literature, we present the following hypothesis.

Hypothesis 3 (H3). *Financial sustainability intent among SMEs during COVID-19 triggers them to implement downsizing strategies*.

Despite several reports proving a significant relationship between financial sustainability and downsizing, [63] opined that this relationship might have broader implications. Therefore, we decided to introduce financial sustainability as a moderator between technology adoption and firm innovativeness. The rationale behind introducing financial sustainability as a moderator lies in the definition of a moderator given by [69] who defined a moderator as any construct that can alter the relationship between variables. In the context of this study, the speculation given by firm and SME managers is that they needed to maintain their financial stream during turbulent times (COVID-19). Therefore, they innovate, adopt, and implement several technologies and ultimately downsize [11,36,64]. Accordingly, we investigate their claim empirically with the introduction of financial sustainability as a potential moderator for their actions. Thus, Figure 1 is presented:

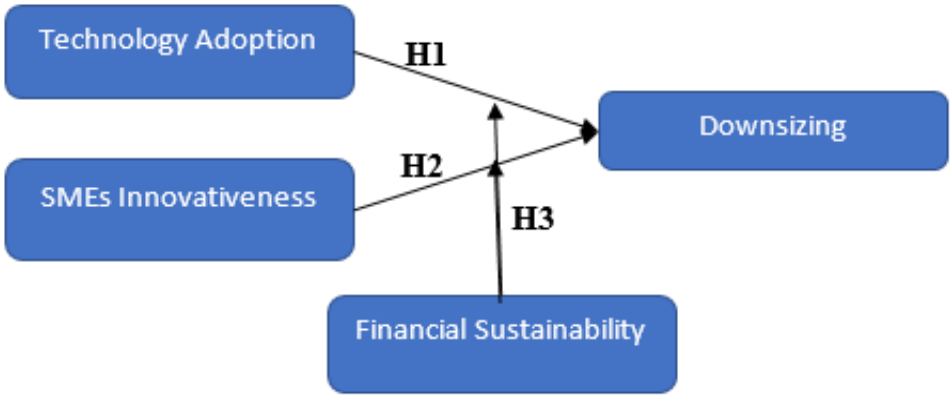

Figure 1. The model for this study.

2.5. Philosophical Underpinning

This study adopts the strategic perspective of the downsizing model as the theoretical underpinning because it covers both human and nonhuman firm resources to make strategic decisions to help retain its competitiveness [70,71]. Hence, the strategic perspective believed is that firms downsized not only to reduce their labour intensity but, to also save costs vis-à-vis external factors and their effect on organizational strategies that influence the firm's comprehensive focus strategies [72–74]. According to [75,76], the strength of the strategic perspective on downsizing highlights a comparatively unmapped and untouched aspect of observing the practice of downsizing as a strategic choice of the organizations to respond to the influences at the firm and industry levels, different from ideological and theatrical perspectives.

Relating this downsizing perspective to the recent global COVID-19 pandemic, it becomes evident that managers scrambled to retain their competitiveness. Therefore, they had no choice but to redress or restructure their strategic competence (innovation and technology adoption) and financial strength via a reduction in labor intensity.

3. Methodology

This study adopts a survey research methodology where sets of predesigned questionnaires were distributed to managers or owners of SMEs operating in the hospitality and tourism industry in the United Arab Emirates (UAE). This method is widely used among scholars who intend to confirm or validate theories [77–79]. The questionnaire items (see Appendix A) were measured using a 5-point Likert scale where one represents 'strongly disagree', and five represents 'strongly agree' [77,80]. The research objectives were achieved by randomly sending out eight hundred (800) survey questionnaires to the targeted respondents: firms operating in the hospitality industry across the UAE.

Furthermore, to ensure that the data collection process was free from non-response bias, we allowed the questionnaire retrieving process to span over three months. We successfully recovered four hundred (400) completed questionnaires (50% of the distributed questionnaires) during this period. The quantity of returned questionnaires surpassed our expectations as we expected to receive at most only thirty per cent (30%) of returned questionnaires. Meanwhile, we realized that eighty (80) responses were either half-filled or not filled. Given this, they were excluded from the dataset. Hence, we proceeded with the data collection by using 320 valid questionnaires. According to Krejcie and Morgan [81], a researcher can conduct data analysis using 306 samples from a population of 1500 units [82].

The instruments used in measuring the constructs under investigation were developed from previously established instruments, related literature, and findings from empirical investigations. For example, five (5) items were adapted from the works of [20,83,84] to measure downsizing. The instruments used in measuring technology adoption were adapted from the study of [85–87]. The five items consider technology adoption as a means to communicate efficiently and effectively to a firm's customers and suppliers.

Similarly, items used to measure firm innovativeness and investigate the innovation approach firms adopted to try to have an edge over competitors during economic distress, relate with customers and get a larger market share. The items used were adapted from the study [88–91]. Lastly, five items adapted from the studies of [92–94] were used to measure financial sustainability strategies implemented by SMEs operating in the hospitality and tourism industry, especially during the recent COVID-19 economic distress.

We employ a Partial Least Square Structural Equation Modelling analysis tool to analyze the data in this study because the SEM analysis tool employs causal predictive relations as it maximizes the amount of explained variance of endogenous variable [95]. Furthermore, this study approach is viewed as a reflective-reflective measurement model because the items used in measuring the constructs in this study are proxies for the latent variable. Therefore, the following steps were taken to ensure the robustness and informed decision of using the study model. The steps include assessing the measurement and structural validity of the model. Under the measurement model, the following criteria were duly observed. The pictorial presentation of the measurement model is presented in Figure 2 above.

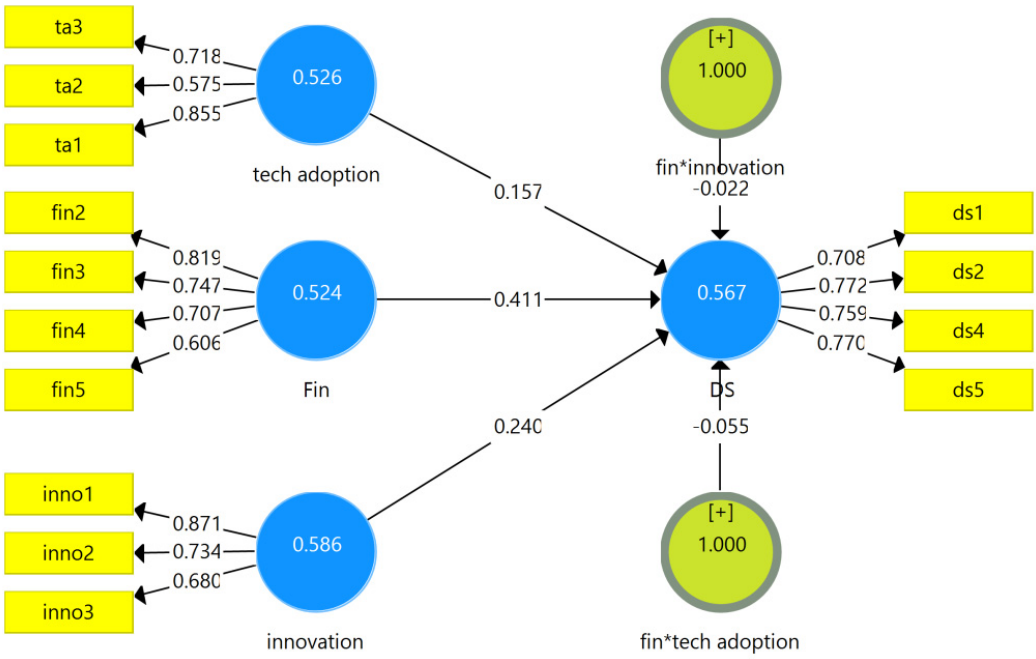

Figure 2. Measurement Model Evaluation.

i. The convergent and discriminant validity. The convergent validity is measured using the average variance extracted (AVE). The AVE value should be greater than 0.5 that is, it must be 50% or higher.

The criterion for a valid AVE is 0.5 or higher. If this value is not achieved, construct items with lower loading should be removed (Assessing measurement model quality in PLS-SEM using confirmatory composite analysis). Therefore, the two items (ta4 and ta5) from the construct 'tech adoption', one item (fin1) from the construct 'finance', two items (inno4 and inno5) from the construct 'innovation', and one item (ds3) from 'downsizing' were dropped because they have loading less than 0.4 that reduces the construct's initial AVE. After removing these items, the AVE for each construct fulfilled the criterion of discriminant validity proposed by assessing the measurement model quality in PLS-SEM using confirmatory composite analysis.

ii. Construct validity using the weighted reliability, also known as composite reliability (CR) which the threshold according to [96] should be within the range of 0.7 and 0.95. A CR value of greater than 0.95 is said to be redundant. That is, it is measuring other

constructs in the model while that of less than 0.7 failed the reliability test. In this study, the CR values for the construct under investigation, after ensuring the AVE met the criteria, were observed to be greater than 0.7 and less than 0.95. Therefore, the construct validity in this research model is confirmed.

iii. Construct validity measured distinctiveness of the shared variance within the construct as against the shared variance among the constructs.

Therefore, Table 1 presents the item loadings, composite reliability, and discriminant validity.

Table 1. Item Loadings, CR, AVE and Discriminant Validity.

SN	Construct	Items	Items Loadings	CR	AVE	Discriminant Validity
1	DS	ds1 ds2 ds4 ds5	0.708 0.772 0.759 0.77	0.839	0.567	YES
2	Fin	fin2 fin3 fin4 fin5	0.819 0.747 0.707 0.606	0.813	0.524	YES
3	Innovation	inno1 inno2 inno3	0.871 0.734 0.68	0.808	0.586	YES
4	Tech Adopt	ta1 ta2 ta3	0.855 0.575 0.718	0.764	0.526	YES

iv. We checked the data discriminant validity using the Heterotrait-Monotrait (HTMT) criterion proposed by [97]. A construct is said to have a valid discriminant validity when the shared variance within the construct (cross-loadings) is greater than the shared variance between constructs. The recommended threshold for the HTMT value should not exceed 0.85 or 0.90.

v. Additionally, the items' cross-loadings were also checked. The results are presented in Table 2. The objective of checking the items' cross-loadings is to affirm that the items used in measuring each construct load have high values when compared with other constructs in the model.

Table 2. Cross Loadings.

Items	DS	Fin	Innovation	Tech Adoption
ds1	**0.708**	0.424	0.316	0.055
ds2	**0.772**	0.295	0.255	0.247
ds4	**0.759**	0.525	0.225	0.215
ds5	**0.770**	0.347	0.227	0.223
fin2	0.461	**0.819**	0.156	0.299
fin3	0.416	**0.747**	0.086	0.298
fin4	0.394	**0.707**	0.325	0.185
fin5	0.279	**0.606**	0.388	0.065
inno1	0.346	0.219	**0.871**	−0.182
inno2	0.221	0.278	**0.734**	−0.108
inno3	0.162	0.225	**0.68**	−0.047
ta1	0.233	0.283	−0.105	**0.855**
ta2	0.069	0.275	−0.159	**0.575**
ta3	0.169	0.159	−0.142	**0.718**

N/B: The shaded and bolded numbers depict the items loading under the measured constructs. Each item has cross-loading greater than 0.5, and they have a greater variance within construct than the shared variance between constructs.

Table 3 presents the HTMT ratio. The observed ratios are less than 0.9 or 0.85. Hence, the data discriminant validity is confirmed.

Table 3. HTMT Correlations.

Construct	DS	Fin	Innovation
Fin	0.718		
Innovation	0.451	0.528	
tech adoption	0.362	0.479	0.267

After satisfying all the measurement model conditions, the next step is to observe the structural model. Under this section, the developed hypotheses were tested. Therefore, Figure 3 depicts the structural model output by PLS-SEM.

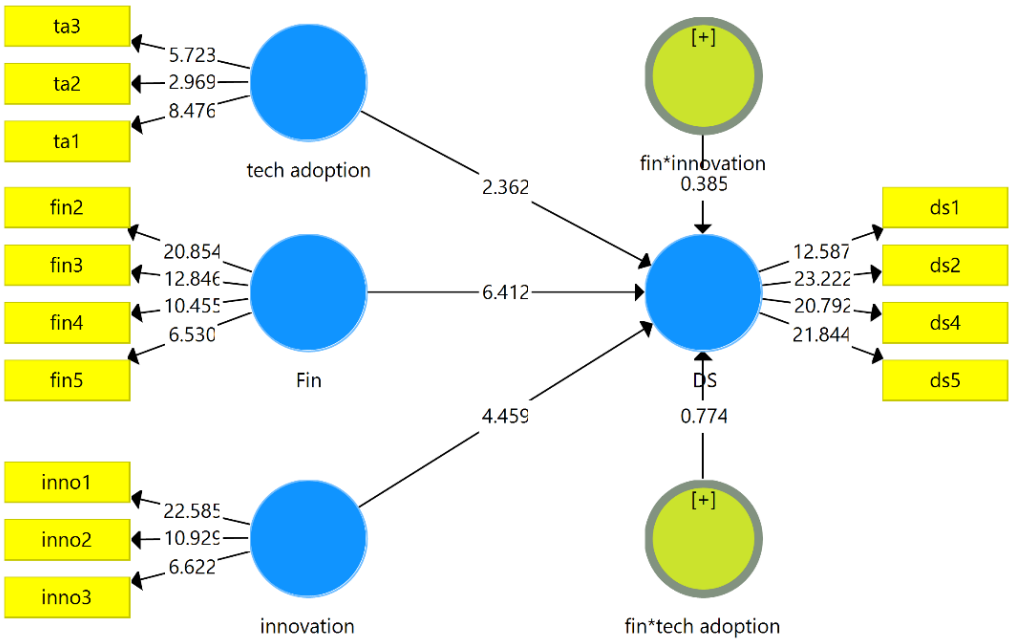

Figure 3. Structural Modelling Evaluation.

The first step to test the posited hypotheses in this study is to examine if perhaps there is any multicollinearity issues which might influence our decision. To achieve this, we examined the VIF for the items and constructs using variance inflated factors (VIF). According to [98], the VIF values less than five (5) reveal that multicollinearity is not an issue. Given this, Tables 4 and 5 below present the VIF results for the items and constructs.

Table 4. Construct VIF.

Construct	DS
Fin	1.37
Fin*Innovation	1.114
Fin*Tech Adoption	1.088
Innovation	1.343
Tech Adoption	1.221

Table 5. Item's VIF.

Items	VIF
ds1	1.284
ds2	1.732
ds4	1.31
ds5	1.701
fin2	1.882
fin3	1.777
fin4	1.644
fin5	1.581
inno1	1.301
inno2	1.282
inno3	1.299
ta1	1.205
ta2	1.22
ta3	1.154

Table 6 presents the VIF values for the constructs and items that were less than five (5) as posited by [98,99]. We conclude that the data used is free from collinearity and multicollinearity issues liable for causing Type I or Type II errors. Therefore, we proceed to assess the model significance using *t*-statistics.

Table 6. R^2 and Effect size.

Construct	R Square	R Square Adjusted	DS	Implication
DS	0.352	0.339		
Fin			0.19	Medium
Fin*Innovation			0.001	Small
Fin*Tech Adoption			0.004	Small
Innovation			0.066	Small
Tech Adoption			0.031	Small

Before testing the hypotheses in this study using structural model assessment, we examine the variance explained by the selected predictors on downsizing strategies using r^2. The model presents an r^2 of 0.352. This implies that the exogenous variables of financial sustainability, innovation, and tech adoption explained a 35.2% variance in downsizing implementation strategies.

The Q^2 is an out-of-sample predictive power significant to a model. In this study the Q^2 value reads 0.183 implying that model has a predictive relevance. The Q2 value is presented in Table 7.

Table 7. Predictive relevance Q^2.

	SSO	SSE	Q^2 (= 1 − SSE/SSO)
DS	1000	817.208	0.183

4. Discussion

The standardized path coefficients and path significances are demonstrated in Table 8. The first hypothesis in this study posits a significant relationship between technology

adoption and downsizing. As evident from the results of the analysis, the hypothesis in this regard was supported by having Tech Adoption = (β = 0.157, *t*-value = 2.362), $p < 0.05$. The finding implies that among the firms surveyed, adopting technologies to conduct their firms' operations led to downsizing specifically during the COVID-19 pandemic. The results in this regards tally with conclusions from earlier investigations not limited to that of [39–41]. They argue that adopting technologies as simple as social media to complex technology in the automobile industry displaces humans of their livelihood by performing their work duties and responsibilities, making them obsolete specifically when firms are facing economic challenges.

Table 8. Hypotheses Testing.

Hypo	Relationship	B	(STDEV)	T Stat	*p* Values	Decision
H1	Tech Adoption -> DS	0.157	0.066	2.362 **	0.018	Supported
H2	Fin -> DS	0.411	0.064	6.412 **	0	Supported
H3	Innovation -> DS	0.24	0.054	4.459 **	0	Supported
H4	Fin*Innovation -> DS	−0.022	0.058	0.385	0.7	Not Supported
H5	Fin*Tech Adoption -> DS	−0.055	0.071	0.774	0.439	Not Supported

N/B: ** denotes signifiant T-stat.

The second hypothesis in this study posits a significant relationship between financial sustainability and downsizing. The results obtained reveal that this hypothesis was supported by having Fin = (β = 0.411, *t*-value = 6.412), $p < 0.05$. This result translates to the fact that, indeed, the surveyed SMEs owners and managers believed that to maintain and sustain their firm's finances during an economic downturn such as the recent COVID-19 pandemic, they needed to retrench some employees whose services are not crucial to the firm's operations. Therefore, the findings concerning this hypothesis were in tandem with conclusions from the works of [22,23,25,28], where it was concluded that a significant relationship exists between financial sustainability and downsizing as a crucial strategy implemented during an economic downturn.

We posited a significant relationship between a firm's innovation and the implementation of strategic downsizing. The results of our analysis from the PLS-SEM show a significant relationship between innovation and downsizing, Innovation = (β = 0.24, *t*-value = 4.459), $p < 0.05$. The results show that firm innovativeness significantly predicts the implementation of strategic downsizing. That is, the more innovativeness exists within a firm, the more likely the firm will lay off redundant employees. The findings in this regards tally with the arguments from earlier investigations and the reality during the COVID-19 pandemic, where several employees were asked to relinquish their organizational responsibilities [50,57].

In the third hypothesis, contrarily, we failed to establish a significant moderating effect of financial sustainability on the relationship between innovation and technology adoption on downsizing having, Fin*Inno = (β = −0.022, *t*-value = 0.0385), $p > 0.05$ and Fin*Tech Adoption = (β = −0.055, *t*-value = 0.439), $p > 0.05$, respectively. As a continuation to the definition of a moderator given by [69], the insignificant negative result observed on the moderating effect of financial sustainability on the relationship between innovation and tech adoption on implementing strategic downsizing implies that the idea to sustain the firm's finances does not expedite technology adoption or innovation among the surveyed firms during the recent COVID-19 pandemic.

Nevertheless, insights into the size of each construct and its effects on downsizing reveal that financial sustainability has the largest effect. Thus, we confirm that maintaining and sustaining strong financial strength requires downsizing during an economic downturn, and this does not dampen or accelerate the urge to innovate or adopt technologies to enhance SMEs' operations during this period.

5. Implication of Findings

Implications of this research suggest how the findings can be essential for practical, theoretical, and subsequent research. The following section of this paper presents the conclusions from the findings of this study.

5.1. Practical Implications

The findings in this study imply that during an economic downturn, SMEs implement downsizing strategies as a means to sustain their financial flow and not because they are looking to adopt technologies to enhance their operation, or because they are innovating unique ways to enhance their processes.

Furthermore, the practicality of a non-significant moderating relationship of financial availability on the relationship between technology adoption and innovativeness on downsizing implementation strategies reveals that operators and managers of SMEs engaged in downsizing strategies because they believed in sustaining their financial flow and not acquiring the needed technology, and did not require or intend to innovate their business processes. Considering this, we advised the SME owners and managers to refrain from fully engaging in downsizing strategies to save costs for acquiring technology and innovation. Instead, they should use downsizing strategies to add value to their product offering during unfavorable economic conditions. Hence, strategic thinking causes innovativeness and technology adoption when physical contact was impossible while maintaining their finances.

5.2. Theoretical Implications, Limitations, and Recommendations

Findings from our investigation further the literature on the construct of downsizing, specifically why SMEs downsize during economic distress. We contribute to the body of knowledge by identifying the influence of sustaining a firm's finances and retrenching employees during an economic downturn. Furthermore, the findings imply that sustaining financial flow might not expedite SMEs' innovativeness and technology adoption during economic distress, even though SMEs' innovativeness and technology adoption play a crucial role in implementing downsizing strategies during an economic downturn.

Harmonising the study findings to the philosophical underpinning of strategic perspective theory, a theory that considers a firm's strategies and their human and nonhuman factors, we empirically argue that the theory supports the nonhuman aspect of a firm's strategic implementations. Despite the insights from the empirical results in this study, we identify some critical limitations. These include (i) our results consider downsizing from nonhuman factors. Therefore, we could not substantiate from the human factor why financial stream sustainability failed to expedite the relationship between SMEs' innovativeness and technology adoption on downsizing strategic implementation during economic distress (COVID-19). Considering this, we implore scholars to widen the scope of future investigation by examining both human and nonhuman factors.

(ii) The first limitation leads to the second observed limitation, which pertains to the employed research methodology. In this study, we employed a survey research approach to collect the data via a questionnaire. However, to have better insights into our findings, we suggest that future scholars use the interview research approach. We believe doing this will reveal why financial sustainability has no significant moderating effect on SMEs' innovativeness and technology adoption during economic distress. Also, we suggest interviewing the employees rather than limiting the responses to firm owners or managers as we did. We believe that paying attention to these practical limitations will assist the government and policymakers to create better informed policies on assisting SMEs' needs during an economic downturn and to increase job security for employees during a potential economic downturn.

6. Conclusions

In conclusion, this study aims to empirically investigate the significant effect of financial sustainability, SMEs innovativeness, and technology adoption to predict the downsizing implementation strategies used during economic distress. The observed result shows that financial sustainability, SMEs innovativeness, and technology adoption significantly predict the implementation of downsizing during economic distress. Given this, we affirm that SME owners and managers operating in the hospitality and tourism industry in the UAE employed downsizing strategies during the COVID-19 period for the following reasons:

(i) to sustain their financial streams;
(ii) to provide room for innovation; and
(iii) to allow for technological adoption.

Contrary to our expectations, our findings among the surveyed SMEs revealed that financial stream sustainability failed to moderate the relationship between innovativeness and technology adoption during the economic downturn. This implies that, during the economic downturn, the sustainability of finances does not necessitate or warrant technology adoption or firm innovativeness. These are performed and should be performed based on a firm's needs.

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Appendix A. Questionnaires/Surveys

Appendix A.1. Items Measuring Downsizing

Similar to SMEs' performance during COVID-19, downsizing is among the major strategies firms (both large and small) embarked upon to save costs, maintain value for customers, and add value to their products and services during an economic downturn (Samreen, Nagi, Naseem & Gul, 2022; Taticchi, Tonelli & Cagnazzo, 2010). Therefore, the items used in measuring downsizing were adapted from studies that includes Karake (1998), Salloum (2022), Samreen et al. (2022) and Taticchi et al. (2010). In total, seven (7) items were developed to measure the construct downsizing in this research.

Table A1. Items Measuring Downsizing.

S/N	Code	Instrument
1	DS1	The management in my workplace ethically reduced the numbers of employees during COVID-19.
2	DS2	Those employees who were relieved of their duties during COVID-19 are those who add no value to the business.
3	DS3	The relieved employee's emotional well-being was duly considered before asking them to leave.
4	DS4	The behaviour of SMEs during COVID-19 movement restrictions cut operating costs.
5	DS5	Reducing employees among SMEs dampens SMEs competitiveness.

Appendix A.2. Items Measuring SMES Innovativeness

Innovations among SMEs is crucial for survival specifically when all odds are against them. Therefore,

Table A2. Items Measuring Firm Innovativeness.

S/N	Code	Instrument
1	Inno1	Innovation during the COVID-19 pandemic enhanced production processes.
2	Inno2	Innovation in the strategies employed during COVID-19.
3	Inno3	Simple innovation during COVID-19 movement restrictions makes a significant difference to goods and service production.
4	Inno4	Firm's board encourages employees' innovativeness during COVID-19.
5	Inno5	Firms were able to save significant production costs by experimenting with several innovation strategies.

Appendix A.3. Items Measuring Tech Adoption

Table A3. Items Measuring Technology Adoption.

S/N	Code	Instrument
1	TA1	Adopting technology to perform firm related tasks leads to the redundancy of employees.
2	TA2	During COVID-19 movement restrictions, most firm activities are conducted using technology.
3	TA3	Technology adoption reveals that some employees' services are not required.
4	TA4	Communicating over social media apps and other tech devices relieved office messengers of their duties.
5	TA5	Technology adoption to production lines enhances mass production therefore, less employees are needed in this regard.

Appendix A.4. Items Measuring Financial Sustainability

The items used to measure financial sustainability were adapted from findings of previous investigations. These empirical investigations examined the methods firms use to maintain their financial flows during economic distress. Since COVID-19 caused distress among these SMEs, the findings and recommendations were developed into the items used in this study. Therefore, five (5) items measuring financial sustainability were adapted.

Table A4. Items Measuring Financial Sustainability.

S/N	Code	Instrument
1	FS1	During COVID-19, the thoughts of SMEs operators is to sustain their financial flow.
2	FS2	During COVID-19, some operation lines were outsourced to reduce SMEs financial burdens.
3	FS3	Since SMEs reported decreased sales during COVID-19, they retrenched employees whose responsibilities are not significant to the firm's operation.
4	FS4	To maintain a robust balance sheet during COVID-19, toxic employees whose services are outsourced were relieved of their duty
5	FS5	Relieving employees who have no crucial responsibilities helps SMEs to sustain their financial strength.

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