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Role of the Magnitude of Digital Adaptability in Sustainability of Food and Beverage Small Enterprises Competitiveness

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Abstract

This study aimed to (1) determine and (2) improve the sustainability of competitiveness for the food and beverage business. This was achieved through causal studies, which involved determining causal relationships between variables. The study population was selected using a purposive sampling technique with a focus on small food and beverage entrepreneurs, and the data retrieved were analyzed using both quantitative and qualitative methods. Moreover, IBM SPSS AMOS 21 (Moment Structure Analysis) tool was used for the descriptive analysis as well as to test models and hypotheses. The results showed that stakeholder engagement had a positive and significant influence on the magnitude of digital adaptability and costless signaling. It was further noted that the magnitude of digital adaptability and costless signaling had the same effect on sustainability. A similar relationship was established between costless signaling and the magnitude of digital adaptability. These results proved that stakeholder engagement has a significant effect on cost-effective signaling and the magnitude of digital adaptability. Costless signaling has a significant effect on the magnitude of digital adaptability and sustainability of small food and beverage enterprises performance. The novelty of this study lies in the influence of stakeholder engagement on the magnitude of digital adaptability, which can be used to increase the sustainability and performance of food and beverage small enterprises.

Keywords: Magnitude; Digital; Adaptability; Food; Beverage; Business.

1. Introduction

Several studies were conducted during the COVID-19 pandemic to explore the changes in eating and drinking patterns as well as individual responses to the restrictions faced by consumers. An example was a study conducted by Deloitte Indonesia in 2022 highlighting the importance of the concept of self-care and "treating yourself" during a pandemic. It was discovered that people tend to spend more money on premium-quality food and beverage products as a form of self-indulgence when facing difficult times, and this becomes a habit when things are changing for the better [1]. Further study evidence showed an increase in the consumption of foods high in fat, sugar, and calories during the pandemic period [2]. This was probably due to the emotional comfort and fulfillment mechanisms associated with food. Moreover, studies indicated the existence of significant changes in individual eating patterns at the calorie [2] and time [3] as evident in the fact that more time spent at home influenced food choices and the tendency to eat simpler, more convenient, and ready-to-eat meals. The pandemic increased fruit and vegetable consumption, especially due to increased awareness of the importance of maintaining health and the immune system [4].

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The drinking habits of the people were also observed to have changed, as indicated by an increase in the consumption of hot drinks such as tea and coffee as a form of comfort and relaxation at home. These changes led to the development and introduction of new entrepreneurs in the food and beverage industry, among several others [5]. They engaged in economic activity that processes essential commodities into final or intermediate commodities through mechanical, chemical, or manual methods [6]. It was discovered that some studies have focused more on examining the role of stakeholder engagement in the magnitude of digital adaptability and sustainability of businesses without considering its influence on costless signaling. There are also no studies linking this role to the magnitude of digital adaptability and costless signaling, which were projected to be examined in this study.

The current understanding of sustainable entrepreneurship in the food and beverage sector is also lacking in several key areas, particularly regarding the entrepreneurial mindset, organizational capabilities of micro-enterprises, entrepreneurship training, and innovation strategies [7]. The limited progress in these aspects can be attributed to the absence of a well-developed entrepreneurial mindset among business actors [8]. Moreover, relevant studies focused more on factors affecting sustainability without assessing the influence of stakeholder engagement on the magnitude of digital adaptability. Some other studies also discussed the role of stakeholder engagement without explaining the impact on costless signaling, which is considered important due to the high cost of using the internet and digital adaptation.

The relationship between stakeholder engagement and sustainability has been extensively studied in various sectors [9], including the food and beverage industry [10]. However, the specific impact of stakeholder engagement on the performance [11] and sustainability of small businesses in the food and beverage sector has rarely been explored, creating a study gap. It was also discovered that existing studies frequently concentrate on big business or general sustainability frameworks while omitting the particular difficulties being faced by small businesses in the food and beverage sector [12, 13]. Therefore, this study widened the scope by including the magnitude of digital adaptability and costless signaling factors as intervening variables. Both quantitative and qualitative methods were used to analyze data in order to achieve two primary objectives, which include (1) evaluating and (2) enhancing the sustainability of competitiveness for businesses in the food and beverage industry based on stakeholder engagement, the magnitude of digital adaptability, and costless signaling.

2. Theoretical Background

2.1. The Impact of Stakeholder Engagement on the Magnitude of Digital Adaptability

Studies have been conducted on the importance of stakeholder engagement in enhancing digital adaptability in several organizational contexts. For example, the active involvement of stakeholders in the digital transformation process increased the tendency of organizations to have higher adaptability [14]. Such engagement created a sense of ownership and commitment to digital initiatives, which in turn facilitated smoother transitions and increased adaptability to digital change [15]. Active engagement and collaboration with stakeholders such as employees, customers, and suppliers were reported to have significantly contributed to the ability of an organization to adapt to digital transformation [16]. Another study showed that the active involvement of supply chain stakeholders, including suppliers, manufacturers, and distributors, in digital initiatives improved the ability to manage digital technologies and processes [17]. Moreover, digitalization was projected to have the capacity to make work easier and trigger lifestyle changes with far-reaching impacts [18]. Adaptation to digital transformation has the ability to change how people work, learn, communicate, and collaborate [19]. This was further supported by the results that the implementation of online media facilitated business actors and provided opportunities for the public to obtain information and communicate [20]. These results led to the formulation of the following hypothesis:

H₁: There is an influence of stakeholder involvement on digital adaptation capabilities.

2.2. The Impact of Stakeholder Engagement on Costless Signaling

Stakeholders were discovered to be using Facebook media as a bridge for sustainable business strategies [21]. The internet connection has created the better experience needed to establish a sustainable relationship with partners by exchanging information [22]. This was observed through the use of platforms such as Facebook, Instagram, and others to communicate commercial information and promote business [23]. This means stakeholders are allowed to use the internet for free, thereby facilitating the adaptation of information and communication services.

Previous studies showed that stakeholders were able to gain distinct competitive advantages from engaging with online communities for free. The important interplay between different types of internet platforms and content factors in driving engagement has also been studied [24, 25]. It was discovered that the technological capabilities of online business citizens were able to foster relevant knowledge and skills needed by the stakeholders [26]. The centrality of user connections and social networks, as well as the achievement of the results expected by business stakeholders, were also indicated to be considered [27]. Therefore, the following hypothesis was formulated:

H₂. There is an influence of stakeholder involvement on costless signaling.

2.3. The Effect of Digital Adaptation Capabilities on Sustainability of Competitiveness

The relevance of digital ecosystems, specifically social networking sites with innovation and knowledge, was reported to have the capacity to provide a lot of information on individuals and their networks, which can be used for several business purposes [28]. This was observed in the ability of Sharia fintech to strengthen human resource capacity, diversification, productivity, and product marketing to improve the financial performance and business sustainability of SMEs [29]. Meanwhile, SMEs, specifically innovative firms, in emerging economies are usually faced with several challenges, such as access to external markets to acquire new technologies as well as unencouraging sales performance [30].

From an economic point of view, online adaptation was discovered to have the ability to provide employment and sales opportunities and also to ensure business continuity [31]. The proficiency and activeness of stakeholders in digital adaptation were observed to have the potential to propel companies toward more sustainable business behavior over time. [32]. This has led international institutions to call for a transition to a more sustainable system of production and consumption and continuous innovation, and this was expected to increase the adaptation of digital mechanisms to ensure sustainable business [33]. Therefore, the following hypothesis was formulated:

H₃. There is an influence of digital adaptability on sustainability of competitiveness.

2.4. The Impact of Costless Signaling on Sustainability of Competitiveness

Stakeholders and policymakers interested in the beverage industry were discovered to be focused on facilitating more sustainable consumer behavior [34]. This was indicated by the recent emphasis on the industrial internet, the green development of the food industry, using entropy methods to measure the environmental pollution index, and ensuring the technical efficiency of agricultural food processing [35]. A previous study also showed that mobile technology had the greatest impact on sustainability in all types of industries, including food and beverage [36].

Another study showed that costless signaling allowed organizations to communicate their commitment to sustainability and showcase their efforts without incurring significant financial costs [37]. The presentation of their sustainable practices to stakeholders such as customers, investors, and communities was discovered to have the ability to assist organizations in building trust, showing transparency, and being held accountable for their environmental and social performance [38].

The combination of information technology with business continuity has become a strategic weapon in manufacturing products and gaining sustainable competitive advantages [39]. Moreover, the introduction of industrial digitization and corresponding smart factories have created new opportunities in the world of processing [40]. The spread of digital technologies such as the internet in the manufacturing and service industries has also become powerful to the extent of ushering in the concept of digital servitization as an easy and usable process to achieve sustainability in small food and beverage enterprises [41].

H₄. There is an influence of costless signaling on sustainability of competitiveness.

2.5. The Impact of Costless Signaling on the Magnitude of Digital Adaptability

Costless signaling was reported to have a significant effect on the magnitude of digital adaptability [42]. This was further confirmed by the increase in the magnitude of digital adaptability due to the increment in the alignment of the state to costless signaling policies [43]. A previous study also showed that one of the ways to increase the magnitude of digital adaptability is through the enhancement of a country's support for costless signaling policies [44]. These results led to the formulation of the following hypothesis:

H₅. There is an influence of costless signaling on the magnitude of digital adaptability.

3. Materials and Methods

This study was conducted to determine the causal relationship between the selected variables. The process involved selecting the sample from the population of small food and beverage entrepreneurs using the purposive sampling technique. The data obtained were analyzed through the quantitative method. Moreover, the stakeholder engagement variable was based on a unified understanding of the essence and use of fragmented constructs, challenges, development, and legitimacy of individuals engaged in business [45–48]. This could be achieved through governance activities such as strategy, organization, transactions, and costs with due consideration for others in business [49].

The digital adaptability variable was related to the business management adaptability (BMA) concept that was used to theoretically explain adaptive micro-operation mechanisms and provide practical guidance for companies to adopt the digital economy to achieve sustainable development [50, 51]. Furthermore, the costless signaling variable was linked to the existence of free internet and the constant expansion of the web with search engines continuously being used by people in their daily routines and found to be part of a complex and multi-faceted phenomenon considered difficult for companies to manage effectively [52].

The sustainability of business models for SMEs in the food and beverage sector was observed to depend on the contribution of a new sustainability strategy [53]. The purpose was to determine the importance placed on local taste in understanding food security and to evaluate good digital applications to ensure sustainability [54] based on certain indicators such as agility, performance, digital platforms, and stakeholders in that order [55].

The sustainability of the food and beverage industry was evaluated using multiple indicators as outlined by Suseno [55], and these include the stakeholders, the processes employed within the industry, the extent of digital integration in business operations, and the overall economic growth [56]. The evaluation process was based on some specific variables, such as business activities, identification of viable solutions, adaptation of resources, presence of supporting institutions, and accessibility of fundamental ingredients for food and beverage production [53]. This study applied the IBM SPSS AMOS 21 software, specifically the Moment Structure Analysis (MSA) tool, for the descriptive analysis as well as to test several models and hypotheses.

The methodology applied in this study is highlighted in the following workflow (Figure 1).

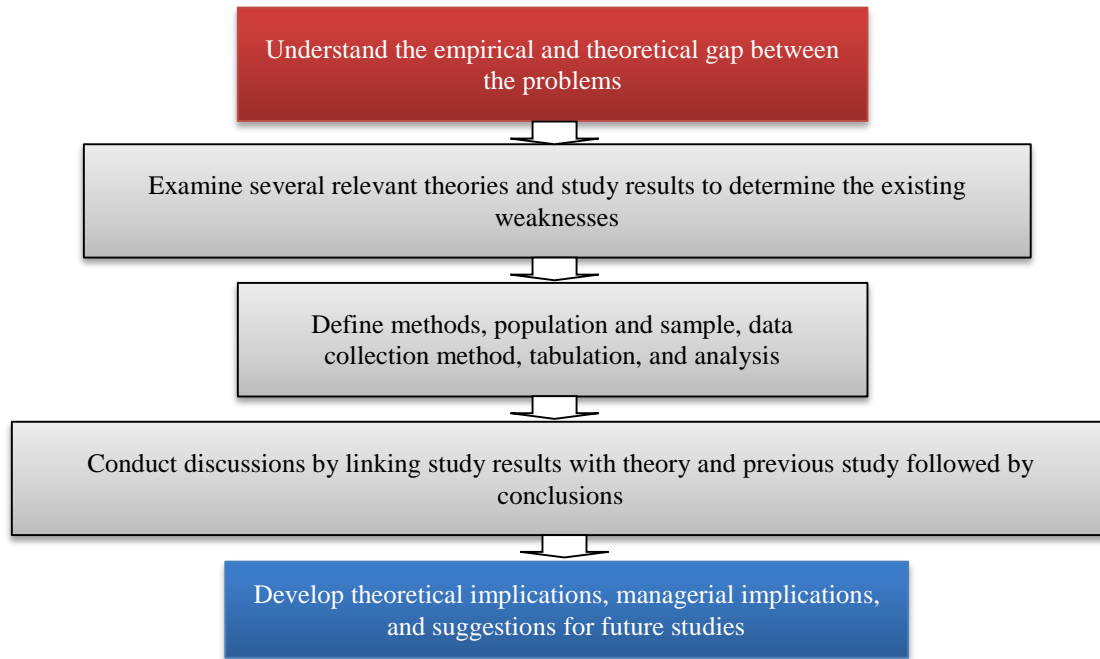


Figure 1. Methodology workflow

4. Results and Discussion

4.1. Reliability Test

Reliability was defined as the measure of the internal consistency of an indicator of a construct to show the degree to which each indicator represents a common latent construct or factor. The cut-off value of the reliability construct was set to >0.7, while the variance extracted was >0.5. The results of the construct reliability and variance extraction tests conducted are presented in full in the following table.

Table 1. Construct Reliability and Variance Extracted Tests

No.	Variable	Indicators	Std Loading (Loading Factor)	Standard Loading ²	Measurement Error (1-Std Loading ²)	Construct Reliability	Variance Extracted
1	Stakeholder Engagement	SE1	0.894	0.799	0.201	0.918	0.788
		SE2	0.901	0.812	0.188		
		SE3	0.868	0.753	0.247		
		Σ	2.663	2.364	0.636		
		Σ ²	7.092				
2	Magnitude of Digital Adaptability	MDA1	0.791	0.626	0.374	0.888	0.664
		MDA2	0.838	0.702	0.298		
		MDA3	0.805	0.648	0.352		
		MDA4	0.824	0.679	0.321		
		Σ	3.258	2.655	1.345		
Σ ²	10.615						

3	Costless Signalling	CS1	0.779	0.607	0.393	0.802	0.671
		CS2	0.857	0.734	0.266		
		Σ	1.636	1.341	0.659		
		Σ2	2.68				
4	Sustainability of Food and Beverage Small Enterprises Competitiveness	SP1	0.926	0.857	0.143	0.916	0.784
		SP2	0.874	0.764	0.236		
		SP3	0.855	0.731	0.269		
		Σ	2.66	2.35	0.65		
		Σ2	7.05				

The results showed that the construct reliability of all latent variables satisfied the criteria of >0.60, and a similar trend was observed for the extracted values >0.50. Therefore, it was concluded that each latent variable satisfied the reliability criteria.

4.2. Model Confirmatory Factor analysis (CFA)

The results of the CFA model after complete modifications are presented in the following Figure 2 and Table 2.

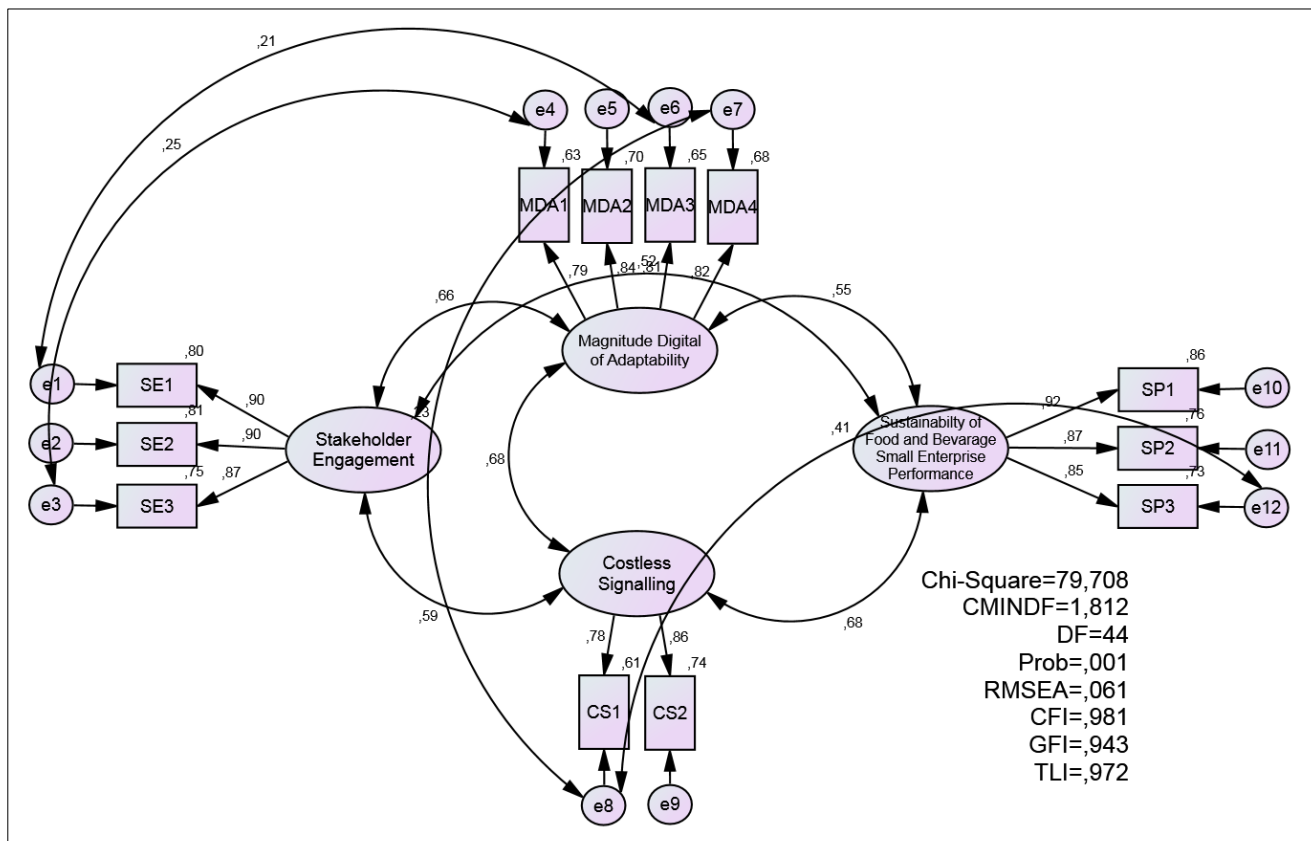


Figure 2. Model CFA 2

The CFA model showed that the chi-square value decreased from 130.755 to 79.708 and the cmin/df from 2,724 to 1.812. The RMSEA values also decreased from 0.089 to 0.061, while the CFI was 0.981, the GFI was 0.943, and the TLI was 0.972. This was followed by the assessment of the standard loading value of each indicator in forming the latent variable, as indicated in the trap presented in the following table (Table 2).

Standardized regression results showed that the lowest loading value was recorded to be 0.781 on the CS1 indicator, while the highest was 0.925 on the SP1 indicator. Moreover, all the indicators had a loading value of >0.6, which indicated they were all valid as measures of latent variables.

Table 2. Standardized Regression CFA Model

Indikator		Variabel Laten	Estimate
SE3	←	Stakeholder_Engagement	0.868
SE2	←	Stakeholder_Engagement	0.900
SE1	←	Stakeholder_Engagement	0.895
MDA1	←	Magnitude_Digital_of_Adaptability	0.793
MDA2	←	Magnitude_Digital_of_Adaptability	0.838
MDA3	←	Magnitude_Digital_of_Adaptability	0.806
SP2	←	Sustainabilty_of_Food_and_Bevarage_Small_Enterprises_Competitiveness	0.875
SP3	←	Sustainabilty_of_Food_and_Bevarage_Small_Enterprises_Competitiveness	0.855
SP1	←	Sustainabilty_of_Food_and_Bevarage_Small_Enterprises_Competitiveness	0.925
CS2	←	Costless Signaling	0.860
CS1	←	Costless Signaling	0.781
MDA4	←	Magnitude_Digital_of_Adaptability	0.823

4.3. Conformity and Empirical Model Test

4.3.1. Absolute Fit Measures

The size used to assess the model fit was based on several absolute fit measures, and the Chi-Square (χ^2) was found to be 83.150, which exceeds the expected value of 47.40 as indicated in Table 3.

Table 3. Absolute Fit Measures

Goodness of Fit Index	Cut off value	Estimation	Conclusion
Absolute Fit Measures			
χ^2 -Chi-square	83.150	47.40	Not- Fit
CMIN/DF	≤ 2.00	1.848	Fit
Probabilities	≥ 0.05	0.000	Not- Fit
RMSEA	≤ 0.08	0.063	Fit
GFI	≥ 0.90	0.941	Fit

4.3.2. Incremental Fit Measures

The model fit was assessed using different sizes, including (1) Adjusted Goodness of Fit Index (AGFI), which was found to be 0.898 and considered higher than the threshold of 0.8, thereby indicating the acceptability of the model in terms of goodness of fit. (2) The Tucker Lewis Index (TLI) was recorded to be 0.971, exceeding the cutoff of 0.95, and this showed that the model was deemed feasible and accepted. (3) Comparative Fit Index (CFI) was 0.980, which surpassed the threshold of 0.95 and indicated the feasibility and acceptance of the model. (4) Normed Fit Index (NFI) was 0.958, which was greater than the cutoff of 0.95 and implied the model was acceptable in terms of fit. (5) Parsimony Fit Index (PNFI) was 0.653, suggesting that the model was considered fit or acceptable as presented in Table 4. These fit indices led to the conclusion that the model showed an acceptable level of fit, indicating its alignment with the effective collection of data.

Table 4. Incremental Fit Measures

Goodness of Fit	Cut off value	Estimation	Conclusion
Incremental Fit Measures			
AGFI	≥0.90	0.898	Acceptable
TLI	≥0.95	0.971	Fit
CFI	≥0.95	0.980	Fit
NFI	≥0.95	0.958	Fit
PNFI	≥0.50	0.653	Fit

4.3.3. Causality Test

The complete output results of the Structural Equation Modeling model are presented in the following table (Table 5).

Table 5. Regression Weight Hypothesis Test of Full Model

	Hypothesis		Estimate	S.E.	C.R.	P	Conclusion
Stakeholder Engagement	→	Magnitude of Digital Adaptability	0.473	0.093	5.109	***	Significant
Stakeholder Engagement	→	Costless Signaling	0.557	0.070	7.969	***	Significant
Magnitude of Digital Adaptability	→	Sustainability of Food and Beverage Small Enterprises Competitiveness	0.205	0.120	1.705	0.088	Un- Significant
Costless Signaling	→	Sustainability of Food and Beverage Small Enterprises Competitiveness	0.954	0.166	5.749	***	Significant
Costless Signaling	→	Magnitude of Digital Adaptability	0.560	0.109	5.148	***	Significant

*** significant <0.001

4.3.4. Empirical Model Test

The empirical model test focused on the evaluation of the hypotheses developed. The acceptance or rejection of each of these hypotheses was based on the criteria that the null hypothesis (H0) be rejected and the alternative hypothesis (H1) be accepted when the critical ratio (CR) was greater than 1.96 and the p-value was less than 0.05, and vice versa. Therefore, the results obtained are presented as follows:

1. Hypothesis 1:

The estimated value of the influence of stakeholder engagement on the magnitude of digital adaptability was found to be 0.473, the critical ratio value was 5.109, and the p-value was 0.000, thereby indicating that stakeholder engagement had a significant positive effect on the magnitude of digital adaptability at a significance level of 5%.

2. Hypothesis 2:

The estimated value of the influence of stakeholder engagement on costless signaling was recorded to be 0.557, the critical ratio was 7.969, and the p-value was 0.000. This showed that stakeholder engagement had a significant positive effect on costless signaling at a significance level of 5%.

3. Hypothesis 3:

The estimated value of the influence of the magnitude of adaptability on sustainability of food and beverage small enterprises competitiveness was 0.205, the critical ratio was 1.705, and the p-value was 0.088. This showed that the magnitude of digital adaptability did not have a significant positive effect on sustainability of food and beverage small enterprises' competitiveness at a significance level of 5%.

4. Hypothesis 4:

The estimated value of the effect of costless signaling on sustainability of competitiveness was 0.954, the critical ratio was 5.749, and the p-value was 0.000. This indicated that costless signaling had a significant positive effect on sustainability of food and beverage small enterprises competitiveness at a significance level of 5%.

5. Hypothesis 5:

The estimated value of the effect of costless signaling on the magnitude of digital adaptability was 0.560, the critical ratio was 5.148, and the p-value was 0.000. This led to the conclusion that costless signaling had a significant positive effect on the magnitude of digital adaptability at a significance level of 5%.

4.4. Discussion

4.4.1. The Effect of Stakeholder Engagement on the Magnitude of Digital Adaptability

The results showed a significant effect of stakeholder engagement on the magnitude of digital adaptability, and this was observed to be in line with previous studies showing that the improvement of adaptability by SMEs required an increase in stakeholder involvement [48, 55]. It was also in accordance with the results of previous studies that the involvement of stakeholders proved successful in increasing the magnitude of digital adaptability due to their varied roles. Most stakeholders, specifically from companies and universities, were identified as masters of digitalization, and this further increased their digital adaptability capabilities [57]. The theoretical implication of these results was convincing proof that stakeholder engagement increased the magnitude of digital adaptability [58]. Their involvement was discovered to have increased the possibility of adapting digital measures [59]. This showed that the most appropriate step when a company wants to increase the magnitude of digital adaptability is to increase the involvement of relevant stakeholders [60].

Stakeholder engagement plays a vital role in business and community studies, particularly in adapting to digital transformation and addressing competitive challenges. It enables businesses to innovate and adapt by leveraging technology and fostering ongoing interactions with stakeholders.

4.4.2. Effect of Stakeholder Engagement on Costless Signaling

The results on this aspect were found to be consistent with a previous study by Georgakalou et al. [61], which found that the efforts of a country to make signaling costless for SMEs required the support of all parties, specifically the Ministry of Information and Communication [62]. This allowed SMEs to run their businesses using free internet networks to reach a wider market. The policy increased the size of these SMES because they were no longer burdened with internet and communication network costs, which normally reduce their profits [49]. This further led to the tabulation of the overall impact of a company's economic activity on society and the environment [63] to create access to policy services required to understand and respond to public health needs [64].

Previous studies showed that an internet connection created a better experience and a sustainable relationship between partners through the exchange of information [22, 23]. The important interplay between internet platform types and content factors driving engagement has also been studied [25]. It was discovered that the technological capabilities of online business citizens were able to foster relevant knowledge and skills needed by the stakeholders [26, 27]. These aligned with the emphasis on the importance of strengthening business stakeholders and using technology for sustainable business growth in previous studies. Moreover, engagement with all stakeholders concerning social and environmental issues as well as the use of internet platforms were discovered to be contributing to the achievement of a wider reach and better business outcomes. Online and social media platforms were also identified as playing a significant role in communication and promotion for stakeholders.

4.4.3. Effect of the Magnitude Digital Adaptability on Sustainability of Competitiveness

The analysis showed that the magnitude of digital adaptability did not influence the sustainability of small food and beverage enterprises' competitiveness. This was found to be different from the previous study, which found that the better magnitude of digital adaptability led to an increase in the chances of competitive sustainability [65]. It was also contrary to the results that the effort to increase opportunities for sustainability required enhancing the magnitude of digital adaptability [28, 66]. Another study also concluded that the best step to improving sustainability was to increase the magnitude of digital adaptability [67, 68]. These variations could be due to several reasons, such as the inability of most small food and beverage enterprises used in this study to adapt to digital platforms.

4.4.4. Effect of Costless Signaling on Sustainability of Competitiveness

The results obtained were found to be in line with the study by Yurioputra (2022) [69], which found that the government worked with the people in society to achieve global economic recovery. Food and beverage SMEs are a sub-sector of food production businesses [70], and their efficient and quick operation was expected to cause a network expansion with the ability to encourage community economic growth [71].

The new technology enabling higher levels of production efficiency was observed to have the potential to dramatically improve sustainable social and environmental development [36]. This was linked to the difference in consumer preferences and willingness to pay on an ongoing basis, as well as the interests of stakeholders and policymakers in the beverage industry [34]. Moreover, the impact of free social media marketing on environmental sustainability in food and beverage service companies was found to have been determined with due consideration for ease of internet access and customer satisfaction [72]. Attention was also placed on the industrial internet, the green development of the food industry, using entropy methods to measure the environmental pollution index of the food industry, and the technical efficiency of agricultural food processing [35]. Bai et al. (2020) further showed that mobile technology had the greatest impact on sustainability in all types of industries, including food and beverage [36].

4.4.5. Effect of Stakeholder Engagement on Sustainability of Competitiveness

The magnitude of digital adaptability has been increasingly proven to be very important to sustain the competitiveness of small food and beverage enterprises [73]. The application of a stronger digital signal was observed to have the capacity to ease business activities and ensure they are accessible to everyone by strengthening available resources [74]. Business opportunities in the urban food sector were quickly accessible through the implementation of technology that saved effort and time [75].

Previous studies have focused on engagement among high-power stakeholders, usually employees, while limited attention has been devoted to low-power stakeholders [76]. The changes in organizations need to be supported by improving the relationships with stakeholders as well as creating a strong awareness of issues such as the protection of ecosystems, safeguards related to health, and the use of resources [43, 46]. This required the integration of sustainability

characteristics at the business model level to create a sustainable business model through the involvement of stakeholders [44]. The phenomenon was reported to have the capacity to change business culture towards recording an increase in the economic, social, and environmental dimensions [46]. The involvement of stakeholders in sustainability was found to be a strong driver for strong business value creation [47].

5. Conclusion

In conclusion, the competitiveness of small food and beverage enterprises was sustained by increasing costless signaling and not through enhancing the magnitude of digital adaptability. Meanwhile, the magnitude of digital adaptability and cost signaling was improved by increasing stakeholder engagement. The results also showed that the magnitude of digital adaptability and competitive sustainability of small food and beverage enterprises were enhanced through costless signaling. The results led to the recommendation that the state, the Ministry of Industry and Trade, and other related parties should increase stakeholder engagement, the magnitude of digital adaptability, and costless signaling in their efforts to improve the sustainability of small food and beverage enterprises' competitiveness. Future studies are advised to focus on other small enterprises or replace exogenous and intervening variables to increase the sustainability of competitiveness for small enterprises in the food and beverage industry.

6. Declarations

6.1. Author Contributions

Conceptualization, B.D.S.; methodology, B.D.S. and B.; software, B.; validation, B.D.S. and B.; formal analysis, B.D.S.; investigation, B.D.S.; resources, B.; data curation, B.; writing—original draft preparation, B.D.S.; writing—review and editing, B.D.S.; visualization, B.; supervision, B.D.S.; project administration, B.; funding acquisition, B.D.S. All authors have read and agreed to the published version of the manuscript

6.2. Data Availability Statement

The data presented in this study are available in the article.

6.3. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

6.4. Institutional Review Board Statement

Not applicable.

6.5. Informed Consent Statement

Not applicable.

6.6. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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