



Article

# The Effect of Digital Marketing Adoption on SMEs Sustainable Growth: Empirical Evidence from Ghana

Emmanuel Bruce <sup>1,3,\*</sup>, Zhao Shurong <sup>2,3,\*</sup>, Du Ying <sup>2,3</sup>, Meng Yaqi <sup>2,3</sup>, John Amoah <sup>4</sup> and Sulemana Bankuoru Egala <sup>1,3</sup>

- School of Management and Economics, University of Electronic Science and Technology of China, Chengdu 611731, China
- School of Public Affairs and Administration, University of Electronic Science and Technology of China, Chengdu 611731, China
- <sup>3</sup> Center for West Africa Studies, University of Electronic Science and Technology of China, Chengdu 611731, China
- Department of Business Administration, Faculty of Management and Economics, Tomas Bata University in Zlin, Mostni 5139, 76001 Zlin, Czech Republic
- \* Correspondence: kinbuki100@outlook.com (E.B.); shurz2015@163.com or shurz2015@uestc.edu.cn (Z.S.)

Abstract: Online presence is fast becoming a marketing hub for contemporary businesses. Often known as digital marketing, the phenomenon offers several opportunities to businesses. Small and medium enterprises (SMEs) are using their online presence to launch stern competitive promotions and interact with consumers. Against the backdrop of the stern competition, digital marketing is being utilized to drive sustainable strategies for SMEs. This study leverages the theory of planned behavior to explore the impact of digital marketing adoption on the sustainable growth of SMEs in Ghana. Using a structured questionnaire and SmartPLS version 3.3 for the data analysis, 533 owners/managers of SMEs in Ghana were drawn to administer the questionnaire. Our findings suggest that, while attitudes toward digital marketing did not influence the intention to use digital marketing, perceived behavior control and subjective norms were found to affect individuals' intentions to use digital marketing. Additionally, the results proved a direct positive link between subjective norms and actual behavioral use of digital marketing. Finally, the relationship between the actual use of digital marketing and SMEs' sustainable growth was also proven positive, affirming that digital marketing significantly improved the sustainable growth of SMEs in developing countries. This study contributes to the multiplicity of factors that influence the behavioral tendencies of managers of firms in their quest to adopt digital platforms to enhance their sustainable growth. The study's results serve as guidelines for prospective adopters of digital platforms as they develop their sustainability strategies.

Keywords: digital marketing; sustainable growth; SMEs; planned behavior; online presence; Ghana



Citation: Bruce, E.; Shurong, Z.; Ying, D.; Yaqi, M.; Amoah, J.; Egala, S.B.
The Effect of Digital Marketing
Adoption on SMEs Sustainable
Growth: Empirical Evidence from
Ghana. Sustainability 2023, 15, 4760.
https://doi.org/10.3390/
su15064760

Academic Editors: Diego Monferrer and Jun (Justin) Li

Received: 23 December 2022 Revised: 23 February 2023 Accepted: 4 March 2023 Published: 7 March 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

# 1. Introduction

The increasing pace of the internet has enabled the invention of smartphones and other digital technologies, transforming communication. Due to the recent dynamism of the business environment, the internet has become a major hub for marketing goods and services. In this context, digital technologies are emerging as innovative tools for carrying out business operations and have led to increased competition [1]. Ref. [2] emphasized the importance of digital marketing in firms' communication strategies. Digital marketing is defined as "the use of technology in marketing efforts and business practices by marketing goods, services, information, and ideas via the internet, cell phones, display advertisements, and other electronic media" ([3], p. 4). It has been stated that digital technology has the potential to improve a firm's performance while also facilitating entrepreneurial activities [4]. Moreover, digital technologies serve as an effective medium for generating ideas that drive firms

Sustainability **2023**, 15, 4760 2 of 24

toward sustainability. From the customers' perspective, it has been demonstrated that the usage of technologies has influenced consumers' behavior and decision-making [5,6]. This has prompted businesses to adopt digital technologies to focus more on customers for business growth [7]. Recently, marketing activities have been performed using digital media to disseminate information, build a customer base, and connect with existing and potential customers. Businesses sell products and services through digital marketing platforms, which have a significant impact on customers' purchasing decisions. Thus, customers get access to a variety of goods and services through information shared on digital platforms such as social media, affiliate marketing, emails, search engines, digital advertising, viral marketing, content marketing, and mobile marketing [8–10]. Ref. [11] also emphasizes the importance of digital marketing as a tool for reaching the target audience, increasing brand loyalty, and increasing sales turnover. It has further been proven that digital transformation in an organization leads to cost reduction, efficiency, and organizational effectiveness. However, the use of digital technologies has a negative effect as it may enhance misunderstanding, conspiracy, cyber-bullying, and overall tension [12]. In the background of [13], effective digital marketing enables small and medium-sized businesses (SMEs) to compete with larger businesses, gather market intelligence, reduce marketing costs, improve new product development, and ultimately achieve competitive advantage and sustainable growth. Additionally, the use of digital marketing technologies has resulted in improved internal communication, increased sales from existing and new customers, and increased brand awareness. Thus, businesses tap customers at a lower cost through the usage of digital marketing platforms. More importantly, digital marketing tools assist SMEs in boosting organizational productivity and enhancing collaboration [4].

SMEs play a pivotal role in economic growth, especially in developing countries, via innovation, the provision of employment, and social inclusion [2]. Globally, SMEs contribute to over 80% of job growth in both developed and developing economies and 70% of GDP [14]. Ghana is experiencing SMEs' remarkable contribution to economic growth and business development. [15] stated that SMEs account for 92% of businesses in Ghana and contribute approximately 70% to the GDP. SMEs' growth has resulted in several innovative developments leading to new business establishments [16–18]. Previous studies have submitted that with the current increasing competition and enhanced globalization, SMEs' ability to learn and acquire knowledge is significant for business development [4]. The technological advancement has been felt across all businesses, including SMEs [19,20]. In this regard, SMEs should constantly focus on customer-centric strategies for operational efficiency. Refs. [14,21] posited that robust marketing is essential for SMEs' organizational competitiveness and business survival. In addition, digital marketing has been suggested as an essential tool for business growth. However, various reasons have been found for the failure of SMEs' to adopt new modern technologies for increasing performance and sustainable growth [8,22,23]. Ref. [24] proved that SMEs are confronted with limited resources, financial challenges, limited marketing strategies, and inadequate capabilities, impeding their adoption of digital technologies as a new strategic tool for sustainable growth. In addition, scholars have highlighted that the inability of SMEs in developing countries to compete with larger enterprises is due to their inaptitude to adopt and integrate digital technologies into their business marketing strategies [25,26]. Ref. [27] argued that SMEs have a limited market reach and a small customer base. Consequently, these challenges have affected the speed of economic development in developing economies, particularly in Ghana [19,25,28]. Ref. [29] also observed that there is a relatively low acceptance rate for digital technologies among SME firms in developing countries; and this issue has become a challenge for SMEs; and requires further investigation [30,31].

In the context of Ghana, there has been a rapid growth of internet users, with over 17 million users, making Ghana the fastest-growing internet-using country in West Africa as a developing nation. As per social media users, it was reported that over 8.8 million social media users were in Ghana, as of the end of November 2022 [32]. This illustrates that digital technologies are a developing trend that SMEs in Ghana may use to gain a

Sustainability **2023**, 15, 4760 3 of 24

competitive edge. Surprisingly, few SMEs have integrated and implemented these novel digital marketing approaches into their companies' sustainability marketing strategies [29]. SMEs in Ghana typically face challenges, such as inadequate resources, poor marketing mechanisms, and a limited market, and are incapable of succeeding in the challenging business climate [25]. Scholars have argued that the adoption of digital technologies is key for a successful marketing campaign and is regarded as one of the approaches that SMEs utilize to rapidly respond to business uncertainty in the recent dynamic business environment and for competitiveness [3]. It is evident that digital marketing technologies, such as social media, e-marketing, content marketing, and affiliate marketing, have become sustainable digital advertising tools and could be vital for SMEs as they provide smooth two-way communication, visibility, business advancement, fast communication with customers, and sustainable business growth [33,34].

As such, the adoption of digital marketing provides a solution that helps SMEs overcome their marketing and advertising challenges, allowing them to compete with larger firms and achieve their set objectives [24]. It offers SMEs the opportunity and the ability to take on challenges [30]. Furthermore, SMEs usage of digital marketing will result in better customer service, customer satisfaction, and growth. Despite the relevance of digital marketing tools in recent business transformation, most of the SMEs located in Ghana are hesitant and far behind in adopting digital technologies for business activities compared to large businesses [8,35]. Small businesses in Ghana are expected to adopt and use digital marketing, given that today's consumers are demanding, yet they are skeptical of and underutilizing the capabilities of digital marketing [33,36,37]. Additionally, SMEs' contribution to the Ghanaian economy is huge, and their inability to cope with the globalization process poses a challenge to their development. As a result, the transition to digitalization by SMEs is pivotal to their growth and development, since their success is significant to the country's economy. In view of this, it is crucial to examine and understand SMEs' intentions regarding digital marketing adoption, given their potential advantages, especially for marketing reasons. Moreover, limited empirical studies on the behavioral intention towards the adoption of digital marketing among SMEs are still in the early stages in developing economies, such as Ghana [36,38]. Furthermore, studies devoted to SME's usage of digital marketing are insufficient in the context of Ghana [24,25], which calls for further studies. As a result of this knowledge gap, the current research reflects on the connection between digital marketing adoption and SMEs' sustainable growth from the perspective of developing economies. Specifically, this current study seeks to investigate the effect of the adoption of digital marketing on SMEs sustainable growth through the lens of the theory of planned behavior. Focusing on the digital marketing adoption by SMEs in Ghana to gear towards sustainable growth, the current study is based primarily on the hypothesis that behavioral tendencies inspire SMEs digital marketing adoption and may have a significant effect on sustainable growth. Thus, the study intends to analyze the degree to which attitude, perceived behavior control, and subjective norms influence SMEs behavioral intentions toward digital marketing adoption. Moreover, the study seeks to explore the extent to which actual usage of digital marketing affects SMEs' sustainable growth. By applying the theory of planned behavior (TPB) to digital marketing research, the current study presents a comprehensive assessment of organizational behavior towards technology adoption (digital marketing) in the SME domain, which remained unexplored. Again, the present study contributes to the theory of planned behavior (TPB), which supports the influence of attitude, perceived behavior control, and subjective norms on the adoption of digital marketing. The present study also provided a considerable empirical and theoretical basis to buttress the applicability of TPB to digital marketing in the SME context.

This study has the following contributions. First, the outcome of the study could be beneficial to the representatives and owners of SMEs to better understand the value of the adoption of digital marketing and its effect on sustainable growth. Second, the current model construct would be very beneficial for marketers and academics, particularly

Sustainability **2023**, 15, 4760 4 of 24

for investigating the perception and intention towards exploring the adoption of digital marketing successfully from developing countries' perspectives. Third, the study also adds to the existing knowledge on digital marketing by strengthening the basis for understanding digitalization through the lens of the TPB, which has not been investigated in the past. The structure of this paper is as follows. This study starts with a literature review of the theoretical background and hypothesis development. The methodology, including sampling and data collection, results in analysis, and discussion, which continues in the next section. The study concludes with the implications, research limitations, and future research directions.

# 2. Theoretical Background: Theory of Planned Behavior (TPB)

The current study recognized the relevance of digital marketing for SMEs' sustainable growth. This current study is grounded on the theory of planned behavior [39]. The theory of planned behavior (TPB) was drawn from the original theory of reason and action [40,41]. TPB assumes that an individual's behavior is determined by certain factors associated with motivation and perceptions [42]. Understanding and predicting individuals' behavioral intentions when engaging in a specific behavior is the goal of TPB [43]. As per the theory, an individual's behavior to accomplish a certain action is based on the intentions of the individual to execute that behavior; and the individual's intention is influenced by attitude, subjective norms, and perceived behavioral control [44]. Thus, attitude, subjective norms, and perceived behavioral control influence individual behavioral intention. Attitude refers to an individual's good or bad emotions linked with a particular feeling; subjective norms, on the other hand, refer to the perceived social factor to engage or not engage in an action. In addition, perceived behavioral control is thus an individual's capacity to perform a particular action.

Several studies have applied TPB to predict individuals' intentions and behavior regarding technology adoption and acceptance in the domain of SME [45–49]. The TPB variables, attitudes, subjective norms, and perceived actions, have been proven to have a significant influence on the adoption of digital marketing among SMEs. For instance, [46] applied the theory of planned behavior (TPB) framework in investigating the digital marketing of energy drinks among young adults. Their study evidenced a mediated effect of attitudes, subjective norms, and perceived behavioral control on digital marketing adoption for energy drink use. A study conducted by [47] applied the TPB model to examine purchasing behavior towards digital marketing. Their study witnessed a significant effect of attitude, subjective norms, and pricing on the use of digital marketing. The study further found no significant relationship between perceived behavioral control and the use of digital marketing. Similarly, [48] employed the TPB model to investigate the intention to shop online among Malaysian baby boomers. It was found that attitudes and subjective norms significantly affected the intention to shop online. Nonetheless, their study found no correlation between perceived behavior control and the intention to shop online. Furthermore, [49] proved the direct influence of attitude, subjective norms, and perceived behavioral control on the adoption of online crowdfunding. Moreover, other research [50,51] has also applied TPB to digital marketing adoption in the context of SMEs. It can be concluded from the above discussion that the TPB model has been employed as a useful theory for investigating digital technologies. In this study, the application of TPB would provide a deep explanation of the attitudes and intentions toward using digital marketing by SME managers and owners in developing countries, particularly Ghana, as limited studies exist in the SME digital marketing literature applying this process [51,52].

#### 3. Literature Review and Hypotheses Development

# 3.1. Attitude towards Digital Marketing

Ref. ([44], p. 188) defined an attitude as the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. Attitude is measured by an individual's belief in the execution of certain behaviors and the costs attached to

Sustainability **2023**, 15, 4760 5 of 24

carrying out that action [49]. Attitude is also the evaluation of a person's desirability or otherwise in accomplishing specific actions. It has been observed that the attitude of an individual has a causal effect on performing a specific behavior [53,54]. Similarly, [55–57] argued that attitude has a direct influence on individual intentions. Prior theories and empirical studies have found that attitude is regarded as a determining factor of behavioral intention regarding technology adoption [58–60]. According to [61], attitudes are individual behavioral requirements toward intentions. [62]'s study on SMEs' intention to use online marketing tools evidenced that individuals' attitudes have a significant impact on behavioral intention. Following this, it is argued that SMEs' positive feelings toward digital marketing are essential to its adoption and successful usage. Ref. [63] analyzed a sample of 282 start-up owners of start-up companies located in India and demonstrated that attitude significantly influences the intention to use digital marketing. Furthermore, [64] indicated that attitudes, skills, and motivation of owners of firms are essential in digital marketing adoption.

Furthermore, [60] hypothesized that attitude has a positive influence on a firm's adoption of mobile app-based business processes. Therefore, we proposed that attitude positively influences behavioral intention to use digital marketing.

**H1:** Attitude towards digital marketing would positively influence the behavioral intention to use digital marketing.

#### 3.2. Perceived Behavior Control (PBC)

Perceived behavioral control is one of the crux constructs of TPB [44]. It is defined as the individual's capacity and efficacy to execute a specific act and control it; and is regarded as the elements that may influence the individual's performance of certain actions [49]. Ref. [44] further posits that PBC contributes to behavioral intention prediction. This implies that perceived behavioral control is a significant parameter that impinges on intention [65–67]. Specifically, PBC influences individual intentions, perceptions, and norms, and ultimately behavior [44]. Additionally, [68]'s study on the adoption of internet banking witnessed that perceived behavior control has a significant impact on behavioral intention. Several studies have shown that behavioral intentions to use innovation can be predicted by perceived behavioral factors [69–71]. Refs [69–71]. Using TPB, [57] hypothesized that PBC significantly influences the intention to use internet banking. Ref. [72] also demonstrated that PBC positively influences the intention to use mobile viral marketing. Similarly, [73] examined the components of perceived behavioral control in the TPB model and found that PBC plays a significant and complementary role in behavioral intention to use innovation. However, a study conducted by [63] found an insignificant effect of PBC on behavioral intentions. Moreover, in a proposed model of mobile banking acceptance, [60] proved that PBC is an enabler for behavioral intention to use mobile banking. Ref. [74] examined the causal relationships among the TPB variables and evidenced a PBC significant effect on continuous usage intention. Accordingly, the study proposes the following hypotheses:

**H2:** Perceived behavioral control would positively influence the behavioral intention to use digital marketing.

# 3.3. Subjective Norm

According to TPB, the subjective norm refers to the perceived social pressure to perform or not to perform the behavior ([44], p. 188). This implies that individuals' execution of the action is motivated by individual referrals and compliance with beliefs [75]. Individuals are encouraged to engage in an activity by their beliefs and social pressure if it is supported by significant others [70]. Thus, social norms aid in predicting individual behavioral intentions [76]. Prior studies have argued that subjective norms have a positive effect on behavioral intentions to use, acceptance of technology, and consumers' buying intentions [77,78]. For example, [79] recently studied entrepreneurial intention and behavior using the TPB model. In their study, it was demonstrated that subjective norms have a

Sustainability **2023**, 15, 4760 6 of 24

substantial effect on the entrepreneurial intent to adopt digital technologies. Ref. [50] also indicated that subjective norms positively affect behavioral intentions to adopt new media technologies. In addition, [80]'s study on perceived risk and subjective norms' effect on cloud technology adoption concluded that subjective norms play a crucial role in explaining behavioral intentions in cloud technology adoption. Much recent research has proven that subjective norms influence behavioral intention measurements [51,81]. Accordingly, the following hypothesis is proposed:

H3: Subjective norm would positively affect the behavioral intention to use digital marketing.

#### 3.4. Behavioral Intention to Use Digital Marketing

Ref. [82] explained that intention is one of the most widely used predictors of individuals' behavior. It has been argued that stated behavioral intention is an essential component of an individual's inclination to perform a specific behavior [83–85]. According to [69], the individual decision to accept or reject lies with consumers' intentions. As per [86], the intention to perform a particular behavior explains the reasons an individual engages in that behavior. Thus, individuals' intentions affect behavioral actions [44,87]. In the context of technological adoption, [87–89] recently stated that intention is recognized as the driving force behind adopting technological innovation, which influences actual behavior. Several scholars have examined the significance of behavioral intention in the context of technological adoption [90–94]. Furthermore, [95] argued that behavioral intention has a significant effect on the actual usage of social media for engagement. Based on the above discussion, we, therefore, provide the following hypotheses:

**H4:** Behavioral intention would positively influence the actual use of digital marketing by SMEs.

#### 3.5. Actual Use of Digital Marketing

According to [95], individual behavioral intentions and attitudes toward a particular system affect its actual usage. TPB assumes that attitudes, subjective norms, and perceived behavioral control influence the actual usage of innovation [96,97] and stated that behavioral intention to use serves as an indicator of actual usage of technology. Previous studies on the TBP have shown that behavioral intention to use is linked to the actual usage of innovation [97,98]. Digital marketing is an information system that encourages collaboration and interaction through enjoyable use [99]. Ref. [100] argued that usage highly depends on perceived usefulness and enjoyment and proved their significant influence on user behavior. According to [101], their study on digital payment system innovations evidenced the influence of attitude, perceived risk, and behavioral intention on the actual use of digital marketing. Ref. [102] examined the consumer acceptance and use of information technology, and their study witnessed the behavioral intention effect on information technology use.

It has been suggested that the use of digital marketing is critical to business performance today and has a significant effect on sustainable growth [103–106]. Ref. [107], for example, argued that digital marketing usage improves internal communication, knowledge management, and customer service, which in turn, affect sustainable growth in the SMEs context. Prior studies have already acknowledged the significance of subjective norms for technology adoption [76,81]. Ref. [80] indicated that social norms have important influences on behavioral intentions to use innovation. Thus, other significant perceptions encourage individuals to advance the innovation adoption process. Consequently, a study by [85] described subjective norms as a significant factor in the TPB model, forecasting that subjective norms can also have an effect on both the intended behavior and the actual usage of information technology. In the context of technology adoption, [108,109] noted that subjective norms have a direct effect on actual behavior. Hence, it might be concluded that subjective norms play a crucial role in explaining the intention and actual use of technology. Accordingly, the study proposes the following hypothesis:

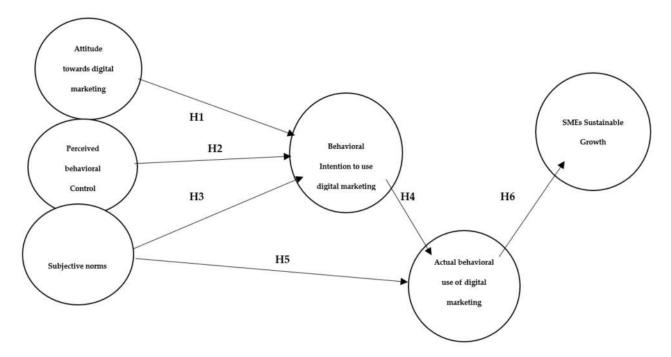
Sustainability **2023**, 15, 4760 7 of 24

**H5:** Subjective norms would have a direct effect on the actual use of digital marketing.

**H6:** Actual digital marketing usage would positively influence sustainable SME growth.

#### 3.6. SMEs Sustainable Growth

According to [76], the adoption of modern technologies has enabled SMEs to keep pace with the recent dynamic business environment. Scholars have argued that the integration of modern technologies, such as digital marketing, by SMEs has resulted in positive outcomes [110,111]. For example, [112] demonstrated that digital marketing has aided SMEs to achieve sustainable growth. According to [113], digital technologies enable firms to be innovative in customizing goods and services, building a customer base, and achieving business growth. Ref. [114] further argued that the use of digital technologies such as social media, content marketing, search engine marketing, and e-mail marketing have helped SMEs improve business performance and remain competitive. According to [115], a firm's sustainability is measured by its ability to react to market fluctuations based on the internal and external environment. In this context, [116,117] argued that digital marketing strategies have a positive association with SME's long-term growth. It has been proven that the adoption of digital marketing allows SMEs to generate ideas from their customers and create value, which in turn leads to sustainable growth [30]. In support of this, [118] provided evidence that digital marketing usage enables SMEs to enjoy superior performance in terms of meeting the needs of customers and enhancing customer service strategy. Consequently, recent [119-122] studies have demonstrated that the use of digital marketing by SMEs has improved their marketing intelligence and customer relationship management (Figure 1).



**Figure 1.** Hypothesized research model.

#### 4. Methodology

# 4.1. Sample, Data Collection, and Analytic Techniques

Even though the adoption of digital marketing has been recognized in the literature on SMEs, we still know very little about how and how much it influences a country's SME's sustainable growth [123,124]. Considering this, we investigated the hypotheses in the context of SME research by gathering information from the Ghanaian context. In Ghana, the SME sector's accomplishments have long been acknowledged [125]. Ghana's economy

Sustainability **2023**, 15, 4760 8 of 24

grew by 5.4% in 2021, with the services sector acting as the main engine of growth, notwithstanding COVID-19's detrimental effects on the country [126]. This study focused on small and medium-sized enterprises (SME) for data collection. To choose the study respondents and participants, the researchers used a randomized sample technique, particularly a simple random sampling technique [127]. The simple random sampling technique was used because it is free from errors in classification, free from bias and prejudice, and finally, it is very easy to assess the sampling error. The structured questionnaire consisted of two components. The demographic information for the respondents is provided in Section A of the questionnaire, and the study constructs are covered in Section B. To be more precise, the structured questionnaire contains thirty-one questions that were answered by the selected respondents (representatives and owners of SMEs). Once more, a structured survey was created and delivered to SME businesses in Ghana. Since the researchers had in mind of producing substantial results and findings, a sizeable number of questionnaires particularly, six hundred and fifty were administered to the selected SMEs across the country to solicit the needed information for data processing/analysis. Out of the total questionnaire administered, 67 of them were in error whiles others were not correctly filled for the intended purpose. It is revealed that quantitative research with more than 300 respondents is deemed to be substantial for data processing and analysis [128]. After removing the abnormalities and invalid responses, the current study, which included 533 respondents, complies with this condition. In addition, the researchers upheld using both on- and offline methods for collecting data. The usage of both on-and-offline modes of data collection has been used recently. Formal authorization was received from the selected organizations before the commencement of the data collection processes. To obtain some level of actual data that would be helpful to both theory and practice, the study used representatives and owners of SMEs in responding to the questionnaire relying on the comprehensive data in their possession. To be specific, the number of SMEs in Ghana currently are over 1 million covering various economic sectors. The sectors include manufacturing, construction, microfinance, retailing and wholesaling, services, motor trade, communication, fashion and hospitality and agribusiness [129]. By contacting these aforementioned sectors, a simple random sampling technique was applied in the selection of the participant from the list of SMEs. This was to ensure that all the segments of SMEs listed above had a fair chance of being selected [130]. As summarized in Table 1, at the end of the data collection, at least each segment of the SMEs was selected even though some were obvious in the process. The manufacturing, restaurants, communication services, fashion and other sectors in the SMEs setting were selected for the study sample. They were chosen because they primarily used digital marketing tools to fuel their business growth towards its sustainability in the Ghanaian SMEs setting. By employing simple random sampling, five hundred and thirty-three SMEs were randomly selected. Thus, study unit of analysis includes 533 selected SMEs, consisting of 158 SMEs owners, 175 SME managers, 125 IT managers, and 75 other departmental representatives' who were randomly selected. The study selected chose SMEs owners and managers because they make adoption and implementation of technology decisions and are acquainted with internal and external business environment. Moreover, it is significant to clarify that the cross-sectional research design was adopted in the data collection process due to the fact that data was processed and analyzed once in comparison with the longitudinal research design approach.

Additionally, the adoption of the cross-sectional data approach was because of its significance, such as not being costly to perform and does not require a lot of time, used to prove and/or disprove assumptions, and finally, many findings and outcomes can be analyzed to create new theories/studies or in-depth research [131,132]. Before starting the major data collection, a pilot study with 65 participants was carried out to evaluate the constructs' validity and reliability using the anticipated Cronbach alpha values. Additionally, the data collection process took place over four months, specifically from August to November 2022. The respondents used a maximum of eight-to-ten minutes to respond to the indicated questions. The researchers urged the responders not to include any personal

Sustainability **2023**, 15, 4760 9 of 24

information such as names, place of business or work, etc. This is to ensure that the research is conducted under high ethical standards [133]. After removing the incomplete, duplicate, and inconsistent responses from some of the completed questionnaires, the conceptual framework, and finally the study hypotheses, the methodology was finalized using a PLS-SEM, partial least squares and structural equation modeling, specifically, the SmartPLS 3.3 version of the software. Partial least square-structural equation modeling was adopted to be the sole processor of the data and its analysis in this study due to its ability to create extremely complex models and the method's flexibility in terms of data requirements and measurement specifications. The information from the respondents used in this study is detailed in Table 1 below (see Appendix B for the article questionnaire and measurement).

**Table 1.** Demographic Profile of Respondents.

Details	Frequency	Percentage (%)
Male	305	57.22
Female	228	42.78
Age		
Less than 25 years	133	24.95
26–35 years	178	33.39
36–45 years	122	22.89
Above 46 years	100	18.76
Educational Level		
High School Certificate	105	19.70
Diploma	125	23.45
Degree	225	42.21
Masters	78	14.63
Number of Employees	. 🗸	2 2.00
Micro (1–10 employees)	156	29.27
Small (11–50 employees)	125	23.45
Medium (51–100)	132	24.76
Large (above 100)	120	22.51
Work Experience		
1–3 years	147	27.58
4–7 years	286	53.66
Above 8 years	100	18.76
Business Sector	100	10.70
Restaurants	113	21.20
Fashion	125	23.45
Communication Services	98	18.39
Manufacturing	102	19.14
Others	95	17.82
Business Position		17.02
Owners	158	29.64
Managers	175	32.83
IT Managers	125	23.45
Others	75	14.07
Does your company have	. 5	110,
Digital Transformation		
Strategy (DTS)?		
Yes	470	88.18
No	63	11.82
How often do you use the		11.02
internet?		
Minimum	133	24.96
Basic	125	23.45
Moderate	189	35.46
Extensive	86	16.13
Total	533	100

Source: (field data from August-November 2022).

Sustainability **2023**, 15, 4760 10 of 24

#### 4.2. Measurement of the Constructs

When determining the validity of the notions, the researchers drew inspiration from previous works. Hence, the study constructs, such as SME's sustainable growth [134], actual use of digital marketing [109,135], behavioral intention to use digital marketing [49,57,104,136], subjective norms [104,136,137], perceived behavior control (PBC) [57,138,139], attitude towards digital marketing [8,57,140,141] were adopted from past works of literature. A five-point Likert scale was used to assess the study constructs: Completely Disagree (1), Disagree (2), Neutral (3), Agree (4), and Completely Agree (5). To whatever extent the respondent agreed or disagreed with the approach taken to measure the constructs, this was conducted. Since it is quicker and easier for respondents to complete than the open-ended questions, a five-point Likert scale was employed.

# 4.3. Test of Common Method Variance (CMV)

Due to the independent data collection used in the present investigation, shared procedure variance is highly likely. Since the study considers the ethical standards in research, the respondents were assured of data protection in the information provided during the questionnaire. The existence of a common method variance (CMV) (CMB) was established by [142,143]. This discovery prompted the researchers to design the questionnaire with the title page description and to have the highest confidence in the replies of participants. Explicitly, the questionnaire was designed with the option for respondents or participants to opt-out at any point after answering. The researchers initially performed a multicollinearity test using the VIF (variance inflation factor) to verify the presence of common method variance (CMV). Since the thresholds are less than ten (10) as indicated by [144,145], the post-hoc evaluation results show that CMV exists in a tiny number of cases. Finally, the CMV issues raised in this poll are modest, therefore they are not as significant. Other scholars have argued that approaches to dealing with common method effects can be divided into three categories: preventive, detective, and corrective. Preventive techniques, also known as procedural remedies, are approaches that aim to reduce or eliminate the occurrence of common method effects through the incorporation of features into the design of the data collection instrument [146,147]. Detective techniques seek to alert researchers to the presence of common method bias, but cannot quantify its magnitude or provide corrected estimates that have been 'purified' from the effects of shared methods. The most commonly used of these is "Harman's Single-Factor Test", which is also applied in this current study. In this study, it is crucial to note and highlight that there was no problem with common method bias in this data since the total variance extracted by one factor was less than the recommended threshold of 50%.

# 5. Empirical Results

#### 5.1. Model Assessment

Due to the research interest in the scholarly literature on the PLS-SEM application, Jöreskog's Rho (pc) and Cronbach alpha coefficients were used to rigorously test the constructs' reliability and validity as used in current studies [148]. Ref. [148] indicated that when the coefficient values are greater than 0.5, as indicated in Table 2 below, it implies that the construct coefficients are strong and therefore meet the minimum threshold. To measure the psychometric qualities of the constructs, SmartPLS version 3.3 was used. Again, the composite reliability of the constructs, as shown in Table 2 below, indicates that Jöreskog's Rho (pc) and the composite reliability meet the minimal and maximal levels of 0.7 and 0.8, respectively. The composite reliability values for the coefficients' constructs were 0.904 and 0.966, and a baseline threshold of 0.5 was noted for the average variance extracted (AVE), or convergent validity, as shown in Table 2.

Sustainability **2023**, 15, 4760 11 of 24

<b>Table 2.</b> Test of Validi	y and Reliabilit	y Research Constructs.
--------------------------------	------------------	------------------------

Constructs	Cronbach's Alpha	Jöreskog's Rho (ρc)	Composite Reliability	Average Variance Extracted (AVE)
Attitude	0.914	0.924	0.939	0.795
Intention to Use DM	0.953	0.954	0.966	0.877
Actual use of DM	0.841	0.843	0.904	0.759
Perceived Behavior Control	0.928	0.933	0.949	0.823
SMEs Sustainable Growth	0.954	0.954	0.966	0.878
Subjective Norm	0.945	0.947	0.960	0.858

Source: Field data (August-November 2022).

According to [142], it is important to ensure that the factor loadings of all the constructs are carefully analyzed and loaded to their prospective locations. The current study, therefore, considered making sure that such an assumption is satisfied. Therefore, Table 3 below satisfied this assumption with a threshold of 0.6, indicating the effectiveness of the indicators. Additionally, values such as 0.815 and 0.946, respectively, were recorded as the minimum and maximum loadings of the constructs used. The researchers were also extremely interested in the issue of multicollinearity, and, therefore, used the common method variance (CMV) to discover it when validating the variance inflation factor (VIF). Several studies [149,150] revealed that common method variance is not an issue since the variance inflation factor of the various indicators used below is less as compared to the maximum threshold of ten (see Table 3 below).

**Table 3.** Construct Items, Loading factor, and Variance Inflation Factor (VIF).

Constructs	Indicator	Loading	VIF
	ATD1	0.909	3.456
A 1	ATD2	0.925	3.870
Attitude	ATD3	0.815	2.010
	ATD4	0.914	3.458
Actual Use of Digital	AU1	0.873	2.041
Actual Use of Digital	AU2	0.895	2.249
Marketing	AU3	0.843	1.813
	ITU1	0.933	4.612
Intention to Use Digital	ITU2	0.934	4.767
Marketing	ITU3	0.941	4.346
	ITU4	0.938	4.064
	PBC1	0.849	2.359
Daniel I Dala de Cambril	PBC2	0.914	3.504
Perceived Behavior Control	PBC3	0.946	4.742
	PBC4	0.917	4.514
	SBN1	0.912	3.577
Subjective Norms	SBN2	0.923	3.993
Subjective Norms	SBN3	0.939	4.771
	SBN4	0.932	4.287
	SSG1	0.924	4.062
CMT- Contract to the Contract	SSG2	0.945	4.319
SMEs Sustainable Growth	SSG3	0.943	4.315
	SSG4	0.937	4.704

Source: Author's processing from SmartPLS 3.3 software.

It is crucial to evaluate the discriminant validity of variables used in a study. To ensure this, [151] motivated the researchers to discover the latent variables of the discriminant validity through the deployment of the 1981 Fornell-Larcker criteria. It is deduced from the table below that all the values on the diagonal, such as 0.892, 0.937, 0.871, 0.907, 0.937, and 0.926, respectfully meet the threshold requirement of above 0.5 as the baseline for its measurement, which also shows the average variance extracted. The essential and rigorous

Sustainability **2023**, 15, 4760 12 of 24

assumptions of the research constructs were developed after the AVE was required to have higher values in comparison to the other constructs, as seen in the discriminant validity table below, under the Fornell–Larcker criteria [152] (Table 4).

Table 4. Discriminant Validity Fornell-Larcker Criterion.

Constructs	Attitude	Intention to Use DM	Actual Use of DM	Perceived Behaviour Control	SMEs Sustainable Growth	Subjective Norm
Attitude	0.892					
Intention to Use DM	0.556	0.937				
Actual Use of DM	0.617	0.839	0.871			
Perceived Behavior Control	0.719	0.682	0.721	0.907		
SMEs Sustainable Growth	0.546	0.709	0.878	0.622	0.937	
Subjective Norm	0.614	0.707	0.813	0.753	0.692	0.926

Source: processing from SmartPLS 3.3 software.

# 5.2. Structural Modeling-Path Analysis

The path analysis, also known as structural modeling, was considered in assessing the model's fit. The purpose of this analysis is to demonstrate the causal relationship between the research constructs [152]. Additionally, the estimates of the hypothetical structural path model show that five of the predictions made about the hypotheses of the current study are significant, whereas one of the hypotheses was insignificant. To elaborate more, the regression coefficients of the beta and the significant values (*p*-values < 0.05) of the research model can be seen in the table below. Additionally, the feasibility of the research model for determining values for the regression model was assessed. As shown in Table 5, the R2 values for intention to use digital marketing, actual use of digital marketing, and sustainable SME growth are 55%, 80%, and 77%, respectively. Again, the results for the CFA, such as model fit, confidence interval, and others, can be seen in Appendix A.2.

Table 5. An estimate of the hypothesized structural path model significance.

Constructs	Beta	Sample Mean (M)	Standard Deviation	T Statistics	p Values	Test Outcome
Attitude -> Intention to Use DM	0.070	0.073	0.051	1.376	0.169	Not Agreed
Perceived Behavior Control -> Intention to Use DM	0.305	0.304	0.070	4.358	0.000	Agreed
Subjective Norm -> Intention to Use DM	0.434	0.433	0.074	5.902	0.000	Agreed
Intention to Use DM->Actual use of DM	0.529	0.533	0.038	13.962	0.000	Agreed
Subjective Norm ->Actual use of DM	0.439	0.435	0.043	10.144	0.000	Agreed
Actual use of DM-> SMEs Sustainable Growth	0.878	0.880	0.015	58.043	0.000	Agreed
	R Square	:	R Square Adju	sted		
Intention to Use DM	0.554		0.551			
Actual use DM	0.801		0.800			
SMEs Sustainable Growth	0.771		0.771			

Source: processing from SmartPLS 3.3 software.

Sustainability **2023**, 15, 4760 13 of 24

#### 6. Discussions of Results

In recent years, digital marketing has taken center stage in the marketing strategies of the vast majority of businesses due to the unique opportunities it offers. Online presence, as a key proponent of digital marketing, has gained immense popularity in the contemporary circular economy using available emerging tools, particularly the internet. Given the disparities in the effect of this trajectory between developed and developing countries, it is obvious that the latter lack much appreciation of digital marketing for the sustainable growth of SMEs. Consequently, this study investigated the effect of the adoption of digital marketing on SMEs' sustainable growth in Ghana. Through the theory of planned behavior, six hypotheses were formulated to test the effect analysis.

First, the study hypothesized that attitudes toward digital marketing would positively influence the intention to use digital marketing. This finding is inconsistent with [51,63], who observed a positive relationship between attitude toward digital marketing and intention to use digital marketing. Considering the H1 of this current study, a p-value of 0.169 was obtained, which makes the proposed hypothesis not supported as against the reference works [51,63], where accepted p-values of less than 0.05 were obtained. Although these studies found a strong desire for individuals and firms to adopt technology, this current study result suggests otherwise. As mentioned by [59,63], attitude plays an important role in one's attitudinal inclinations, particularly when it comes to the adoption and usage of technology. Attitude, according to [51], is the measure of an individual's belief in a phenomenon with causal effects on the individual's actions. Along this line, [66] had earlier intimated that intentions to use marketing tools significantly relate to the attitudinal tendencies of prospective users. Implying that, the attitude of individuals positively relates to the use of technology, contrary to what the study result suggests. Second, the study hypothesized that perceived behavioral control would positively influence the intention to use digital marketing. This hypothesis is supported by the results of the current study, where a p-value of 0.000 was obtained. While affirming the hypothesis, [68,74] found that perceived behavioral control affects the intention to use technology. Behavioral control has been found to mediate the relationship between intentions to adopt technology [62,70]. The onslaught of mobile marketing among SMEs is gaining traction due to its positive impact on their profitability [62,142]. In the same vein, [75] acknowledged that, while online presence has become a critical strategy for most emerging businesses to keep up with their customers, the phenomenon is linked to the behavioral controls of users. Practically, one's ability and effectiveness in undertaking an action are motivated by a behavioral intention.

Given that an individual's motivations are driven by certain behavioral controls, such actions, according to [76], are contingent on referrals. The decision to buy into the ideal or philosophy of an underlying activity could be socially driven. Hence, the study posited that *subjective norms would positively affect SMEs' intentions to use digital marketing*. This hypothesis was supported by the findings of [96]. Ref. [97] affirmed that a significant individual's decision to utilize a particular technology is influenced by social norms. Social norms are inherently subjective, and such norms affect an individual's intentions to execute actions [77,80]. This means that the dimension of subjective norms significantly influenced behavioral intentions, indicating that subjective norms positively influence digital marketing usage intentions. [59,94].

Furthermore, the study hypothesized that behavioral intentions to use digital marketing would positively impact the actual use of SMEs' digital marketing. The hypothesis was supported (*p*-value of 0.000), indicating the significant effect of intentions to use digital marketing on actual use of SMEs' digital marketing. This result is consistent with prior studies [91,94], which corroborated the positive influence of intentions to use digital marketing on SMEs the actual use of digital marketing. Moreover, it also emerged from the findings of [107,129] that intention to use has a strong and positive effect on the actual use of technology. Both studies found that intent to use has a direct effect on actual use, validating the results.

Sustainability **2023**, 15, 4760 14 of 24

Similarly, the subjective norm was found to have a direct effect on the actual use of digital marketing. H5, which states that a subjective norm would have a positive effect on actual use of digital, is supported by the results of the study obtained, as a p-value of 0.000 was obtained. Intention to use technology is inherently behavioral [84]. The intention is primarily manifested through behavior and an individual's predisposition to adopt a technology. In digital marketing, the intent to act is based on the purpose, which is dependent on certain antecedents or predictors [88,90]. Therefore, it appears that the decision to adopt digital marketing is predicated on the fact that it will facilitate the digital transformation of businesses. Thus, the intention to adopt digital marketing technology is driven by one's motivation. This assertion also implies; the individual's subjective norm impacts their intentions and actual usage of technology. For instance, [86] contends that digital marketing adoption and intention to use information technologies are directly influenced by the individual's subjective norms. This implies that, though subjective norms have a direct effect on behavioral intentions [97], they also have a direct effect on actual use. The present findings also explained that subjective norms influence behavioral intention to use and also play a role in the actual usage of digital marketing.

There is no gainsaying that online presence resuscitates SMEs' sustainable growth. [91] aver that the adoption of digital marketing has engendered SMEs to keep pace with the changing dynamics of contemporary business. Following this, the study hypothesized that actual digital marketing usage would positively influence sustainable SME growth. Evidence in the present study demonstrates that usage of digital marketing has a positive effect on SME sustainable growth, obtaining a p-value of 0.000 and supporting H6. This proposition was supported and also coherent with the outcomes of [114]. Ref. [113], who investigated the role of digital orientation in sustainable innovation among small businesses, for instance aver that the innovative capacity of SMEs is enabled by their quest to increase their market share and become competitive. Besides, evidence revealed in the present study also support [153], as digital marketing technologies such as social media significantly influences SMEs sustainable growth. In addition, a study by [119], corroborates that adoption and usage of digital technologies, particularly digital marketing tools leads to idea generation, hence increasing SMEs performance and business growth. Given that SMEs' growth is the antecedent of competitive sustainability [124], it situates well to assume that the actual usage of digital marketing positively influences their growth. It was found that digital marketing platforms provide effective medium assisting SMEs to achieve business growth through effective customer communication, back-end operations, building customer base and increasing sales turnover. Therefore, it is significant for SMEs in Ghana to consider digital marketing tools as a strategic partner and integrate them to enhance performance, hence achieving competitive advantage and reduce marketing costs. Further, SMEs in Ghana can foster better customer relationships, improve information accessibility and compete in the market using digital marketing. The outcomes of study also show that digital technologies have become an essential element to achieve sustainable growth. To sum up, the effects of digital marketing adoption on SMEs sustainable growth is substantial when SMEs intend to use more of digital marketing tools for business activities and operations, and to achieve sustainable developmental goals. Thus, when the intentions of SME managers and owners are clear towards the adoption and usage of digital marketing, there is the likelihood of SME usage of digital marketing, which significantly increases performance.

# 6.1. Theoretical Implications

This study contributes to the literature on the affordance and impact of digital platforms for businesses. Digital marketing is fast transforming businesses globally, particularly SMEs who are always at the mercy of large firms in terms of competitive advantage. The situation thus spurs SMEs to re-strategize with a focus on online presence. Nonetheless, the SME subsector in most developing economies is beset with myriads of challenges raging from infrastructure to technical and financial deficits. The phenomenon thus triggers an

Sustainability **2023**, 15, 4760 15 of 24

investigation into the effect of digital marketing on SMEs' sustainable growth. Thus, this study becomes one the first to explore the relevance of digital platforms in the competitive sustainable growth of firms. Given that, the adoption of technology is inherently behavioral, this study explored the underlying goal through the theory of planned behavior [39].

Theoretically, the theory has offered the study a mammoth of understanding to articulate how behavioral tendencies inform SMEs in their adoption of digital platforms for the sustenance of firms. Thus, the current study augments the SMEs digital marketing adoption literature. Besides, it strengthens the SMEs managers/owners understanding of digital marketing as a tool to drive their sustainability. The study findings found a significant impact of perceived behavior control and subjective norm on behavioral intention, although the direct relationship between attitude and the behavioral intention was insignificant. Again, the study contributes to the existing literature by examining the subjective norm and actual behavioral use of digital marketing relationships.

Moreover, this study result has significantly unboxed the behavioral tendencies that watershed the decision to adopt digital platforms to engender SMEs' online presence towards sustainable growth. Digital marketing has been considered as an innovative technology for SMEs development, the study confirmed that digital marketing adoption has positive effect on SMEs sustainable growth in developing economies. This present study provides in-depth examination and enriches research on digital marketing adoption and SMEs sustainable growth empirically through the TPB theory. More importantly, the study added to the body knowledge by arguing that SMEs can achieve the current sustainable development goals via technological innovation.

The study has also added to the literature on the behavioral tendencies among SMEs' sustainability which is often under-explored. Our preliminary search shows that the adoption of digital marketing with the special goal of enhancing SMEs' online presence, particularly among developing countries like Ghana is scanty. Thus, this study adds to the existing knowledge on sustainable SMEs in developing economies setting.

# 6.2. Practical Implications

Practically, this study brings to the doorstep of managers of SMEs the need to rethink their motivations in the adoption of digital platforms purposely for marketing their goods and services. For instance, the study results showed that perceived behavioral control and subjective norm impact the intention to use digital marketing platforms. This is instructive, suggesting that managers of firms are given their behavioral tendencies and social pressure [72]. Thus, managers of SMEs in their quest to adopt digital platforms would be concerned about how the application of the technology will drive the needed behavioral norms to help improve their profitability and sustainability. Furthermore, the present study outcome suggests that SMEs that actively utilize digital marketing will achieve competitive advantage, improves customer-firm relationships and sustainable growth. As a result, SMEs will be able to reach a significant number of customers, interact with them effectively and exploit other opportunities essential for business growth. The findings of the analysis, moreover advanced that digital marketing has a strong positive impact on sustainable growth through enhancing market share, innovative practices and offer options for choosing sustainable innovations, which enabled SMEs to improve business growth. In addition, the study proposes that SMEs can successfully generate ideas and develop new practices through technology and innovation. Thus, the study findings empirically support SMEs to adopt and use digital marketing tools for business operations and survival and further highlights the essence of its adoption and implementation. Meanwhile, SMEs must focus on strengthening marketing strategies through usage of digital marketing tools to offer products to customers, monitor potential customers and competitors, and build customer satisfaction, leading to sustainable growth.

This is significant to the SMEs in developing economies given their vulnerabilities to economic shocks that often relegate them from their core businesses. The study amplifies the need to seek the appropriate technologies to meet the sustainable needs of shareholders

Sustainability **2023**, 15, 4760 16 of 24

and customers. On the other hand, the current study findings proved that SMEs can quickly adapt to the changing business environment and become competitive via digital marketing adoption, which offers various platforms to improve business performance, hence sustainable growth. Profitability is the core of every business as proffered by leading strands of research. Through digital marketing mechanisms, digital platforms bolster the competitive sustainability of SMBs, which is arguably the most important benefit.

#### 6.3. Conclusions

This study investigated the impact of digital marketing on the sustainable growth of SMEs in Ghana. Through the lens of the theory of planned behavior, the study developed six hypotheses aimed at generating answers to the underlying objective. The questionnaire was administered to 533 owners of small and medium-sized enterprises (SMEs) in Ghana using SmartPLS version 3.3 for data analysis. Out of the six hypotheses, five were supported. This study establishes that attitude towards digital marketing has no significant and direct effect on the intention to use digital marketing. Nonetheless, perceived behavior control and subjective norm were found to affect individuals' intention to use digital marketing. The study also tested the relationship between the intention to use digital marketing and the actual use of digital marketing, which was moderated by the subjective norm. More importantly, the study findings concluded that digital marketing usage has a direct and positive effect on SMEs sustainable growth. The reasons for this significant effect can be ascribed to the effective usage of digital marketing technologies, leading to increased customer-base, improved relationships and performance. This study contributes to the multiplicity of factors that influence the behavioral tendencies of managers of firms in their quest to adopt digital platforms to enhance their sustainable growth. The present study further suggested marketing strategies that would benefit and educate SME owners and managers with regards to behavioral factors that stimulate digital adoption, leading to effective adoption decisions. Additionally, the study acknowledged the relevance of digital marketing in responding to dynamic business environment. This study suggests that essential elements of digital marketing is expected to help drive SMEs business pace to support the country's economy. It is further concluded that digital technologies should be incorporated into SMEs marketing strategies for effective promotion of goods and services, continuous communication with customers, to innovate and tackle the global challenge of SME's sustainable growth.

Thus, SMEs in Ghana should adopt digital marketing tools such as e-marketing, social media marketing, search engine marketing, and content marketing to create awareness and to compete in the dynamic and competitive market. The study results serve as guidelines for prospective adopters of digital platforms to engender their sustainability strategies. Again, the current study findings could be helpful and be an initial guideline study for researchers interested in SMEs' sustainability in the Ghanaian context. This study would aid scholars in developing a general framework for adopting digital marketing in the SMEs context.

# 6.4. Limitations and Future Research Directions

The study presents limitations that create avenues for future researchers. First, our research was conducted within a certain geographical context, hence limiting the study. Therefore, the results of the study cannot be generalized. Second, although the developing economy contests ideas in identifying the major behavioral factors that impact the adoption of digital marketing, it suggests that the case may be the same in other economic contexts. Thus, a comparative study could be useful in understanding the mechanisms of digital marketing in both contexts to inform knowledge. Third, the types of SMEs used in this study may not also be comprehensive, thus, another segment of SMEs could be used to give the phenomenon another perspective. In addition, future research could examine large organizations in emerging economies utilizing the same constructs and test the validity of the present study. Further, the present study did not explore the risk implications of digital

Sustainability **2023**, 15, 4760 17 of 24

marketing for SMEs. Therefore, it is recommended to the future researchers explore some of the consequences of using digital marketing; and could also explore using a qualitative approach in further studies.

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

**Funding:** This research received external funding from the Research Innovation Fund Project of CWAS of UESTC accredited by the Ministry of Education, China. Project No. (CXJJ2022060802).

Institutional Review Board Statement: Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** This submission has no linked research data sets. The following reason is given: The basic survey research and data will be made available upon request.

**Conflicts of Interest:** The authors declare no conflict of interest.

# **Appendix A** *Appendix A.1*

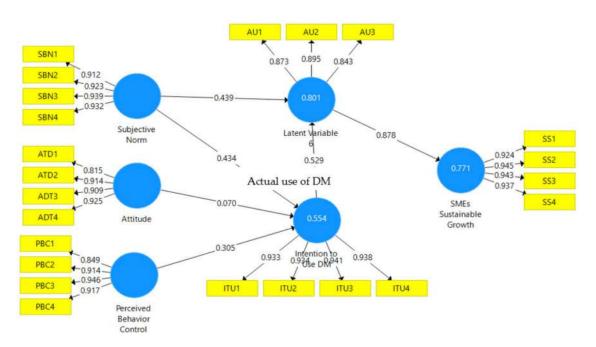


Figure A1. Empirically Tested Research Model.

Appendix A.2

Table A1. Model Fit.

	Saturated Model	Estimated Model
SRMR	0.051	0.054
d_ULS	0.723	0.796
d_G	0.825	0.834
Chi-Square	1720.917	1742.233
NFI	0.856	0.854

Sustainability **2023**, 15, 4760

Table A2. Model selection Criteria.

	AIC (Akaike's Information Criterion)	AICu (Unbiased Akaikes Information Criterion	AICc (Corrected Akaikes Information Criterion)	BIC (Bayesian Information Criteria)	HQ (Hannan Quinn Criterion)	HQc (Corrected Hannan-Quinn Criterion)
Intention to Use DM	-334.696	-330.677	90.448	-318.506	-328.299	-328.091
Actual use of DM	-677.324	-674.313	-252.228	-665.182	-672.526	-672.397
SMEs Sustainable Growth	-621.039	-619.034	-195.981	-612.944	-617.840	-617.771

Table A3. Confidence Intervals.

	Original Sample (O)	Sample Mean (M)	2.5%
ADT3 <- Attitude	0.909	0.909	0.864
ADT4 <- Attitude	0.925	0.924	0.898
ATD1 <- Attitude	0.815	0.812	0.729
ATD2 <- Attitude	0.914	0.912	0.866
AU1 <- Actual use of DM	0.873	0.874	0.839
AU2 <- Actual use of DM	0.895	0.894	0.858
AU3 <- Actual use of DM	0.843	0.842	0.787
ITU1 <- Intention to Use DM	0.933	0.933	0.910
ITU2 <- Intention to Use DM	0.934	0.934	0.908
ITU3 <- Intention to Use DM	0.941	0.941	0.917
ITU4 <- Intention to Use DM	0.938	0.938	0.913
PBC1 <- Perceived Behavior Control	0.849	0.849	0.789
PBC2 <- Perceived Behavior Control	0.914	0.913	0.885
PBC3 <- Perceived Behavior Control	0.946	0.946	0.930
PBC4 <- Perceived Behavior Control	0.917	0.918	0.888
SBN1 <- Subjective Norm	0.912	0.912	0.879
SBN2 <- Subjective Norm	0.923	0.923	0.896
SBN3 <- Subjective Norm	0.939	0.940	0.919
SBN4 <- Subjective Norm	0.932	0.932	0.911
SS1 <- SMEs Sustainable Growth	0.924	0.924	0.894
SS2 <- SMEs Sustainable Growth	0.945	0.945	0.924
SS3 <- SMEs Sustainable Growth	0.943	0.943	0.922
SS4 <- SMEs Sustainable Growth	0.937	0.937	0.915

Appendix B

Constructs	Measurement	<b>Adopted Sources</b>
	1. We think adopting and using digital marketing is valuable.	
	2. Incorporating digital marketing will be beneficial to our firm.	
Attitude	3. We think using digital marketing tools is enjoyable and desirable.	[8,57,140,141]
	4. We think incorporating digital marketing into our firm would help	
	SMEs reach the masses.	
	1. We can use digital marketing tools without help.	
D	2. Using digital marketing would be entirely within my control.	
Perceived behavior control	3. We think that we have the resources, knowledge, and ability to use	[57,138,139]
	digital marketing communication tools.	
	4. We intend to use digital marketing tools in the future.	

Sustainability **2023**, 15, 4760 19 of 24

Constructs	Measurement	<b>Adopted Sources</b>
	<ol> <li>People important to us supported our use of digital marketing.</li> <li>Using digital marketing tools will be the norm in the future.</li> </ol>	
Subjective norms	3. We will use digital marketing if our competitors do the same.	[104,136,137]
	<ol> <li>People whose opinions are valued by us would prefer that we use digital marketing.</li> </ol>	
	1. We intend to use digital marketing tools regularly.	
Robassianal Intention to	2. We intend to use digital marketing for our operations in the future.	
Behavioral Intention to use DM	3. We intend to encourage others to use digital marketing communication tools.	[49,57,104,136]
	4. We would recommend digital marketing tools to our competitors.	
	1. We prefer digital marketing for businesses.	
Actual use of DM	<ol><li>We regularly use digital marketing.</li></ol>	[109,135]
Actual use of Divi	3. We would communicate with our customers on	[109,133]
	digital platforms.	
	1. Digital marketing usage can improve their sales growth through	
	frequent interaction with the customers.	
SMEs Sustainable	2. Digital marketing enables SMEs to get larger market access.	[134]
Growth	3. Digital marketing platforms help to improve organizational	
	performance and achieve competitive advantage.	
	4. In my view, digital marketing helps to understand customers better.	

#### References

- Ziółkowska, M.J. Digital transformation and marketing activities in small and medium-sized enterprises. Sustainability 2021, 13, 2512. [CrossRef]
- 2. Dumitriu, D.; Militaru, G.; Deselnicu, D.C.; Niculescu, A.; Popescu, M.A.M. A perspective over modern SMEs: Managing brand equity, growth, and sustainability through digital marketing tools and techniques. *Sustainability* **2019**, *11*, 2111. [CrossRef]
- 3. Pradhan, P.; Nigam, D.; Ck, T. Digital marketing and SMES: An identification of research gap via archives of past research. *J. Internet Bank. Commer.* **2018**, *23*, 1–14.
- 4. Wilson, V.; Makau, C. Online marketing use: Small and medium enterprises (SMEs) experience from Kenya. *Orsea J.* **2018**, 7, 63–77.
- 5. Chinje, N.B. Harnessing digital marketing to access markets: Opportunities for Africa's SMEs. *Afr. Growth Agenda* **2015**, 2015, 14–18.
- 6. Voramontri, D.; Klieb, L. Impact of social media on consumer behaviour. *Int. J. Inf. Decis. Sci. Indersci. Publ. (IEL)* **2019**, 11, 209–233. [CrossRef]
- 7. Nagy, J.; Oláh, J.; Erdei, E.; Máté, D.; Popp, J. The role and impact of Industry 4.0 and the internet of things on the business strategy of the value chain—The case of Hungary. *Sustainability* **2018**, *10*, 3491. [CrossRef]
- 8. Ahene Djan, V. *The Effect of Digital Marketing on Consumer Buying Behaviour: A Case Study of Fan Milk Ghana Limited;* Ghana Institute of Journalism: Accra, Ghana, 2021; Available online: https://repository.gij.edu.gh/xmlui/handle/gijdr/190 (accessed on 14 November 2022).
- 9. Saura, J.R.; Palacios-Marqués, D.; Ribeiro-Soriano, D. Digital marketing in SMEs via data-driven strategies: Reviewing the current state of research. *J. Small Bus. Manag.* **2021**, 1–36. [CrossRef]
- 10. Colomo-Palacios, R.; Soto-Acosta, P.; Ramayah, T.; Russ, M. Electronic markets and the future internet: From clouds to semantics. *Electron. Mark.* **2013**, *3*, 89–91. [CrossRef]
- 11. Hudak, M.; Kianičková, E.; Madleňák, R. The importance of e-mail marketing in e-commerce. *Procedia Eng.* **2017**, *192*, 342–347. [CrossRef]
- 12. Mujahid, M.S.; Mubarik, M.S. The bright side of social media: Social media platforms adoption and start-up sustainability. *Front. Psychol.* **2021**, *12*, 2104. [CrossRef]
- 13. Teng, X.; Wu, Z.; Yang, F. Research on the Relationship between Digital Transformation and the Performance of SMEs. *Sustainability* **2022**, *14*, 6012. [CrossRef]
- 14. Fan, M.; Qalati, S.A.; Khan, M.A.S.; Shah, S.M.M.; Ramzan, M.; Khan, R.S. Effects of entrepreneurial orientation on social media adoption and SME performance: The moderating role of innovation capabilities. *PLoS ONE* **2021**, *16*, e0247320. [CrossRef]
- 15. Abor, J.; Quartey, P. Issues in SME development in Ghana and South Africa. Int. Res. J. Financ. 2010, 39, 215–228.
- 16. Wubin, S.; Arthur, J.; Agyapong, E.K. Financing SMEs in Ghana: Evidence of the optimal credit guarantee ratio. *Int. J. Trade Glob. Mark.* **2022**, *15*, 88–95. [CrossRef]
- 17. Low, S.; Ullah, F.; Shirowzhan, S.; Sepasgozar, S.M.; Lin Lee, C. Smart digital marketing capabilities for sustainable property development: A case of Malaysia. *Sustainability* **2020**, *12*, 5402. [CrossRef]

Sustainability **2023**, 15, 4760 20 of 24

18. Afifah, A.N.; Najib, M. Digital marketing adoption and the influences towards business successes of MSMEs creative sector in Indonesia and Malaysia. *J. Apl. Manaj.* **2022**, *16*, 377–386. [CrossRef]

- 19. Eze, S.C.; Chinedu-Eze, V.C.; Okike, C.K.; Bello, A.O. Critical factors influencing the adoption of digital marketing devices by service-oriented micro-businesses in Nigeria: A thematic analysis approach. *Humanit. Soc. Sci. Commun.* 2020, 7, 90. [CrossRef]
- 20. Pollák, F.; Markovič, P. Size of Business Unit as a Factor Influencing Adoption of Digital Marketing: Empirical Analysis of SMEs Operating in the Central European Market. *Adm. Sci.* **2021**, *11*, 71. [CrossRef]
- 21. Persaud, A.; Azhar, I. Innovative mobile marketing via smartphones: Are consumers ready? *Mark. Intell Plan.* **2012**, *30*, 418–443. [CrossRef]
- 22. Qalati, S.A.; Ostic, D.; Shuibin, G.; Mingyue, F. A mediated–moderated model for social media adoption and small and medium-sized enterprise performance in emerging countries. *Manag. Decis. Econ.* **2022**, *43*, 846–861. [CrossRef]
- 23. Shaikh, D.; Ara, A.; Kumar, M.; Syed, D.; Ali, A.; Shaikh, M.Z. A two-decade literature review on challenges faced by SMEs in technology adoption. *Acad. Mark. Stud. J.* **2021**, 25, 1–13.
- 24. Selase, A.M.; Selase, A.E.; Ayishetu, A.R.; Comfort, A.D.; Stanley, A.; Ebenezer, G.A. Impact of technology adoption and its utilization on SMEs in Ghana. *Int. J. Small Medium Enterp.* **2019**, *2*, 1–13. [CrossRef]
- 25. Zaglago, B. The Adoption of Digital Marketing among SMEs in Ghana: Increasing Profitability and Bridging the Digital Divide Using Social Media. Unpublished. Master's Thesis, Åbo Akademi University, Turku, Finland, 2019. Available online: https://urn.fi/URN:NBN:fi-fe2019052717295 (accessed on 3 December 2022).
- 26. Hinson, R.E. Internet adoption among Ghana's SME non-traditional exporters: Expectations, realities and barriers to use. *Afr. Insight* **2005**, *35*, 20–27.
- 27. Alqasa, K.M.A.; Afaneh, J.A.A. A Study on Digital Marketing and SME Performance During COVID-19: A Case Saudi SMEs. *Int. J. Ebus. Egov. Stud.* **2022**, *14*, 344–360.
- 28. Martins, A. Dynamic capabilities and SME performance in the COVID-19 era: The moderating effect of digitalization. *Asia-Pac. J. Bus. Adm.* **2022**, *15*, 188–202. [CrossRef]
- 29. Amjad, T. Digital entrepreneurial marketing: A bibliometric analysis reveals an inescapable need of business schools. *Int. J. Manag. Educ.* **2022**, *20*, 100655. [CrossRef]
- 30. Mehralian, M.M.; Khazaee, P. Effect of Digital Marketing on the Business Performance of MSMEs during the COVID-19 Pandemic: The Mediating Role of Customer Relationship Management. In Proceedings of the 37 Digital Marketing and Customer Behavior Science Conference; 2022. Available online: https://europepmc.org/article/ppr/ppr602558 (accessed on 22 February 2023).
- 31. Olazo, D.B. Measuring the level of Digital Marketing Capabilities, Digital Marketing Strategies and Challenges and Issues of SMEs in adopting Digital Marketing. *J. Mark. Adv. Pract.* **2022**, *4*, 79–96.
- 32. Statista. 2022. Available online: https://www.statista.com/statistics/1171416/number-of-internet-users-ghana/ (accessed on 30 November 2022).
- 33. Kwabena, G.Y.; Qiang, M.; Wenyuan, L.; Qalati, S.A.; Erusalkina, D. Effects of the Digital Payment System on SMEs Performance in Developing Countries; a Case of Ghana. *EPRA Int. J. Econ. Bus. Rev.* **2019**, *1*, 79–87. [CrossRef]
- 34. Naab, R.; Bans-Akutey, A. Assessing the use of e-business strategies by SMEs in Ghana during the Covid-19 pandemic. *Ann. Manag. Organ. Res.* **2021**, *2*, 145–160. [CrossRef]
- 35. Quaye, D.; Mensah, I. Marketing innovation and sustainable competitive advantage of manufacturing SMEs in Ghana. *Manag. Decis.* **2018**, *57*, 1535–1553. [CrossRef]
- 36. Iddris, F.; Ibrahim, M. Examining the relationships between e-Marketing adoption and Marketing Performance of Small and Medium Enterprises in Ghana. *J. Mark. Consum. Res.* **2015**, *10*, 160–169.
- 37. Abraham, I.; Howard, E.K.; Acquaye, R. Technological Innovation: An Assessment of Operational Practices of Small and Medium Textile Enterprises in Ghana. *J. Text. Sci. Technol.* **2022**, *8*, 123–132. [CrossRef]
- 38. Frimpong, S.E.; Agyapong, G.; Agyapong, D. Financial literacy, access to digital finance and performance of SMEs: Evidence From Central region of Ghana. *Cogent Econ. Financ.* **2022**, *10*, 2121356. [CrossRef]
- 39. Ajzen, I. From intentions to actions: A theory of planned behavior. In *Action Control*; Springer: Berlin/Heidelberg, Germany, 1985; pp. 11–39.
- 40. Ajzen, I.; Fishbein, M. *Understanding Attitudes and Predicting Social Behaviour*; Prentice Hall: Englewood Cliffs, NJ, USA, 1980.
- 41. Fishbein, M.; Ajzen, I. Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research; Addison-Wesley: Boston, MA, USA, 1975.
- 42. Bosnjak, M.; Ajzen, I.; Schmidt, P. The theory of planned behavior: Selected recent advances and applications. *Eur. J. Psychol.* **2020**, *16*, 352. [CrossRef] [PubMed]
- 43. Ajzen, I. The Theory of Planned Behaviour: Frequently Asked Questions. Hum. Behav. Emerg. Tech. 2020, 2, 314–324. [CrossRef]
- 44. Ajzen, I. The theory of planned behavior. Organ. Behav. Hum. Decis. Process. 1991, 50, 179–211. [CrossRef]
- 45. Belkhamza, Z.; Niasin, M.A.F.; Idris, S. The effect of privacy concerns on the purchasing behaviour among Malaysian smartphone users. In *Multigenerational Online Behavior and Media Use: Concepts, Methodologies, Tools, and Applications*; IGI Global: Hershey, PA, USA, 2019; pp. 1154–1170.
- 46. Buchanan, L.; Yeatman, H.; Kelly, B.; Kariippanon, K. Digital promotion of energy drinks to young adults is more strongly linked to consumption than other media. *J. Nutr. Educ. Behav.* **2018**, *50*, 888–895. [CrossRef] [PubMed]

Sustainability **2023**, 15, 4760 21 of 24

47. Basr, S.S.S.; Daud, K.A.K. The Impact of Purchasing Behaviour towards Digital Marketing in Kangar, Perlis. *Int. J. Bus. Manag.* **2020**, *4*, 62–69.

- 48. Yet, M.L.; Ching, S.Y.; Teck, H.L. Intention to shop online: A study of Malaysian baby boomers. *Afr. J. Bus. Manag.* **2011**, *5*, 1711–1717.
- 49. Kazaure, M.A.; Abdullah, A.R.; Jantan, A.H.; Zawawi, D.B. Influences of TPB variable on SMEs intention to adopt online crowdfunding services in Nigeria. *Int. J. Adv. Sci. Technol.* **2020**, *29*, 981–993.
- 50. Hopp, T.M. Subjective norms as a driver of mass communication students' intentions to adopt new media production technologies. *J. Mass Commun. Educ.* **2013**, *68*, 348–364. [CrossRef]
- 51. Adu-Gyamfi, G.; Song, H.; Nketiah, E.; Obuobi, B.; Adjei, M.; Cudjoe, D. Determinants of adoption intention of battery swap technology for electric vehicles. *Energy* **2022**, *251*, 123862. [CrossRef]
- 52. Apau, R.; Koranteng, F.N. Impact of cybercrime and trust on the use of e-commerce technologies: An application of the theory of planned behavior. *Int. J. Cyber Criminol.* **2019**, *13*, 228–254. [CrossRef]
- 53. Shahzalal, M.; Adnan, H.M. Attitude, Self-Control, and Prosocial Norm to Predict Intention to Use Social Media Responsibly: From Scale to Model Fit towards a Modified Theory of Planned Behaviour. *Sustainability* **2022**, *14*, 9822. [CrossRef]
- 54. McLaughlin, C.; Stephens, S. The theory of planned behaviour: The social media intentions of SMEs. *Ir. Acad. Manag.* 2019, pp. 1–30. Available online: https://www.researchgate.net/publication/330412288\_The\_theory\_of\_planned\_behavior\_the\_social\_media\_intentions\_of\_SMEs (accessed on 22 February 2023).
- 55. Mezghani, K.; Almansour, M.A. Study of Intentions to Use Cloud CRM Within Saudi SMEs: Integrating TAM and TPB Frameworks. In *Business Transformations in the Era of Digitalization*; IGI Global: Hershey, PA, USA, 2019; pp. 33–50.
- 56. Hien, N.N.; Nhu, T.N.H. The effect of digital marketing transformation trends on consumers' purchase intention in B2B businesses: The moderating role of brand awareness. *Cogent Bus. Manag.* **2022**, *9*, 2105285. [CrossRef]
- 57. Lee, M.C. Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electron. Commer. Res. Appl.* **2009**, *8*, 130–141. [CrossRef]
- 58. Ajina, A. Predicting customers' online word of mouth intention: The theory of planned behavior applied to understand youth Saudi social media behaviors. *Manag. Sci. Lett.* **2019**, *9*, 1553–1566. [CrossRef]
- 59. Ha, N.M.; Khoa, B.T. The Google Advertising Service Adoption Behaviour of Enterprise in the Digital Transformation Age. Webology Spec. Issue Inf. Retr. Web Search 2021, 18, 153–170.
- 60. Rakshit, S.; Islam, N.; Mondal, S.; Paul, T. Mobile apps for SME business sustainability during COVID-19 and onwards. *J. Bus. Res.* **2021**, *135*, 28–39. [CrossRef]
- 61. Moorthy, T.; Sahid, S. The Influence of Digital Marketing Literacy on Entrepreneurship Behaviour among Public University Students in Malaysia. *Int. J. Acad. Res. Bus. Soc. Sci.* **2021**, *12*, 548–568.
- 62. Orzan, G.; Macovei, O.I.; Iconaru, C.; Perju, A. Modelling Romanian SME's Intention to Continue Using the Online Marketing Tools: An Information System Theories Approach and Empirical Results. *AMIS* **2012**, 2012, 1173.
- 63. Abbas, A.; Mehmood, K. Understanding Digital Marketing Adoption in India: Integrated by Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB) Framework. *J. Manag. Sci.* **2021**, *8*, 70–87. [CrossRef]
- 64. Sanders, J.; Galloway, L. Rural small firms' website quality in transition and market economies. *J. Small Bus. Enterp. Dev.* **2013**, 20, 788–806. [CrossRef]
- 65. Chang, M.K. Predicting unethical behavior: A comparison of the theory of reasoned action and the theory of planned behavior. *J. Bus. Ethics* **1998**, *17*, 1825–1834. [CrossRef]
- 66. Dajani, D.; Yaseen, S.G.; El Qirem, I.; Sa'd, H. Predictors of Intention to Use a Sustainable Cloud-Based Quality Management System among Academics in Jordan. *Sustainability* **2022**, *14*, 14253. [CrossRef]
- 67. Kidwell, B.; Jewell, R.D. An examination of perceived behavioral control: Internal and external influences on intention. *Psychol. Mark.* **2003**, 20, 625–642. [CrossRef]
- 68. Tan, M.; Teo, T.S. Factors influencing the adoption of Internet banking. J. Assoc. Inf. Syst. 2000, 1, 5–42. [CrossRef]
- 69. Al-Ajam, A.S.; Nor, K.M. Customers' adoption of internet banking service: An empirical examination of the theory of planned behaviour in Yemen. *Int. J. Bus. Commer.* **2013**, 2, 44–58.
- 70. Ong, A.K.S.; Prasetyo, Y.T.; Salazar, J.M.L.D.; Erfe, J.J.C.; Abella, A.A.; Young, M.N.; Chuenyindee, T.; Nadlifatin, R.; Redi, A.A.N.P. Investigating the acceptance of the reopening bataan nuclear power plant: Integrating protection motivation theory and extended theory of planned behavior. *Nucl. Eng. Technol.* **2022**, *54*, 1115–1125. [CrossRef]
- 71. Jung, T.; Tom Dieck, M.C.; Lee, H.; Chung, N. Relationships among beliefs, attitudes, time resources, subjective norms, and intentions to use wearable augmented reality in art galleries. *Sustainability* **2020**, *12*, 8628. [CrossRef]
- 72. Yang, H.C.; Zhou, L. Extending TPB and TAM to mobile viral marketing: An exploratory study on American young consumers' mobile viral marketing attitude, intent, and behaviour. *J. Target. Meas. Anal. Mark.* **2011**, *19*, 85–98. [CrossRef]
- 73. Zolait, A.H.S. The nature and components of perceived behavioural control as an element of theory of planned behaviour. *Behav. Inf. Technol.* **2014**, *33*, 65–85. [CrossRef]
- 74. Hung, S.Y.; Yu, A.P.I.; Chiu, Y.C. Investigating the factors influencing small online vendors' intention to continue engaging in social commerce. *J. Organ. Comput. Electron. Commer.* **2018**, *28*, 9–30. [CrossRef]

Sustainability **2023**, 15, 4760 22 of 24

75. Nguyen, N.; Nguyen, H.V.; Nguyen, P.T.; Tran, V.T.; Nguyen, H.N.; Nguyen, T.M.N.; Cao, T.K.; Nguyen, T.H. Some key factors affecting consumers' intentions to purchase functional foods: A case study of functional yogurts in Vietnam. *Foods* **2019**, *9*, 24. [CrossRef] [PubMed]

- Hohman, Z.P.; Crano, W.D.; Niedbala, E.M. Attitude ambivalence, social norms, and behavioral intentions: Developing effective antitobacco persuasive communications. *Psychol. Addict. Behav.* 2016, 30, 209. [CrossRef]
- 77. Leong, L.Y.; Hew, T.S.; Ooi, K.B.; Metri, B.; Dwivedi, Y.K. Extending the Theory of Planned Behaviour in the Social Commerce Context: A Meta-Analytic SEM (MASEM) Approach. *Inf. Syst. Front.* **2022**, 1–33. [CrossRef]
- 78. Smith, J.; Terry, D. Attitude-behaviour consistency: The role of group norms, attitude accessibility and mode of behavioural decision making. *Eur. J. Soc. Psychol.* **2003**, *33*, 591–608. [CrossRef]
- 79. Al-Mamary, Y.H.S.; Alraja, M.M. Understanding entrepreneurship intention and behaviour in the light of the TPB model from the digital entrepreneurship perspective. *Int. J. Inf. Manag. Data Insights* **2022**, *2*, 100106.
- 80. Ho, S.M.; Ocasio-Velázquez, M.; Booth, C. Trust or consequences? Causal effects of perceived risk and subjective norms on cloud technology adoption. *Comput. Secur.* **2017**, *70*, 581–595. [CrossRef]
- 81. Bano, N.; Siddiqui, S. Consumers' intention towards the use of smart technologies in tourism and hospitality (T&H) industry: A deeper insight into the integration of TAM, TPB, and trust. *J. Hosp. Tour. Insights* **2022**. *ahead-of-print*. [CrossRef]
- 82. Apasrawirote, D.; Yawised, K. Factors influencing the behavioral and purchase intention on live-streaming shopping. *Asian J. Bus. Res.* **2022**, *12*, 39. [CrossRef]
- 83. Ong, A.K.S.; Prasetyo, Y.T.; Velasco, K.E.C.; Abad, E.D.R.; Buencille, A.L.B.; Estorninos, E.M.; Cahigas, M.M.L.; Chuenyindee, T.; Persada, S.F.; Nadlifatin, R.; et al. Utilization of random forest classifier and artificial neural network for predicting the acceptance of reopening decommissioned nuclear power plant. *Ann. Nucl. Energy* 2022, 175, 109188. [CrossRef]
- 84. Wu, J.H.; Wang, S.C. What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Inf. Manag.* **2005**, 42, 719–729. [CrossRef]
- 85. Alhaderi, S.; Ahmed, F. The effect of social characteristic in the acceptance and continue usage for information technology in the public sector. *Int. J. Bus. Soc. Sci.* **2015**, *6*, 186–192.
- 86. Sussman, R.; Gifford, R. Causality in the Theory of Planned Behaviour. Pers. Soc. Psychol. Bull. 2019, 45, 920–933. [CrossRef]
- 87. Morwitz, V.G.; Munz, K.P. Intentions. Consum. Psychol. Rev. 2021, 4, 26–41. [CrossRef]
- 88. Miraz, M.H.; Hasan, M.T.; Rekabder, M.S.; Akhter, R. Trust, transaction transparency, volatility, facilitating condition, performance expectancy towards cryptocurrency adoption through intention to use. *J. Manag. Inf. Decis. Sci.* **2022**, 25, 1–20.
- 89. Nigam, P.; KK, M.Y. Exploring Consumer Adoption of M-Commerce: A Study Based on Extended Theory of Planned Behaviour. *J. Posit. Sch. Psychol.* **2022**, *6*, 10704–10720.
- 90. Luarn, P.; Lin, H.H. Toward an understanding of the behavioral intention to use mobile banking. *Comput. Hum. Behav.* **2005**, 21, 873–891. [CrossRef]
- 91. Al-Khaldy, D.A.W.; Hassan, T.H.S.; Abdou, A.H.; Abdelmoaty, M.A.; Salem, A.E. The Effects of Social Networking Services on Tourists' Intention to Visit Mega-Events during the Riyadh Season: A Theory of Planned Behaviour Model. *Sustainability* **2022**, 14, 14481. [CrossRef]
- 92. Nysveen, H.; Pedersen, P.E.; Thorbjørnsen, H. Explaining intention to use mobile chat services: Moderating effects of gender. *J. Consum. Mark.* **2005**, 22, 247–256. [CrossRef]
- 93. Ho, S.C.H.; Yeh, Y.J.Y.; Lin, T.M. Effects of Luxury Perceptions on Purchase Intention of High-Tech Products. *J. Int. Consum. Mark.* **2022**, *34*, 168–183. [CrossRef]
- 94. Al-Emran, M.; Islam, S.; Harun, A. Understanding quality factors of electronic health service in an emerging economy. *Qual. Manag. J.* 2022, 29, 212–231. [CrossRef]
- 95. Alalwan, N. Actual use of social media for engagement to enhance students' learning. *Educ. Inf. Technol.* **2022**, 27, 9767–9789. [CrossRef]
- 96. Hsu, C.L.; Lin, J.C.C. Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Inf. Manag.* **2008**, *45*, 65–74. [CrossRef]
- 97. Riantini, R.E.; Tjhin, V.U.; Atmojo, R.N.P. How is The Adoption of Digital Marketing Services for Smart City Application Users? *JOIV Int. J. Inform. Vis.* **2021**, *5*, 57–62. [CrossRef]
- 98. Simula, H.; Töllmen, A.; Karjaluoto, H. Facilitating innovations and value co-creation in industrial B2B firms by combining digital marketing, social media and crowdsourcing. In *Marketing Dynamism & Sustainability: Things Change, Things Stay the Same . . .*; Springer: Cham, Switzerland, 2015; pp. 254–263.
- 99. Khan, F.; Siddiqui, K. The importance of digital marketing. an exploratory study to find the perception and effectiveness of digital marketing amongst the marketing professionals in pakistan. *J. Inf. Syst. Oper. Manag.* **2013**, *7*, 211–428.
- 100. Davis, F.D.; Bagozzi, R.P.; Warshaw, P.R. Extrinsic and intrinsic motivation to use computers in the workplace 1. *J. Appl. Soc. Psychol.* **1992**, 22, 1111–1132. [CrossRef]
- 101. Chaveesuk, S.; Khalid, B.; Chaiyasoonthorn, W. Digital payment system innovations: A marketing perspective on intention and actual use in the retail sector. *Innov. Mark.* **2021**, *17*, 109. [CrossRef]
- 102. Venkatesh, V.; Thong, J.Y.; Xu, X. Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Q.* **2012**, *36*, 157–178. [CrossRef]

Sustainability **2023**, 15, 4760 23 of 24

103. Alsukaini, A.K.M.; Sumra, K.; Khan, R.; Awan, T.M. New trends in digital marketing emergence during pandemic times. *Int. J. Innov. Sci.* **2022**, *15*, 167–185. [CrossRef]

- 104. Nimfa, D.T.; Uzir, M.U.H.; Maimako, L.N.; Eneizan, B.; Latiff, A.S.A.; Wahab, S.A. The Impact of Innovation Competitive Advantage on Product Quality for Sustainable Growth among SMEs: An Empirical Analysis. *Int. J. Bus. Sci. Appl. Manag.* **2021**, 16, 39–62.
- 105. Xu, G.; Hou, G.; Zhang, J. Digital Sustainable Entrepreneurship: A digital capability perspective through digital innovation orientation for social and environmental value creation. *Sustainability* **2022**, *14*, 11222. [CrossRef]
- 106. Trinugroho, I.; Pamungkas, P.; Wiwoho, J.; Damayanti, S.M.; Pramono, T. Adoption of digital technologies for micro and small business in Indonesia. *Financ. Res. Lett.* **2022**, *45*, 102156. [CrossRef]
- 107. Efthymiou, L.; Morphitis, A.; Drousiotis, P.; Orphanidou, Y. Sustainability Initiatives in Cypriot Hotels and the way forward through Digital Marketing Communication. In Proceedings of the CMC2022, 26th Corporate and Marketing Communications Conference, Nicosia, Cyprus, 18–20 April 2022.
- 108. Manning, M. The effects of subjective norms on behaviour in the theory of planned behaviour: A meta-analysis. *Br. J. Soc. Psychol.* **2009**, *48*, 649–705. [CrossRef] [PubMed]
- 109. Dahiya, R.; Gayatri. Investigating Indian car buyers' decision to use digital marketing communication: An empirical application of decomposed TPB. *Vision* **2017**, *21*, 385–396. [CrossRef]
- 110. Ikramuddin, I.; Matriadi, F.; Iis, E.Y.; Mariyudi, M. Marketing Performance Development: Application Of The Concept Of Digital Marketing And Market Orientation Strategy In The Msme Sector. *Int. J. Educ. Rev. Law Soc. Sci. (IJERLAS)* **2021**, *1*, 181–190. [CrossRef]
- 111. Adam, M.; Ibrahim, M.; Ikramuddin, I.; Syahputra, H. The role of digital marketing platforms on supply chain management for customer satisfaction and loyalty in small and medium enterprises (SMEs) at Indonesia. *Int. J. Supply Chain. Manag.* **2020**, *9*, 1210–1220.
- 112. Alzubaidi, H.; Slade, E.L.; Dwivedi, Y.K. Examining antecedents of consumers' pro-environmental behaviours: TPB extended with materialism and innovativeness. *J. Bus. Res.* **2021**, *122*, 685–699. [CrossRef]
- 113. Nasiri, M.; Saunila, M.; Rantala, T.; Ukko, J. Sustainable innovation among small businesses: The role of digital orientation, the external environment, and company characteristics. *Sustain. Dev.* **2022**, *30*, 703–712. [CrossRef]
- 114. Singh, R.K.; Luthra, S.; Mangla, S.K.; Uniyal, S. Applications of information and communication technology for sustainable growth of SMEs in Indian food industry. *Resour. Conserv. Recycl.* **2019**, *147*, 10–18. [CrossRef]
- 115. Owoseni, A.; Hatsu, S.; Tolani, A. How do digital technologies influence the dynamic capabilities of micro and small businesses in a pandemic and low-income country context? *Electron. J. Inf. Syst. Dev. Ctries.* **2022**, *88*, e12202. [CrossRef]
- 116. Philbin, S.; Viswanathan, R.; Telukdarie, A. Understanding how digital transformation can enable SMEs to achieve sustainable development: A systematic literature review. *Small Bus. Int. Rev.* **2022**, *6*, e473. [CrossRef]
- 117. Lateef, M.; Keikhosrokiani, P. Predicting Critical Success Factors of Business Intelligence Implementation for Improving SMEs' Performances: A Case Study of Lagos State, Nigeria. *J. Knowl. Econ.* **2022**, 1–26. [CrossRef]
- 118. Elhusseiny, H.M.; Crispim, J. SMEs, Barriers and Opportunities on adopting Industry 4.0: A Review. *Procedia Comput. Sci.* **2022**, 196, 864–871. [CrossRef]
- 119. Kumar, A.; Syed, A.A.; Pandey, A. Adoption of online resources to improve the marketing performance of SMES. *Asia Pac. J. Health Manag.* **2021**, *16*, 137–144. [CrossRef]
- 120. Chege, S.M.; Wang, D.; Suntu, S.L. Impact of information technology innovation on firm performance in Kenya. *Inf. Technol. Dev.* **2020**, *26*, 316–345. [CrossRef]
- 121. Kim, S.S. Sustainable growth variables by industry sectors and their influence on changes in business models of SMEs in the era of digital transformation. *Sustainability* **2021**, *13*, 7114. [CrossRef]
- 122. Akpan, I.J.; Udoh, E.A.P.; Adebisi, B. Small business awareness and adoption of state-of-the-art technologies in emerging and developing markets, and lessons from the COVID-19 pandemic. *J. Small Bus. Entrep.* **2022**, *34*, 123–140. [CrossRef]
- 123. Kraft, C.; Lindeque, J.P.; Peter, M.K. The digital transformation of Swiss small and medium-sized enterprises: Insights from digital tool adoption. *J. Strategy Manag.* **2022**, *15*, 468–494. [CrossRef]
- 124. Zhang, J.; van Gorp, D.; Kievit, H. Digital technology and national entrepreneurship: An ecosystem perspective. *J. Technol. Transf.* **2022**, 1–29. [CrossRef]
- 125. Quartey, P.; Kayanula, D. The Policy Environment for Promoting Small and Medium Sized Enterprises in Ghana and Malawi. In *Finance and Development RESEARCH Programme*; Paper, 15; Institute for Development Policy and Management: Manchester, UK, 2000.
- 126. Asare, K. Ghana Records 5.4 Percent Economic Growth in 2021 . . . Driven by Services Sector. *The Ghanaian Times*. 2022. Available online: https://www.ghanaiantimes.com.gh/ghana-records-5-4-economic-growth-in-2021-driven-by-services-sector (accessed on 18 August 2022).
- 127. Adichwal, N.K.; Ahmadini, A.A.H.; Raghav, Y.S.; Singh, R.; Ali, I. Estimation of general parameters using auxiliary information in simple random sampling without replacement. *J. King Saud. Univ. Sci.* **2022**, *34*, 101754. [CrossRef]
- 128. Hair, J.F.; Hollingsworth, C.L.; Randolph, A.B.; Chong, A.Y.L. An updated and expanded assessment of PLS-SEM in information systems research. *Ind. Manag. Data Syst.* 2017, 117, 442–458. [CrossRef]
- 129. Ghana Enterprises Agency. 2023. Available online: https://gea.gov.gh/clientele/ (accessed on 6 February 2023).

Sustainability **2023**, 15, 4760 24 of 24

- 130. Sharma, G. Pros and cons of different sampling techniques. Int. J. Appl. Res. 2017, 3, 749-752.
- 131. Xie, X.; Han, Y.; Anderson, A.; Ribeiro-Navarrete, S. Digital platforms and SMEs' business model innovation: Exploring the mediating mechanisms of capability reconfiguration. *Int. J. Inf. Manag.* **2022**, *65*, 102513. [CrossRef]
- 132. Song, Y.E.; Jeon, S.H.; Jeon, M.S. The effect of mobile food delivery application usage factors on customer satisfaction and intention to reuse. *Culin. Sci. Hosp. Res.* **2017**, 23, 37–47.
- 133. Alsyouf, A.; Lutfi, A.; Al-Bsheish, M.; Jarrar, M.T.; Al-Mugheed, K.; Almaiah, M.A.; Alhazmi, F.N.; Masa'deh, R.; Rami, J.; Anshasi, A. Exposure Detection Applications Acceptance: The Case of COVID-19. *Int. J. Environ. Res. Public Health* **2022**, *19*, 7307. [CrossRef]
- 134. Chatterjee, S.; Chaudhuri, R.; Sakka, G.; Grandhi, B.; Galati, A.; Siachou, E.; Vrontis, D. Adoption of social media marketing for sustainable business growth of SMEs in emerging economies: The moderating role of leadership support. *Sustainability* **2021**, 13, 12134. [CrossRef]
- 135. Lin, H.F. Predicting consumer intentions to shop online: An empirical test of competing theories. *Electron. Commer. Res. Appl.* **2007**, *6*, 433–442. [CrossRef]
- 136. Venkatesh, V.; Morris, M.G.; Davis, G.B.; Davis, F.D. User acceptance of information technology: Toward a unified view. *MIS Q.* **2003**, *27*, 425–478. [CrossRef]
- 137. Acheampong, R.A.; Cugurullo, F. Capturing the behavioural determinants behind the adoption of autonomous vehicles: Conceptual frameworks and measurement models to predict public transport, sharing and ownership trends of self-driving cars. *Transp. Res. Part F Traffic Psychol. Behav.* **2019**, *62*, 349–375. [CrossRef]
- 138. Wu, L.; Chen, J.L. An extension of trust and TAM model with TPB in the initial adoption of on-line tax: An empirical study. *Int. J. Hum. Comput. Stud.* **2005**, *62*, 784–808. [CrossRef]
- 139. Cheng, T.E.; Lam, D.Y.; Yeung, A.C. Adoption of internet banking: An empirical study in Hong Kong. *Decis. Support Syst.* **2006**, 42, 1558–1572. [CrossRef]
- 140. Rahman, M.M.; Lesch, M.F.; Horrey, W.J.; Strawderman, L. Assessing the utility of TAM, TPB, and UTAUT for advanced driver assistance systems. *Accid. Anal. Prev.* **2017**, *108*, 361–373. [CrossRef] [PubMed]
- 141. Grandón, E.E.; Ramírez-Correa, P. Managers/owners' innovativeness and electronic commerce acceptance in Chilean SMEs: A multi-group analysis based on a structural equation model. *J. Theor. Appl. Electron. Commer. Res.* **2018**, *13*, 1–16. [CrossRef]
- 142. Zhou, Y.; Loi, A.M.W.; Tan, G.W.H.; Lo, P.S.; Lim, W. The survey dataset of The Influence of theory of planned behaviour on purchase behaviour on social media. *Data Brief* **2022**, 42, 108239. [CrossRef]
- 143. Bagozzi, R.P.; Yi, Y. On the evaluation of structural equation models. J. Acad. Mark. Sci. 1988, 16, 74–94. [CrossRef]
- 144. Jordan, P.J.; Troth, A.C. Common method bias in applied settings: The dilemma of researching in organizations. *Aust. J. Manag.* **2020**, *45*, 3–14. [CrossRef]
- 145. MacKenzie, S.B.; Podsakoff, P.M. Common method bias in marketing: Causes, mechanisms, and procedural remedies. *J. Retail.* **2012**, *88*, 542–555. [CrossRef]
- 146. Viswanathan, M.; Kayande, U. Commentary on "common method bias in marketing: Causes, mechanisms, and procedural remedies. *J. Retail.* **2012**, *88*, 556–562. [CrossRef]
- 147. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [CrossRef] [PubMed]
- 148. Kock, F.; Berbekova, A.; Assaf, A.G. Understanding and managing the threat of common method bias: Detection, prevention, and control. *Tour. Manag.* **2021**, *86*, 104330. [CrossRef]
- 149. Attor, C.; Jibril, A.B.; Amoah, J.; Chovancova, M. Examining the influence of brand personality dimension on consumer buying decision: Evidence from Ghana. *Manag. Marketing. Chall. Knowl. Soc.* **2022**, *17*, 156–177. [CrossRef]
- 150. Kumar, K. A Beginner's Guide to Structural Equation Modeling, 3rd ed.; Wiley: Hoboken, NJ, USA, 2012; Volume 175, ISBN 9781841698908.
- 151. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to use and how to report the results of PLS-SEM. *Eur. Bus. Rev.* **2019**, 31, 2–24. [CrossRef]
- 152. Fornell, C.G.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]
- 153. Pavlou, P.A. Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *Int. J. Electron. Commer.* **2003**, *7*, 101–134.

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.