Journal of Management Practices, Humanities and Social Sciences

Vol 8 Issue 2 pp. 24-37

https://doi.org/10.33152/jmphss-8.2.3

ORIGINAL CONTRIBUTION

Interplay between Digital Marketing, Business Analytics and Innovation Capability: A Case of Greece SMEs

Georgia Moschogianni*

Aristotle University of Thessaloniki , Thessaloniki, Greece

Abstract— This study examines the effects of digital marketing on the purchase intention and market performance of Small and Medium-Sized Enterprises (SMEs) in a developing market in Greece's pharmaceutical, IT, and service sectors. In the pharmaceutical, IT, and service industries, it also looks at how innovation capability functions as a mediating factor in the interaction between digital marketing, purchase intention, and market performance. A Partial Least Squares - Structural Equation Modelling (PLS-SEM) technique was employed to examine data from 260 Small and Medium-Sized Enterprises (SMEs) in the pharmaceutical, IT, and service industries. This study was conducted in Greece, and the targeted population was pharmaceutical, IT, and service sector owners and senior managers. As the population was unknown, it was difficult to access all the owners and senior managers from Greece's SME sector. A non-probability sampling technique was used, and the sampling method was convenient. The main objective of this paper is to identify themes and trends directly related to digital marketing, business analytics, innovation capability, and SMEs. The findings demonstrate that, through innovation capabilities in mediation, digital marketing directly impacts the market performance and purchase intention of SMEs in the pharmaceutical, IT, and service sectors. The results of this study offer valuable insights through business, through business analytics in moderation on digital marketing and market performance and purchase intention of SMEs. The results support earlier studies mostly carried out in developed (Western) economies. Practically speaking, this research aids SMEs in realising the value of innovation by encouraging them to test out new concepts Regularly to sustain innovation and a competitive edge in a demanding business climate. The moderating effect of business analytics and the mediating impact of innovative capabilities both require for further study.

Index Terms— Digital marketing, Innovation capabilities, Business analytics, Purchase intention, Market performance, Resource-based view theory

Received: 25 November 2023 ; **Accepted:** 10 January 2024; **Published:** 28 March 2024

Introduction

According to the World Bank, Small and Medium Enterprises (SMEs) are important in most economies, especially developing countries. SMEs make up the majority of businesses worldwide and contribute greatly to employment availability. SMEs represent about 90% of businesses and more than 50% of jobs globally. In developing countries, formal SMEs contribute up to 40% of national income (GDP). This figure may be higher if SMEs are informal. SMEs have become a subject of study and a high priority for many governments because

*Email: georgiamoschogianni@outlook.com.gr

© 2024 Journal of Management Practices, Humanities and Social Sciences (JMPHSS). All rights reserved.

of their important economic contribution and the number of people they employ. Quaye and Mensah (2019) found that SMEs can sustain the market advantage of existing product(s) by synchronously using specific marketing resources and capabilities.

The IT sector, inherently technology-driven, requires continuous adaptation to stay ahead in a competitive environment. On the other hand, service sector SMEs thrive on customer satisfaction and often rely on innovation to differentiate themselves in the market (Almheiri, Omar, et al., 2022; Camm, Cochran, Fry, & Ohlmann, 2020). In the contemporary era, the Internet has become an indispensable platform for global communication and business transactions. Consequently, online purchase intention has become a viable and increasingly preferred option for consumers. According to Al-Slehat (2023), the number of Internet users surpassed 4 billion in 2017, marking a substantial increase of 577% compared to the total in 2000. Notably, the Asian region accounts for 49.2% of the global Internet user base. The year 2017 witnessed around 1.66 billion individuals globally engaging in online purchases, generating a staggering $230 million in Internet sales. Hashim, Taleb, and Faudzi (2023) indicate a significant growth trajectory, expecting Internet sales to reach $448 million by 2021. This robust upward trend underscores the sustained and future growth of online purchasing within the global electronic commerce market (Wijekoon & Sabri, 2021). Despite the burgeoning number of online purchasers, many Internet users still perceive online buying as a source of risk and uncertainty. This implies that while online commerce is expanding presently and in the foreseeable future, challenges related to consumer trust and confidence persist, warranting further exploration and strategic considerations in the evolving landscape of digital transactions (AlKoliby, Abdullah, & Suki, 2023).

In today's business world, organisations must overcome enormous obstacles caused by dynamic market conditions marked by rapidly changing consumer tastes, regular changes in the competitive landscape, and the ongoing development of new digital technologies (Al-Slehat, 2023). To thrive in such an environment and retain their relevance and profitability, businesses must innovate and adopt new business strategies (Shegai et al., 2023). Research has demonstrated that investing in business analytics can improve corporate performance. However, this is an industry-wide issue (Dastane, 2020; Raeisi Ziarani, Janpors, & Taghavi, 2023). There are fewer of them, even though experts and academics agree that BA produces more output (Duan, Cao, & Edwards, 2020). Sharma et al. (2014) state that it is clear how BA impacts organisational efficacy and agility. As they analyse its mechanism, researchers talk about the improved performance (AlKoliby et al., 2023) and concur that a deeper examination of BA value analysis is necessary (Chatterjee, Rana, & Dwivedi, 2024). It is vital to comprehend the impact of BA more thoroughly due to its usefulness. A few researchers have attempted to measure marketing performance (Hashim et al., 2023; Kabiraj & Joghee, 2023).

Innovation is a decisive aspect in the competitive arena of today's chaotic commercial world. Economic growth largely depends on a country's and an organisation's capacity to introduce new products and services (Baccarella, Maier, Meinel, Wagner, & Voigt, 2022; Rashid, Jehan, & Kanval, 2023). By bolstering its cost leadership and differentiation strategies, innovation gives a business a competitive edge (Jam, Donia, Raja, & Ling, 2017; A. Khan, Talukder, Islam, & Islam, 2022). Fu et al. (2021) assert that innovation is one of the most effective business strategies since it can modify administrative processes, sales, marketing, and product and service offerings. According to Roma, Natalicchio, Panniello, Vasi, and Messeni Petruzzelli (2023), this strategic strategy improves corporate performance and expedites competitive prowess. Innovation is a powerful force that can reveal new ways to do business or bring cutting-edge goods, services, and procedures that have a major positive impact on economies and companies. As a result, debates in the literature on business generally revolve around several innovation techniques, like marketing, process, product/service, administrative, and administrative innovations, which are meant to maximise business performance (Fan et al., 2021).

SMEs require assistance implementing new technologies due to their increased resource and knowledge needs (Al-Slehat, 2023). Furthermore, they have to catch up in terms of innovation and diffusion since they don't fully comprehend business challenges such as inadequate knowledge management and a lack of financial resources (Biclar, 2022; Hayajneh, Elayan, Abdellatif, & Abubakar, 2022). Because of this, a company's first five years of existence have a comparatively high failure rate (A. S. Khan, Bilal, Saif, & Shehzad, 2020; Lam, Nguyen, Le, & Tran, 2021). However, to stay in the public eye and attract investors and customers, they have to acknowledge the importance of digital marketing (Jung, 2023; Kabiraj & Joghee, 2023). Despite the many benefits of digital marketing, not much research has been done on its application in developing nations. Raeisi Ziarani et al. (2023) further highlighted the need for greater empirical study on the relationship between improved SME performance and digital marketing. Despite several government initiatives to provide public awareness, financial support, and training, experts have noted that SMEs adopt technology at slow or low rates (Wang, Li, & You, 2020; Wijekoon & Sabri, 2021). A number of environmental and social concerns have also been raised, such as resource depletion, rising energy prices, and climate change. SMEs may face significant difficulties as a result of these elements, as well as growing globalisation and fierce rivalry (Abbas, Rehman, & Alobidyeen, 2021; Shegai et al., 2023). Up to 70% of worldwide pollution is ascribed to SMEs, who also have a bad reputation when it comes to the environment (Moslehpour, Ismail, Purba, & Wong, 2021).

RBV states that attaining firm performance and competitive advantage requires a firm's capabilities (Ashrafi & Zareravasan, 2022; Kabiraj & Joghee, 2023). Almheiri et al. (2022) came to the conclusion that, in this regard, innovation and branding skills are crucial. This is significant in the context of market performance since it is a novel technology that could affect the innovation capacities of businesses needed to respond to obstacles in the marketplace and improve performance. Innovation Capability is seen as a crucial component of business strategies and a substantial asset that could influence buying intent (Ashrafi & Zareravasan, 2022). Business analytics, according

to Camm et al. (2020), is crucial for developing policies in addition to assisting organisations in anticipating and adapting to changes brought about by market needs (AlKoliby et al., 2023). The present study determines that digital marketing has a direct impact on market performance and purchase intention moderating the role of business analytics and mediating role of innovation capability, as well as the resource-based view theory involved, among Greece employees. A long-term competitive advantage is based on a company's unique set of resources, which might include organisational capabilities, human capital, tangible and intangible assets, and organisational skills, according to RBV. The following research goals are at the core of the presented research model:

- To examine that digital marketing has a significant impact on purchase intention.
- To examine that digital marketing has a significant impact on market performance.
- To explore the idea that innovation capability has a mediating role between digital marketing and purchase intention.
- To explore the idea that innovation capability has a mediating role between digital marketing and market performance.
- To investigate whether business analytics has a moderating effect on innovation capability and purchase intention.
- To investigate whether business analytics has a moderating effect on innovation capability and market performance.

Literature Review

Several studies examine the influence of digital marketing efforts on SMEs in determining business performance. Digital marketing is considered to have a positive relationship with the sustainability of SMEs. The study examines the effect of digital marketing applications such as online advertising, affiliate marketing, email marketing, SMM, and SEO on business performance (Nuseir & Aljumah, 2020). Online two-way business optimisation is the main factor that can optimise customer loyalty and repurchase intention (Sultan, Asif, & Asim, 2019). The use of social media by both SMEs and potential customers has brought opportunities for SMEs and potential customers so that SMEs can gain business profits by using social media. The use of SMM by SMEs has increased rapidly and contributed to the growth of SME businesses in developing countries (Chatterjee & Kar, 2020). Another study has shown that websites can have a positive impact on improving family businesses in SMEs through effective advertising through websites. The effect of this website is that it can facilitate purchasing and product searches for customers (Saleh, 2020).

Resource-based view theory

The Resource-Based View theory (RBT), which emphasises the importance of a company's owned and managed resources, is widely acknowledged as a major framework for comprehending firm performance (Almheiri et al., 2022). This idea holds that organisations can become more effective by obtaining organisational resources, both material and immaterial, that have attributes like being rare, valuable, unique, and non-replaceable (Dastane, 2020). Fan et al. (2021) define resources as generic, trade-able company assets, whereas capabilities are defined as nonspecific, trade-able, firm-specific ability to integrate, deploy, and use these resources. To put it briefly, the RBT says that the development of organisational capabilities is largely dependent on the gathering of resources. As a result, a company's capabilities and the kind and calibre of the resources they are based on are closely related (Lam et al., 2021). Not only is the Resource-Based View (RBT) well accepted in the field of strategic management, but it is also widely accepted in other business disciplines, including marketing, operations management, supply chain management, and operations management (Fu et al., 2021; Hashim et al., 2023). While many RBV extensions and elaborations have been published over the years, most of them (Gyedu, Tang, Ntarmah, & Manu, 2021) focused on identifying key resources and examining the ways in which resources impacted business analytics and/or other organisational issues like profitability, marketing performance, and strategic alliances. However, no extensive study has been conducted to evaluate the advantages and disadvantages of using RBV in IT (Gyedu et al., 2021). The Resource-Based View (RBV) paradigm, according to Fu et al. (2021), is useful for analysing how digital marketing, digital technology, and digital capabilities contribute to long-term competitive advantage and growth in a competitive market. RBV offers a framework to comprehend how unique and valuable resources contribute to prolonged competitive advantage in the digital age, where businesses must navigate an environment altered by quickening technology breakthroughs (Jung, 2023). Path dependence and firm heterogeneity are the two main pillars of the RBV (Chatterjee et al., 2024; Chetioui, Benlafqih, & Lebdaoui, 2020). Unlike theories like transaction cost economics, which aims to explain why firms exist Almheiri et al. (2022), the RBV is a theory regarding the nature of firms. Because of this, the RBV necessitates a few restrictive presumptions on the characteristics of strategic behaviour. The RBV is essentially a statement on how businesses function in real life. RBV's two primary pillars, or its minimalistic assumptions, make formalisation difficult. Ultimately, it appears doubtful that the RBV's claim that diverse resource endowments influence how differently firms operate can be contested. However, theoretical breakthroughs have been developed as a result of these fundamental concepts.

Digital marketing and purchase intention

In the field of digital marketing, products and services are promoted to a specific audience using digital media. It covers a wide range of tactics, such as Pay-Per-Click (PPC) advertising, email marketing, content marketing, social media marketing, and more (Edwin et al., 2023). Digital marketing has grown significantly because of the spread of the internet and the increased use of digital devices for information access and purchase decisions. As consumers shifted to digital media, businesses had to adapt their marketing strategies (Shegai et al., 2023). Businesses in general, and the banking industry specifically, use DM to market banking services and products, giving them more access to clients and favourably indicating their goal to use them (A. S. Khan et al., 2020). According to Alwan and Alshurideh (2022), Internet banking has increased productivity and efficiency in Kenya's banking sector. Furthermore, they found a high correlation between market performance and ATM services. Al-Slehat (2023) and AlKoliby et al. (2023), in contrast, discovered that although the Internet does not directly affect market performance, it does contribute to the eradication of financial illiteracy by raising the level of financial culture. Al-Slehat (2023) and AlKoliby et al. (2023) came to the conclusion that, by satisfaction serving as a mediating variable, the customer experience of digital banking services positively affects the intention to reuse. Furthermore, research conducted by Alwan and Alshurideh (2022) revealed a noteworthy positive correlation between consumers' purchase intents and social media marketing, as well as customer connections. Lee et al. (2021) went on to explain that while digital banking services make banking easier, one of its flaws is technology profiling, which impairs market performance (Dastane, 2020). Low-cost products with subpar packaging and unknown brands are associated with lower reliability and increased risk, according to Hashim et al. (2023). The purchasing process involves both internal (shopping experience) and external (website information) motivation (Wijekoon & Sabri, 2021). Customers' goals and motives to visit the website for product search and purchase are influenced by an attractive website, online services, and an efficient website layout, all of which increase the likelihood that they will make a purchase. Peña-García, Gil-Saura, Rodríguez-Orejuela, and Siqueira-Junior (2020) established the stages of buying intention. These stages included assessment based on experience, current knowledge, interest, preference, persuasiveness, and consumer purchasing influence. According to Moslehpour et al. (2021), searching for information online not only raises satisfaction levels but also encourages repeat business, visits to the digital platform, and favourable recommendations and reviews of products that are advertised (McClure & Seock, 2020). In the context of digital marketing, Liao, Hu, Chung, and Huang (2021) found that branding improves purchase intention. As consumer trends shift, more and more people are using online product evaluations as a crucial source of information before making well-informed purchasing decisions. One of the most innovative tools for promoting and communicating products and services is digital marketing. It offers unparalleled advantages, including limitless accessibility in terms of time, location, and cost. (Chetioui et al., 2020; A. S. Khan et al., 2020) emphasise how digital marketing favourably influences consumers' purchase intentions, especially when it comes to personalised, customised, and engaging material. Hence,

H1: Digital marketing has a significant impact on purchase intention.

Digital marketing and market performance

The term "digital marketing" refers to the use of contemporary digital technologies in conjunction with conventional marketing techniques to accomplish marketing goals. Businesses use this new marketing strategy to achieve traction in support of simple trade using sophisticated smartphone applications that promote trading and turn the device into a marketplace (Alwan & Alshurideh, 2022; Dastane, 2020; Edwin et al., 2023). The emergence of digital marketing and its related aspects can be attributed to the intensity of non-traditional company competition that has emerged in recent decades, coinciding with the advent of search engines and posing new significant marketing issues (Duan et al., 2020; Edwin et al., 2023). A number of sophisticated business technologies have been implemented in response to business changes as a result of the paradigm shift in digital marketing, which has led to significant changes in global markets and an increase in the prominence of customers' purchase intentions and power (Fu et al., 2021; Jung, 2023; A. Khan et al., 2022). Artificial intelligence (AI) and the proliferation of digital technology, including laptops, smartphones, and e-commerce platforms, are the driving forces behind digital marketing (Fu et al., 2021; Hayajneh et al., 2022; Jung, 2023; McClure & Seock, 2020). These variables also had an impact on how consumers felt about their purchases, which changed how marketing strategies would be used in the future (Gyedu et al., 2021; Jung, 2023; Lam et al., 2021). Compared to traditional commerce, e-commerce provides customers with additional benefits, which could influence their intention to make an online purchase (Iranmanesh, Kumar, Foroughi, Mavi, & Min, 2021; A. Khan et al., 2022). Nonetheless, consumers can access their marketplaces at any time and from any location, thanks to the variety of accessible websites with eye-catching and educational graphics, audio, and text that make up for the shortcomings of conventional marketing channels and improve user experiences. Digital communication consequently encourages the development of modern options for social media involvement in marketing activities in order to manage and minimise the marketing expenses of traditional marketing (Al-Slehat, 2023). While most studies have mostly focused on Western markets and conventional marketing techniques, this study takes a novel approach by examining a developing nation setting and adopting a perspective focused on digital marketing. Furthermore, the study makes a distinction between intermediate and ultimate results according to market performance, offering information about how much digital marketing initiatives

influence these two kinds of outcomes (Ashrafi & Zareravasan, 2022; Baccarella et al., 2022; Chetioui et al., 2020). Therefore,

H2: Digital marketing has a significant impact on market performance.

Mediating role of innovation capability

A business's endurance, success, sustainability, and ability to compete globally are all heavily influenced by innovation, which is defined as the development or improvement of products, processes, management, and marketing systems for both new and existing products (Duan et al., 2020; Wang et al., 2020). Management scientists have long emphasised innovation capacity as a vital tactic for companies looking to improve performance in the face of the ever-changing business environment (Gyedu et al., 2021). Many companies understand that being able to innovate is essential to meeting customer demands and navigating the difficulties of the business world. As a result, innovation-related activities are seen as both the best business strategies and necessary components for attaining outstanding performance in a cutthroat environment (Fan et al., 2021; Kabiraj & Joghee, 2023). Numerous research works in the field of innovation capability have established a clear connection between innovation and economic consequences, competitive positioning, and performance (AlKoliby et al., 2023; Gyedu et al., 2021). Scholars in the domains of business and management sciences have identified several aspects of innovative capacity. Consequently, research has divided the capacity for innovation into four categories: administrative, marketing, process, and product/service (Baccarella et al., 2022; Gyedu et al., 2021; Iranmanesh et al., 2021; Kabiraj & Joghee, 2023; Roma et al., 2023).

Understanding how their company performs in the marketplace is a major worry for many managers and business owners Alwan and Alshurideh (2022). Therefore, managers and business owners alike view business performance as a critical management strategy that is of utmost importance (Dastane, 2020). In essence, business performance is an evaluation of a company's overall health based on the resources allocated to accomplishing predetermined objectives (Al-Slehat, 2023; Camm et al., 2020). Edwin et al. (2023) states that it represents the achievement of strategic business objectives and takes into account the complexity of an organisation. Metrics like sales growth, profit margin on sales, return on investment, market share, return on assets, and overall profitability are used to assess marketing and financial performance (Fan et al., 2021). Businesses that release extremely innovative products typically use a wider range of information sources when developing their products, occasionally deriving insights from innovation (Iranmanesh et al., 2021). As a result, businesses that have strong working connections with a variety of partners are more likely to foster improved innovation capacities, which in turn leads to better results (A. Khan et al., 2022). Higher degrees of collaborative innovation greatly facilitate the transfer of strategic resources across enterprises by enhancing direct interactions between a focused firm and its external partners (Lam et al., 2021). Consequently, companies that work in partnership with outside parties are better positioned to innovate because they have easier access to strategic resources that are essential to the creation of new goods and procedures. Companies are good at gaining the knowledge required for incremental innovation because they can create that knowledge internally (Moslehpour et al., 2021). Therefore, businesses choose comprehensive and in-depth transfer and integration of existing information inside their networks to gain supplementary knowledge more economically and efficiently. This strategy seeks to increase the amount of knowledge available, penetrate new knowledge areas, make it easier to integrate new and old knowledge, and improve the enterprise's capacity for innovation as a whole (Peña-García et al., 2020; Roma et al., 2023). Therefore,

H3: Innovation capability has a mediating role between digital marketing and purchase intention.

H4: Innovation capability has a mediating role between digital marketing and market performance.

Moderating role of business analytics

According to Almheiri et al. (2022), business analytics is presented as a transformative tool that uses extremely complex analytical tools and procedures to enhance corporate decision-making by transforming raw data into relevant information. The research highlights business analytics as a holistic approach to organising, processing, and analysing data to identify practical patterns or concepts, which in turn helps businesses obtain a competitive edge (Hayajneh et al., 2022; Oesterreich, Anton, & Teuteberg, 2022). According to Silva, Cortez, Pereira, and Pilastri (2021), it is acknowledged as an enterprise-wide system that mainly provides organisations with long-term, strategic, and indirect benefits. Prior studies, like the one done by Ashrafi and Zareravasan (2022), confirm that BA gives businesses the ability to use a data-centric approach to analyse and manage their strategy. Because of this, companies are now putting a lot of emphasis on business analytics, which means that it is important to examine the fundamental information systems approach that companies employ when putting business analytics into practice (Camm et al., 2020). In the field of digital analytics, digital data is measured, examined, and evaluated to support corporate decision-making. It is significant to remember that an organisation's ability to employ BA solutions effectively depends on the quality of the data (Kabiraj & Joghee, 2023). Within this framework, the role that the functional area lead plays in topics about data collecting is deemed significant. It is imperative to consider the significance and efficacy of legacy data in the context of devising a successful business analytics solution within an institution (Silva et al., 2021). According to the RBV theory, organisations should acquire the skills necessary to use their resources properly to improve their performance and obtain a competitive edge

(Camm et al., 2020). Furthermore, according to this approach, data quality is just as crucial as data acquisition (Almheiri et al., 2022). It is crucial to remember that gathering data in real-time facilitates decision-making in real-time, which is crucial for an organisation's accurate and suitable BA solution. Data can be obtained in a variety of ways (Ashrafi & Zareravasan, 2022). These consist of big data, as well as both internal and external data for the company. The several functional divisions within the corporation are the source of these statistics. As a result, collecting data is a crucial component of every business analytics solution. This iterative method leads to both an overall improvement in marketing performance and a more efficient use of marketing resources (Edwin et al., 2023; Iranmanesh et al., 2021).

H5: Business analytics has a moderating effect on Innovation capability and purchase intention.

H6: Business analytics has a moderating effect on Innovation capability and market performance.

Conceptual framework

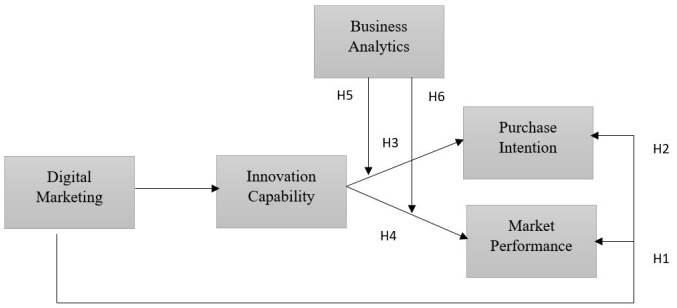

Fig. 1 *Conceptual framework*

Methodology

Based on the latest trends, it was aimed to explore the relationships between Digital Marketing (DM) as the independent variable, innovation capability (IC) as the mediating variable, and Business Analytics (BA) as a moderating variable. The Purchase Intention (PI) and the Market Performance (MP) are outcome variables within the context of Greek SMEs across sectors including Pharmaceutical, IT, and Services. The research was conducted quantitatively with a descriptive nature, utilising a one-time data collection method employing a cross-sectional time horizon. One-time data collection might limit insights into changes over time. To gather the data, the approach that should be used was taken into consideration, and according to the context of the study, the survey approach was used. The method for data collection was the questionnaire method, and items were adapted from different sources. These surveys were conducted by sharing the online questionnaires among the respondents. This study was conducted in Greece, and the targeted population was pharmaceutical, IT, and service sector owners and senior managers. As the population was unknown, it was difficult to access all the owners and senior managers from Greece's SME sector. A non-probability sampling technique was used, and the sampling method was convenient sampling. It was also taken into consideration that ethical aspects should be maintained while doing this research, especially when collecting the data. The instrument was well explained so that each respondent could easily fill out the questionnaires. The total response was 260 in terms of numbers from the respondents, and it was significant. After completing the data collection process, it was used for the statistical analysis, and for that instance, the tool Smart PLS was used to perform all the required to test the hypotheses based on the primary data (Sarstedt & Cheah, 2019). Findings were subject to the limitations of the study's design and sample selection.

Research instrument

This research was based on quantitative measures, which is why surveys were conducted through the questionnaire. This questionnaire was based on a 5-point Likert scale and by adapting the different items from the developed scale of different scholars. The adaptation process was completed by performing the content validity, face validity, and reliability of the instrument. These surveys were generated by providing an online link to the respondents. The instrument was a combination of three parts where the first part was all about the information regarding the purpose and aim of the study and what is required from the respondents. It was well explained so that they could easily provide the right information for this research. It was also mentioned that the provided data will remain secret and will not be used for any other purpose. That was the reason that the response was more than satisfactory. The second part of the instrument contains the demographical information where few questions were asked by providing the close-ended options. The last part contains the items

against each variable. The independent variable of the study, digital marketing, was measured using the scale developed by Shegai et al. (2023), and a total of 5 items were adopted against this variable. The mediating variable of the study was measured by adapting the 5-item scale of (Gyedu et al., 2021). Business analytics as a moderating variable was also measured by adapting the 5-item scale from (Duan et al., 2020). The purchase intention as an outcome variable was measured by adapting the 5 items scale of Edwin et al. (2023). The other outcome variable of the study was market performance, and it was measured by using the scale developed by Kabiraj and Joghee (2023), which contains 5 items as well. Anonymity and confidentiality were maintained well to ensure the trust and credibility of all responses.

Data Analysis

Measurement model

The scales utilised in this study to measure the constructs underwent tests of construct validity. Construct validity is the ability of a measure to test the theoretical construct or trait that it was designed to measure (Sarstedt & Cheah, 2019). Table 1 shows that all Cronbach's alpha results were greater than 0.8, which is over the acceptable threshold. All of the Average Variance Extracted (AVE) values were more than 0.5, indicating that the examined constructs had convergent validity. Furthermore, the factors' composite reliability was higher than 0.7, a sign of strong internal consistency. Moreover, the fact that all of the variables had outer loadings greater than 0.6 validates the content validity of the scales and satisfies the theoretical criteria. Factor loadings and the variance of each indication were used to determine the indicator's dependability; the former needed to be greater than 0.70, and the latter needed to be at least 0.50. Table 2 summarises the indication of dependability, which was found to be satisfactory. Since each construct's Average Variance Extracted (AVE) value was at least the suggested threshold value of 0.50; convergent validity was likewise deemed adequate.

Table I
Composite reliability, Cronbach's alpha and AVE values

Constructs/Items	CA	Rho-A	CR	AVE
Business Analytics	0.945	0.946	0.958	0.82
Digital Marketing	0.899	0.900	0.926	0.714
Innovation Capability	0.915	0.916	0.937	0.748
Market Performance	0.862	0.874	0.903	0.654
Purchase Intention	0.932	0.935	0.949	0.788

Discriminant validity was evaluated through two tests. The first step was applying the Fornell–Larcker criterion Sarstedt and Cheah (2019) to determine whether each construct's square root of the AVE value was higher than its correlation with any other construct. The purpose of the second test was to determine whether each reflective indicator loaded most on the related construct, which was also the case, indicating that discriminant validity was adequate. Table 2 presents a summary of the results of the analysis.

Table II
Discriminant validity

	BA	DM	IC	MP	PI
Business Analytics	0.906				
Digital Marketing	0.689	0.845			
Innovation Capability	0.799	0.538	0.865		
Market Performance	0.790	0.726	0.711	0.809	
Purchase Intention	0.775	0.729	0.752	0.701	0.888

Figure 2 shows the results of these analyses for the model used in this investigation.

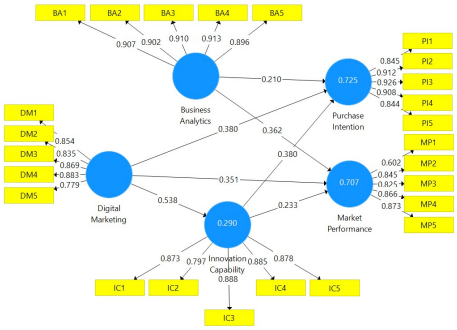

Fig. 2 *Measurement model*

Structural model

PLS-SEM examines how digital marketing, business analytics, and innovation capability interact with one another in the Greek setting of Small and Medium-Sized Businesses (SMEs). "To look at the direct correlations between variables in a theoretical model, direct analysis is a The technique used in Structural Equation Modelling (SEM)" (Sarstedt & Cheah, 2019). On rare occasions, the term "direct path analysis or direct effects analysis" has been employed. Rather than emphasising mediating or indirect effects through intermediary factors, it concentrates on the direct impact of independent variables on dependent variables. In this study, the links between purchase intention, market performance, and innovation capabilities are mediated by business analytics. Another variable functions as an intervening variable, or in this instance, a moderating variable, when the existence of that other variable modifies or influences the impact of the independent variable on the dependent variable (Cheah, Thurasamy, Memon, Chuah, & Ting, 2020). Keeping with the analytical approach, the bootstrapping process was used to perform moderation testing.

Table III
Direct and indirect relation

	Relationships	Original Sample	*t* Statistics	*p* Values	Decision
H1	Digital Marketing -> Purchase Intention	0.405	11.703	0.000	Supported
H2	Digital Marketing -> Market Performance	0.322	7.084	0.000	Supported
H3	Digital Marketing -> Innovation Capability -> Purchase Intention	0.211	10.430	0.000	Supported
H4	Digital Marketing -> Innovation Capability -> Market Performance	0.118	3.471	0.001	Supported
H5	Moderating Effect 1 -> Purchase Intention	0.093	3.504	0.001	Supported
H6	Moderating Effect 2 -> Market Performance	-0.110	3.690	0.000	Supported

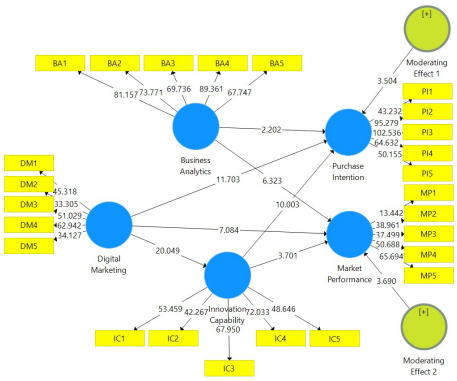

Fig. 3 *Structural model*

Interaction analysis can be done in several ways, with basic slope analysis being one of the most popular techniques. With this approach, the moderator variable's slope and intercept are calculated for particular intervals. Sarstedt and Cheah (2019) state that when the moderation impact is examined, it becomes clear that Business Analytics has a moderating role in the associations between Innovation

Capability and both Purchase Intention and Market Performance. More specifically, innovation mitigates the negative effects of business analytics on market performance and purchase intention. Innovation helps businesses take advantage of opportunities presented by developing technologies, which improves their performance as a whole. These results imply that the interaction term's amplitude influences the relationship between digital marketing and both purchase intention and market performance. Stated differently, the role that innovation capability plays in explaining market performance becomes more apparent in a company that places a high priority on business analytics. Furthermore, as can be seen in Figures 4 and 5, which show the interaction plot between innovation and business analytics Sarstedt and Cheah (2019), the 'High' line indicates that a scenario with lower market performance and purchase intention is associated with a steeper gradient, indicating a higher level of business analytics. Innovation is undoubtedly recognised as a crucial tool for businesses to handle marketing issues that could affect their performance (Cepeda-Carrión, Hair, Ringle, Roldán, & García-Fernández, 2022).

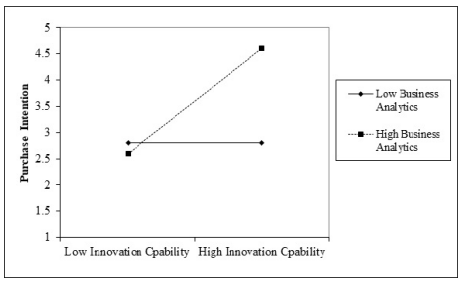

Fig. 4 *Moderating effect 1*

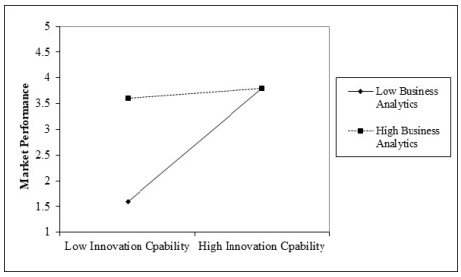

Fig. 5 *Moderating effect 2*

Discussion

The relationships between digital marketing, innovation capacity, business analytics, purchase intention, and market performance were investigated in this study. To achieve these goals, six hypotheses underwent extensive testing. The researcher investigated the direct correlation between digital marketing and purchase intention in the first hypothesis or H1. This conclusion can be explained by acknowledging the growing importance of comprehending how social media is used for marketing. Businesses must deliberately use digital marketing to maximise search engine presence and negotiate the fierce competition in this space as social networks and online content become more and more common. As a result, digital marketing is fast turning into a crucial requirement for success in modern commercial settings across a range of industries. tendency was supported by findings presented by Gyedu et al. (2021), who demonstrated that email and social network marketing positively influence consumers' intentions to buy fast food. As a result, online store managers and marketers in Tehran are driven to become experts in the nuances of modern digital marketing, including skills like electronic word-of-mouth promotion and the creation of customer engagement through social media and online platforms.

The researcher examined the direct correlation between market performance and digital marketing in the second hypothesis H2, Digital marketing is the use of online marketing technologies to promote goods, services, and the business itself. Social media platforms are commonly employed as tools for online marketing, and they are important in helping businesses with their digital marketing processes. By utilising digital marketing technologies, companies may collect data and improve their overall marketing success. Analysis reveals that the digital marketing process helps businesses create a simple checkout procedure, which adds to the user-friendliness of digital marketing (Chatterjee et al., 2024). One of the most important factors in increasing the effectiveness of marketing performance resulting from digital strategies is the usability of the techniques and tactics of digital marketing. In the third hypothesis or H3, the researcher investigated the

role of innovation capability as a mediator between buy intention and digital marketing. The data from the regression coefficient showed that digital marketing—which includes electronic word-of-mouth and digital marketing—strongly influenced purchasing decisions, with a significance level of less than 0.05These findings align with several empirical studies carried out in various settings. According to Edwin et al. (2023), online marketing has a big impact on consumers' decisions to purchase SME goods. Moreover, the results of this study support the notion that social media marketing plays a big part in influencing consumers' purchasing decisions, particularly when it comes to products from Small and Medium-Sized Enterprises (SMEs). The results of the study also demonstrate the significant and positive mediating function that this particular relationship plays. Innovation is thought to be a key component that makes the connection between the influence of digital marketing strategies and consumers' buying intents. This illustrates how, in the digital age, consumer decision-making processes are evolving and how innovative solutions can boost the efficacy of digital marketing campaigns.

The researcher evaluated the role of innovation capability as a mediator between market performance and digital marketing in the fourth hypothesis or H4. This demonstrates the complex relationships that exist between a company's usage of digital marketing tactics and its overall performance in the marketplace. According to the mediating role of innovation capability in this context, digital marketing actively moulds an organisation's capacity for innovation, which in turn influences how well the business thrives in the marketplace. This is in line with how contemporary business is developing, where innovation is becoming more and more acknowledged as being necessary to maintain a competitive advantage. Innovation capability moderates the relationship between digital marketing and market performance, which is essential for turning marketing strategy into measurable results in the competitive industry. These findings also support the greater corpus of literature on the relationship between innovation and organisational success (Fu et al., 2021). Businesses that consciously combine their creative thinking with digital marketing are more likely to satisfy changing consumer needs, adjust to changing market conditions, and eventually surpass rivals. This conversation emphasises how important it is for organisations to promote innovation as a core component of their overall market performance strategy, in addition to investing money in digital marketing. The fifth hypothesis, or H5, looked at the moderating effect of business analytics on the link between innovation capability and purchase intention. The mutually beneficial association between digital marketing and business analytics is essential to their smooth cooperation and effective operation. Processes related to business analytics and digital marketing are intertwined, with the latter being essential to client acquisition and guaranteeing the expansion of the enterprise as a whole. Data collecting is made easier by the digital marketing process, while data analysis and future growth are made possible by the business analytics process and system.

For the sixth hypothesis or H6, the researcher looked into how business analytics might moderate the relationship between market performance and innovation capabilities. The study emphasises the mediating role that digital marketing plays and the significance of firm data to marketing performance. By applying the business analytics method, organisations can completely examine and comprehend historical performance through the application of technology, processes, and expertise. This past performance data lowers significant risks and enhances strategic decision-making for more informed business planning in the future. By employing statistical models and data analysis to extract meaningful information, business analytics ensures that the historical performance of the organisation is thoroughly comprehended. As previously mentioned in the results, digital analytics improves the marketing performance process by using a deep comprehension of the business (A. Khan et al., 2022). Strong marketing performance measures have been developed, which is proof of the role business analytics has played in steering and sustaining the company's growth trajectory.

Conclusion

This study proposes a theoretical framework inside the context of the resource-based viewpoint theory to identify empirical relationships between buy intention, innovation capacity, digital marketing, business analytics, and market performance. According to this survey, SMEs in the services, IT, and pharmaceutical sectors all had success with knowledge management. This was addressed by the research's primary goals. Initially, our goal is to determine and assess the extent to which digital marketing influences purchase intention and market performance. Secondly, investigate the potential mediating function of innovation capability between digital marketing, purchase intention, and market performance. Thirdly, we investigate the potential mediating function of innovation competence between digital marketing, purchase intention, and market performance. Data from SMEs in the IT, services, and pharmaceutical industries was gathered through a survey that was conducted following a meticulous and comprehensive revision of the questionnaire based on earlier research. The quantitative analysis was conducted using the PLS-SEM technique on a total of 260 responses. By leveraging data from business analytics to inform their digital marketing strategies, companies can craft customised messaging and focused campaigns that effectively connect with their target demographic. Additionally, digital marketing allows for real-time campaign optimisation and monitoring, which enables businesses to modify their marketing plans in reaction to data. All things considered, it has been shown that combining business analytics with digital marketing is an effective way to boost marketing results. Combining these tactics can help companies better understand their clients, develop more successful marketing efforts and eventually foster company expansion.

Limitations and future research

Even though the current study's objectives were successfully completed, it is crucial to acknowledge certain shortcomings because they present new avenues for future research. Initially, the study's cross-sectional design made it more difficult to establish a causal relationship between market performance, buy intention, innovation capacity, digital marketing, and business analytics. To improve the accuracy of findings and provide a more profound understanding of causal links, a longitudinal study design is advised for subsequent investigations. Second, only Small and Medium-Sized Businesses (SMEs) in Greece's Pharmaceutical, IT, and Service sectors were included in the data collection, which included over 260 SME owners and senior managers. Although this offers insightful information about the study's setting, care should be taken when extrapolating the findings to other nations. Future research should think about putting the conceptual framework to the test in different nations, especially developed ones, to allow for cross-cultural comparison and confirm that the findings can be used outside of Greece. This would help create a more thorough knowledge of the relationships that exist between performance in various business environments, innovation capability, digital marketing, and business analytics. Thirdly, to gather the opinions of the online community, the study used a quantitative research methodology, employing survey questionnaires as an online research tool. As a result, the study did not include participants who are not active online. Future research might look into SMEs in other industries and the need to test large organisations in emerging economies. They could also research how leaders and managers handle clients' information through digital marketing. Studies that compare big and small businesses could be used to explore the suggested model and validate our findings. To find out if there are any differences in the outcomes over different periods, researchers could also look into the relationship between the adoption of digital marketing and how it affects the performance of SMEs in emerging economies. Lastly, regardless of national structure, more research should be done on the moderating function of business analytics and the mediating role of innovation capabilities.

References

Abbas, M. Z., Rehman, M., & Alobidyeen, B. (2021). The effects of social media marketing activities of apparel brands on consumers' response and intentions to buy: The mediating role of brand equity. *Journal of Administrative and Business Studies*, *7*(3), 1-23.

AlKoliby, I. S. M., Abdullah, H. H., & Suki, N. M. (2023). Linking knowledge application, digital marketing, and manufacturing SMEs' sustainable performance: The mediating role of innovation. *Journal of the Knowledge Economy*, 1-27. doi: https://doi.org/10.1007/s13132-023-01157-4

Almheiri, K. M. O., Omar, R., et al. (2022). The relationship between leadership functions and performance continuity in UAE public organizations: Moderating role of technology business analytics. *South Asian Journal of Social Sciences and Humanities*, *3*(1), 86-105.

Al-Slehat, Z. A. F. (2023). Fintech and financial inclusion: The mediating role of digital marketing. *Business: Theory and Practice*, *24*(1), 183-193.

Alwan, M., & Alshurideh, M. (2022). The effect of digital marketing on purchase intention: Moderating effect of brand equity. *International Journal of Data and Network Science*, *6*(3), 837-848.

Ashrafi, A., & Zareravasan, A. (2022). An ambidextrous approach on the business analytics-competitive advantage relationship: Exploring the moderating role of business analytics strategy. *Technological Forecasting and Social Change*, *179*, 121665.

Baccarella, C. V., Maier, L., Meinel, M., Wagner, T. F., & Voigt, K. (2022). The effect of organizational support for creativity on innovation and market performance: The moderating role of market dynamism. *Journal of Manufacturing Technology Management*, *33*(4), 827-849.

Biclar, L. A. B. (2022). Post Covid-19 insights: Building an economically sustainable and resilient ati community in the Philippines through Community-Based Participatory Action Research (CBPAR). *Pakistan Journal of Life & Social Sciences*, *20*(2).

Camm, J. D., Cochran, J. J., Fry, M. J., & Ohlmann, J. W. (2020). *Business analytics*. Boston, MA:Cengage.

Cepeda-Carrión, G., Hair, J. F., Ringle, C. M., Roldán, J. L., & García-Fernández, J. (2022). Guest editorial: Sports management research using partial least squares structural equation modeling (PLS-SEM). *International Journal of Sports Marketing and Sponsorship*, *23*(2), 229-240.

Chatterjee, S., & Kar, A. K. (2020). Why do small and medium enterprises use social media marketing and what is the impact: Empirical insights from india. *International Journal of Information Management*, *53*, 102103.

Chatterjee, S., Rana, N. P., & Dwivedi, Y. K. (2024). How does business analytics contribute to organisational performance and business value? A resource-based view. *Information Technology & People*, *37*(2), 874-894.

Cheah, J., Thurasamy, R., Memon, M. A., Chuah, F., & Ting, H. (2020). Multigroup analysis using smartpls: Step-by-step guidelines for business research. *Asian Journal of Business Research*, *10*(3), I-XIX.

Chetioui, Y., Benlafqih, H., & Lebdaoui, H. (2020). How fashion influencers contribute to consumers' purchase intention. *Journal of Fashion Marketing and Management: An International Journal*, *24*(3), 361-380. doi:https://doi.org/10.1108/jfmm-08-2019-0157

Dastane, D. O. (2020). Impact of digital marketing on online purchase intention: Mediation effect of customer relationship management. *Journal of Asian Business Strategy, DOI*, *10*, 142-158.

Duan, Y., Cao, G., & Edwards, J. S. (2020). Understanding the impact of business analytics on innovation. *European Journal of Operational Research*, *281*(3), 673-686.

Edwin, W. S., et al. (2023). The influence of digital marketing on purchase intention with brand awareness as a mediating variable. *International Journal of Review Management Business and Entrepreneurship (RMBE)*, *3*(1), 21-29.

Fan, M., Qalati, S. A., Khan, M. A. S., Shah, S. M. M., Ramzan, M., & Khan, R. S. (2021). Effects of entrepreneurial orientation on social media adoption and sme performance: The moderating role of innovation capabilities. *Plos One*, *16*(4), e0247320.

Fu, Q., Sial, M. S., Arshad, M. Z., Comite, U., Thu, P. A., & Popp, J. (2021). The inter-relationship between innovation capability and SME performance: The moderating role of the external environment. *Sustainability*, *13*(16), 9132.

Gyedu, S., Tang, H., Ntarmah, A. H., & Manu, E. K. (2021). The moderating effect of environmental turbulence on the relationship between innovation capability and business performance. *International Journal of Innovation Science*, *13*(4), 456-476.

Hashim, N., Taleb, T. S., & Faudzi, M. S. M. (2023). Entrepreneurial bricolage and micro-business performance: A moderated mediation of innovation capability and digital marketing capabilities (online first). *Journal of Strategic Marketing*, 1-16.

Hayajneh, J. A. M., Elayan, M. B. H., Abdellatif, M. A. M., & Abubakar, A. M. (2022). Impact of businessanalytics and π-shaped skills on innovative performance: Findings from PLS-SEM and fsQCA. *Technology in Society*, *68*, 101914.

Iranmanesh, M., Kumar, K. M., Foroughi, B., Mavi, R. K., & Min, N. H. (2021). The impacts of organizational structure on operational performance through innovation capability: Innovative culture as moderator. *Review of Managerial Science*, *15*, 1885-1911.

Jam, F. A., Donia, M. B., Raja, U., & Ling, C. H. (2017). A time-lagged study on the moderating role of overall satisfaction in perceived politics: Job outcomes relationships. *Journal of Management & Organization*, *23*(3), 321-336.

Jung, V., Sang-Ukand Shegai. (2023). The impact of digital marketing innovation on firm performance: Mediation by marketing capability and moderation by firm size. *Sustainability*, *15*(7), 5711. doi:https://doi.org/10.3390/su15075711

Kabiraj, S., & Joghee, S. (2023). Improving marketing performance: How business analytics contribute to digital marketing. *International Journal of Technology, Innovation and Management (IJTIM)*, *3*(1), 9-18.

Khan, A., Talukder, M. S., Islam, Q. T., & Islam, A. N. (2022). The impact of business analytics capabilities on innovation, information quality, agility and firm performance: The moderating role of industry dynamism (online first). *VINE Journal of Information and Knowledge Management Systems*.

Khan, A. S., Bilal, M., Saif, M., & Shehzad, M. (2020). *Impact of digital marketing on online purchase intention: Mediating effect of brand equity & perceived value* (Tech. Rep.). Karachi, Pakistan:Institute of Business Management.

Lam, L., Nguyen, P., Le, N., & Tran, K. (2021). The relation among organizational culture, knowledge management, and innovation capability: Its implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 66.

Lee, D. S., Fahey, D. W., Skowron, A., Allen, M. R., Burkhardt, U., Chen, Q., … others (2021). The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. *Atmospheric environment*, *244*, 117834.

Liao, S., Hu, D., Chung, Y., & Huang, A. (2021). Risk and opportunity for online purchase intention-A moderated mediation model investigation. *Telematics and Informatics*, *62*, 101621.

McClure, C., & Seock, Y. (2020). The role of involvement: Investigating the effect of brand's social media pages on consumer purchase intention. *Journal of retailing and consumer services*, *53*, 101975.

Moslehpour, M., Ismail, T., Purba, B., & Wong, W. (2021). What makes GO-JEK go in Indonesia? The influences of social media marketing activities on purchase intention. *Journal of Theoretical and Applied Electronic Commerce Research*, *17*(1), 89-103.

Nuseir, M. T., & Aljumah, A. (2020). The role of digital marketing in business performance with the moderating effect of environment factors among smes of uae. *International Journal of Innovation, Creativity and Change*, *11*(3), 310-324.

Oesterreich, T. D., Anton, E., & Teuteberg, F. (2022). What translates big data into business value? A meta-analysis of the impacts of business analytics on firm performance. *Information & Management*, *59*(6), 103685.

Peña-García, N., Gil-Saura, I., Rodríguez-Orejuela, A., & Siqueira-Junior, J. R. (2020). Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*, *6*(6), 1-11. doi:https://doi.org/10.1016/j.heliyon.2020.e04284

Quaye, D., & Mensah, I. (2019). Marketing innovation and sustainable competitive advantage of manufacturing smes in ghana. *Management Decision*, *57*(7), 1535-1553.

Raeisi Ziarani, M., Janpors, N., & Taghavi, S. M. (2023). Effect of digital marketing on customer behavioral intentions with the mediation of customer relationship management. In *International conference on entrepreneurship, business and online marketing, ottawa, canada.*

Rashid, A., Jehan, Z., & Kanval, N. (2023). External shocks, stock market volatility, and macroeconomic performance: An empirical evidence from Pakistan. *Journal of Economic Cooperation & Development*, *44*(2), 1-26.

Roma, P., Natalicchio, A., Panniello, U., Vasi, M., & Messeni Petruzzelli, A. (2023). Crowdfunding performance, market performance, and the moderating roles of product innovativeness and experts' judgment: Evidence from the movie industry. *Journal of Product Innovation Management*, *40*(3), 297-339.

Saleh, H. (2020). Enhance Small Medium Enterprise (SMEs) family business in Malaysia through E-Marketing strategies. *International Journal of Scientific and Technology Research*, *9*(2), 3374-3377.

Sarstedt, M., & Cheah, J.-H. (2019). *Partial least squares structural equation modeling using smartpls: a software review.* New York, NY:Springer.

Sharma, K., Kaith, B., Kumar, V., Kalia, S., Kumar, V., & Swart, H. (2014). Water retention and dye adsorption behavior of Gg-cl-poly (acrylic acid-aniline) based conductive hydrogels. *Geoderma*, *232*, 45-55.

Shegai, V., et al. (2023). The impact of digital marketing innovation on firm performance: Mediation by marketing capability and moderation by firm size. *Sustainability*, *15*, 5711.

Silva, A. J., Cortez, P., Pereira, C., & Pilastri, A. (2021). Business analytics in industry 4.0: A systematic review. *Expert systems*, *38*(7), e12741.

Sultan, M. F., Asif, M., & Asim, M. (2019). Perceived impact of E-Marketing Practices (EMP) by SMEs on customer relationships: Moderating role of security, privacy and weak infrastructure. *Global Management Journal for Academic & Corporate Studies*, *9*(1), 134-145.

Wang, L., Li, S., & You, Z. (2020). The effects of knowledge transfer on innovation capability: A moderated mediation model of absorptive capability and network reliance. *The Journal of High Technology Management Research*, *31*(1), 100372.

Wijekoon, R., & Sabri, M. F. (2021). Determinants that influence green product purchase intention and behavior: A literature review and guiding framework. *Sustainability*, *13*(11), 6219. doi:https://doi.org/10.3390/su13116219