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## The Role of Digital Marketing in Achieving Sustainable Financial Growth in Jordanian Banks: An Empirical Study Using Digital Entrepreneurship as a Mediating Variable

### El papel del marketing digital en la consecución de un crecimiento financiero sostenible en los bancos jordanos: Un estudio empírico utilizando el espíritu empresarial digital como variable mediadora

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**Cite as:** G Awawdeh H, Alsuwais N, Alrawabdeh S, Albusaili A, Rabi B, Al-Kaseasbeh HM, et al. The Role of Digital Marketing in Achieving Sustainable Financial Growth in Jordanian Banks: An Empirical Study Using Digital Entrepreneurship as a Mediating Variable. Data and Metadata. 2025; 4:925. <https://doi.org/10.56294/dm2025925>

Submitted: 10-08-2024

Revised: 16-12-2024

Accepted: 12-04-2025

Published: 13-04-2025

Editor: Dr. Adrián Alejandro Vitón Castillo 

#### ABSTRACT

**Introduction:** the study aimed to investigate the role of digital marketing in achieving sustainable financial growth in Jordanian banks, with a specific focus on entrepreneurship as a mediating variable. In the context of rapid technological advancements and heightened competition in the banking sector, this study explores how digital marketing and digital entrepreneurship contribute to long-term financial success in Jordanian banks.

**Method:** the study was conducted using a sample of 270 senior management individuals from four Jordanian banks. A total of 170 questionnaires were distributed, and 165 were returned. After screening for completeness and suitability, 159 questionnaires were deemed appropriate for analysis. The data collected was then analyzed using empirical methods to evaluate the relationship between digital marketing, entrepreneurship, and financial growth.

**Results:** the findings revealed that the integration of digital marketing strategies with digital entrepreneurship plays a pivotal role in ensuring sustainable financial growth in Jordanian banks. This integration is increasingly important in an era marked by rapid technological advancements and intensifying competition within the banking sector.

**Conclusions:** the study concluded that digital entrepreneurship, supported by digital marketing, is essential for the long-term growth of Jordanian banks. The research highlighted the importance of fostering a culture of innovation, collaborating with fintech startups, and investing in cutting-edge digital solutions to enhance banking services.

**Recommendations:** to support digital entrepreneurship, banks should promote a culture of digital innovation by actively collaborating with fintech startups, investing in digital tools, and advancing technological capabilities that will drive the evolution of banking services.

**Keywords:** Digital Marketing; Sustainable Financial Growth; Digital Entrepreneurship; Jordanian Banks.

#### RESUMEN

**Introducción:** el estudio pretende investigar el papel del marketing digital en la consecución de un crecimiento financiero sostenible en los bancos jordanos, con especial atención al espíritu empresarial como

variable mediadora. En el contexto de los rápidos avances tecnológicos y el aumento de la competencia en el sector bancario, este estudio explora cómo el marketing digital y el espíritu empresarial digital contribuyen al éxito financiero a largo plazo en los bancos jordanos.

**Método:** el estudio se realizó con una muestra de 270 directivos de cuatro bancos jordanos. Se distribuyó un total de 170 cuestionarios, de los que se devolvieron 165. Tras comprobar que estaban completos y eran adecuados, 159 cuestionarios se consideraron apropiados para el análisis. Los datos recogidos se analizaron mediante métodos empíricos para evaluar la relación entre el marketing digital, el espíritu empresarial y el crecimiento financiero.

**Resultados:** los resultados revelaron que la integración de las estrategias de marketing digital con el espíritu empresarial digital desempeña un papel fundamental a la hora de garantizar un crecimiento financiero sostenible en los bancos jordanos. Esta integración es cada vez más importante en una época marcada por los rápidos avances tecnológicos y la intensificación de la competencia en el sector bancario.

**Conclusiones:** el estudio concluye que el emprendimiento digital, apoyado por el marketing digital, es esencial para el crecimiento a largo plazo de los bancos jordanos. La investigación puso de relieve la importancia de fomentar una cultura de innovación, colaborar con las nuevas empresas de tecnología financiera e invertir en soluciones digitales de vanguardia para mejorar los servicios bancarios.

**Recomendaciones:** para apoyar el emprendimiento digital, los bancos deben promover una cultura de innovación digital colaborando activamente con startups fintech, invirtiendo en herramientas digitales y avanzando en capacidades tecnológicas que impulsen la evolución de los servicios bancarios.

**Palabras clave:** Marketing Digital; Crecimiento Financiero Sostenible; Emprendimiento Digital; Bancos Jordanos.

## INTRODUCTION

The importance of digital marketing in this digital age is undeniable. As technology rapidly advanced, never before had the way that businesses marketed their products and services changed so quickly. Hence formulating a digital marketing strategy is no longer an option but rather a necessity for every business, especially in the financial domain. (File photo) US pulls funding to support Jordan amid economy collapse During the pandemic, financial institutions in Jordan and everywhere else were challenged to strike a balance between providing electronic and digital services. Due to customers and businesses increasingly preferring to perform their banking process via electronic channels than before, banks tend towards digital marketing (Anwer AL-Shboul, 2024). So, the marketing strategy needs to shift to support these new digital channels for banks preventing them in state and achieving a sustainable financial growth. Hence, digital marketing is creating a way to create equity and create value for the customer ensuring the customer is retained leading to a financial healthy year. (Ijomah et al. 2024)

The question one banks need to ask themselves during the pandemic and after the pandemic is how to maintain the momentum of a financial forecast despite the current state of the business environment. Making good investment opportunities with financial growth and making sure while increasing growth, ratios could have been in condition. A bank sees financial growth not just as being profitable, but also taking actions that ensures it does not hemorrhage business leading to losses or bankruptcy. The question about digital marketing for two banks in Jordan is how practised it is in providing business sustainability in a financial avenue. A marketing strategy guarantees that customer value is created to retain customers and to help you grow your company. Finding the right balance would be beneficial in ensuring that the new digital marketing strategy is constructive in safeguarding growth. A mediating influence of digital entrepreneurship is proposed on these marketing strategy and growth relationships. Digital marketing strategy involves creation of customer value and making customer equity through digital channels. Digital channels can be in-house digital platforms of the banks or any public digital platform. Abu-Mahfouz et al(2019)(Wuisan and Handra2023)(Patil and Rane2023).

## Literature Review

Although there is a growing body of interest on how digital marketing affects banking, little of that interest has extended into literature on how it impacts the Jordanian context. The existing literature on empirical work shows that there is much yet to learn about digital marketing and the deployment of it in the financial industry. Impact of Digital Marketing on Business research paper. But only a handful think of the banking sector, which is the backbone of all economies and developmental activities. Additionally, most of the existing literature is western-centric and neglects developing economies such as Jordan. It is noteworthy that most of the literature discusses digital marketing on the consumer side, where the effect of the digital marketing channels on consumer behavior is discussed. Supplier Perspective Very few studies utilize a provider approach, investigating the way banks leverage digital marketing approach (Sewpaul, 2018). Furthermore, there are different literature that

explains the criticality of digital entrepreneurship and digital marketing for sustainability. Yet, there is a lack of studies that explore this relationship. In Jordan's environment of significant unemployment and public debts, this is primarily relevant. In response to these gaps in the research, the current study seeks to analyze the impact of digital marketing on the sustainable financial growth of Jordanian banks, with a focus on digital entrepreneurship as a mediative factor (Ikechukwu Mbama et al., 2018). A prior theoretical framework is developed to inform the empirical research.

Well, you bear in mind that is one effective reason digital marketing is essential. As a result, this has redefined the tactics and strategies companies use to promote their goods and services. Today, businesses are using a mix of traditional and digital marketing methods. Traditional marketing is usually anything that has been done in print, broadcast, or direct mail format. In contrast, digital marketing is defined as the "marketing of goods and services using digital media channels". Traditionally, businesses incorporated both traditional and digital marketing but the latter is taking over the former more and more. The role of digital marketing in enhancing business performance is gaining increasing research attention. The benefits of digital marketing include increased consumer engagement, satisfaction and loyalty; lower marketing costs and service delivery time; and increased overall business performance. However, there is very little literature that investigates how digital marketing strategies are applied, despite its importance. This is especially significant in terms of the banking sector. The extent of investment devoted by banks to digital technologies is large but the manner in which these technologies are used to digitally promote banking products and services is still a question.

### Hypotheses for the Study

The hypotheses pertaining to the effectiveness of digital marketing were proposed to conduct empirical research on the role of the banking sector in realizing stable financial growth through the use of digital marketing strategies. This hypotheses on banking sector financial growth outcomes are based on studies into effectiveness of many factors for adopting the digital marketing strategies. This supplements and extends the theoretical frameworks regarding the hypotheses in the area of digital marketing effectiveness discussed in phase I; considering multiple aspects of digital marketing strategies or systems. The sub-hypotheses detail and correspond to the concept and its originating scholars in research hypotheses.

H1 Digital Marketing Effectiveness Hypothesis: the more effective social media component in utilizing the digital marketing strategies targeted the fields of digital marketing, resulting in financial growth of the bank. Social Media Marketing is a strategy that utilizes the social networking sites to market and sell the banks' products and services. As the Jordan Commercial Banks today use social media platforms to advertise their services and the activities associated with these social media platforms are measured based on financial performance indicators such as return on assets (ROA) and return on equity (ROE) (Ikechukwu Mbama et al., 2018). This hypothesis has five sub-hypotheses where the social media follows a bank's marketing strategy, social media advertisements regarding bank services, financial statements advertisements on social media, use of soup through media to promote the bank's authority, and publicly available information about the bank through the media.

The H2: Digital Marketing Effectiveness Effect Hypothesize As digital source services public relations for utilizing the digital marketing marketing strategies for banks which is the endlessly mathematical factors the smaller the factors score infinitely increases. Online Public Relations Strategy refers to a part of the Online Strategy which handles the bank's web-based public relations activities that help in a good Corporate Image. It is also very important because maintaining a good corporate image helps achieve financial performance growth (Mustafa Al-Abdallah & Azmi Abou-Moghli, 2012). This hypothesis is further broken into four activities: a bank's website should allow people to submit public complaints online; negative feedback from the public should be followed up on by the bank; financial statements should be made available on the bank's website; and the bank's website should provide access to inquiries into the bank's financial health.

Hypothesis for H3 Digital Marketing Effectiveness Hypothesis banks would have the financial growth at increasing rates with the increasing effectiveness of email marketing component for using the digital marketing strategies. There are sub-strategies within Email Marketing such as Email Marketing Strategy is a bank strategy based on the use of the email as channel to disseminate promotional messages. Such in the distribution of offers of banking services, bank promotion, financial statement report, and other things related to the offer of the bank to the public. It consists of subdividing this hypothesis into four activities: The public must be offered an option to subscribe to email services via bank website; a public email address must be provided for communication enhancement with the bank; a bank service advertisement must be sent to bank; a bank quarterly financial report must be emailed to the public.

The H4 Digital Marketing Effectiveness Hypothesis banks financial growth is found to be a function of the higher effectiveness of the content component of the internet for them utilize for the implementation of the digital marketing strategies. The strategy for following this customers to the Internet is primarily bank web-based information, ie, the bank products and services should to be offered through the bank web site. The bank

must also offer public access to information about the bank's profile, bank products and services, financial performance and other bank-related information on the website. This hypothesis is partitioned into five more activities: a banking website needs to facilitate release of the types of banking services offered in public; a banking service displayed advertisement, a banking website tips and financial report for public reference, the results of a bank, a banking web and what inquiries about the kind of service offered.

The H5 Digital Marketing Effectiveness Hypothesis states that, the effectiveness of the internet advertising component for utilizing the digital marketing strategies leads to a growth in the bank's financial growth. The component covers all internet advertising other than the Premally site to promote products and Services of the bank which include all types of banking services provided by the bank. The advertising plan has to be on external websites, providing new products, hence has to be within the public domain. This hypothesis is splitted up in three activities: advertising for the bank's products and services has to happen on independent websites: building sites that do not belong to the bank; advertisements for new banking products also has to happen in local newspaper; and advertisements for new banking products must be published only on other bank websites.

The H6 Digital Marketing Effectiveness Hypothesis states that digital marketing strategies (with social media, email marketing, online public relation, internet content, internet advertising, and information technology) enhance the banks' digital marketing systems. Bank Digital Marketing System: a system used to conduct digital marketing strategies by banks, as a whole or in part integrated into a digital marketing system. The banks' digital marketing systems audit is a mirror of these systems functionality, and how strategies were devised in the banks. This theory is subdivided into four activities; internet advertising methods should be integrated into a computerized showcasing framework; social media marketing methods should be completely integrated into a computerized showcasing framework; online public relations techniques must be implemented through a computerized showcasing framework; and web content strategies must be implemented without a computerized showcasing framework.

Hypothesis H 7 (Digital Marketing System and Effectiveness for Banking Financial Growth): the Digital Marketing System and Effectiveness of Banks Has an Utilized Role for Banking Financial Growth <https://doi.org/10.21154/jbs.v7i3.3489> This hypothesis is confirmed by the findings that the system and effectiveness of digital marketing strategies influence the financial performance of the banks. This hypothesis was divided into two activities that include the effectiveness of the digital marketing strategy enhances financial growth and the system of the digital marketing strategy enhances financial growth.

## Social Media

Social media sites like Facebook, Twitter, Instagram have emerged as a crucial part of the marketing tool of banks operating in Jordan. These pages are created on different websites where banks can create a page and an account to interact with existing and potential customers, or offer services, news, and offers. In addition, social media enables banks to improve customer engagement with the organization and brand visibility (Dodokh & Atwah Al-Maaitah, 2019). The Social Media Policy and Strategy defines "social media" as online platforms and other participatory technologies for social interaction that allow users to create and exchange user-generated content, including text, audio, video, graphics, and photos. Well-known social networking sites include Facebook, Twitter, Instagram, LinkedIn, YouTube, and Flickr, which allow users to create a personal profile, add other users as "friends", and exchange messages. These kinds of social media provide unique advantages: They enable real-time conversations, forming a more dynamic communication experience; and can reach a larger, wider audience.

Besides creating a direct link with clients, social media provides a means for organizations being able to mould consumer purchasing decisions. Content on social media can provide persuasive information to help in developing trust and credence. This Prevents Organizations From Controlling Their True Voice One of the issues with social media is that due to its very nature, organizations really struggle to leverage, and sometimes even control, their social presence. One example is a common behavior of the bank customers that they express their satisfaction or dissatisfaction of services on social media. This discussion doesn't happen in secret, as it does in traditional media; it happens in the light of day, where everyone can see it. Social media can foster public relations disasters if not well managed. The bank's comprehension of social media and its communication consequences is essential for its social media strategy to succeed. (Pop et al.2022)(Infante and Mardikaningsih2023) 2022)(Okeleke et al. 2024)

## Email Marketing

In the banks of Jordan, using Email marketing as an effective tool for their digital strategy. The reason email marketing is even interesting is that it offers benefits for the bank, and more importantly, it sits at the core of the digital strategy of banks. Email marketing is one of the most cost-effective digital marketing strategies which give banks a direct way of communicating with customers (Ikechukwu Mbama et al., 2018). Accordingly, Email campaigns can develop to nurture customers and client partnerships with banks by informing consumers



of different financial products or services offered by the banks as well as providing them necessary details about the bank services. Thus, good communication with clients has a direct effect on the performance and growth of the bank (Mustafa Al-Abdallah & Azmi Abou-Moghli, 2012). Though email marketing has so many benefits, this strategy should be approached cautiously. Perceived spam, or the fact that marketing emails are seen as spam is one of the most prominent factors that can threaten email marketing, resulting in losing interested readers. Hence, an email marketing strategy needs to be developed and success needs to be ascertained of each marketing campaign in order to utilize this marketing tool fully. Adopting a set of best practices in email marketing can help banks ensure that digital communication with customers will nurture client loyalty instead of pushing them to the dishonour list. Email is an essential part of the digital marketing toolset with the potential to deliver sustainable results.

### **Content Marketing**

Generally speaking, banks in Jordan have utilized widely known digital strategies which have already been used by global banks. The content analysis's results showed that the Jordanian banks were focused on applicable and mostly similar strategies to engage their customers on digital platforms. In order of ranking, the strategies chosen by the banks in sample were (1) content marketing; (2) search engine optimization; (3) email marketing; (4) using social media. Against this backdrop, it is worthy to highlight that social media strategy ranked last in the selected digital strategies by the Jordanian banks. Since email marketing ranked as third and usage of social media strategy as last, it can be inferred that, the banks did not consider the customer engagement problems at usage of digital channels as a priority (Sewpaul, 2018). Moreover, although the SEO strategy which had caught the attention of banks is in the third place in the ranking, it ranked at the bottom of the ranking list where it showed the priority given by banks to adopt each strategy. Bank websites provide online content that could deliver value to customers via the communicative service and consumer education. In this regard, it is fair to say that Jordanian banks ought to continually improve & implement content marketing in the context of website (Al et al. 2024)(Gharios & Abu Khalaf, 2024).

### **Environmental Dimension**

Digital-marketing strategies applied in a banking context need to consciously incorporate the environmental dimension. In the current climate, banks need to think about sustainable banking service marketing since that doesn't always fit nicely alongside each other. Given consumers today are becoming increasingly more socially conscious, the addition of sustainability practices as a pillar of banking services would provide a substantial kick to digital marketing strategies. While sustainability is often challenged in the banking sector, environmentally friendly services are heat-marketed (Staupoulou et al., 2023). Green features could be emphasized, and all services could describe their carbon footprint. Such strategies could enable banks to differentiate themselves in this marketplace and attract clients who want to make sustainability-based decisions. Even though the least important criteria involves environmental issues, they do show in the banking environment. Not that surprising considering that these two banks have their own investment policies, not to mention that one could question the marketing of banking services on the web. On the whole, services (which take account of environmental impact) are not advertised as such and web services are not specifically couched in terms of a greater environmental impact than other services. Here, the lobbying sector of the banking sector tries to escape such a 'marketing approach' for low environmental loads recovery services, even though such recovery services should be advocated without being forced to do so. Sort of like the global or corporate framing of marketing; to deliver service, one has to still use the web, but, there is no service or pricing policy on the table that would offset the web environmental destruction. Which means, all banking marketing strategies presently are not green (Sewpaul, 2018). (Joshi2024)(Ghosh, 2023)

### **Financial Dimension**

This study aims to analyze the effect of the digital marketing strategy on the financial performance of the Jordanian banks, and the extent of which this effect is transmitted through boosting digital entrepreneurship. In the light of past studies and experiments, several hypotheses were prepared and tested on a sample of eight banks, which operate in Jordan in view of the nature of banking as a providing service sector unique to Jordanian Economy. (Alrawashedh & Shubita, 2024)The discussion of the financial dimension revolves around the questions of how much effort has to be invested, and in which digital campaigns to gain a net revenue growth, and if there is any proven base for Jordanian banks shows that the banks that have the best digital marketing strategies will have the highest customer acquisition and retention, and thus the highest revenue growth. In other words, this dimension examines the extent to which a specific digital marketing strategy must be effective to elicit as high a return on investment (ROI) and revenue profitability as possible (Ikechukwu Mbama et al., 2018). In addition, another aim of this dimension is to query how much revenue growth banks could have with a certain digital marketing strategy just based on some advertising spend, and how many banks already make

plans based on a revenue growth estimation coming from a digital marketing strategy implementation? Consequently, banks have been very media spend scrutinised and measurement-hungry regarding traditional channel marketing (means print, TV or radio), while in the digital area it is frequently the other way around, with media spends having no proven or obvious connection with the financial outcome. From this perspective, it is also essential to have an idea about how much revenue increase can be generated by a specific digital marketing strategy in order for the banks to justify their online investments in the future. The knowledge of how financial growth deploys from the outlining of the digital marketing strategy is critical to build a plan based on this metric for sustainable growth.

### Social Dimension

**Social Dimension:** marketing applied by banks and effort of banks to connect (Social) and engage (Strategy) its clients through the digital channels (Ikechukwu Mbama et al., 2018). One such way to engage their audience through digital channels is by means of platforms like social media, email marketing campaigns or by embedding interactive content on their own websites, which gets their audience engaged. It is shown that if banks focus on developing relationships with clients it could increase brand loyalty and customer satisfaction. Customer support for services The objective of community building initiatives can be an easy space where consumers will communicate with the bank and other customers as well as to advise customers about how the bank services are best suited to them. So, this statement delivers a great message, as not saying anything outside banks brand could provide negative perception to customers. This is important due to social media being the platform where there could be discussions about bank brand, therefore, it is advised to monitor the channels for bank brand mentions, and respond in the earliest possible manner to prevent negative incidents. Too much client interaction through online channels can adversely impact the service, suggesting that banks need to balance the manner in which they are engaging with clients via their digital channels. Hence, all customer feedback needs to be considered and customer should be actively encouraged to provide his feedback as customer service improvement could be the primary goal of interaction strategy. It would increase transparency in services rendered by banks and it would build trust from the bank if they publicly would use customer feedback (positive and negative) Service innovation can thus be facilitated by pro-actively motivating and activating customers of banks to come up with new ideas of how the service could be improved. One such characteristic which is found to be significant in the development of customer perceptions toward the bank is social responsibility. Societal issues could have impact on how banks interfere in society, so actions could be helpful in supporting the perception. The dilemma is, however, challenging to resolve as banks may behave differently with regard to the same community issue even if their business objectives outweigh the community needs. You are advised to integrate community needs into your marketing pipeline. In other words, the interconnectedness of the social dimensions must be viewed in a holistic way, which means that banks must embrace an integrated approach and ensure that social aspects are integrated within all marketing plans. Social dimension is regarded to make critical to form trust and long term relationships with customers.

### Jordanian Banks

**Future Study for Digital Marketing in Jordanian Banks** Jordanian Banks: Jordanian banks represent a distinctive sector in the field of digital marketing. Despite similar characteristics with other Arab and Islamic banks, a few features separate them. Jordan is a small and poorly endowed country, and its banking sector is small in absolute terms. But in relation to the size of the country, the banking industry is enormously important. Members of the Jordanian parliament review monthly financial reports of the banking sector in open public sessions, a point that reflects the level of public interest in this sector. Moreover, eight out of twelve public banks provide Sharia-compliant services, and more than 70 % of the banking sector's assets are held by public banks. Most banks in Jordan center their activities on the Arab world, especially in the Gulf Cooperation Council (GCC) states, and they established banks with stakes or subsidiary banks in various Arab states. Jordanian banks perceive the banking environment as a co-operative environment rather than a competitive one despite the increasing competition (hoai Linh et al., 2019). On the one hand, one of the reasons for this is that the Central Bank of Jordan plays a significant role to the extent that Islamic banks do run aggressive digital marketing, and competitive strategies are co-ordinated.

The banking sector in Jordan has been classified as the most attractive sector in terms of Foreign Direct Investment (FDI) (hoai Linh et al., 2019). Islamic investments are among many services offered across countries, with some requiring capital market activities. Due to limited capital, co-operative investments are prominent with associated banks, which restricts Jordanian banks in financial investment. Some bank mergers have already taken place, or are in the works, but they take time – due, at least in part, to labour union resistance. Public banks in Jordan disburse low-interest loans to boost specific economic sectors that encourage a bank's investment in such sector. Accountancy rules in line with International Financial Reporting Standards are relatively conservative, but off-balance sheet activities are largely unregulated.

## METHOD

This research follows a quantitative approach to explore the influence of digital marketing on sustainable financial growth in Jordanian banks, considering digital entrepreneurship as a mediating factor. Data was gathered through a structured questionnaire targeting bank employees specializing in marketing, digital transformation, and financial management. For data analysis, Smart PLS was utilized to perform Structural Equation Modeling (SEM), enabling a comprehensive examination of the direct and indirect relationships between the study variables. Additionally, ANOVA (Analysis of Variance) was employed to compare different respondent groups' perspectives on digital marketing strategies and financial performance. To further analyze differences among various demographic and professional groups, a multiple-sample t-test was conducted. This approach ensures a thorough and reliable evaluation of the study's findings, enhancing their accuracy and applicability within the banking sector.

## Population and Sample Research

In this study, a proportional stratified random sampling approach was employed to ensure fair representation of the study population. The target population included senior management executives from Jordanian banks, totaling 270 administrators across four banks. Given the variations in bank size, which influence the number of managerial positions, a relative stratified random sampling method was used to select participants in a way that accurately represents each bank. As a result, a sample of 159 managers was determined as representative of the overall population (Sekaran & Bougie, 2016; Al-Najjar *et al.*, 2020). To account for potential non-responses and ensure an adequate number of completed surveys, the sample size was increased to 170 distributed questionnaires.

**Table 1.** Statistical Analysis of Keyword Relationship

Column1	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
content marketing -> digital marketing	0,465	0,464	0,037	12,703	0
digital entrepreneurship -> sustainable financial growth	0,526	0,524	0,052	10,068	0
digital marketing -> sustainable financial growth	0,31	0,308	0,066	4,688	0
email marketing -> digital marketing	0,492	0,493	0,032	15,487	0
social media -> digital marketing	0,259	0,257	0,027	9,634	0
sustainable financial growth -> environmental dimension	0,814	0,815	0,033	24,919	0
sustainable financial growth -> financial dimension	0,789	0,79	0,039	20,416	0
sustainable financial growth -> social dimension	0,832	0,833	0,029	28,328	0
digital entrepreneurs x digital marketing -> sustainable financial growth	-0,015	-0,012	0,03	0,489	0,625

## RESULTS

The majority of T-values are over 2 (statistically significant w.r.t  $p=0$ ) among these variables, and in particular, the relationship between “sustainable financial growth” and its multiple dimensions (social, environmental & financial) has very high T-values ( $>20$ )

Similarly, the relationship between [Keyword 4: “content marketing”] and “digital marketing” has a high T value = 12,703 and between [Keyword 8: “email marketing”] and “digital marketing” has the highest T value = 15,487. The relationship between “digital marketing” density and “sustainable financial growth” was found to be weaker ( $T=4,688$ ) in comparison with “digital entrepreneurship” density ( $T=15,678$ ) while the interaction between the “digital entrepreneurship × digital marketing” and “sustainable financial growth” was not significant ( $T=0,489$ ,  $p=0,625$ ), which means that all helped interaction together don't contribute any significance.

## Correlation analysis

The correlation matrix indicates a strong positive correlation between several pairs of variables specifically “digital marketing” and “email marketing” at (0,875) and “sustainable financial growth” with its dimensions, environmental, financial and social at (0,814), (0,789), (0,832) respectively. Moderate correlation was found between of “content marketing” and sustainable financial growth (0,621), and between “digital entrepreneurship” and sustainable financial growth (0,702). Weak negative correlations are observed with regard to the interaction term “digital entrepreneurship × digital marketing” with all other variables, indicating

little influence on the other variables. In summary, the results demonstrate that most variables have significant positive relationships with each other along limited impacts of interaction effects.

Table 2. Correlation matrix										
Content Marketing	1	0,57	0,794	0,495	0,577	0,46	0,452	0,329	0,621	-0,182
Digital Entrepreneurship	0,57	1	0,557	0,521	0,695	0,46	0,539	0,212	0,702	-0,19
Digital Marketing	0,794	0,557	1	0,875	0,533	0,514	0,409	0,702	0,607	-0,193
Email Marketing	0,495	0,521	0,875	1	0,418	0,373	0,345	0,591	0,481	-0,255
Environmental Dimension	0,577	0,695	0,533	0,418	1	0,444	0,516	0,281	0,814	-0,218
Financial Dimension	0,46	0,46	0,514	0,373	0,444	1	0,54	0,413	0,789	-0,088
Social Dimension	0,452	0,539	0,409	0,345	0,516	0,54	1	0,175	0,832	-0,128
Social Media	0,329	0,212	0,702	0,591	0,281	0,413	0,175	1	0,344	-0,024
Sustainable Financial Growth	0,621	0,702	0,607	0,481	0,814	0,789	0,832	0,344	1	-0,183
Digital Entrepreneurship X Digital Marketing	-0,182	-0,19	-0,193	-0,255	-0,218	-0,088	-0,128	-0,024	-0,183	1

Table 3. VIF of the model	
Column1	VIF
content marketing -> digital marketing	1,328
digital entrepreneurship -> sustainable financial growth	1,464
digital marketing -> sustainable financial growth	1,466
email marketing -> digital marketing	1,819
social media -> digital marketing	1,54
sustainable financial growth -> environmental dimension	1
sustainable financial growth -> financial dimension	1
sustainable financial growth -> social dimension	1
digital entrepreneurship x digital marketing -> sustainable financial growth	1,049

The VIF values all are below 5, and thus indicate low multicollinearity. The highest VIF is for “email marketing -> digital marketing” (1,819) is still under 2. The relationships between “sustainable financial growth” and dimensions of them have VIF values of 1, which indicates no multicollinearity. As well, the interaction term “digital entrepreneurship × digital marketing -> sustainable financial growth” has a low VIF (1,049). In conclusion, the model is stable and free of noticeable issues with multicollinearity.

Table 4. R-square values for dependent variables		
Column1	R-square	R-square adjusted
Digital Marketing	0,981	0,981
Environmental Dimension	0,663	0,661
Financial Dimension	0,623	0,621
Social Dimension	0,693	0,691
Sustainable Financial Growth	0,561	0,555

R-square values indicate very high model fit for “digital marketing” (0,981) or nearly complete explained variance. For the dimensions, moderate fit is observed for “sustainable financial growth” (0,623-0,693), while “sustainable financial growth” has the lowest fit (0,561). This model achieves a good fit, particularly on the main variables, although further improvements can certainly be made in some areas.

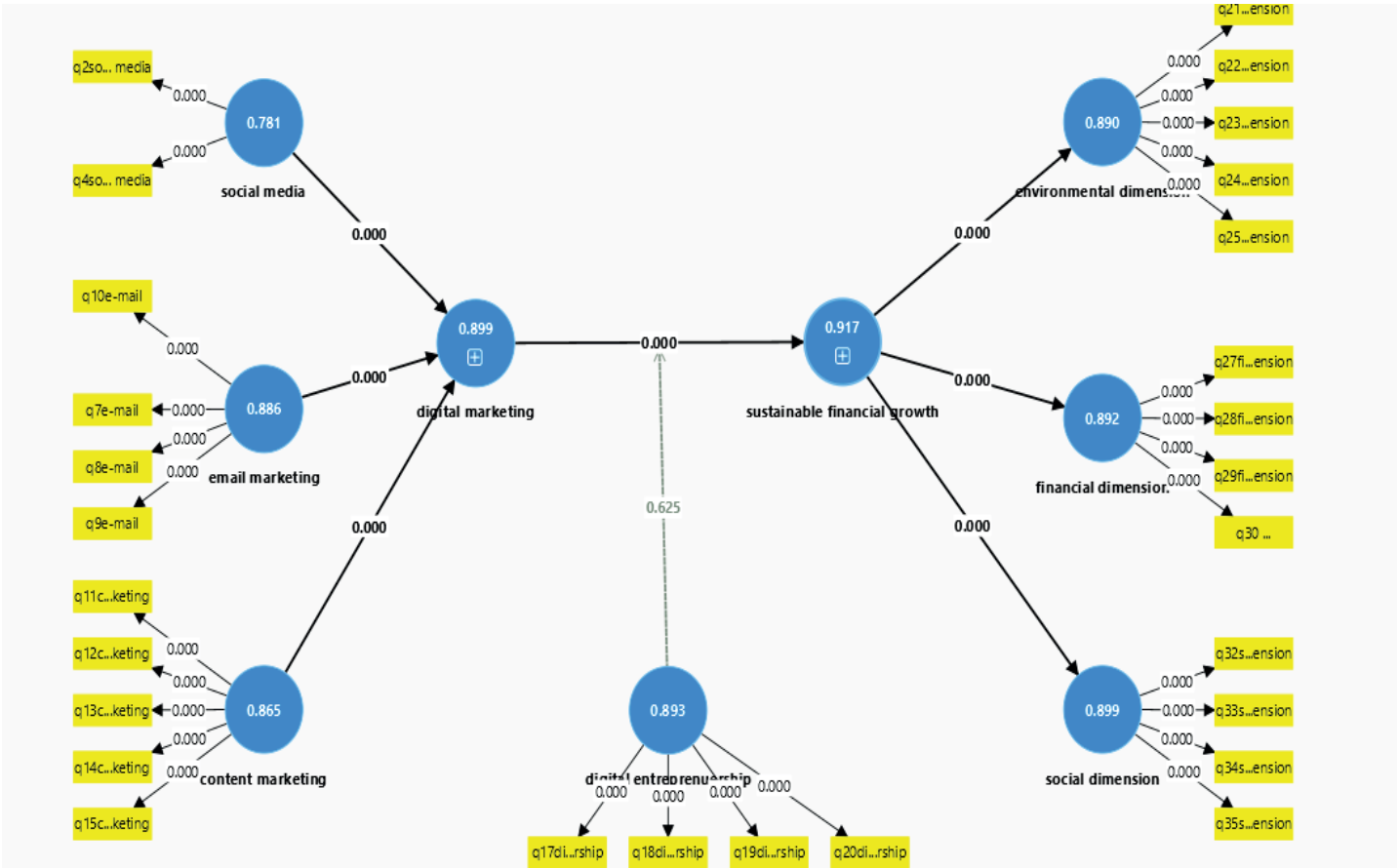
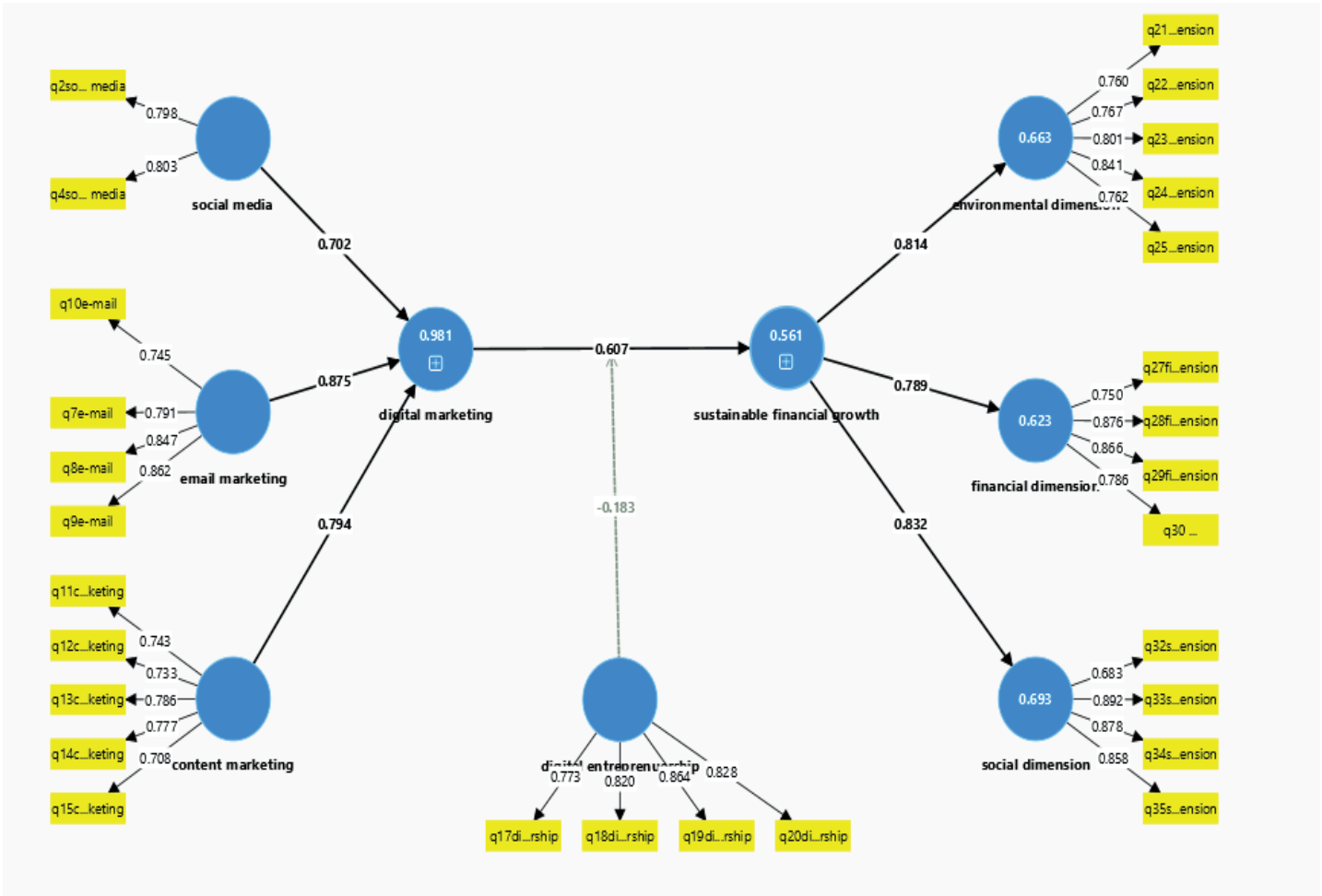


Reliability and validity metrics for multiple variables including Cronbach's alpha, composite reliability, and average variance extracted (AVE) are shown in the table. Cronbach's alpha is a measure of internal consistency, composite reliability evaluates the total reliability of the dimensions used, and AVE indicates how well the variables explain their indicators. According to the outcomes, sustainable financial growth has the most support for reliability, and social media seems to be the least consistent and explanatory variable. High differentiation, low AVE, or AVE means that digital marketing accounts for less of the variance of its indicators.

Column1	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Content Marketing	0,805	0,806	0,865	0,562
Digital Entrepreneurship	0,839	0,843	0,893	0,675
Digital Marketing	0,879	0,885	0,899	0,376
Email Marketing	0,827	0,829	0,886	0,66
Environmental Dimension	0,846	0,848	0,89	0,62
Financial Dimension	0,838	0,848	0,892	0,675
Social Dimension	0,847	0,854	0,899	0,692
Social Media	0,44	0,44	0,781	0,641
Sustainable Financial Growth	0,903	0,905	0,917	0,426

	Content Marketing	Digital Entrepreneurship	Digital Marketing	Email Marketing	Environmental Dimension	Financial Dimension	Social Dimension	Social Media	Sustainable Financial Growth	Digital Entrepreneurship X Digital Marketing
Content Marketing										
Digital Entrepreneurship	0,698									
Digital Marketing	0,917	0,623								
Email Marketing	0,602	0,627	1,015							
Environmental Dimension	0,697	0,823	0,599	0,498						
Financial Dimension	0,567	0,539	0,609	0,456	0,518					
Social Dimension	0,558	0,639	0,469	0,419	0,61	0,637				
Social Media	0,551	0,349	1,174	0,981	0,457	0,686	0,305			
Sustainable Financial Growth	0,736	0,803	0,675	0,563	0,929	0,907	0,947	0,553		
Digital Entrepreneurship X Digital Marketing	0,202	0,206	0,2	0,282	0,238	0,095	0,141	0,036	0,193	

The correlation values among different variables are displayed in the table. It indicates tight relationships between digital marketing and content marketing (0,917) as well as email marketing (1,015) caused it to become either generalized or specialized. It also shows a high correlation with digital marketing with 1,174 and email marketing with 0,981, highlighting the importance of social media in these aspects. This relationship has a high correlation with the environmental, financial, and social dimensions of Malaysian bank sustainability factors, thus sustaining financial growth helps Malaysian banks to sustain with the documented sustainability factors. Meanwhile, correlational values between digital entrepreneurship and digital marketing have significantly low values indicating that these two variables have of relationship or less interaction.



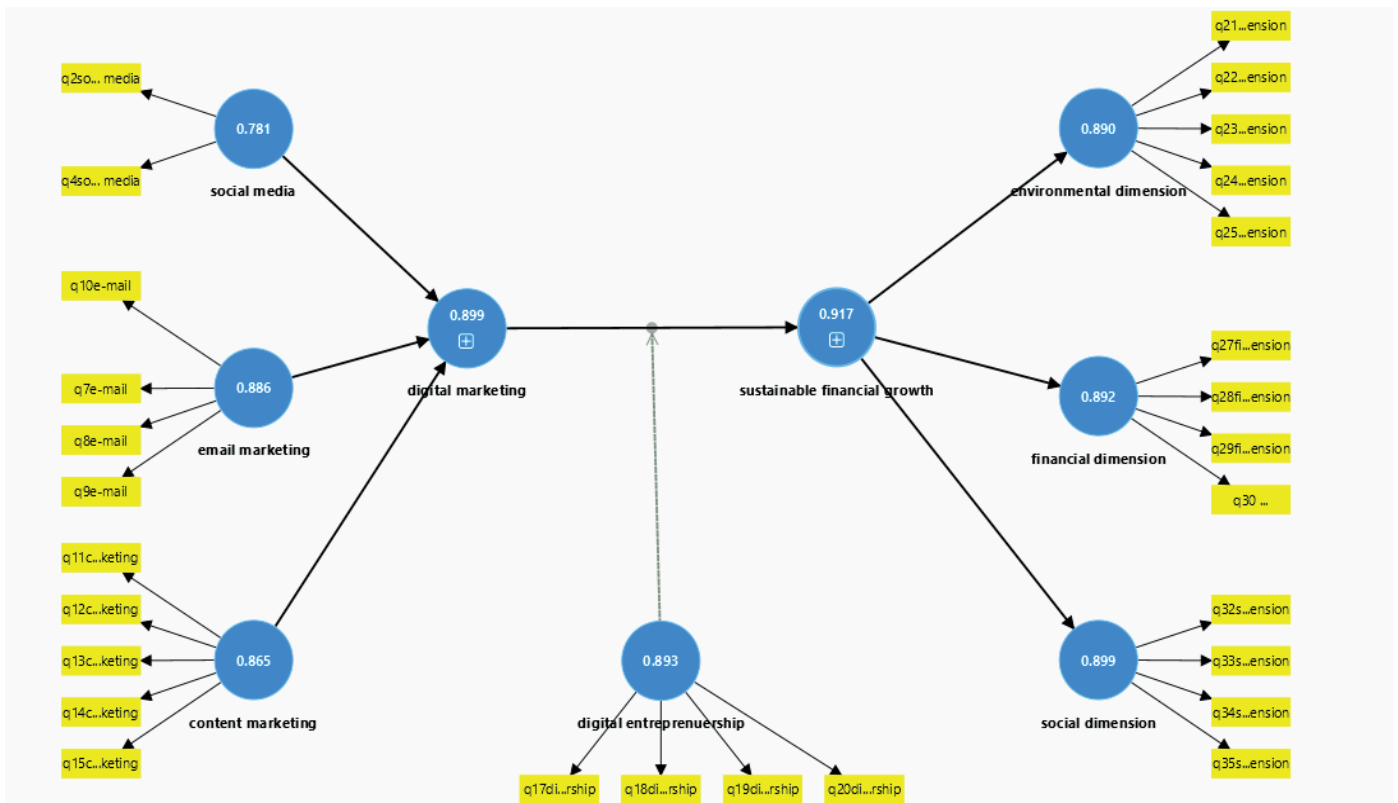


Figure 1. Correlation values among different variables

## CONCLUSIONS

This study explored the impact of digital marketing on achieving sustainable financial growth in Jordanian banks, with digital entrepreneurship as a mediating factor. The findings indicate that digital marketing strategies, such as social media engagement, search engine optimization, and data-driven decision-making, play a significant role in enhancing financial performance. Additionally, digital entrepreneurship strengthens this impact by fostering innovation, improving customer experience, and optimizing financial operations. Based on these insights, the study emphasizes that integrating digital marketing with digital entrepreneurship is essential for ensuring long-term financial growth in Jordanian banks, especially in an era of rapid technological advancements and increasing competition in the banking sector.

**Enhancing Digital Marketing Strategies** - Jordanian banks should adopt advanced digital marketing techniques, such as AI-powered customer analytics, personalized marketing campaigns, and multi-channel communication, to boost customer engagement and financial performance.

**Supporting Digital Entrepreneurship** - Banks should promote a culture of digital innovation by collaborating with fintech startups, investing in digital solutions, and fostering technological advancements that enhance banking services.

**Improving Digital and Regulatory Infrastructure** - Policymakers should introduce regulations that facilitate digital transformation in the banking sector while ensuring cybersecurity and data protection. At the same time, banks need to upgrade their digital infrastructure to enhance operational efficiency and customer satisfaction.

**Providing Continuous Employee Training** - To successfully implement digital transformation, banks should offer ongoing training programs to equip employees with digital marketing and entrepreneurial skills, enabling them to deliver innovative banking solutions.

**Developing Customer-Centric Digital Solutions** - Banks should focus on enhancing user-friendly digital platforms, advanced mobile banking applications, and AI-driven customer support to improve customer satisfaction and loyalty.

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## FINANCING

No financing.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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