

Designing and Validating an Effective Leadership Competency Model for Digital Marketing in the Iraqi Banking Sector

Ayad Hadi. Khaleel¹, Morteza. Movaghar^{2*}, Abolhassan. Hosseini³, Mohsen. Alizadeh Sani⁴

- ¹ Ph.D. Candidate, Department of Business Management, Faculty of Economics and Administrative Sciences, University of Mazandaran, Babolsar, Iran
- ² Associate Professor, Department of Business Management, Faculty of Economic and Administrative Sciences, University of Mazandaran, Babolsar, Iran
- ³ Professor, Department of Business Management, Faculty of Economics and Administrative Sciences, University of Mazandaran, Babolsar, Iran
- ⁴ Associate Professor, Department of Business Management, Faculty of Economics and Administrative Sciences, University of Mazandaran, Babolsar, Iran

* Corresponding author email address: m.movaghar@umz.ac.ir

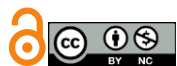
Article Info

Article type:

Original Research

How to cite this article:

Khaleel, A. H., Movaghar, M., Hosseini, A., & Alizadeh Sani, M. (2027). Designing and Validating an Effective Leadership Competency Model for Digital Marketing in the Iraqi Banking Sector. *International Journal of Innovation Management and Organizational Behavior*, 7(2), 1-20.
<https://doi.org/10.61838/kman.ijimob.6118>



© 2027 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

Objective: This study aimed to design and validate a comprehensive model of effective leadership competencies for digital marketing in the Iraqi banking sector.

Methods and Materials: This applied study employed an exploratory sequential mixed-methods design. In the qualitative phase, grounded theory based on the Strauss and Corbin approach was used, and data were collected through semi-structured interviews with 19 experts and senior managers with expertise in banking, digital marketing, and digital transformation, selected through purposive and theoretical sampling until theoretical saturation. Data were analyzed through open, axial, and selective coding. Based on the qualitative findings, a questionnaire was developed for the quantitative phase and administered to 161 banking professionals. The proposed model was evaluated using partial least squares structural equation modeling (PLS-SEM), including assessment of the measurement model, structural model, predictive relevance, effect sizes, and overall model fit.

Findings: Structural model analysis showed that causal conditions had a significant positive effect on the central phenomenon ($\beta = 0.761, Z = 16.542$). The central phenomenon significantly predicted strategies ($\beta = 0.570, Z = 5.970$), and intervening conditions also had a significant positive effect on strategies ($\beta = 0.241, Z = 2.213$). In contrast, contextual conditions did not significantly affect strategies ($\beta = 0.048, Z = 0.569$). Strategies exerted a strong significant positive effect on consequences ($\beta = 0.707, Z = 16.375$). The model explained 57.9% of the variance in the central phenomenon, 62.0% in strategies, and 50.0% in consequences. Predictive relevance values were $Q^2 = 0.279, 0.327$, and 0.290 , respectively, and the overall model demonstrated acceptable fit ($SRMR = 0.091$).

Conclusion: The validated model indicates that effective digital marketing leadership competencies in Iraqi banks are shaped primarily by causal and intervening conditions and are translated into favorable marketing and organizational outcomes through strategic mechanisms.

Keywords: *Effective Leadership; Leadership Competency; Digital Marketing Competency; Competency Model; Banking; Iraqi Banking Sector*

1 Introduction

Digital transformation has become one of the most consequential forces reshaping contemporary organizations, altering not only technological infrastructures but also business models, organizational processes, customer relationships, workforce competencies, and competitive strategies. Rather than representing the mere adoption of digital tools, digital transformation involves a fundamental reconfiguration of how organizations create, deliver, and capture value in increasingly technology-intensive environments (Verhoef et al., 2021). Advances in artificial intelligence, data analytics, cloud technologies, automation, digital platforms, and networked communication have accelerated this transformation and created new expectations concerning organizational speed, adaptability, personalization, and responsiveness. Organizations are therefore required to develop capabilities that allow them to integrate technology with strategic and human resources, sustain organizational learning, and continuously adjust to rapidly evolving environments (Chavarnakul et al., 2025; Chowdhury, 2025). These developments have also increased the importance of organizational agility as a dynamic capability through which firms can respond to technological disruption and emerging market opportunities (Andrade et al., 2022). Consequently, sustainable competitive advantage in the digital era depends increasingly on the capacity to align technological innovation with strategic, organizational, and leadership capabilities rather than relying on technological investment alone (Du et al., 2025).

The financial and banking sectors have been particularly affected by this transformation. Digital banking platforms, financial technologies, artificial intelligence, mobile applications, automated services, customer analytics, and digitally enabled payment systems have changed the structure and delivery of financial services (George, 2024). Financial institutions now operate in an environment characterized by intensified competition, rapid innovation, changing customer expectations, and the emergence of fintech firms and digitally oriented financial service providers. The digital transformation of the financial sector has consequently generated new competency requirements and altered the knowledge and skills needed to manage technology-intensive banking activities effectively (Mavlutova & Volkova, 2019). Banks are increasingly expected to integrate technological innovation with

customer relationship management, operational efficiency, and service personalization to maintain competitiveness and strengthen customer relationships (Nwachukwu et al., 2025). At the same time, regulatory environments significantly influence the pace and direction of fintech development, making regulatory awareness and institutional adaptability essential components of successful banking transformation (Nourahmadi & Rasti, 2025). The changing competitive environment therefore requires banks to develop organizational and managerial capabilities that can transform technological resources into meaningful value for customers and institutions.

Within this transformation, digital marketing has moved from a supplementary communication function to a strategic organizational capability. The proliferation of websites, mobile banking applications, social media, digital advertising, customer relationship management systems, and data-driven communication channels has fundamentally altered how banks communicate with customers and position their services (Seth et al., 2023). Social media, in particular, has become increasingly important in shaping banking relationships, customer interactions, and financial service communication (Del Sarto et al., 2025). Digital marketing now enables banks to gather customer information, personalize communication, strengthen engagement, improve service accessibility, and respond to changing market preferences in real time. Data-driven customer relationship management further enables organizations to transform customer information into actionable insights for targeting, personalization, retention, and strategic decision-making (Rahman, 2024). Digital analytics similarly provides organizations with increasingly sophisticated mechanisms for interpreting customer behavior, evaluating marketing performance, and converting large volumes of digital data into managerial knowledge (Gupta et al., 2020). As artificial intelligence becomes more deeply embedded in organizational decision-making, automation, and customer engagement, its capacity to enhance personalization and responsiveness is further expanding the strategic scope of digital marketing (Nalini, 2024).

The effectiveness of digital marketing, however, cannot be reduced to the use of particular platforms or technologies. Successful digital marketing requires a combination of technical, analytical, communicative, strategic, and relational competencies. Research on digital marketing employability has shown that organizations increasingly require not only technical knowledge but also soft skills that

enable professionals to communicate, collaborate, adapt, and solve problems in digitally mediated environments (Kovács & Zarándné, 2022). Similarly, competency frameworks developed for digital marketing emphasize the integration of multiple capabilities rather than the isolated mastery of individual technological tools (Papageorgiou & Marneros, 2023). Empirical investigations of essential digital marketing competencies likewise underline the growing importance of analytical, technological, communication, and strategic abilities in contemporary digital environments (Przybylska & Minga, 2024). Digital content itself has become an important mechanism for creating customer engagement, trust, and perceived value, making content management and digital brand communication central to contemporary marketing performance (Hollebeek & Macky, 2019). In digital service environments, higher electronic service quality may also stimulate customer engagement behaviors, reinforcing the strategic importance of well-designed digital customer experiences (Fan et al., 2022). Within banking specifically, service quality, satisfaction, reputation, and loyalty remain closely interconnected, meaning that digital marketing leadership must ultimately contribute to broader customer relationship outcomes rather than merely generating online visibility (Phi & Huong, 2023).

These developments place leadership at the center of effective digital transformation and digital marketing. Leadership is fundamentally concerned with influencing individuals and groups, coordinating action, providing direction, and facilitating the attainment of organizational objectives. Effective leadership therefore requires more than formal authority; it depends on the leader's capacity to communicate, motivate, adapt, build relationships, and exercise appropriate judgment in complex settings (van Diggele et al., 2020). Leadership behavior can substantially influence employee attitudes and behaviors, demonstrating that managerial conduct represents an important mechanism through which organizational expectations are translated into practice (Cheng et al., 2020). In highly digitalized work environments, leadership attributes must increasingly support technological adaptation, flexibility, collaboration, and effective performance under changing conditions (Olejarova, 2025). Digital transformation consequently requires leaders who can combine conventional leadership capabilities with the ability to understand technological change, coordinate digitally enabled work, and mobilize individuals around new organizational priorities.

The concept of e-leadership initially highlighted the changing nature of leadership when social influence is mediated through information and communication technologies (Van Wart et al., 2019). As digital transformation has accelerated, this perspective has expanded toward digital leadership, which involves integrating technological awareness with strategic orientation, organizational change, communication, learning, and innovation. Systematic examinations of digital leadership competencies have identified a multidimensional competency profile extending well beyond technological expertise (Şişu, 2023). Leaders in digital environments require capabilities associated with strategic thinking, technological understanding, adaptability, communication, collaboration, and the management of organizational paradoxes generated by digital change (Shahzad, 2024). Leadership in disruptive contexts similarly requires the capacity to navigate uncertainty, balance competing demands, and guide organizations through continuous technological and market disruption (Bawany, 2023). In this regard, the ability to make strategically informed decisions from increasingly complex datasets has become particularly important for leaders who must translate data-driven insights into organizational action (Vadivelu et al., 2025).

Digital leadership is also closely associated with organizational learning, innovation, and transformation outcomes. Digital learning and continuous skills development have become essential because technological competencies can quickly become obsolete as new platforms, tools, and work processes emerge (Sousa & Rocha, 2019). Research on leadership in Industry 4.0 contexts likewise emphasizes the need for leaders to combine technical understanding with interpersonal, strategic, and adaptive capabilities (Guzmán et al., 2020). Digital-oriented leadership can facilitate organizational transformation by supporting operational efficiency, collaboration, and innovation (Darmawan & Gardi, 2024), while digitally engaged leadership may also strengthen employee engagement and participation in changing work environments (Sulistiana & Darma, 2023). Recent evidence further indicates that digital leadership may contribute to firm performance through the process of digital transformation itself (Senadjki et al., 2024). Digital culture and digital leadership are also associated with innovative work behavior, suggesting that leaders can influence how effectively technological opportunities are converted into employee-level innovation (Cetinkaya & Surucu, 2025). More broadly, leadership and strategic alliances can

contribute to innovation-oriented and sustainable entrepreneurial ecosystems by enabling organizations to mobilize knowledge and capabilities across organizational boundaries (Lobo et al., 2025).

Within banking, leadership requirements are especially complex because leaders must reconcile technological advancement with customer trust, financial regulation, organizational stability, cybersecurity, and competitive pressures. The financial industry's digital transformation has consequently generated demand for leadership competency frameworks that recognize the distinct characteristics of financial organizations (Wang et al., 2023). Recent banking research has identified digital transformation leadership competencies involving individual characteristics, digital intelligence, and organizational digital capabilities (Khesal et al., 2025). Studies focusing on the development of financial and administrative competencies similarly emphasize the importance of competency development as banking organizations adapt to digital transformation (Ibrahim et al., 2025). Structural approaches to digital leadership in banking further demonstrate that digital leadership is composed of interconnected capabilities rather than a single leadership characteristic (Shateri et al., 2025). Moreover, adaptive leadership has become particularly relevant in banking environments characterized by hybrid work arrangements, where leaders need communication, empathy, trust, authenticity, and flexibility to effectively manage teams operating across physical and digital contexts (Yozi & Mbokota, 2024).

Leadership competencies also play a central role in managing organizational transformation itself. Transformative leadership frameworks identify competencies that enable leaders to interpret digital disruption, mobilize organizational resources, cultivate innovation, and sustain transformation under uncertainty (Schiuma et al., 2021). More recent work has further emphasized transformative leadership competencies as critical enablers of organizational digital transformation (Schiuma et al., 2024). Effective change management requires leaders to manage resistance, communicate transformation objectives, support employees, and create conditions in which new technologies and practices can be integrated into organizational routines (Mwamba, 2023). Digital transformation must therefore be managed as a sociotechnical process in which leadership, people, organizational systems, and technology evolve together. Experience from organizations undergoing digital transformation similarly indicates that successful

transformation depends on coherent managerial practices, organizational learning, and the integration of strategic and technological initiatives (Ivančić et al., 2019). In interconnected digital environments, relational capabilities are also increasingly important because digital operations depend on coordination among organizational actors, technological systems, suppliers, partners, and other stakeholders (Minculete et al., 2022).

Another essential dimension concerns human capital and digital skills. As technology becomes embedded in organizational operations, employees and leaders require continuously evolving digital competencies (Denysenko et al., 2024). Digital leaders must therefore be capable not only of applying their own digital knowledge but also of identifying capability gaps, supporting learning, and creating environments that encourage workforce development. Gilli's work on digital transformation leadership competencies reinforces the importance of leadership capability portfolios that combine technological understanding with organizational and strategic competencies (Gilli, 2023). At the same time, digital transformation in banking creates a need for leaders capable of aligning workforce competencies with changing operational and customer requirements. This is particularly important because technology produces organizational value only when individuals are able to interpret, use, and integrate it effectively into work practices. Data-driven decision-making provides an illustrative example: access to large datasets does not itself produce superior decisions unless leaders possess the analytical capabilities necessary to interpret evidence and convert it into appropriate managerial action (Gade, 2021).

The ethical dimension of digital marketing leadership is equally important in financial services. Banking organizations process highly sensitive personal and financial information, while digital marketing increasingly relies on customer profiling, behavioral analytics, automation, and artificial intelligence. These developments can generate concerns regarding privacy, transparency, fairness, and responsible data use. Research on digital marketplaces demonstrates that privacy concerns may affect consumer behavior and produce defensive responses when customers perceive insufficient control over their personal information (Bandara et al., 2021). In fintech settings, customer trust is closely related to ethical and privacy considerations surrounding big data and artificial intelligence (Aldboush & Ferdous, 2023). Consequently, digital marketing leaders must possess ethical competencies that enable them to

balance marketing effectiveness with customer privacy, regulatory requirements, organizational integrity, and long-term trust. Ethical leadership also shapes employee ethical behavior and organizational justice perceptions, reinforcing the importance of values-based leadership within digitally transforming organizations (Halbusi et al., 2019). Thus, the leadership of digital marketing in banking requires not only innovation and analytical sophistication but also responsible governance of customer information and digital technologies.

Customer value creation represents another critical responsibility of digital marketing leadership. Digital transformation is increasingly oriented toward the development of next-generation services that are more personalized, integrated, accessible, and responsive to customer needs (Zaki, 2019). Artificial intelligence and other digital technologies can enhance customer value when leaders are capable of strategically integrating technological innovation into financial-service marketing (Shah, 2025). However, this integration requires both technical competence and an understanding of how digital technologies alter customer expectations, organizational processes, and competitive relationships. Leaders must therefore be able to interpret customer data, recognize emerging market opportunities, coordinate cross-functional resources, and guide the design of digitally enabled customer experiences. The increasing strategic importance of digital marketing capabilities also means that leadership itself can influence the extent to which these capabilities contribute to organizational performance (Liu et al., 2026). This reinforces the view that digital marketing leadership should be conceptualized as an integrated organizational capability rather than as a narrow technical or promotional role.

Despite this growing literature, important conceptual and empirical gaps remain. Existing research has generated valuable knowledge regarding digital transformation, digital leadership, banking competencies, digital marketing skills, artificial intelligence, customer engagement, and organizational change, yet these streams have often developed separately. Studies of digital marketing competencies have primarily emphasized professional and functional capabilities, while studies of digital leadership have generally addressed broad organizational transformation rather than the leadership of digital marketing as a distinct strategic domain. Banking studies have increasingly examined digital transformation leadership, but greater attention is still required to the way leadership competencies specifically shape the formulation

and implementation of digital marketing strategies. The emerging literature also suggests that digital leadership operates through complex interactions among individual competencies, organizational context, technological maturity, regulatory requirements, workforce capabilities, and customer expectations rather than through simple direct relationships. This complexity is particularly relevant in banking systems undergoing rapid digital development, where leadership must simultaneously respond to technological opportunities, competitive pressures, institutional constraints, and evolving customer demands.

The Iraqi banking sector provides an important context for addressing this gap. As banking services become increasingly digitalized, institutions must strengthen their ability to compete through digitally enabled customer relationships, innovative services, data-driven marketing, and more responsive organizational practices. Yet the effectiveness of such initiatives depends on leaders who possess the personal, interpersonal, technical, knowledge-based, strategic, and ethical competencies required to integrate digital marketing with broader organizational goals. A context-sensitive model is therefore needed to explain not only which competencies characterize effective digital marketing leadership but also the causal, contextual, and intervening conditions that shape these competencies, the strategies through which they are operationalized, and the organizational and marketing outcomes that may follow.

Accordingly, this study aims to design and validate a comprehensive model of effective leadership competencies for digital marketing in the Iraqi banking sector.

2 Methods and Materials

This study employed an exploratory sequential mixed-methods design to develop and validate a model of effective leadership competencies in digital marketing within the Iraqi banking sector. The research was conducted in two consecutive phases. In the first phase, a qualitative approach based on grounded theory was used to identify the key dimensions, conditions, strategies, and outcomes associated with digital marketing leadership competencies. In the second phase, a quantitative approach was adopted to validate the proposed conceptual model and examine the relationships among its constructs.

The qualitative phase followed the grounded theory methodology proposed by Strauss and Corbin (1998). Data were collected through semi-structured interviews with 19 experts and senior managers from the Iraqi banking sector

who possessed substantial experience in digital marketing, digital transformation, and banking management. Participants were selected using purposive and theoretical sampling techniques to ensure the inclusion of individuals with relevant expertise. Data collection continued until theoretical saturation was achieved, meaning that no new concepts or categories emerged from additional interviews.

The interview data were analyzed using open, axial, and selective coding procedures. During open coding, initial concepts were extracted from the interview transcripts. Axial coding was then used to identify relationships among categories and subcategories. Finally, selective coding was conducted to integrate the categories into a coherent theoretical framework. To enhance the trustworthiness of the findings, credibility, transferability, dependability, and confirmability criteria were considered throughout the qualitative analysis process.

The quantitative phase aimed to validate the model developed during the qualitative stage. Based on the qualitative findings, a structured questionnaire was designed to measure the identified constructs. The questionnaire items were developed from the coding results and relevant

literature and were evaluated by academic experts and banking professionals to ensure content validity.

The study population consisted of managers, supervisors, and employees involved in digital marketing, marketing management, and digital transformation activities in Iraqi banks. Data were collected using a survey method. After screening for completeness and consistency, the valid responses were used for statistical analysis.

3 Findings and Results

The findings are presented in two sections: qualitative findings and quantitative findings.

Open coding is the first stage of qualitative data analysis (Strauss & Corbin, 1998) in which data from interviews and documents are carefully examined to identify and label meaningful units. In this stage, initial codes are extracted and repeated codes are removed. These codes are then grouped into concepts and, based on their similarities and relationships, organized into broader and more abstract categories (Corbin & Strauss, 1990).

Table 1

An Example of Open Coding

Expressions	Open coding
Creating an efficient and enjoyable online experience for your products and services is more important than ever. The more competitors you have, the more ways you can meet your customers' needs. But if you can best define those needs, your customers won't pay attention to your competitors.	demand for integrated and user - friendly digital experience
Timely responses are critical to providing excellent customer service. Customers greatly appreciate quick and thoughtful responses, especially when they have urgent questions.	demand for rapid and personalized services
Personalizing financial services is no longer a luxury choice for banks, but a competitive necessity.	
Artificial intelligence has made it possible to have impressively different features in digital banking from the facilities of banks. These days, people use their mobile phones to do banking.	increasing customer desire to digital interactions
Artificial intelligence can protect customers' digital interactions from cyberattacks, hacking, phishing, etc. This will greatly reduce the amount of fraud and potential abuse, and will also boost the country's finances and gain people's trust.	
With the increasing growth of digitalization in the field of financial services, banks' perceptions of the quality of banking services have increased, which can subsequently lead to an increase in digital banks.	increasing in attracting new customers
Use good communication channel integration with the advertising campaign team and leaders.	integrating the digital channels
Establish effective and fast communication channels between management, leadership, campaign leaders, and customers.	
Ongoing training courses, workshops, and seminars and participation in them.	digital training programs of the bank staff
The digital marketing leader must have the ability to develop and train.	
Important qualities for digital marketing leaders include cybersecurity and understanding banking laws and regulations.	adherence to customer privacy and data security
Compliance, Compliance and Cybersecurity knowledge	

Axial coding seeks to establish relationships among the categories identified during open coding by organizing them. In this stage, a central phenomenon is identified and linked with other categories, including causal conditions,

contextual conditions, intervening conditions, strategies, and consequences. This process helps explain the flow of actions and interactions within the research context.

Table 2

Axial Coding based on Strauss and Corbin's approach

Open coding	Axial Coding	Selective Coding
demand for integrated and user - friendly digital experience	Change in Customers’ Behavior and Expectations	Causal
demand for rapid and personalized services		
increasing customer desire to digital interactions		
reducing customer tolerance to traditional and face - to - face processes	Competitive Pressure of Financial Market	
presence of Fin-techs and Neo-Banks		
threatened to lose market share of traditional banks		
competition over speed , user experience and digital innovation	Application of Digital Technology in the Banking Industry	
the significant development of Iraqis’ banks in recent years		
development of overbanking applications from traditional to digital ones (proliferation of mobile banks)		
high organizational hierarchy (decision concentration at senior levels)	organizational and cultural factors	Contextual
cultural resistance against change and digital innovation	Digital maturity level of the bank in the organization:	
IT and digital infrastructure		
integrity of data systems in the bank		
customer relationship management system	leadership style of senior managers	Intervening Conditions
the degree of support for innovation and the risk-taking		
senior managers ' attitudes to digital marketing		
digital skills of employees	digital human capital	
Ability to work with digital marketing tools	legal and regulatory environment	
the rules and regulations of the central bank of Iraq on digital banking (creation of the digital judiciary)		
information security requirements and data protection		Digital infrastructure of the country
internet quality and bandwidth		
public access to smart phones and banking applications		
cognitive and analytical capabilities	individual competencies of leaders	Core Phenomenon
Self-learning & virtual learning planning		
Planning and strategic thinking		
creativity and innovation		
effective communication skills	social and interaction competencies	
digital involvement leadership	technical competencies of the leaders in digital marketing	
The skill of managing/producing digital content and online branding		
data analysis skill (market and customer behavior , SEO marketing)		knowledge competencies of leaders
Designing the digital customer experience management		
technological awareness and digital literacy		
cultural and environmental knowledge		
knowledge of the banking industry and digital services		
change management knowledge		
adherence to ethical values	ethical competence of leaders	
adherence to sustainable marketing	digital social capital	
adherence to customer privacy and data security		
internal and external networking strategies		digital human resource development
digital training programs of the bank staff and digital skill development programs	digital marketing in the bank	
Empowering of digital marketing team		
· integrating the digital channels		

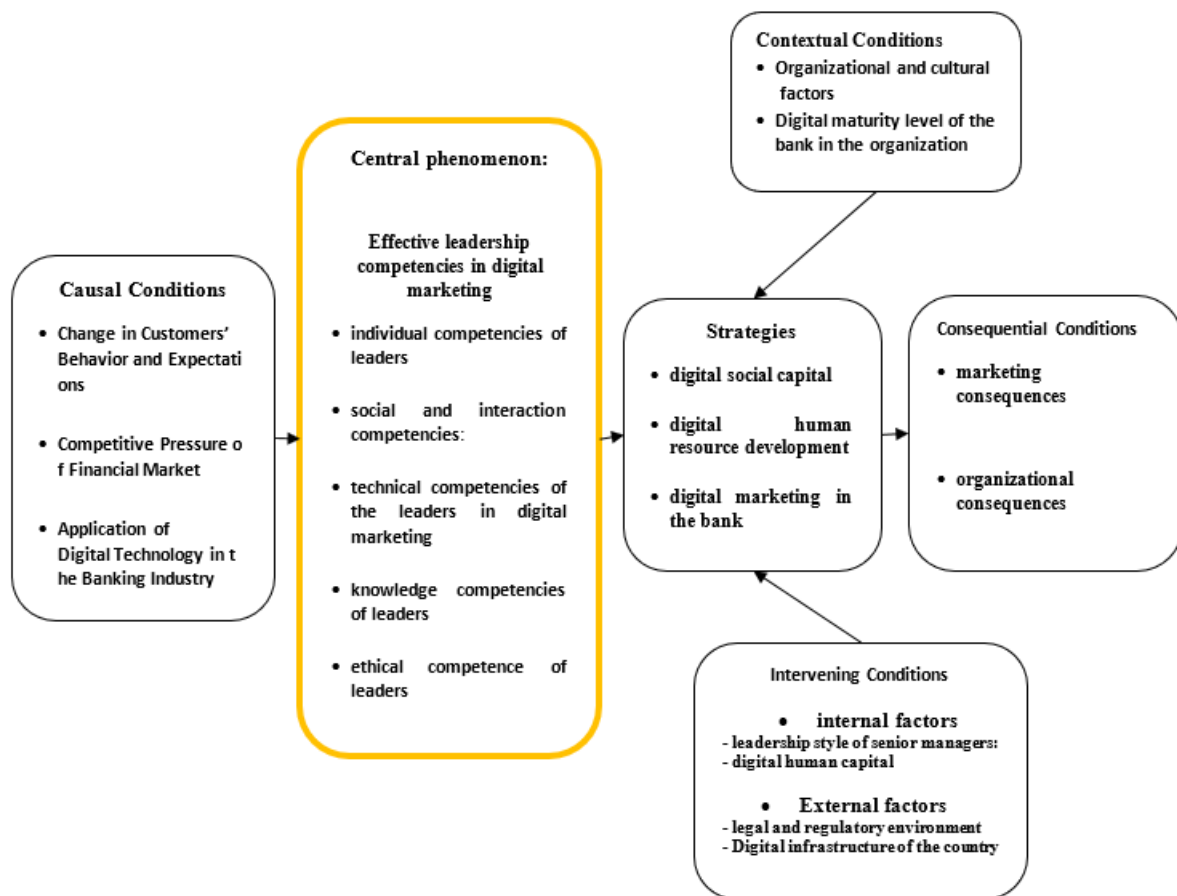
Implementing the data driven marketing		
digital innovation and evolution strategies (design of new products , automation of marketing process)		
increasing in attracting new customers	marketing outcomes	Consequences
loyalty of previous customers		
improving interaction with customers		
improving brand image		
continuous evaluation and improving of digital marketing performance		
organizational agility	organizational consequences	
reduction in operating costs of increasing competitive advantage of banks		
service improvement		
increased profitability and sustained growth of the bank		

Selective coding is the process of selecting the main category, systematically relating it to other categories, verifying the validity of these relationships, and completing the categories that need further refinement and development. Selective coding based on the results of open coding and axial coding is the main stage of theorizing. In this way, it systematically relates the axial category to other categories

and presents those relationships in the framework of a narrative and corrects the categories that need further improvement and development. Based on the findings of the research, 50 sub-categories of the research were placed in 6 main categories, based on the previous stages in the current research, the research model will be as follows.

Figure 1

Conceptual Model



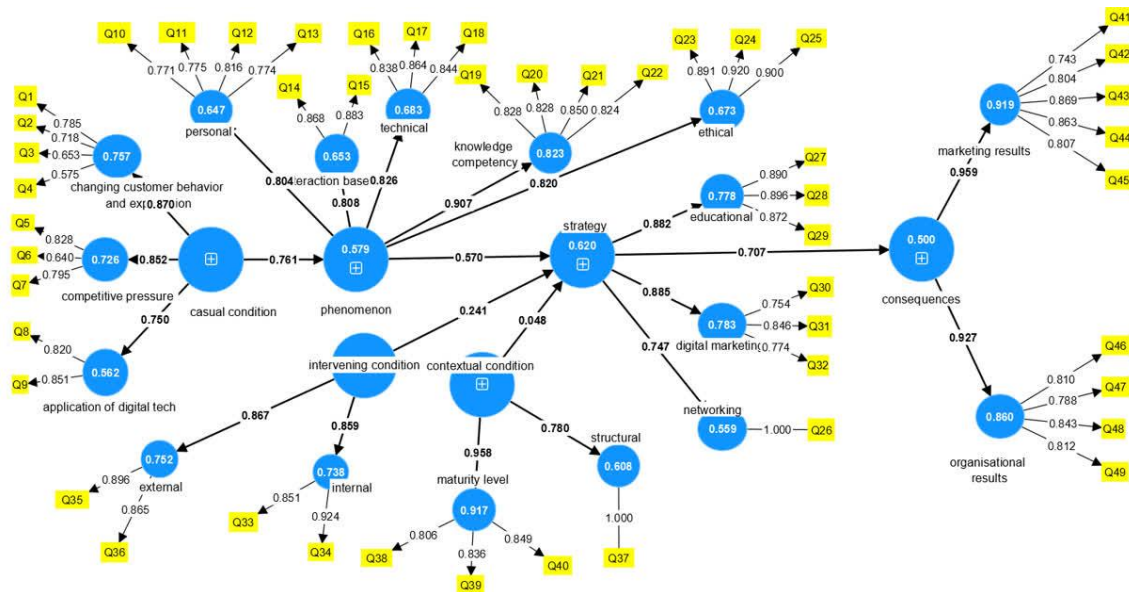
The quantitative sample consisted of 161 banking professionals. The majority were male (75.8%), married (85.1%), and highly educated, with over two-thirds holding bachelor's, master's, or doctoral degrees. Most respondents were between 41 and 50 years of age (50.3%) and possessed substantial professional experience, with more than 90% reporting over 10 years of work experience. These

demographic characteristics suggest that the respondents had sufficient expertise and experience to provide informed assessments of digital marketing leadership competencies in the Iraqi banking sector.

To assess the fit of the measurement models, we examine indicator reliability, convergent validity, and discriminant validity.

Figure 2

Factor loading coefficient



According to Figure 2, all factor loadings between the indicators and constructs of the research model are greater than 0.4. Therefore, the reliability of the model is adequate.

Cronbach's Alpha is a metric for assessing reliability and is considered a suitable measure for evaluating internal consistency.

Table 3

Cronbach's Alpha and Composite Reliability Coefficients of the First-Order Latent Variables

Variables	Cronbach's alpha	Composite reliability (rho_c)
application of digital tech	0.669	0.822
changing customer behavior and expectation	0.621	0.779
competitive pressure	0.632	0.801
contextual condition	0.801	0.87
digital marketing	0.702	0.834
educational	0.863	0.916
ethical	0.888	0.93
external	0.712	0.874
interaction based	0.697	0.868
internal	0.738	0.882
intervening condition	0.75	0.844
knowledge competency	0.852	0.9
marketing results	0.876	0.91
maturity level	0.775	0.87
organizational results	0.829	0.886
personal	0.792	0.864

technical	0.806	0.885
-----------	-------	-------

According to Table 3, all Cronbach's alpha and composite reliability (CR) coefficients for the first-order latent variables are above the threshold value of 0.70, indicating satisfactory internal consistency and reliability of the measurement model. Although a Cronbach's alpha coefficient above 0.70 is generally regarded as acceptable, Moss et al. (1998) suggest that a value of 0.60 can be regarded as the minimum acceptable level in exploratory research contexts.

Convergent validity is considered acceptable when the Average Variance Extracted (AVE) for a construct exceeds 0.50, indicating that more than half of the variance of the indicators is explained by the underlying construct.

For second-order constructs, the AVE value is calculated based on the mean of the squared factor loadings of their first-order dimensions (Davari & Rezazadeh, 2016). Accordingly, higher AVE values reflect stronger convergent validity, suggesting that the indicators adequately represent the latent construct.

Table 4

Average variance extracted (AVE)

Variables	Average variance extracted (AVE)
application of digital tech	0.698
changing customer behavior _and expectation	0.472
competitive pressure	0.576
contextual condition	0.626
digital marketing	0.627
educational	0.785
ethical	0.817
external	0.776
interaction based	0.767
internal	0.789
knowledge_ competency	0.693
marketing results	0.67
maturity level	0.69
organizational _results	0.661
personal	0.615
technical	0.72

As shown in Table 4, the AVE coefficients of most of the variables are above 0.5. However, according to Magner et al. (1996), an AVE value above 0.4 is also acceptable (Davari & Rezazadeh, 2016). Therefore, the research model possesses an acceptable level of convergent validity.

For latent variable of causal conditions:

$$(0.870)^2=0.756$$

$$(0.852)^2=0.725 \quad (0.750)^2=0.562$$

$$\text{AVE (causal conditions)} = (0.756+0.725+0.562).3 = 0.681$$

For latent variable of core phenomenon:

$$(0.804)^2=0.646$$

$$(0.808)^2=0.652$$

$$(0.825)^2=0.680$$

$$(0.907)^2=0.822$$

$$(0.822)^2=0.675$$

$$\text{AVE (causal conditions)} = (0.646+0.652+0.680+0.822+0.675).5 = 0.695$$

For latent variable of strategy:

$$(0.749)^2=0.561$$

$$(0.880)^2=0.774$$

$$(0.886)^2=0.784$$

$$\text{AVE (causal conditions)} = (0.561+0.774+0.784).3 = 0.706$$

For latent variable of contextual factors:

$$(0.780)^2=0.608$$

$$(0.957)^2=0.915$$

$$\text{AVE (causal conditions)} = (0.608+0.915).2 = 0.761$$

For latent variable of intervening conditions:

$$(0.864)^2=0.746$$

$$(0.862)^2=0.743$$

$$\text{AVE (causal conditions)} = (0.746+0.743).2 = 0.744$$

For latent variable of consequences:

$$(0.927)^2=0.859$$

$$(0.959)^2=0.919$$

$$\text{AVE (causal conditions)} = (0.859+0.919).2 = 0.889$$

In the present study, discriminant validity was assessed using the Fornell–Larcker criterion, and the results are presented in Table 5.

Table 5

Discriminant Validity Matrix Using the Fornell–Larcker Criterion

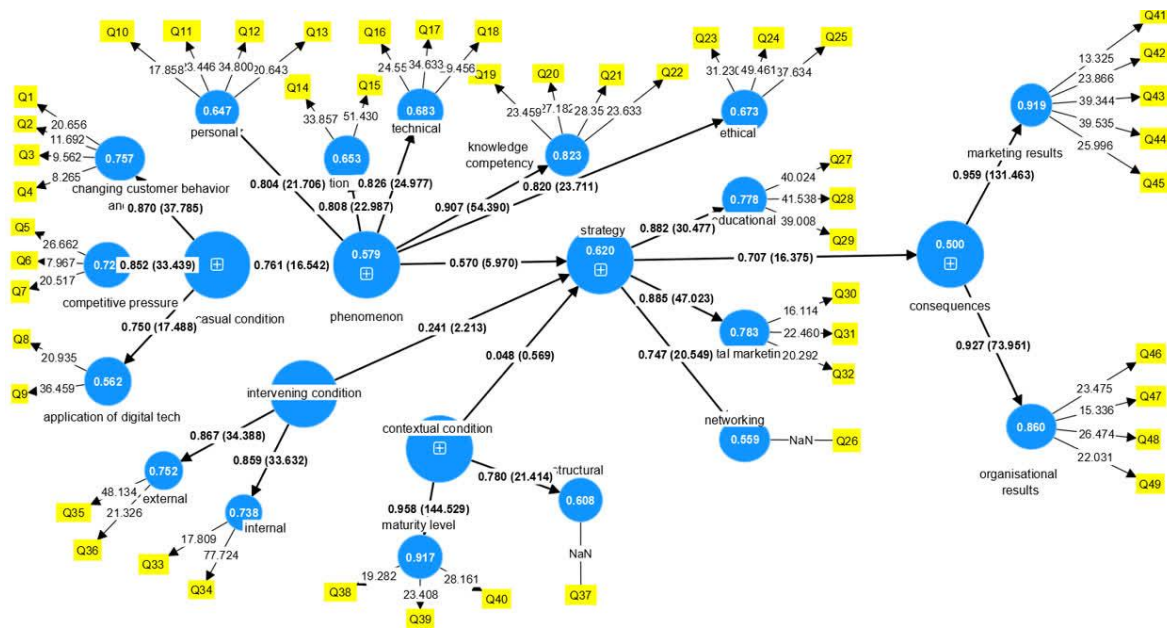
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	0.836																
2	0.492	0.687															
3	0.485	0.596	0.759														
4	0.413	0.544	0.595	0.792													
5	0.364	0.355	0.291	0.602	0.886												
6	0.403	0.383	0.478	0.664	0.547	0.904											
7	0.432	0.412	0.402	0.478	0.558	0.537	0.881										
8	0.483	0.523	0.485	0.564	0.461	0.581	0.404	0.876									
9	0.385	0.339	0.363	0.465	0.487	0.447	0.489	0.489	0.888								
10	0.573	0.581	0.622	0.594	0.474	0.723	0.582	0.66	0.48	0.832							
11	0.478	0.512	0.514	0.654	0.594	0.695	0.6	0.557	0.525	0.674	0.819						
12	0.406	0.485	0.489	0.525	0.415	0.505	0.546	0.511	0.419	0.581	0.648	0.831					
13	0.342	0.405	0.551	0.641	0.495	0.634	0.464	0.512	0.332	0.622	0.509	0.393	1				
14	0.402	0.463	0.467	0.627	0.484	0.6	0.524	0.473	0.413	0.584	0.783	0.599	0.446	0.813			
15	0.549	0.555	0.531	0.615	0.608	0.511	0.455	0.669	0.513	0.61	0.53	0.452	0.423	0.479	0.784		
16	0.41	0.408	0.471	0.486	0.413	0.545	0.511	0.477	0.49	0.527	0.52	0.566	0.448	0.429	0.52	1	
17	0.556	0.569	0.581	0.556	0.417	0.57	0.405	0.59	0.425	0.714	0.627	0.484	0.473	0.565	0.583	0.441	0.849

As shown in Table 5, in all cases, the diagonal values are greater than the off diagonal elements in their respective columns. Therefore, it can be concluded that each construct shares more variance with its own indicators than with other constructs. This finding confirms the existence of adequate discriminant validity and indicates a good fit of the measurement model.

The key criteria used to assess the quality and fit of the structural model include:

Significance coefficients (t-values or z-statistics), which reflect the statistical significance of the hypothesized paths; Coefficient of determination (R^2), indicating how much variance in the endogenous constructs is explained by the exogenous ones; Predictive relevance (Q^2), which tests the model's predictive accuracy; and Effect size (f^2), used to measure the impact of exogenous constructs on endogenous ones.

Figure 3

Significance Coefficients (*t*-values / *z*-statistics)

As shown in Figure 3, the *z* values for the structural paths are as follows:

- from causal conditions to the central phenomenon (16.542),
- from the central phenomenon to strategies (5.970),
- from strategies to consequences (16.375),
- from contextual factors to the strategies (2.213),
- and
- from intervening factors to the strategies (0.569).

According to the conventional significance criterion ($|Z| > 1.96$), the relationships between causal conditions and the

central phenomenon, the central phenomenon and strategies, strategies and consequences, and contextual factors and strategies are statistically significant. In contrast, the path from intervening factors to strategies—with a *Z*-value of 0.569—does not reach significance, indicating that this relationship is not supported by the data.

The second criterion for assessing the structural model is the coefficient of determination (R^2) for the endogenous (dependent) latent constructs.

Table 6

Coefficient of Determination (R^2)

Factors	R-square
consequences	0.500
phenomenon	0.579
strategy	0.620

Based on Table 6, the R^2 values for the endogenous constructs are as follows: 0.579 for the central phenomenon, 0.620 for strategy, and 0.500 for consequences.

According to the benchmark values proposed by Davari and Rezazadeh (2016), R^2 values of 0.19, 0.33, and 0.67

represent weak, moderate, and substantial explanatory power, respectively.

Another important criterion for evaluating the structural model is the effect size (f^2), which assesses the magnitude of the impact that an exogenous latent construct has on an endogenous latent construct.

Table 7*f² criterion*

	f-square
casual condition -> phenomenon	1.137
contextual condition -> strategy	0.003
intervening condition -> strategy	0.076
phenomenon -> strategy	0.385
strategy -> consequences	1.001

Table 7 presents the effect size (f^2) values for the structural relationships in the model. According to commonly accepted guidelines (0.02 = small, 0.15 = medium, 0.35 = large effect).

The Q^2 criterion is used to evaluate the predictive relevance of the structural model. According to the guideline proposed by Davari and Rezazadeh (2016), Q^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large predictive relevance, respectively.

Table 8*Q² criterion*

Factors	Q^2
consequences	0.290
phenomenon	0.279
strategy	0.327

The Q^2 value for the strategy construct is 0.327, which exceeds the 0.15 threshold and therefore demonstrates medium to strong predictive relevance. This indicates that the model is capable of meaningfully predicting variations in strategic actions based on the included predictors.

To assess the overall goodness of fit of the structural model—which simultaneously evaluates both the measurement and structural components—the Standardized Root Mean Square Residual (SRMR) criterion is employed.

Table 9*SRMR*

SRMR	0.091
d_ULS	39.809
d_G	n/a

As shown in Table 9, the obtained SRMR value is smaller than 0.10, confirming that the structural model demonstrates a good overall fit. This result suggests that the discrepancy between the observed and estimated correlations is minimal and that the proposed conceptual framework aligns well with the collected data.

After examining the goodness of fit for the measurement model, structural model, and the overall model, the research

hypotheses are tested. The testing procedure is conducted through two main approaches:

- (1) analyzing the significance coefficients (Z-values), and
- (2) examining the standardized path coefficients corresponding to the structural paths specified for each hypothesis (Davari & Rezazadeh, 2016).

Table 10*Testing the Research Hypotheses*

Hypotheses	Z-values	Path Coefficients
Causal conditions have a significant positive effect on the central phenomenon.	16.542	0.761
Contextual conditions have a significant positive effect on the strategies adopted in response to the central phenomenon.	0.569	0.048
Intervening conditions have a significant positive effect on the strategies adopted in response to the central phenomenon.	2.213	0.241
The central phenomenon has a significant positive effect on the strategies implemented.	5.970	0.570
Strategies have a significant positive effect on the consequences.	16.375	0.707

Causal conditions → Central phenomenon

The results indicate a Z-value of 16.542 and a path coefficient of 0.761. Since the Z-value is far greater than 1.96, the relationship is statistically significant. Therefore, the first hypothesis is supported.

Contextual conditions → Strategies

The obtained Z value is 0.569, which is below the critical threshold of 1.96. Although the path coefficient (0.048) is positive, it is very small and statistically insignificant. Consequently, the second hypothesis is not supported.

Intervening conditions → Strategies

The results show a Z value of 2.213 and a path coefficient of 0.241. Since the Z value exceeds 1.96, the effect is statistically significant. Thus, the third hypothesis is supported.

Central phenomenon → Strategies

With a Z value of 5.970 and a path coefficient of 0.570, the relationship is statistically significant and relatively strong. Therefore, the fourth hypothesis is confirmed.

Strategies → Consequences

The findings reveal a Z value of 16.375 and a path coefficient of 0.707, indicating a highly significant and strong positive relationship. Accordingly, the fifth hypothesis is supported.

4 Discussion

The present study sought to design and validate a model of effective leadership competencies for digital marketing in the Iraqi banking sector. The structural model provided substantial support for the proposed relationships among the principal components. Specifically, causal conditions had a strong and statistically significant positive effect on the central phenomenon of effective digital marketing leadership competencies ($\beta = 0.761$, $Z = 16.542$). The central phenomenon, in turn, had a significant positive effect on the strategies adopted by banks ($\beta = 0.570$, $Z = 5.970$), while

intervening conditions also significantly influenced strategies ($\beta = 0.241$, $Z = 2.213$). In contrast, contextual conditions did not exert a statistically significant direct effect on strategies ($\beta = 0.048$, $Z = 0.569$). Finally, strategies had a strong and significant positive effect on marketing and organizational consequences ($\beta = 0.707$, $Z = 16.375$). The explanatory power of the model was also satisfactory, with R^2 values of 0.579 for the central phenomenon, 0.620 for strategies, and 0.500 for consequences, while the SRMR value of 0.091 indicated an acceptable overall model fit.

The strong positive effect of causal conditions on effective leadership competencies indicates that leadership capabilities for digital marketing emerge largely in response to changing customer expectations, intensified financial-market competition, and the growing application of digital technologies in banking. These findings suggest that leadership competencies are not static individual attributes but adaptive organizational resources that develop in response to environmental pressure. This interpretation is consistent with the broader digital transformation literature, which conceptualizes transformation as a response to changes in customer behavior, competition, and technological opportunities (Verhoef et al., 2021). In financial services, digital transformation has fundamentally changed customer expectations regarding convenience, personalization, speed, and accessibility (George, 2024; Seth et al., 2023). The growing influence of fintech firms and digitally enabled financial institutions further intensifies competitive pressure on conventional banks and increases the need for leaders who can integrate digital technologies with customer-oriented strategic action (Nourahmadi & Rasti, 2025; Nwachukwu et al., 2025). Accordingly, the strong coefficient observed in the present study may reflect the degree to which environmental and technological pressures stimulate the development of leadership capabilities required to interpret, manage, and respond to digital disruption.

The results are also consistent with studies indicating that digital transformation places new competency demands on managers in financial institutions. Mavlutova and Volkova emphasized that the transformation of financial services requires new combinations of technological, analytical, and organizational capabilities (Mavlutova & Volkova, 2019). Similarly, recent research in banking has identified digital intelligence, strategic capabilities, and individual leadership characteristics as critical components of digital transformation leadership (Khesal et al., 2025). Ibrahim et al. likewise showed that financial and administrative competencies need to evolve alongside digital transformation processes in banking organizations (Ibrahim et al., 2025). The structural nature of digital leadership competencies in banking has also been supported by Shateri et al., who emphasized that leadership in digitally transforming banks consists of several mutually dependent capabilities rather than a single leadership skill (Shateri et al., 2025). Therefore, the present finding reinforces the proposition that digital marketing leadership competencies should be viewed as a multidimensional response to environmental and technological transformation.

The qualitative model identified personal, social and interactional, technical, knowledge-based, and ethical competencies as central dimensions of effective digital marketing leadership. This multidimensional structure is consistent with contemporary digital leadership research. Digital leaders are expected to combine strategic thinking, adaptability, technological literacy, collaboration, communication, and ethical judgment (Shahzad, 2024; Şişu, 2023). Transformative leadership research similarly highlights the need for leaders to integrate digital knowledge with strategic orientation, organizational learning, and the ability to navigate uncertainty (Schiuma et al., 2024; Schiuma et al., 2021). In highly digitalized work environments, effective leadership increasingly depends on adaptability, collaborative capacity, informed decision-making, and the ability to manage technologically mediated work relationships (Olejarova, 2025). This supports the present model's treatment of digital marketing leadership as a composite competency system encompassing much more than technical knowledge.

The personal and analytical competency dimension can be interpreted in light of the growing strategic importance of data-driven decision-making. Banking leaders are increasingly required to interpret customer data, identify market patterns, and transform analytical outputs into strategic actions. Data-driven decision-making improves the

capacity of managers to operate effectively in environments characterized by complexity and uncertainty (Gade, 2021; Vadivelu et al., 2025). Digital analytics has likewise become fundamental to marketing because it enables organizations to convert customer and behavioral data into actionable insights (Gupta et al., 2020). The importance assigned to continuous learning in the present model is also consistent with evidence showing that digital transformation requires ongoing skill development because technological capabilities rapidly become obsolete (Denysenko et al., 2024; Sousa & Rocha, 2019). Thus, strategic thinking, analytical ability, learning orientation, and creativity can reasonably be regarded as foundational capabilities enabling banking leaders to cope with evolving digital marketing demands.

The identification of social and interaction competencies also aligns with prior studies. Digital leadership increasingly operates through collaboration, cross-functional communication, and digitally mediated relationships rather than through conventional hierarchical authority alone (Van Wart et al., 2019). Research has shown that digitally oriented leadership may strengthen organizational collaboration, employee engagement, and innovation (Darmawan & Gardi, 2024; Sulistiana & Darma, 2023). Adaptive leadership is particularly relevant in banking environments where hybrid and digitally mediated work requires trust, empathy, flexibility, and effective communication (Yozi & Mbokota, 2024). The present results therefore indicate that digital marketing leaders need strong relational capabilities to mobilize employees, coordinate marketing and technology functions, and maintain productive relationships with internal and external stakeholders.

Technical and knowledge competencies were also central components of the proposed model. These included digital content and branding management, data analytics, customer experience management, technological literacy, banking knowledge, cultural awareness, and change management. Previous research on digital marketing competencies has similarly emphasized the integration of technical and strategic knowledge (Papageorgiou & Marneros, 2023; Przybylska & Minga, 2024). Digital marketing employability research further demonstrates that technical expertise must be accompanied by communication, adaptability, and other soft skills (Kovács & Zarándné, 2022). In banking, digital content and online interaction contribute to customer engagement and value creation (Hollebeek & Macky, 2019), while data-driven customer relationship management can strengthen personalization and

decision-making (Rahman, 2024). The importance of customer experience management is also compatible with evidence showing that electronic service quality affects customer engagement and relationship outcomes (Fan et al., 2022). Consequently, the present findings suggest that effective leaders must understand digital marketing technologies sufficiently well to connect technical possibilities with strategic, customer, and organizational objectives.

The ethical competency dimension also deserves particular attention. Banking digitalization increasingly involves the collection, processing, and analysis of large volumes of customer data. The expansion of artificial intelligence and advanced analytics creates opportunities for personalized services but also raises concerns related to privacy, transparency, security, and responsible data use (Nalini, 2024). Research indicates that privacy concerns can generate defensive customer behavior in digital environments (Bandara et al., 2021), whereas ethical and privacy practices are central to building customer trust in fintech services (Aldboush & Ferdous, 2023). Ethical leadership can additionally shape employees' ethical conduct and perceptions of organizational justice (Halbusi et al., 2019). Therefore, the inclusion of ethical values, privacy protection, and sustainable marketing in the competency model indicates that effective digital marketing leadership in banking must balance technological and commercial objectives with accountability and responsible governance.

Another important finding was the significant positive relationship between the central phenomenon and strategies. Effective leadership competencies significantly predicted the adoption of strategies related to digital social capital, digital human resource development, and digital marketing implementation. This result indicates that leadership competencies become organizationally consequential when they are translated into coordinated strategic actions. The finding is consistent with research suggesting that digital leaders play a central role in orchestrating organizational transformation, integrating technology with organizational processes, and mobilizing people around digital initiatives (Gilli, 2023; Schiuma et al., 2024). Digital leadership has also been associated with improved organizational performance through its influence on digital transformation (Senadjki et al., 2024). Moreover, digital culture and digital leadership have been shown to facilitate innovative work behavior, suggesting that leadership capabilities can be converted into organizational innovation when appropriate

strategic mechanisms are present (Cetinkaya & Surucu, 2025).

The strategic emphasis on digital human resource development is particularly consistent with the literature. Technological investments alone cannot ensure successful digital transformation unless employees possess the competencies needed to use emerging technologies effectively. Digital skills development, continuous learning, and workforce readiness are therefore critical components of transformation (Denysenko et al., 2024; Ibrahim et al., 2025). The importance of digital social capital and networking is also understandable because digital transformation increasingly depends on partnerships and relationships extending beyond organizational boundaries. Leadership and strategic alliances can improve access to knowledge, innovation capabilities, and resources required for transformation (Lobo et al., 2025). Similarly, digitally integrated operations depend on relational coordination among organizational units, technological partners, and other actors (Minculete et al., 2022). These findings support the view that effective digital marketing leadership creates value not simply through individual managerial performance but by developing networks, capabilities, and collaborative structures.

Intervening conditions also had a statistically significant positive effect on strategies. These conditions included internal factors such as senior management attitudes, leadership style, organizational support for innovation, and employee digital skills, as well as external factors such as regulation, cybersecurity requirements, digital infrastructure, and internet accessibility. The positive relationship suggests that leadership strategies are facilitated or constrained by the organizational and institutional environment in which leaders operate. Digital transformation research has consistently emphasized that successful transformation depends on the interaction of leadership, technology, organizational readiness, and human capabilities (Chavarnakul et al., 2025; Ivančić et al., 2019). Regulatory conditions are especially relevant in financial services because they define the operational boundaries for digital banking, data governance, cybersecurity, and fintech innovation (Nourahmadi & Rasti, 2025). Similarly, digital-oriented leadership is more effective when organizations support collaboration, innovation, and technological adaptation (Darmawan & Gardi, 2024). Thus, the significant effect of intervening conditions demonstrates that even competent leaders require supportive organizational and

institutional conditions to translate their capabilities into effective strategies.

In contrast, contextual conditions did not have a statistically significant direct effect on strategies. Although organizational structure, culture, and digital maturity were identified qualitatively as important contextual factors, their direct quantitative relationship with strategies was weak and nonsignificant. This result does not necessarily indicate that contextual conditions are irrelevant. Rather, it may suggest that their effects are indirect, contingent, or mediated through leadership competencies and intervening mechanisms. Digital transformation is widely understood as a multidimensional process in which organizational culture, technology, capabilities, and leadership interact in complex ways (Verhoef et al., 2021). Research on resilient digital transformation similarly indicates that digital capabilities are sustained through configurations of organizational and technological factors rather than isolated direct effects (Chavarnakul et al., 2025). Moreover, agile digital transformation depends on the interaction of complementary organizational capabilities (Andrade et al., 2022). Therefore, contextual characteristics such as hierarchy or digital maturity may shape strategic outcomes through indirect pathways that were not fully captured by the direct path tested in the present model.

The strongest downstream relationship in the model was the positive effect of strategies on consequences. Digital marketing leadership strategies significantly predicted marketing and organizational outcomes, including customer acquisition, loyalty, engagement, brand image, agility, service improvement, competitive advantage, profitability, and sustainable growth. This finding is consistent with the proposition that digital capabilities contribute to firm performance when they are strategically mobilized through effective leadership (Liu et al., 2026). Digital transformation can strengthen sustainable competitive advantage when technological and organizational strategies are appropriately aligned (Du et al., 2025). In banking, digital innovation and AI-driven marketing can enhance customer value when strategically integrated into financial service delivery (Shah, 2025). The role of digital marketing in strengthening customer relationships is also supported by evidence that service quality, satisfaction, corporate reputation, and loyalty are closely interconnected in banking (Phi & Huang, 2023). Social media and other digital channels are likewise changing how banks engage with customers and shape their market presence (Del Sarto et al., 2025). Therefore, the present findings support a strategic view in which digital

marketing leadership contributes to performance through the implementation of coordinated customer-oriented, data-driven, and capability-building strategies.

5 Conclusion

Overall, the findings indicate that effective digital marketing leadership in the Iraqi banking sector should be understood as a system of interacting competencies and organizational mechanisms. Environmental and technological pressures stimulate the development of leadership competencies; these competencies influence strategic choices; intervening organizational and institutional conditions affect the implementation of those strategies; and the resulting strategies contribute to meaningful marketing and organizational outcomes. This interpretation corresponds with contemporary perspectives that view digital leadership as an integrative capability connecting technology, people, strategy, learning, and organizational change (Bawany, 2023; Chowdhury, 2025). It also extends existing banking research by positioning digital marketing leadership at the intersection of digital transformation, leadership competency, customer relationship management, and organizational performance.

The present study has several limitations that should be considered when interpreting the findings. First, the research was conducted specifically within the Iraqi banking sector, and the resulting model may therefore reflect the institutional, regulatory, technological, and cultural characteristics of this context, limiting direct generalization to banking systems in other countries or to industries outside financial services. Second, although the mixed-methods design strengthened the development and validation of the model, the quantitative phase was cross-sectional and consequently cannot establish temporal or causal changes in leadership competencies as banks progress through different stages of digital transformation. Third, the quantitative data were based largely on self-reported assessments from banking professionals, which may be affected by common-method bias, social desirability, or respondents' subjective perceptions. Fourth, although the sample included experienced banking professionals, the model primarily represents organizational and managerial perspectives and does not directly incorporate the views of customers, regulators, fintech partners, or other external stakeholders. Finally, the rapid evolution of artificial intelligence, digital platforms, cybersecurity requirements, and financial technologies means that some competencies identified in the

current model may change in relevance or require refinement over time.

Future studies should validate the proposed model using larger and more diverse samples across different regions of Iraq and compare public, private, Islamic, and conventional banks to determine whether the structural relationships remain stable across institutional settings. Cross-national comparative research could also examine whether the competency structure differs across banking systems characterized by different levels of digital maturity, regulatory development, and technological infrastructure. Longitudinal studies are recommended to examine how digital marketing leadership competencies evolve as organizations progress through successive stages of digital transformation. Future research could additionally test mediating and moderating mechanisms that may explain the nonsignificant direct relationship between contextual conditions and strategies, including organizational agility, digital culture, innovation climate, leadership support, or digital maturity. Researchers may also incorporate customer, regulator, fintech, and frontline employee perspectives to obtain a more comprehensive assessment of digital marketing leadership effectiveness. Finally, future investigations should examine the implications of generative artificial intelligence, predictive analytics, automation, cybersecurity, and emerging privacy regulations for the competency profiles required of digital marketing leaders.

Bank executives and human resource managers should use the proposed competency model as a basis for recruiting, evaluating, developing, and promoting managers responsible for digital marketing and digital transformation initiatives. Leadership development programs should address personal and analytical abilities, strategic thinking, communication and networking, digital marketing technologies, data analytics, customer experience management, change management, ethical decision-making, and privacy protection. Banks should also establish continuous professional development systems so that leaders and employees can regularly update their digital capabilities as technologies evolve. Senior management should create conditions that support experimentation, collaboration, innovation, and cross-functional decision-making while reducing unnecessary hierarchical barriers that slow digital initiatives. Investment in integrated information systems, customer relationship management platforms, cybersecurity, and data infrastructure should be accompanied by parallel investment in human capital. Banks should further strengthen relationships with fintech companies,

universities, technology providers, regulators, and telecommunications organizations to improve access to knowledge and digital resources. Finally, digital marketing strategies should be continuously evaluated using customer and performance data so that banks can refine customer experiences, improve loyalty and engagement, strengthen brand reputation, increase organizational agility, and translate digital transformation into sustainable competitive and financial outcomes.

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

- Aldboush, H. H., & Ferdous, M. (2023). Building Trust in Fintech: An Analysis of Ethical and Privacy Considerations in the Intersection of Big Data, AI, and Customer Trust. *International Journal of Financial Studies*, 11(3), 90. <https://doi.org/10.3390/ijfs11030090>
- Andrade, C. R. O., Gonçalves, C. R., & Santos, A. M. (2022). Digital Transformation with Agility: The Emerging Dynamic

- Capability of Complementary Services. *RAM. Revista de Administração Mackenzie*, 23, eRAMD220063. <https://doi.org/10.1590/1678-6971/eramd220063.en>
- Bandara, R., Fernando, M., & Akter, S. (2021). Managing Consumer Privacy Concerns and Defensive Behaviours in the Digital Marketplace. *European Journal of Marketing*, 55(1), 219-246. <https://doi.org/10.1108/EJM-06-2019-0515>
- Bawany, S. (2023). *Leadership in Disruptive Times: Negotiating the New Balance*. Business Expert Press. <https://doi.org/10.4128/9781637422359>
- Cetinkaya, B., & Surucu, L. (2025). The Influence of Digital Culture and Digital Leadership on Innovative Work Behavior. *Studies in Media and Communication*, 13(3), 236-247. <https://doi.org/10.11114/smc.v13i3.7709>
- Chavarnakul, T., Xu, L. D., Bi, Z., Shankar, A., Dhiman, G., Viriyasitavat, W., & Hoonsoopon, D. (2025). A Systematic Literature Review on Resilient Digital Transformation, Examining How Organizations Sustain Digital Capabilities. *Hightech and Innovation Journal*, 6(2). <https://doi.org/10.28991/HIJ-2025-06-02-021>
- Cheng, L., Guo, H., & Lin, H. (2020). The Influence of Leadership Behavior on Miners' Work Safety Behavior. *Safety Science*, 132, 104986. <https://doi.org/10.1016/j.ssci.2020.104986>
- Chowdhury, R. H. (2025). *Digital Leadership and Organizational Learning: Technologies for Business Transformation and Operational Excellence*. Deep Science Publishing. <https://doi.org/10.70593/978-93-49910-03-4>
- Darmawan, D., & Gardi, B. (2024). Digital-Oriented Leadership and Organizational Transformation: Fostering Operational Efficiency, Team Collaboration, and Innovation in the Digital. *International Journal of Service Science, Management, Engineering, and Technology*, 5(1), 37-42.
- Del Sarto, N., Bocchialini, E., Gai, L., & Ielasi, F. (2025). Digital Banking: How Social Media Is Shaping the Game. *Qualitative Research in Financial Markets*, 17(2), 348-369. <https://doi.org/10.1108/QRFM-12-2023-0314>
- Denysenko, M., Khudoliy, L., & Laptiev, S. (2024). *Digital Skills in a Digital Society: Requirements and Challenges*. Scientific Center of Innovative Research OÜ.
- Du, X., Wang, N., Lu, S., Zhang, A., & Tsai, S. B. (2025). Sustainable Competitive Advantage under Digital Transformation: An Eco-Strategy Perspective. *Chinese Management Studies*, 19(3), 758-782. <https://doi.org/10.1108/CMS-01-2024-0077>
- Fan, W., Shao, B., & Dong, X. (2022). Effect of E-Service Quality on Customer Engagement Behavior in Community E-Commerce. *Frontiers in psychology*, 13, 965998. <https://doi.org/10.3389/fpsyg.2022.965998>
- Gade, K. R. (2021). Data-Driven Decision Making in a Complex World. *Journal of Computational Innovation*, 1(1).
- George, A. S. (2024). Finance 4.0: The Transformation of Financial Services in the Digital Age. *Partners Universal Innovative Research Publication*, 2(3), 104-125.
- Gilli, K. (2023). *Leadership Competencies for Digital Transformation* [Free University of Bozen-Bolzano].
- Gupta, S., Leszkiewicz, A., Kumar, V., Bijmolt, T., & Potapov, D. (2020). Digital Analytics: Modeling for Insights and New Methods. *Journal of Interactive Marketing*, 51(1), 26-43. <https://doi.org/10.1016/j.intmar.2020.04.003>
- Guzmán, V. E., Muschard, B., Gerolamo, M., Kohl, H., & Rozenfeld, H. (2020). Characteristics and Skills of Leadership in the Context of Industry 4.0. *Procedia Manufacturing*, 43, 543-550. <https://doi.org/10.1016/j.promfg.2020.02.167>
- Halbusi, H. A., Ismail, M. N., & Omar, S. (2019). Examining the Impact of Ethical Leadership on Employees' Ethical Behavior: The Role of Organizational Justice and Employees' Moral Identity. *Journal of Technology Management and Business*, 6(2). <https://doi.org/10.30880/jtmb.2019.06.02.004>
- Hollebeek, L. D., & Macky, K. (2019). Digital Content Marketing's Role in Fostering Consumer Engagement, Trust, and Value: Framework, Fundamental Propositions, and Implications. *Journal of Interactive Marketing*, 45(1), 27-41. <https://doi.org/10.1016/j.intmar.2018.07.003>
- Ibrahim, M. A., Ahmed, D. A., & Saeed, Y. J. (2025). Developing Financial and Administrative Competencies in Light of Digital Transformation: An Applied Study in the Banking Sector. *European Journal of Management, Economics and Business*, 2(4), 3-14. [https://doi.org/10.59324/ejmeb.2025.2\(4\).01](https://doi.org/10.59324/ejmeb.2025.2(4).01)
- Ivančić, L., Vukšić, V. B., & Spremić, M. (2019). Mastering the Digital Transformation Process: Business Practices and Lessons Learned. *Technology Innovation Management Review*, 9(2). <https://doi.org/10.22215/timreview/1217>
- Khesal, A. A., Vedadi, A., & Gholamzadeh, D. (2025). Design and Validation of a Competency Development Model for Digital Transformation Leadership in the Banking System. *Management Strategies and Engineering Sciences*, 7(2), 90-99. <https://doi.org/10.61838/msesj.7.2.9>
- Kovács, I., & Zarándné, K. V. (2022). Digital Marketing Employability Skills in Job Advertisements—Must-Have Soft Skills for Entry-Level Workers: A Content Analysis. *Economics & Sociology*, 15(1), 178-192. <https://doi.org/10.14254/2071-789X.2022/15-1/11>
- Liu, C. H., Chen, C. S., & Bawack, R. (2026). Digital Marketing Capabilities and Firm Performance: The Strategic Role of Digital Leadership in Chinese Firms. *Journal of Enterprise Information Management*, 1-30. <https://doi.org/10.1108/JEIM-07-2025-0646>
- Lobo, C. A., Marinho, A., Santos Pereira, C., Azevedo, M., & Moreira, F. (2025). The Role of Leadership and Strategic Alliances in Innovation and Digital Transformation for Sustainable Entrepreneurial Ecosystems: A Comprehensive Analysis of the Existing Literature. *Sustainability*, 17(13), 6182. <https://doi.org/10.3390/su17136182>
- Mavlutova, I., & Volkova, T. (2019). Digital Transformation of Financial Sector and Challenges for Competencies Development.
- Minculete, G., Stan, S. E., Ispas, L., Virca, I., Stanciu, L., Milandru, M., & Bădilă, M. I. (2022). Relational Approaches Related to Digital Supply Chain Management Consolidation. *Sustainability*, 14(17), 10727. <https://doi.org/10.3390/su141710727>
- Mwamba, J. (2023). Effective Leadership in Change Management: Ensuring Success in Organizational Transformation. *Journal of Policy Options*, 6(1), 28-38. <https://resdojournals.com/index.php/jpo/article/view/280>
- Nalini, R. (2024). Transformative Power of Artificial Intelligence in Decision-Making, Automation, and Customer Engagement. In (pp. 189-208). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-0712-0.ch009>
- Nourahmadi, M., & Rasti, F. (2025). Shaping Fintech through Regulations: Insights and Future Directions. *Knowledge Economy Studies*, 2(1), 35-57.
- Nwachukwu, P. S., Chima, O. K., & Okolo, C. H. (2025). Digital Transformation in Banking: Impact of Technological Innovation and an Integrated Framework for Customer Relationship Success. *Gulf Journal of Advance Business Research*, 3(9), 1245-1283. <https://doi.org/10.51594/gjabr.v3i9.158>
- Olejarova, A. (2025). Leadership Attributes Essential for Effective Leadership in Highly Digitalized Work Environments.

- Papageorgiou, G., & Marneros, S. (2023). Developing a Framework Model for Cultivating Digital Marketing Competencies.
- Phi, H. D., & Huong, D. P. (2023). Effect of Service Quality on Customer Loyalty: The Mediation of Customer Satisfaction, and Corporate Reputation in Banking Industry. *Eurasian Journal of Business and Management*, 11(1), 1-16. <https://doi.org/10.15604/ejbm.2023.11.01.001>
- Przybylska, N., & Minga, Z. (2024). Essential Competencies in Digital Marketing: Empirical Exploration. *Research on Enterprise in Modern Economy*, 2(39), 5-27.
- Rahman, M. M. (2024). Data-Driven Decision-Making Through Customer Relationship Management: A Systematic Literature Review in Modern Enterprises. *American Journal of Advanced Technology and Engineering Solutions*, 4(03), 30-59. <https://doi.org/10.63125/vgr9th76>
- Schiama, G., Santarsiero, F., Carlucci, D., & Jarrar, Y. (2024). Transformative Leadership Competencies for Organizational Digital Transformation. *Business Horizons*, 67(4), 425-437. <https://doi.org/10.1016/j.bushor.2024.04.004>
- Schiama, G., Schettini, E., Santarsiero, F., & Carlucci, D. (2021). The Transformative Leadership Compass: Six Competencies for Digital Transformation Entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 28(5), 1273-1291.
- Senadjki, A., Au Yong, H. N., Ganapathy, T., & Ogbeibu, S. (2024). Unlocking the Potential: The Impact of Digital Leadership on Firms' Performance through Digital Transformation. *Journal of Business and Socio-Economic Development*, 4(2), 161-177. <https://doi.org/10.1108/JBSED-06-2023-0050>
- Seth, T., Keshari, N., & Jha, S. N. (2023). Exploring Digital Marketing in the Banking Sector: A Comprehensive Overview.
- Shah, T. (2025). Leadership in Digital Transformation: Enhancing Customer Value through AI-Driven Innovation in Financial Services Marketing. *International Journal of Science and Research Archive*.
- Shahzad, M. U. (2024). Core Competencies for Digital Leadership Development: A Perspective from the Lens of Paradox Theory. *The Bottom Line*, 37(4), 454-472. <https://doi.org/10.1108/BL-10-2023-0278>
- Shateri, T., Amirkabiri, A., & Mandejin, M. R. (2025). Proposing a Structural Model of Digital Leadership in the Banking Industry. *Digital Transformation and Administration Innovation*, 1-12. <https://doi.org/10.61838/dtai.6118>
- Șișu, J. A. (2023). Digital Leadership Competencies: A Systematic Literature Review. *Revista de Management Comparat Internațional*, 24(1), 69-77.
- Sousa, M. J., & Rocha, Á. (2019). Digital Learning: Developing Skills for Digital Transformation of Organizations. *Future Generation Computer Systems*, 91, 327-334. <https://doi.org/10.1016/j.future.2018.08.048>
- Sulistiana, I. N., & Darma, G. S. (2023). Digital Leadership, Work-Life Balance, Compensation, Job Satisfaction, and Employee Engagement. *Quantitative Economics and Management Studies*, 4(5), 981-993.
- Vadivelu, V., Nachimuthu, P., Karthikeyan, P., & Ds, S. (2025). Leadership and Decision-Making: Strategic Guidance for Leveraging Data-Driven Insights. In. <https://doi.org/10.1108/978-1-83708-460-920251004>
- van Diggele, C., Burgess, A., Roberts, C., & Mellis, C. (2020). Leadership in Healthcare Education. *BMC Medical Education*, 20(Suppl 2), 456. <https://doi.org/10.1186/s12909-020-02288-x>
- Van Wart, M., Roman, A., Wang, X. H., & Liu, C. (2019). Operationalizing the Definition of E-Leadership: Identifying the Elements of E-Leadership. *International Review of Administrative Sciences*, 85(1), 80-97. <https://doi.org/10.1177/0020852316681446>
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital Transformation: A Multidisciplinary Reflection and Research Agenda. *Journal of Business Research*, 122, 889-901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- Wang, M. H., Chen, C. C., Chen, K. Y., & Lo, H. W. (2023). Leadership Competencies in the Financial Industry during Digital Transformation: An Evaluation Framework Using the Z-DEMATEL Technique. *Axioms*, 12(9), 855. <https://doi.org/10.3390/axioms12090855>
- Yozi, K., & Mbokota, G. (2024). Adaptive Leadership Competencies for Hybrid Work Teams in the South African Banking Sector. *South African Journal of Business Management*, 55(1), 4060. <https://doi.org/10.4102/SAJBM.v55i1.4060>
- Zaki, M. (2019). Digital Transformation: Harnessing Digital Technologies for the Next Generation of Services. *Journal of Services Marketing*, 33(4), 429-435. <https://doi.org/10.1108/JSM-01-2019-0034>