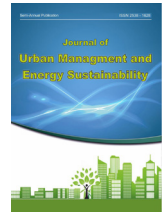


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Designing a Model of Digital Transformation in Financial-Services Marketing

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ABSTRACT

This study designs and validates an integrated model of digital transformation in financial-services marketing for the banking sector of the Kurdistan Region of Iraq. It identifies the conditions that drive the phenomenon, the strategies required to enact it, and the consequences it produces, and then tests the structural relationships among these constructs. An exploratory sequential mixed-methods design was adopted. In the qualitative phase, a systematic grounded-theory procedure was applied to semi-structured interviews with twenty purposively selected banking managers and experts; data were analysed through open, axial and selective coding in MAXQDA, yielding a six-component paradigm model. In the quantitative phase, the model was validated with partial least squares structural equation modelling (PLS-SEM) in SmartPLS. The qualitative analysis produced 206 open codes, 16 axial categories and six paradigm components: causal conditions, contextual conditions, intervening conditions, the core phenomenon (digital-marketing orientation), strategies and consequences. The measurement model satisfied reliability and convergent and discriminant validity. All five structural hypotheses were supported: the strongest path linked the core phenomenon to strategies ($\beta = 0.752$, $t = 23.180$), and the overall goodness-of-fit (GOF = 0.668) indicated a strong model. The paper offers one of the first context-sensitive, empirically validated models of digital transformation in financial-services marketing for an emerging, post-conflict regional economy, integrating a qualitative paradigm model with a confirmatory structural test to guide banks and policymakers.

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INTRODUCTION

Digital transformation is defined as the use of transformative technologies to improve organizational performance and to create incremental and fundamental change within organizations. In today's environment it has become unavoidable, because it exerts a profound effect on how organizations create and deliver value (Leão & da Silva, 2021). As competition in the virtual space and advances in information technology affect every organization irrespective of size or sector, the importance of digitalization has grown accordingly. Digitalization obliges organizations to rethink their entire value chain and business models and to use emerging technologies to create value. To achieve this, firms must implement appropriate digital strategies across all operational dimensions—strategies that address key elements such as the adoption of new technologies, changes in value creation, structural and organizational reform, and financing (Becker & Schmid, 2020; Verhoef et al., 2021). The global economy is entering a new era defined by digital technology. Emerging digital technologies such as artificial intelligence, blockchain, the Internet of Things and robotics have far-reaching implications for business. Although their power is not yet as great as forecasts suggest, the widespread adoption of new digital technologies has underscored the necessity for firms to become digital organizations (Reis & Melão, 2023). Digital transformation has created unprecedented profit opportunities by generating new revenue models and granting access to global markets. Whereas Fortune 500 firms historically needed about twenty years on average to reach a value of one billion dollars, today's digital start-ups attain that value in roughly four years a dynamic that became especially salient during the COVID-19 pandemic. As complexity and competition intensify, organizations must examine their structures and capabilities more carefully. Marketing capability is a vital instrument that enables firms to execute their strategies effectively in a competitive environment, aligning resources, assets and innovative

ideas to deliver valuable goods and services in line with customer priorities. Organizations unable to adapt to the pace of change are exposed to the negative consequences of this dynamic environment (Kachouie et al., 2018). Banks play a central role in the economy and are traditionally regarded as safe havens for depositors' capital. Nevertheless, technological advances the rapid spread of smartphones, artificial intelligence and big-data analytics together with changes in consumer behaviour and the rise of fintechs have produced significant change in banking since the 2008 financial crisis (Indriasari et al., 2019; Aloulou et al., 2023). Financial services target customers' intangible assets (their money and wealth) and span banking, insurance, securities trading, asset management, credit, foreign exchange, trade finance and venture capital. These services differ markedly in time horizon, complexity and the knowledge they demand of customers, which makes general statements about financial-services marketing difficult and calls for creative, context-specific approaches (Mogaji et al., 2021). Against this backdrop, digital marketing a subset of marketing that, per the American Marketing Association, uses digital technologies to create, communicate and deliver value to customers and stakeholders has become central to competitiveness (Belostecinic & Jomir, 2023). Artificial intelligence, one of the key technologies of this shift, enables firms to segment markets precisely and analyse valuable data rapidly; financial-services providers increasingly use it to implement real-time marketing strategies and improve their services (Saxena & Muneeb, 2024; Mohsen et al., 2024). Examining digital transformation in financial-services marketing is therefore of considerable importance.

Despite a rich international literature, most existing studies examine digital transformation in mature economies or treat it as a generic organizational phenomenon, with comparatively little attention to how it unfolds within the marketing of financial services in emerging, infrastructure-constrained regional economies.

The banking sector of the Kurdistan Region of Iraq characterized by a young, technology-oriented population, an expanding urban economy, a cash-dependent payment culture and uneven digital infrastructure constitutes a distinctive and largely unexamined setting. Accordingly, this study addresses two questions: (i) what are the causal, contextual and intervening conditions, strategies and consequences that constitute digital transformation in financial-services marketing in this context; and (ii) how are these components structurally related? To answer them, the study develops a grounded-theory paradigm model and validates it through PLS-SEM.

MATERIALS AND METHODS

Although digital transformation is currently a popular and widely debated topic, the ideas of digital products, services and media were already well understood in the 1990s and 2000s (Abdulquadri et al., 2021). In retailing, for example, mass-media advertising campaigns and digital channels were viewed as important tools for reaching customers even when purchases were still largely completed offline. Today, many organizations face pressure from customer demands and competitive forces and are consequently changing, often under an initiative labelled digital transformation (Al-Okaily et al., 2021). Digital transformation is firmly a trend: the global market is projected to grow substantially over the coming years (Bagdi et al., 2023). The framework of digital transformation comprises a network of actors firms and customers across all parts of the value-added chain; applying new transformative technologies requires skills for extracting and exchanging data and for converting those data into actionable information to support decisions (Verhoef et al., 2021). Digital transformation has become one of the defining organizational paradigms of the twenty-first century, reshaping all facets of business, including financial-services marketing. It goes beyond simplifying processes or digitizing documents: it entails a fundamental re-creation of the business model, organiza-

tional culture and customer experience through digital technologies, and can be understood as the integration of digital technologies across all areas of an organization (Gharios & Abu Khalaf, 2024; Cheng et al., 2023). Several foundational theories frame the present study. The Technology Acceptance Model, introduced by Davis (1989), identifies perceived usefulness and perceived ease of use as the principal determinants of users' acceptance of technology; in the context of digital financial services it is especially useful for understanding what encourages customers to adopt electronic banking, mobile banking and other digital services. The Diffusion of Innovations theory (Rogers, 2003) explains how innovations spread through a social system over time and helps account for the uneven adoption of digital services across customer segments. Finally, the dynamic-capabilities perspective (Teece et al., 1997; Warner & Wäger, 2019) explains how banks sense opportunities, seize them and reconfigure their resources to renew competitive advantage under digital disruption—an increasingly common lens for studying digital transformation in traditional banks (de Paula Pereira et al., 2024). Recent empirical work reinforces the relevance of these lenses to banking. Studies show that digital-marketing activity is positively associated with banks' profitability and market share in the MENA region (Gharios & Abu Khalaf, 2024); that fintech adoption accelerates digital financial inclusion (Aloulou et al., 2023) and supports sustainability objectives (Attia & BinEid, 2025); that strategic orientation and dynamic capabilities jointly shape successful digital transformation in commercial banks (Cheng et al., 2023); and that organizational agility mediates the effect of digital transformation on sustainable competitive advantage (Probojakti et al., 2024). Reviews of digital-banking adoption in emerging economies likewise emphasize perceived usefulness, security and trust as decisive factors (Acosta-Prado et al., 2024; Li et al., 2025). Taken together, this body of work motivates a context-sensitive, integrative model for financial-services marketing rather

than a single-variable study.

Methodology

In terms of purpose this study is fundamental-applied, and in terms of the nature of its data it is mixed (qualitative–quantitative). An exploratory sequential design was adopted: a qualitative, theory-building phase was followed by a quantitative, theory-testing phase. This design is appropriate because the phenomenon digital transformation in financial-services marketing in the Kurdistan Region of Iraq is insufficiently theorized in its specific context and therefore requires deep, grounded understanding before its relationships can be measured. Given the exploratory nature of the study and the need for a deep, context-embedded understanding of the phenomenon, the qualitative phase used grounded theory, following the systematic (Straussian) procedure of Corbin & Strauss (2015). Grounded theory is well suited to generating a substantive theory that is grounded in participants' accounts rather than imposed from prior frameworks (Glaser & Strauss, 1967). Participants were selected through purposive sampling to ensure informational richness and theoretical adequacy. Twenty managers and experts from selected banks were chosen on the criterion of combined expertise in financial-services marketing management and digital-transformation technologies; all held senior managerial or decision-making positions. Data were collected through semi-structured interviews, which continued until theoretical saturation the point at which additional interviews yielded no new concepts or categories. Analysis proceeded through three coding stages. In open coding, interview transcripts were examined line by line and initial concepts were extracted. In axial coding, conducted in MAXQDA using the constant-comparison strategy, codes sharing common semantic properties were grouped under higher-order categories, reducing the volume of data and linking sub-categories into more abstract constructs. In selective coding, the categories were integrated around a central

phenomenon and arranged within the paradigm model causal conditions, contextual conditions, intervening conditions, the core phenomenon, strategies and consequences to yield the final theory. The quantitative phase operationalized the paradigm model as a measurement instrument and tested the hypothesized relationships using partial least squares structural equation modelling (PLS-SEM) in SmartPLS. PLS-SEM was selected because it is well suited to complex models with many constructs and indicators, makes no restrictive distributional assumptions, and is appropriate for theory development and prediction-oriented research (Hair et al., 2022). Content validity was established by ensuring consistency between the measurement indicators and the existing literature and by expert review. Construct validity was assessed through the significance of indicator loadings (t-values greater than 1.96 indicating significance). Convergent validity was examined through average variance extracted (AVE) and composite reliability (CR), and reliability through Cronbach's alpha (Cronbach, 1951; Nunnally & Bernstein, 1994) and CR. Discriminant validity was assessed with the Fornell & Larcker (1981) criterion, complemented conceptually by more recent discriminant-validity guidance (Henseler et al., 2015). The structural model was then evaluated using the coefficient of determination (R^2), the Stone–Geisser criterion (Q^2) obtained by blindfolding, and the overall goodness-of-fit (GOF) index (Tenenhaus et al., 2005). For R^2 , values of 0.19, 0.33 and 0.67 denote weak, moderate and substantial explanatory power respectively (Chin, 1998); for GOF, values of 0.01, 0.25 and 0.36 denote weak, moderate and strong fit. Hypotheses were tested through the sign, magnitude and significance ($|t| > 1.96$) of the path coefficients.

FINDINGS AND DISCUSSION

Qualitative findings: the paradigm model

Three-stage coding of the interview data produced 206 open codes, which were abstracted into 16 axial categories and, finally, into the six

components of the paradigm model. Table 1 summarizes this conceptual structure, mapping each axial category to its paradigm component

and reporting the number of open codes it comprises. (Tab. 1)

Table 1: Paradigm components, axial categories and number of open codes.

Paradigm component	Axial category	Open codes (n)
Causal conditions	Market dynamics, business and growth opportunities	12
	Competitive pressure and innovative financial ecosystem	13
	Shift in customer behaviour and expectations	10
Contextual conditions	Trust, experience and customer relationship	10
	Financial–digital culture and social readiness	16
	Technological infrastructure, access and the digital divide	19
Intervening conditions	Financial and economic constraints	13
	Security, privacy and technological trust	11
Core phenomenon	Digital-marketing orientation in financial services	14
Strategies	Transformation governance and organizational coherence	17
	Innovation, benchmarking and interaction-channel development	12
	Data infrastructure and information integration	14
	Human-capital empowerment and managerial maturity	10
	Data-driven and intelligent marketing	17
Consequences	Branding and competitive positioning	10
	Economic and performance outcomes	8

Causal conditions are the drivers that directly give rise to the need for digital transformation in financial-services marketing (Fig. 1). They comprise the dynamism of the market and the growth of urban business and e-commerce; intensifying competitive pressure, including the rise of fintechs and non-bank players; and a pronounced shift in customer behaviour and expectations, particularly a move toward fast, remote, digital financial services among a younger, technology-oriented generation.

Contextual conditions describe the relatively stable structural backdrop in which strategies are enacted (Fig. 2): the quality of trust, experience and the customer relationship; the society's financial–digital culture and social readiness, including levels of financial and digital literacy and the persistence of a cash-based payment culture; and the state of technological infrastructure, access and the regional digital

divide.

Intervening conditions are the more dynamic, often unexpected factors that facilitate or constrain implementation (Fig. 3): financial and economic constraints pressure to raise productivity and cut operating, branch, customer-acquisition and marketing costs under budget limitations and economic volatility and matters of security, privacy and technological trust, including data-security concerns, the absence of clear digital regulation and cyber-security threats.

The core phenomenon that the other components organize around is a digital-marketing orientation in financial services (Fig. 4): a strategic turn toward data-driven, AI-enabled, customer-centric marketing that includes machine-learning-based segmentation, predictive analysis of customer behaviour, personalized offers, integrated customer-data management

and the systematic monitoring of digital-marketing KPIs.

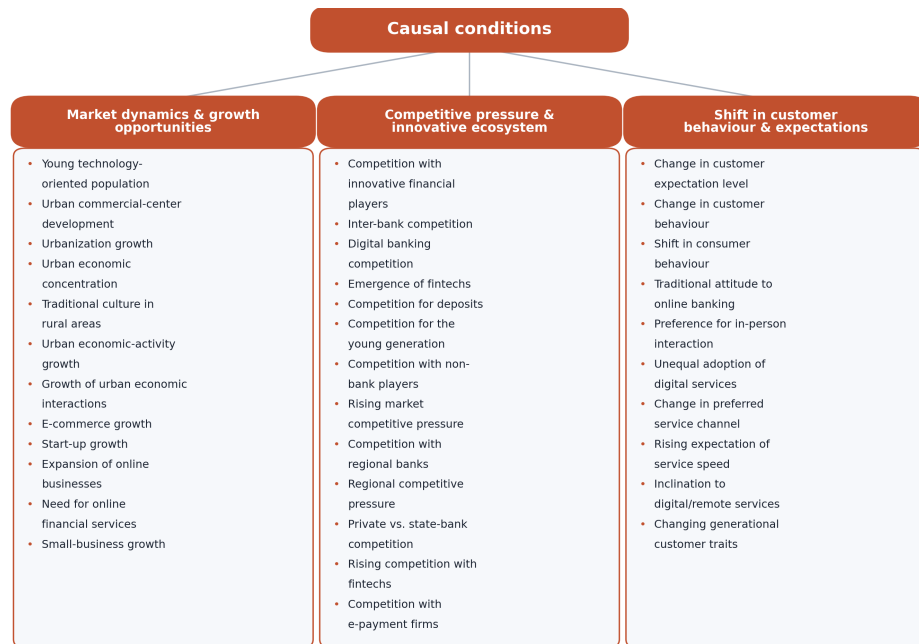


Figure 1: Open-coding map of causal conditions (English rendering of the original MAXQDA code map).

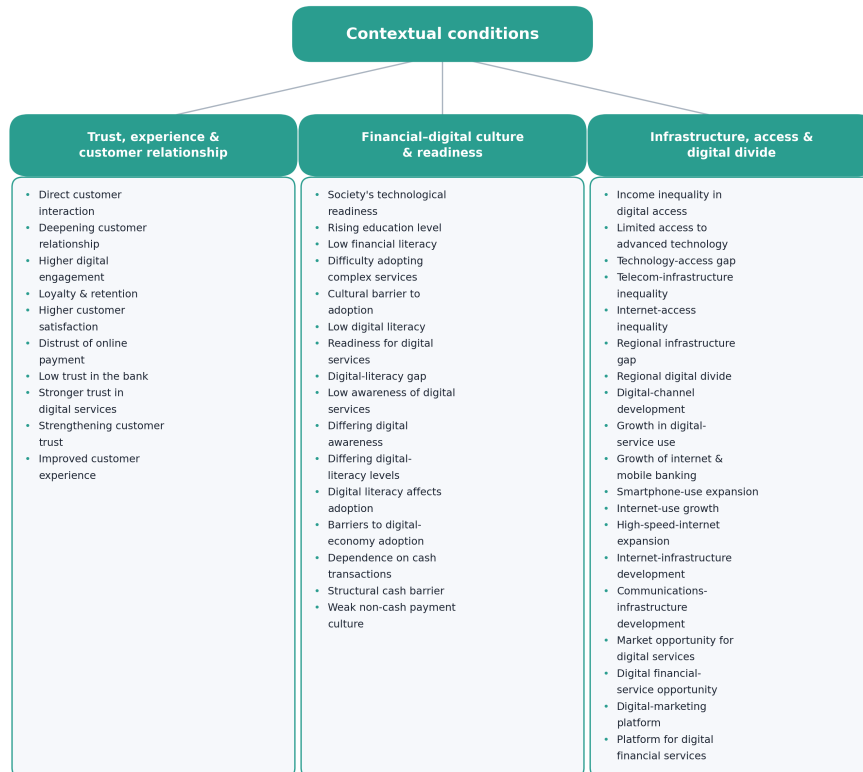


Figure 2: Open-coding map of contextual conditions (English rendering of the original MAXQDA code map).



Figure 3: Open-coding map of intervening conditions (English rendering of the original MAXQDA code map).

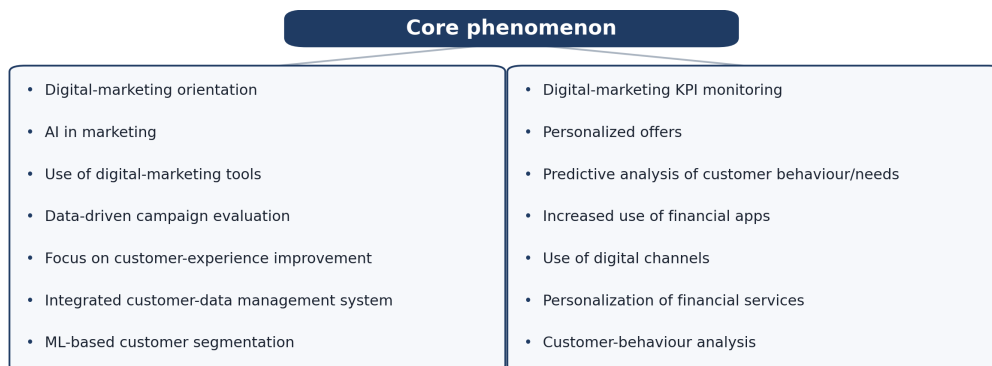


Figure 4: Open-coding map of the core phenomenon (English rendering of the original MAXQDA code map).

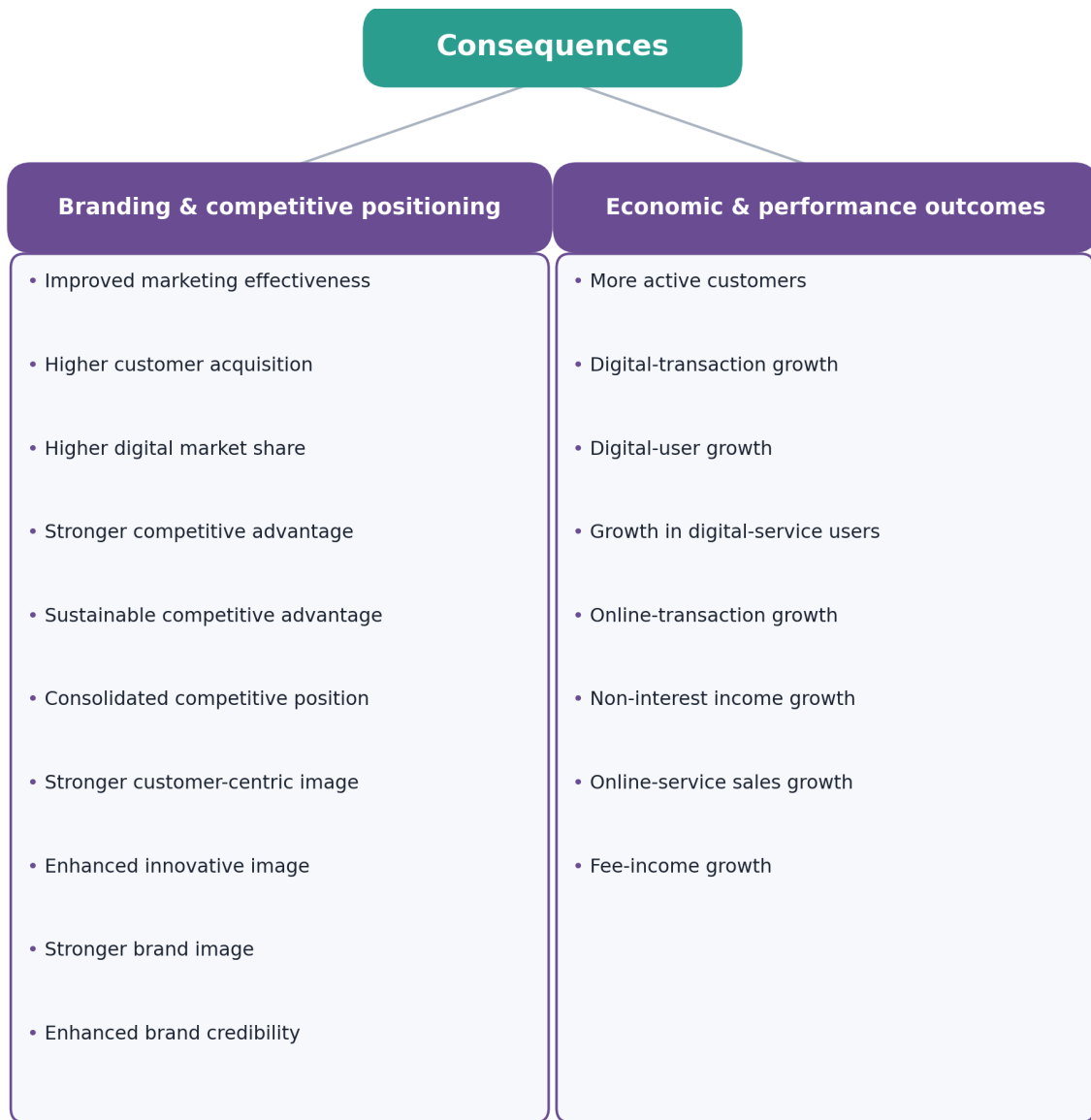


Figure 5: Open-coding map of consequences (English rendering of the original MAXQDA code map).

Table 2 presents representative open codes for each axial category.

Table 2: Representative open codes by axial category.

Axial category	Representative open codes
Market dynamics & growth	Young technology-oriented population; growth of e-commerce and start-ups; expansion of online businesses; need for online financial services
Competitive pressure & ecosystem	Emergence of fintechs; competition with non-bank and e-payment players; competition for young depositors; regional competitive pressure

Shift in customer behaviour	Rising service-speed expectations; preference for remote digital services; generational change; uneven adoption of digital services
Trust, experience & relationship	Direct customer interaction; deeper engagement; loyalty and retention; low trust in online payment; improved customer experience
Financial–digital culture & readiness	Low financial and digital literacy; cultural barriers to adoption; cash-dependence; society's technological readiness
Infrastructure, access & divide	Regional digital divide; unequal internet access; growth of mobile/internet banking; high-speed-internet expansion
Financial & economic constraints	Pressure to raise productivity; cutting operating, branch and marketing costs; budget limits; economic volatility
Security, privacy & trust	Data-security concerns; absence of clear digital regulation; distrust of online transactions; cyber-security threats
Digital-marketing orientation (core)	AI in marketing; ML-based customer segmentation; predictive behaviour analysis; personalized offers; integrated customer-data system; KPI monitoring
Transformation governance	Establishing data governance; organizational-change resistance; coordination gaps; need for a digital-transformation strategy
Innovation & channels	Multi-channel marketing; social-media engagement; benchmarking leading digital banks; pressure for digital innovation
Data infrastructure & integration	CRM deployment; centralized customer database; behavioural data warehouse; data integration
Human capital & maturity	Shortage of fintech and data-analytics specialists; continuous staff training; data-analytics team development
Data-driven & intelligent marketing	Business-intelligence dashboards; predictive models; cross-sell identification; personalized campaigns; data-driven decisions
Branding & competitive positioning	Improved marketing effectiveness; sustainable competitive advantage; stronger customer-centric brand image
Economic & performance outcomes	Growth in active and digital users; growth in online transactions; growth in non-interest and fee-based income

Integrating these components through selective coding yields the final paradigm model (Fig. 6), which depicts how causal conditions shaped by contextual conditions and moderated by intervening conditions activate the core phenomenon, which in turn drives strategies that ultimately produce the observed consequences.

Quantitative findings: measurement model

Before testing the structural relationships, the measurement model was assessed. As reported in (Tab. 3), Cronbach's alpha and composite reliability for all six constructs exceed the 0.70 threshold, and the average variance extracted (AVE) for each construct exceeds 0.50, confirming internal consistency and convergent validity.

Table 3: Reliability and convergent validity.

Construct	Cronbach's α	CR	AVE	$\sqrt{\text{AVE}}$
Causal conditions	0.936	0.945	0.588	0.767
Contextual conditions	0.883	0.904	0.541	0.736
Intervening conditions	0.909	0.927	0.614	0.783
Core phenomenon	0.878	0.908	0.624	0.790

Strategies	0.938	0.945	0.558	0.747
Consequences	0.906	0.925	0.606	0.779

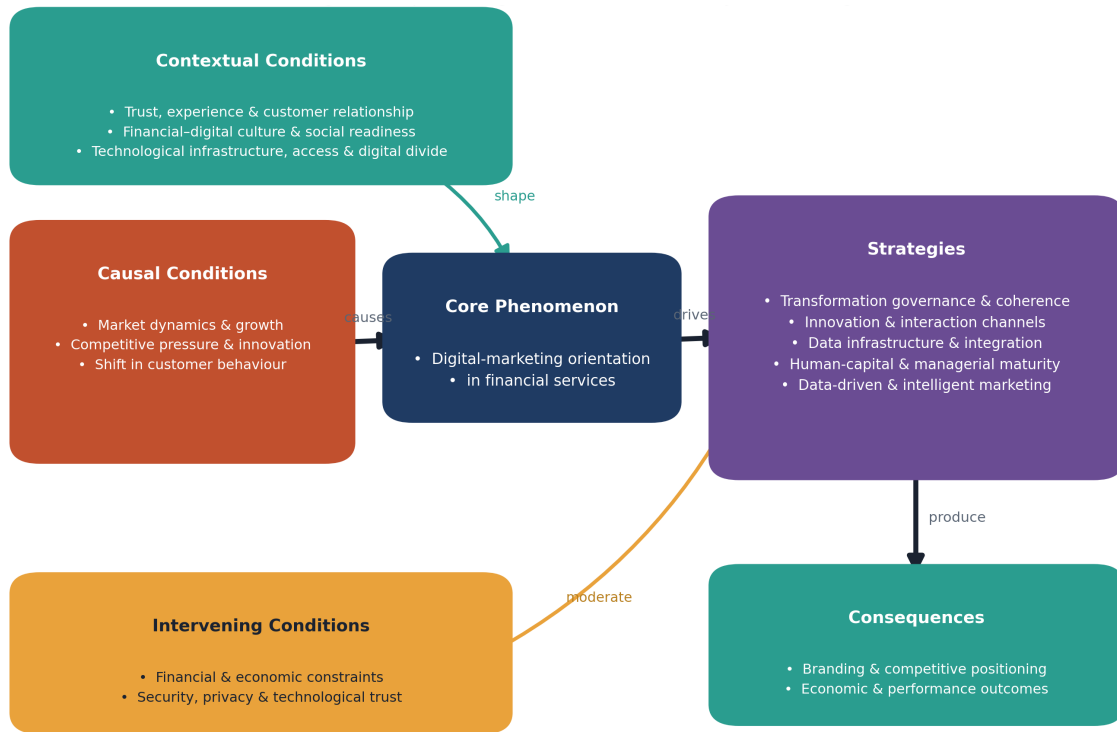


Figure 6: Grounded-theory paradigm model of digital transformation in financial-services marketing (English rendering of the original paradigm diagram, KRI banking sector).

Discriminant validity was examined with the Fornell & Larcker (1981) criterion (Tab. 4). For every construct, the square root of the AVE (the bold diagonal element) exceeds its correlations

with all other constructs, indicating that each construct shares more variance with its own indicators than with other constructs and that discriminant validity is satisfactory.

Table 4: Discriminant validity (Fornell–Larcker criterion).

Construct	1	2	3	4	5	6
1. Causal conditions	0.767	—	—	—	—	—
2. Contextual conditions	0.560	0.736	—	—	—	—
3. Intervening conditions	0.391	0.593	0.783	—	—	—
4. Core phenomenon	0.482	0.480	0.456	0.790	—	—
5. Strategies	0.333	0.384	0.351	0.652	0.747	—
6. Consequences	0.358	0.387	0.387	0.436	0.462	0.779

Structural model and hypothesis testing

The full measurement and structural model is shown in (Fig. 7), which reports the standardized factor loadings of all 67 indicators, the R^2 of each construct and the structural path coefficients; (Fig. 8) presents the corresponding t-statistics obtained by bootstrapping. The structural model was evaluated through R^2 , Q^2 and the overall goodness-of-fit. Table 5 reports R^2 and

Q^2 for the endogenous constructs; contextual and intervening conditions are exogenous and therefore have no R^2 . The coefficient of determination for causal conditions ($R^2 = 0.598$) and strategies ($R^2 = 0.565$) approaches the substantial level, while consequences (0.438) and the core phenomenon (0.339) are in the moderate range. All Q^2 values are positive, confirming the model's predictive relevance (Fig. 9).

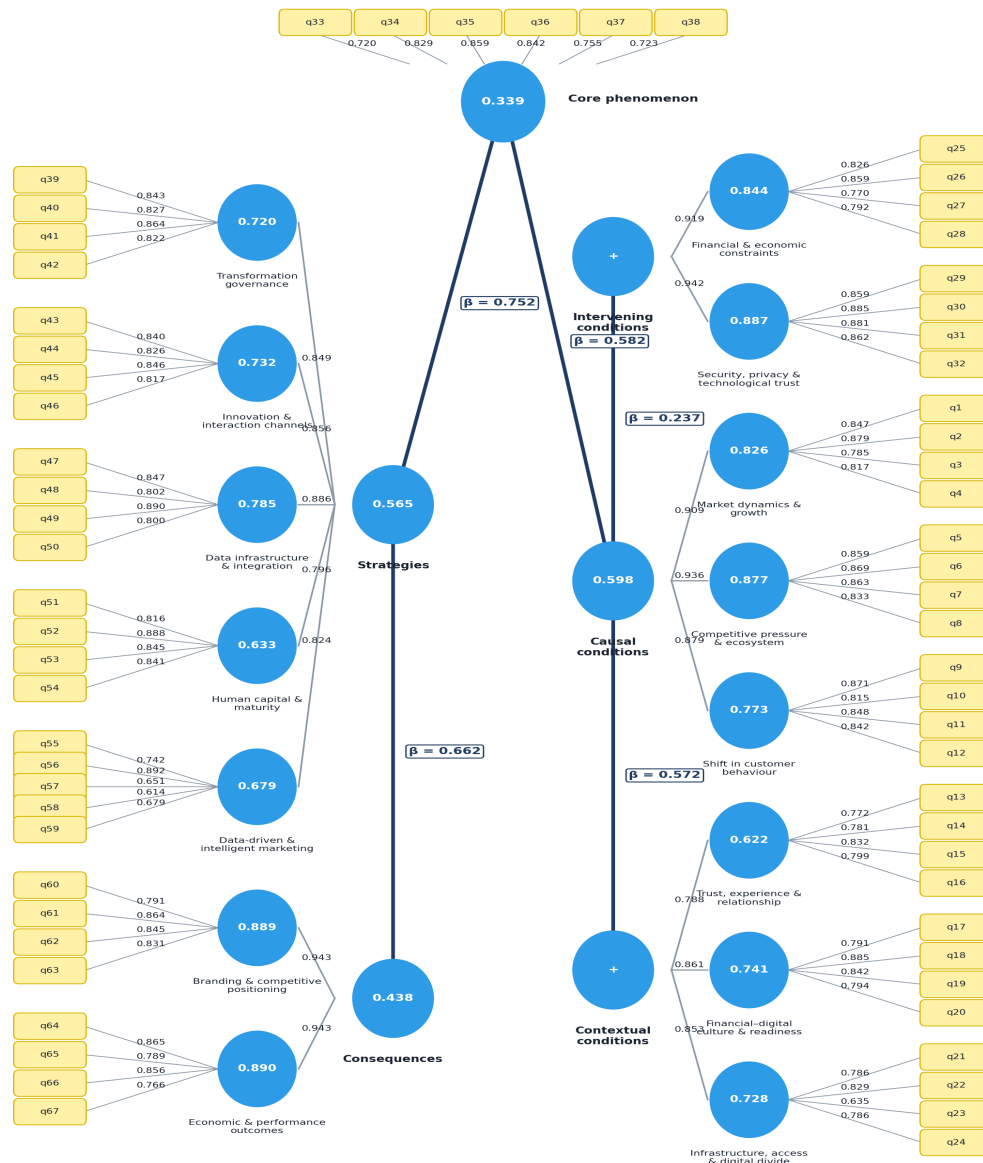


Figure 7: Measurement and structural model standardized factor loadings, R^2 and path coefficients (English rendering of the original SmartPLS output).

Model of Digital Transformation in Financial-Services Marketing

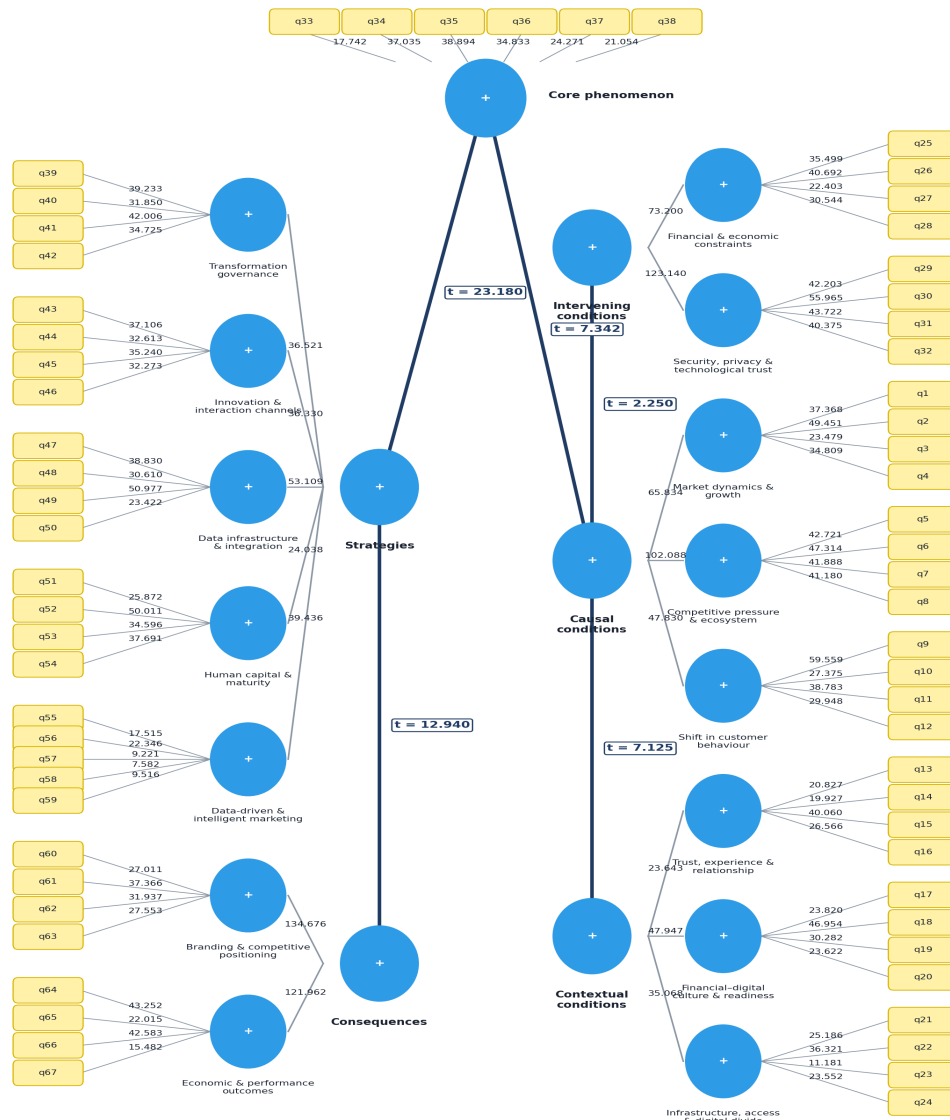


Figure 8: Structural model significance t-statistics for all loadings and paths (English rendering of the original SmartPLS output).

Table 5: Explained variance (R^2) and predictive relevance (Q^2) of endogenous constructs.

Endogenous construct	R^2	Q^2	Explanatory level
Causal conditions	0.598	0.326	Moderate–substantial
Core phenomenon	0.339	0.162	Moderate
Strategies	0.565	0.238	Moderate–substantial
Consequences	0.438	0.219	Moderate

The overall goodness-of-fit index, which jointly reflects the measurement and structural models, was computed as $GOF = 0.668$. Because val-

ues of 0.01, 0.25 and 0.36 denote weak, moderate and strong fit respectively, this result indicates a strong overall fit (Tenenhaus et al., 2005).

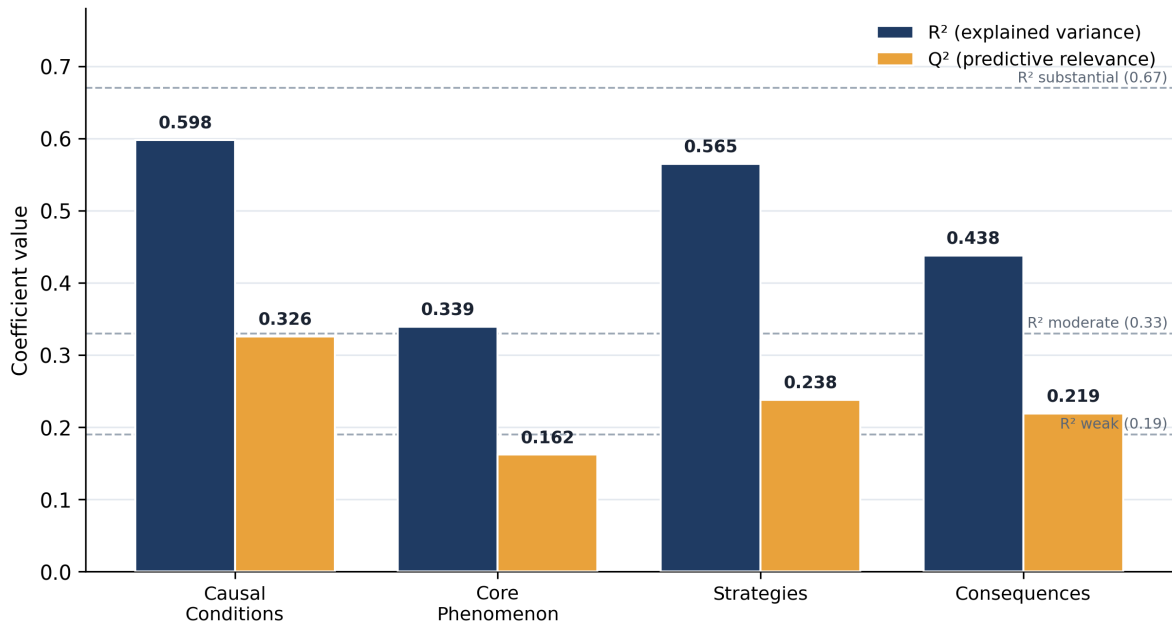


Figure 9: Explained variance (R^2) and predictive relevance (Q^2) of the endogenous constructs.

Table 6 presents the results of the hypothesis tests see in (Fig.7 and 8). Each path coefficient

is significant at the 95% confidence level ($|t| > 1.96$), so all five hypotheses are supported.

Table 6: Results of hypothesis testing.

Hypothesis	Path coefficient (β)	t-statistic	Result
H1: Intervening conditions $\rightarrow$ Causal conditions	0.237	2.250	Supported
H2: Contextual conditions $\rightarrow$ Causal conditions	0.572	7.125	Supported
H3: Causal conditions $\rightarrow$ Core phenomenon	0.582	7.342	Supported
H4: Core phenomenon $\rightarrow$ Strategies	0.752	23.180	Supported
H5: Strategies $\rightarrow$ Consequences	0.662	12.940	Supported

The results show that both contextual conditions ($\beta = 0.572$, $t = 7.125$) and intervening conditions ($\beta = 0.237$, $t = 2.250$) significantly affect causal conditions, with contextual conditions exerting the stronger and more decisive influence. Causal conditions in turn significantly shape the core phenomenon ($\beta = 0.582$, $t = 7.342$). The strongest relationship in the model links the core phenomenon to strategies ($\beta = 0.752$, $t = 23.180$), indicating that a digital-marketing orientation is the principal driver of organizational strategy

formation. Finally, strategies significantly produce the expected consequences ($\beta = 0.662$, $t = 12.940$). The model thus describes a coherent causal chain running from environmental and contextual conditions through the core phenomenon and strategies to performance outcomes.

RESULTS AND CONCLUSION

The findings extend the digital-transformation literature from generic organizational settings to

the specific domain of financial-services marketing in an emerging regional economy. The qualitative model shows that digital transformation here cannot be reduced to purchasing technology or opening a few online channels; it is a multi-layered managerial and marketing process in which environmental, social, technological, security and financial factors operate simultaneously. This is consistent with the multidimensional conception of digital transformation advanced by Verhoef *et al.* (2021) and Reis & Melão (2023), and with evidence that strategic orientation and dynamic capabilities jointly condition transformation success in banks (Cheng *et al.*, 2023; de Paula Pereira *et al.*, 2024). The dominance of the core-phenomenon→strategies path ($\beta = 0.752$) indicates that, once a bank internalizes a genuine digital-marketing orientation, strategy formation follows strongly—echoing the dynamic-capabilities argument that sensing and seizing opportunities precede resource reconfiguration (Teece *et al.*, 1997; Warner & Wäger, 2019). The strong effect of contextual conditions on causal conditions ($\beta = 0.572$) highlights that infrastructural readiness, digital literacy and payment culture set the boundaries within which market pressures translate into transformation needs—an observation aligned with adoption research that foregrounds perceived usefulness, trust and security in emerging markets (Acosta-Prado *et al.*, 2024; Aloulou *et al.*, 2023). The comparatively weaker, though still significant, role of intervening conditions ($\beta = 0.237$) suggests that financial and security constraints shape, but do not determine, the trajectory of transformation. The consequence structure—branding and competitive positioning alongside economic and performance outcomes confirms that digital-marketing investment is linked to profitability and market-share gains, consistent with regional evidence from MENA banks (Gharios & Abu Khalaf, 2024) and with the role of agility in converting transformation into sustainable advantage (Probojakti *et al.*, 2024). The qualitative findings show that digital transformation in financial-services marketing in the

Kurdistan Region of Iraq cannot be reduced to the acquisition of technology or the launch of a few online channels. The model derived from the interviews portrays it as a multi-layered managerial and marketing process in which environmental factors, social and technological conditions, security and financial constraints, and a set of organizational strategies operate together. For this reason, the core phenomenon a digital-marketing orientation is less a change of tools than a change of strategic logic toward data-driven, customer-centric value creation. The quantitative phase, conducted in SmartPLS, validated the relationships in the model. The measurement instrument demonstrated acceptable convergent and discriminant validity and composite reliability, and the test of the structural relationships showed that all five hypotheses were supported at the 95% confidence level. Among the paths examined, the relationship between the core phenomenon and strategies was the strongest ($\beta = 0.752$, $t = 23.180$), and the overall goodness-of-fit (GOF = 0.668) confirmed a strong model. Substantively, the results indicate that banks seeking favourable outcomes must first understand their contextual and causal conditions, internalize a digital-marketing orientation, and align their strategies accordingly. Theoretically, the study contributes an integrated, empirically validated paradigm model of digital transformation in financial-services marketing for an emerging, infrastructure-constrained regional economy, combining a grounded-theory model with a confirmatory structural test. Practically, it offers banks and policymakers in the region a roadmap: invest in digital infrastructure and digital-literacy initiatives to improve contextual readiness; establish data governance and integrated customer-data platforms; build analytics and fintech talent; and clarify the regulatory and security environment so that intervening constraints do not stall transformation. The study has limitations that suggest avenues for future research. The qualitative model rests on twenty expert interviews within a single regional bank-

ing sector, and the structural model was estimated on a cross-sectional sample; findings should therefore be generalized with care. Future work could test the model with larger, multi-country samples, employ longitudinal designs to capture the dynamics of transformation over time, apply complementary techniques such as the Hetero-trait–Monotrait ratio for discriminant validity (Henseler et al., 2015), and examine the moderating role of customer-level variables such as digital literacy and perceived security.

REFERENCES

- Abdulquadri, A., Mogaji, E., Kieu, T. A., & Nguyen, N. P. (2021). Digital transformation in financial services provision: A Nigerian perspective to the adoption of chatbot. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(2), 258–281. <https://doi.org/10.1108/JEC-06-2020-0126>
- Acosta-Prado, J. C., Rojas Rincón, J. S., Mejía Martínez, A. M., & Riveros Tarazona, A. R. (2024). Trends in the literature about the adoption of digital banking in emerging economies: A bibliometric analysis. *Journal of Risk and Financial Management*, 17(12), 545. <https://doi.org/10.3390/jrfm17120545>
- Al-Okaily, A., Al-Okaily, M., Teoh, A. P., Al-Mawali, H., & Zaidan, H. (2021). An empirical investigation of enterprise system user satisfaction antecedents in Jordanian commercial banks. *Cogent Business & Management*, 8(1), 1918847. <https://doi.org/10.1080/23311975.2021.1918847>
- Aloulou, M., Grati, R., Al-Qudah, A. A., & Al-Okaily, M. (2023). Does FinTech adoption increase the diffusion rate of digital financial inclusion? A study of the banking industry sector. *Journal of Financial Reporting and Accounting*, 22(2), 289–307. <https://doi.org/10.1108/JFRA-05-2023-0224>
- Attia, E. F., & BinEid, S. M. (2025). Fintech as a catalyst for sustainability: Empirical evidence from Saudi Arabia. *Sustainability*, 17(21), 9621. <https://doi.org/10.3390/su17219621>
- Bagdi, H., Bulsara, H. P., Sankar, D., & Sharma, L. (2023). The transition from traditional to digital: Factors that propel Generation Z's adoption of online learning. *International Journal of Educational Management*, 37(3), 695–717.
- Becker, W., & Schmid, O. (2020). The right digital strategy for your business: An empirical analysis of the design and implementation of digital strategies in SMEs and LSEs. *Business Research*, 13(3), 985–1005. <https://doi.org/10.1007/s40685-020-00124-y>
- Belostecinic, G., & Jomir, E. (2023). Digital marketing – A new stage in the evolution of the modern marketing concept. *Economica*, 1(123), 7–22.
- Cheng, S., Fan, Q., & Huang, M. (2023). Strategic orientation, dynamic capabilities, and digital transformation of commercial banks: A fuzzy-set QCA approach. *Sustainability*, 15(3), 1915. <https://doi.org/10.3390/su15031915>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Lawrence Erlbaum Associates.
- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). SAGE Publications.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- de Paula Pereira, G., de Medeiros, J. F., Kolling, C., Ribeiro, J. L. D., Morea, D., & Iazzolino, G. (2024). Using dynamic capabilities to cope with digital transformation and boost innovation in traditional banks. *Business Horizons*, 67(4), 317–330. <https://doi.org/10.1016/j.bushor.2024.03.006>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Gharios, R., & Abu Khalaf, B. (2024). Digital marketing's effect on Middle East and North Africa (MENA) banks' success: Unleashing the economic potential of the internet. *Sustain-*

- ability, 16(18), 7935. <https://doi.org/10.3390/su16187935>
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine Publishing.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Indriasari, E., Gaol, F. L., & Matsuo, T. (2019). Digital banking transformation: Application of artificial intelligence and big data analytics for leveraging customer experience in the Indonesia banking sector. In *2019 8th International Congress on Advanced Applied Informatics (II-AI-AAI)* (pp. 863–868). IEEE.
- Kachouie, R., Mavondo, F., & Sands, S. (2018). Dynamic marketing capabilities view on creating market change. *European Journal of Marketing*, 52(5/6), 1007–1036. <https://doi.org/10.1108/EJM-10-2016-0588>
- Leão, P., & da Silva, M. M. (2021). Impacts of digital transformation on firms' competitive advantages: A systematic literature review. *Strategic Change*, 30(5), 421–441.
- Mogaji, E., Adeola, O., Hinson, R. E., Nguyen, N. P., Nwoba, A. C., & Soetan, T. O. (2021). Marketing bank services to financially vulnerable customers: Evidence from an emerging economy. *International Journal of Bank Marketing*, 39(3), 402–428. <https://doi.org/10.1108/IJBM-07-2020-0379>
- Mohsen, S. E., Hamdan, A., & Shoaib, H. M. (2024). Digital transformation and integration of artificial intelligence in financial institutions. *Journal of Financial Reporting and Accounting*, 23(2), 680–699. <https://doi.org/10.1108/JFRA-09-2023-0544>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Probojakti, W., Utami, H. N., Prasetya, A., & Riza, M. F. (2024). Building sustainable competitive advantage in banking through organizational agility. *Sustainability*, 16(19), 8327. <https://doi.org/10.3390/su16198327>
- Reis, J., & Melão, N. (2023). Digital transformation: A meta-review and guidelines for future research. *Heliyon*, 9(1), e12834. <https://doi.org/10.1016/j.heliyon.2023.e12834>
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Saxena, A., & Muneeb, S. M. (2024). Transforming financial services through hyper-personalization: The role of artificial intelligence and data analytics in enhancing customer experience. In *AI-driven decentralized finance and the future of finance* (pp. 19–48). IGI Global.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Tenenhaus, M., Esposito Vinzi, V., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159–205. <https://doi.org/10.1016/j.csda.2004.03.005>
- 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>
- Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326–349. <https://doi.org/10.1016/j.lrp.2018.12.001>

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