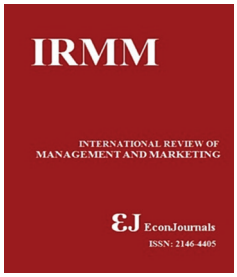

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The Impact of Business Intelligence on Digital Marketing Activities: The Mediating Effect of Technological Capabilities

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ABSTRACT

This research examines how Business Intelligence (BI) and Technological Capabilities (TC) cumulatively impact Digital Marketing (DM) performance in industrial companies, based on empirical data from Jordan. Drawing on Resource-Based View and Dynamic Capabilities Theory, the research formulates and examines a conceptual framework where BI constitutes a strategic resource and TC represents a key marketing effectiveness enabler. Data were obtained from 252 managerial respondents from different manufacturing industries by using a structured questionnaire. Covariance-Based Structural Equation Modeling (CB-SEM) was used to test associations. The findings indicate that BI has direct and indirect impacts on DM performance, where TC represents an essential mediating variable. These results underscore that although BI facilitates data-based marketing decisions, its strategic advantage depends on internal technological readiness of the firm. The research contributes to knowledge by validating an integrated BI–TC–DM framework in an emerging market industrial setting and enhances practical knowledge by illustrating how digital infrastructure can be aligned with analytics to enhance marketing outcomes. The findings have particular relevance to industrial companies facing digital transformation as well as policymakers seeking to support Industry 4.0 implementation within resource-scarce environments.

Keywords: Business Intelligence, Digital Marketing, Technological Capabilities, Industrial Firms, Emerging Economies, Jordan
JEL Classification: M31, O33, L60

1. INTRODUCTION

The emergence of data-informed technologies has radically altered how organizations compete, communicate, and deliver value. Within these changes, digital marketing (DM) has become a strategic function, allowing firms to engage and touch customers on a personalized, timely, and measurable basis. In industrial markets, where firms have long depended on traditional sales approaches and long-term B2B relationships, digital marketing now provides an avenue to increased agility, customer understanding, and market responsiveness. Nevertheless, successful digital marketing strategy implementation relies not merely on digital channel access, but also on how firms best leverage data and technology to inform decision-making (Ali and Morshed, 2024; Fan et al., 2025).

Business Intelligence (BI) systems also play an essential role in this transformation. Helping firms to analyze internal and external data, BI facilitates real-time decision-making, customer segmentation, and campaign optimization. Nevertheless, the strategic value of BI remains unrealized across many industrial firms—especially in emerging markets—because of integration, infrastructure, and skills issues (Jaradat et al., 2025; Ashal and Morshed, 2024). In such environments, Business Intelligence itself might be inadequate to provide marketing impact unless complemented by effective technological capacities (TC) to enable firms to translate insights into marketing action.

Technological capabilities—such as IT infrastructure, systems integration, and employee digital skills—have thus become essential enablers of digital transformation. From a theoretical

standpoint, the Resource-Based View (RBV) emphasizes the value of rare and inimitable resources like BI, while the Dynamic Capabilities Theory (DCT) stresses the firm's ability to adapt, integrate, and reconfigure these resources in dynamic environments. Together, these perspectives highlight that performance outcomes are not solely determined by technology acquisition, but by the internal capabilities that mediate its strategic application (Barney, 1991; Olszak, 2014).

In spite of growing awareness of such dynamics, existing research remains scant on how BI and TC engage to inform digital marketing effectiveness, least of all within industry firms in emerging markets. Jordan represents a pertinent and little-studied context, based on its national focus on Industry 4.0, its heterogenous base of manufacturing, and digital transformation gaps that remain prevalent (Salhab et al, 2025; Jum'a et al, 2024). Industrial firms remain central to economic growth, but infrastructural and skill-related issues often mean such firms struggle to adopt and realize value from data-based marketing tools.

To address this gap, the present study develops and tests a conceptual model that examines the direct and mediated effects of Business Intelligence on digital marketing performance through technological capabilities. By integrating theoretical insights with data from 252 Jordanian industrial firms, this research offers novel empirical evidence on how internal resources and capabilities jointly contribute to marketing transformation. In doing so, it expands the scope of strategic marketing and information systems literature and provides actionable guidance for firms navigating digital transitions under resource constraints.

The remainder of the paper is structured as follows: Section 2 reviews the relevant literature and develops the conceptual framework. Section 3 outlines the research methodology. Section 4 presents the empirical findings. Section 5 discusses the results in light of prior work. Section 6 outlines theoretical and practical implications. Section 7 concludes with key insights, limitations, and future research directions.

2. LITERATURE REVIEW

2.1. Digital Marketing as a Strategic Capability in Industrial Firms

Digital marketing has become a strategic asset, enabling firms to enhance market reach, responsiveness, and customer engagement through tools like SEO, social media, CRM, and analytics (Ali and Morshed, 2024). For industrial firms, this shift supports B2B targeting, content-driven communication, and data-informed decision-making.

Unlike consumer markets, industrial digital marketing emphasizes technical accuracy, relationship-building, and supply chain visibility. It enables firms to personalize offerings, streamline campaigns, and align marketing with strategic goals (Fan et al., 2025).

In Jordan, industrial firms are vital to economic development but face barriers such as legacy systems, digital skill gaps, and low marketing automation. While national policies promote Industry 4.0, digital marketing adoption remains uneven (Li, 2024; Salhab et al., 2025).

This environment poses challenges and opportunities alike, and it emphasizes understanding how digital performance can be improved by supportive technologies and abilities. That need is met in this research by investigating the impact of Business Intelligence and technological abilities in forming digital marketing outcomes in Jordanian industrial corporations.

2.2. Business Intelligence for Data-Driven Marketing Decisions

Business Intelligence (BI) systems allow companies to gather, process, and analyze internal and external data to inform strategic marketing decisions. BI facilitates improved targeting, personalization, and real-time campaign optimization by converting data into actionable insights (Morshed et al., 2024).

In industrial corporations, demand forecasting, customer profiling, and competitor analysis by BI are critical to long-cycle B2B sales and technical solution marketing (Jaradat et al., 2025). Effective implementation of BI makes it possible to integrate marketing strategy with operational data, thereby enhancing responsiveness and strategic alignment.

However, BI success depends on more than data access. Its value lies in how well firms integrate BI tools into decision processes—a challenge especially in emerging economies, where data systems and analytic maturity vary (Ashal and Morshed, 2024).

In Jordan's industrial sector, BI adoption is growing, but practical integration remains limited. Firms often lack the digital infrastructure and analytic talent to fully utilize BI's potential. This underscores the importance of understanding not only BI's direct effects but also the organizational conditions that shape its impact on digital marketing (Jaradat et al., 2024).

2.3. Technological Capabilities as Mediators of BI Effectiveness

Technological capabilities (TC) refer to a firm's ability to acquire, integrate, and apply digital tools to support strategic goals. These include IT infrastructure, system integration, and employee digital skills—critical enablers of Business Intelligence (Baah et al., 2024).

Though BI gives us insights, its strategic relevance lies in how a firm can concretize such insights using technology. Previous research indicates that TC plays a significant moderator role between BI and marketing performance by bridging data analytics to actionable decision-making (Djiu et al., 2024).

In industrial corporations, effective TC facilitates data-based marketing deployments by facilitating convenient integration of BI and marketing platforms and real-time implementation. But in most Jordanian corporations, technology gaps—scarce infrastructure, inadequate digital competencies, and dispersed systems—impede this process (Ren et al., 2024).

Thus, understanding TC's mediating role is crucial in assessing BI's impact. This study empirically tests this relationship within the Jordanian industrial context, where technological development remains uneven despite digital transformation efforts.

2.4. Integrated Perspectives on BI, TC, and Digital Marketing Performance

Increasing research focuses on the complementary roles of Business Intelligence (BI) and Technological Capabilities (TC) in improving digital marketing (DM) performance. According to resource-based perspective (RBV), both represent strategic assets—valuable, rare, and difficult to replicate—giving rise to sustained competitive advantage (Abubakar et al., 2025).

BI provides data-driven insights, while TC provides effective implementation of such insights by virtue of mature platforms and qualified personnel. They supplement one another to optimize customer selection, campaign flexibility, and performance tracking (Bhambri and Rani, 2025; Haverila et al., 2025).

Despite this, few empirical models test these relationships jointly—particularly in industrial firms and emerging markets. Context matters: firm size, sectoral digital maturity, and national innovation capacity influence the BI–TC–DM linkage (Alhawamdeh et al., 2024).

In Jordan, industrial firms face varying levels of digital readiness. While policy efforts support transformation, operational challenges persist (Jum'a et al., 2024). This study addresses a gap by integrating BI and TC within a unified framework to explain digital marketing performance in Jordan's industrial sector.

2.5. Research Gap, Theoretical Contribution, and Hypotheses Development

Despite growing scholarly interest in digital marketing (DM) and Business Intelligence (BI), the literature remains fragmented in its examination of how these technologies interact with organizational capabilities to drive marketing performance—particularly in emerging markets and traditional industrial sectors. Most extant studies investigate either BI as a tool for strategic decision-making or DM as a function of digital platforms and consumer analytics. However, the mechanisms through which BI translates into digital marketing effectiveness remain under-theorized and empirically limited, especially in the context of manufacturing-oriented firms in developing economies such as Jordan (Hamzeh et al., 2025; Yaseen et al., 2025).

To address this gap, the current study is grounded in the Resource-Based View (RBV) (Barney, 1991), which posits that firms gain sustained competitive advantage through the strategic deployment of valuable, rare, inimitable, and non-substitutable (VRIN) resources. BI is conceptualized as a strategic intangible resource that provides actionable insights and supports data-driven decision-making. However, in line with RBV's emphasis on resource orchestration, such value creation depends on complementary capabilities—specifically, a firm's TC, which allow it to absorb, integrate, and apply BI in operational contexts like digital marketing (Abrokwah-Larbi, 2024; Liu, 2025).

In addition, the Dynamic Capabilities Theory (DCT) (Olszak, 2014) provides a more nuanced explanation of how firms sense and seize opportunities in fast-changing environments. From this perspective, TC is not just a supporting resource but a dynamic capability that enables the firm to continuously adapt its marketing strategies through real-time use of BI tools. As industrial firms in Jordan operate under increasing pressure to digitalize while lacking uniform technological readiness, this interaction between BI and TC becomes crucial to performance outcomes (Wang and Liu, 2023).

Based on this theoretical foundation, four hypotheses are developed:

H_1: Business Intelligence positively influences Digital Marketing performance.

According to RBV, BI represents a knowledge-based strategic resource that enables firms to improve market segmentation, customer targeting, and campaign optimization. Prior empirical studies show that BI enhances personalization, agility, and real-time engagement in digital marketing environments (Pașcalău et al., 2024). In industrial settings, where B2B engagement and technical customization are key, BI supports data-driven alignment between customer needs and marketing responses. Thus, BI is expected to directly enhance digital marketing effectiveness.

H_2: Business Intelligence positively influences Technological Capabilities.

The integration of BI systems often necessitates concurrent upgrades in IT infrastructure, digital systems, and employee competencies. Firms adopting BI typically make strategic investments to enhance their technological foundation, including systems integration, cloud platforms, and data security (Wang et al., 2022). From the perspective of RBV, such investments in complementary assets enhance the firm's ability to deploy BI meaningfully. Thus, BI adoption is posited to contribute directly to the development of technological capabilities.

H_3: Technological Capabilities positively influence Digital Marketing performance.

Technological capabilities—defined by IT flexibility, platform integration, and digital literacy—are essential enablers of digital marketing success. These capabilities allow firms to execute personalized campaigns, automate decision processes, and link BI outputs to customer interfaces (Jung and Shegai, 2023). DCT further supports this by positioning TC as a dynamic asset that helps firms adapt to rapidly changing digital trends. Therefore, firms with advanced technological capabilities are more likely to succeed in their digital marketing initiatives.

H_4: Technological Capabilities mediate the relationship between Business Intelligence and Digital Marketing performance.

While BI provides analytical inputs, it is through technological capabilities that these insights are transformed into marketing actions. This mediating relationship is consistent with both RBV and DCT. From an RBV standpoint, TC serves as a necessary conduit to unlock the potential of BI; from a DCT view, it allows firms to reconfigure internal resources in response to new digital

opportunities. Prior studies suggest that firms lacking technological readiness often fail to derive marketing value from BI investments (Khaddam et al., 2023). So, we propose here that TC plays a crucial mediating role in bridging BI to successful digital marketing performance.

Overall, this work formulates and examines a conceptual framework combining BI, TC, and DM performance see Figure 1. The research contributes to theory by bridging RBV and DCT views and to practice by filling an understudied industrial setting in the Middle East region. Hypotheses are tested using structural equation modeling on data from Jordanian industry firms, specified in the following section.

3. METHODOLOGY

3.1. Research Design

This study employs a quantitative, cross-sectional research design to empirically assess the relationships among Business Intelligence (BI), Technological Capabilities (TC), and Digital Marketing (DM) performance in industrial firms. The quantitative approach is appropriate for testing theory-driven hypotheses involving latent constructs measured through survey instruments. A cross-sectional design was chosen to capture perceptions and behaviors at a single point in time, allowing for efficient data collection from a diverse sample of firms within a defined period.

This design follows previous research on technology-enabled strategy implementation at the organizational level, especially research using structural equation modeling (Amirah et al., 2024). Since the research aims to validate a conceptual framework based on Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT), it facilitates theory confirmation, not exploration. Since it emphasizes managerial perceptions within Jordanian industrial firms, it also provides contextual understanding of digital transformation opportunities and challenges in emerging countries.

3.2. Sampling and Data Collection

To analyze proposed relationships, data were obtained from managerial staff within Jordanian industrial companies. The population of interest comprised marketing, operations, and IT managers who possessed enough knowledge of firms' digital marketing strategy and technological capacity. Since no single, central sampling frame existed, a non-probability snowball sampling strategy was adopted. Initial respondents were identified from manufacturing networks and industrial associations, who were then requested to nominate additional eligible respondents. In this way, the researchers managed to capture experienced professionals from various sub-sectors in Jordan's manufacturing base (Morshed et al., 2024).

Data collection took place between October 2022 and March 2023, using a structured, self-administered questionnaire. Of the 275 returned surveys, 252 responses were retained after eliminating incomplete or invalid submissions. The retained sample included participants from sectors such as pharmaceuticals, food and beverages, textiles and garments, and construction materials.

The demographic distribution of the sample reflects a broad range of managerial experience. 68% of respondents were male, and 32% were female. Age was relatively balanced across categories: 27% were under 30, 37% between 30 and 40, and 36% above 40. This diversity enhances the representativeness of the data within the Jordanian industrial context (Table 1).

3.3. Instrument Design

The measurement instrument was developed based on established multi-item scales adapted from prior studies to ensure both reliability and validity in the context of industrial firms. The constructs assessed were Business Intelligence (BI), Technological Capabilities (TC), and Digital Marketing (DM) performance. Each construct was operationalized using reflective indicators, measured on a five-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree").

- Items measuring Business Intelligence focused on the firm's use of internal and external data for marketing decision-making, predictive analytics, and performance tracking
- Technological Capabilities were assessed through items capturing IT infrastructure readiness, systems integration, data compatibility, and staff digital proficiency
- Digital Marketing was evaluated through indicators related to online customer engagement, real-time marketing response, personalization, and campaign effectiveness.

To ensure content validity, the survey instrument underwent review by a panel of academic scholars and industry practitioners familiar with digital transformation in Jordan's manufacturing sector. Their input guided term, sequence, and context framing adjustments of items (Gholami et al., 2025).

The final instrument was therefore put to back-translation procedures: initially translated from English to Arabic by a bilingual expert, it was independently re-translated back to English to guarantee semantic equivalence. This step proved crucial to allow for the bilingual nature of the target population and reduce error in measurement owing to language vagueness (Bagheri and Barkhordari-Sharifabad, 2023).

A pilot survey of 20 respondents validated item clarity and scale reliability before large-scale administration. Minor revisions were made based on pilot comments to enhance readability and item specificity.

Table 1: Sample profile

Characteristic	Category	Frequency (n)	Percentage
Gender	Male	172	68
	Female	80	32
Industry Type	Pharmaceuticals	46	18
	Food and Beverages	72	29
	Textiles and Garments	65	26
	Construction Materials	65	26
	Others	4	2
Age Group	<30 years	67	27
	30-40 years	93	37
	Over 40 years	92	36
Total		252	100

3.4. Data Analysis Strategy

To validate the proposed model empirically, we utilized Covariance-Based Structural Equation Modeling (CB-SEM) based on AMOS software version 24. We opted to apply CB-SEM because it has a strong ability to validate comprehensive theoretical models, especially when research aims at verifying latent construct relationships based on theories, like RBV and Dynamic Capabilities Theory (DCT) (Morshed, 2025).

The analysis followed a two-step approach:

3.4.1. Measurement model evaluation

The first step involved conducting Confirmatory Factor Analysis (CFA) to determine the reliability and validity of the constructs (Table 2. There were three criteria upon which to base the assessment (Zaidi et al., 2021):

- Internal consistency reliability was tested using Cronbach's Alpha (α) and Composite Reliability (CR), with thresholds ≥0.70
- Convergent validity was evaluated using Average Variance Extracted (AVE), with values ≥0.50 considered acceptable
- Indicator reliability was ensured through standardized factor loadings ≥0.70
- Discriminant validity was assessed using the Fornell–Larcker criterion, which requires that each construct's √AVE exceeds its inter-construct correlations (Table 3).

3.4.2. Structural model evaluation

Upon assessing measurement model, structural model was tested to examine relationships posited among BI, TC, and DM. Several indices were employed to estimate data's suitability to the model (AL-Fadhali, 2024):

- Chi-square (χ^2) and degrees of freedom (df)
- Chi-square/df ratio (χ^2/df) ≤3.0
- Comparative Fit Index (CFI) ≥0.90
- Root Mean Square Error of Approximation (RMSEA) ≤0.06
- Standardized Root Mean Square Residual (SRMR) ≤0.08
- P-close ≥0.05.

Table 4 summarizes the model fit indices, all of which met recommended thresholds, indicating good model fit.

This rigorous validation confirms both the measurement integrity and structural robustness of the model. The results of the hypothesis tests are presented in the next section.

4. FINDINGS

This section reports the results of the structural model analysis conducted using Covariance-Based Structural Equation Modeling (CB-SEM) via AMOS. Following validation of the measurement model, the hypothesized relationships among Business Intelligence (BI), Technological Capabilities (TC), and Digital Marketing (DM) performance were empirically tested. The results support all proposed hypotheses and provide evidence for the mediating role of technological capabilities within the conceptual framework grounded in the Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT).

Table 2: Reliability and convergent validity

Construct	Item	Loading	AVE	CR	Cronbach's α
Business intelligence	BI1	0.785	0.642	0.878	0.876
	BI2	0.776			
	BI3	0.851			
	BI4	0.791			
Digital marketing	DM1	0.707	0.534	0.820	0.816
	DM2	0.765			
	DM3	0.681			
	DM4	0.765			
Technological capability	TC1	0.871	0.772	0.944	0.943
	TC2	0.914			
	TC3	0.874			
	TC4	0.865			
	TC5	0.868			

Table 3: Discriminant validity (Fornell–Larcker criterion)

Constructs	BI	DM	TC
Business Intelligence	0.801		
Digital Marketing	0.284	0.730	
Technological Capability	0.233	0.329	0.878

Diagonal values in bold represent√AVE; values below the diagonal are inter-construct correlations

Table 4: Model fit indices

Fit Index	Observed Value	Threshold	Interpretation
χ^2	464.98	—	Acceptable
Df	260	—	—
χ^2/df	1.788	<3.00	Good fit
CFI	0.950	≥0.90	Acceptable
RMSEA	0.056	≤0.06	Acceptable
SRMR	0.049	≤0.08	Acceptable
PClose	0.113	≥0.05	Acceptable

4.1. Structural Path Estimates and Hypothesis Testing

The structural model revealed statistically significant relationships among all constructs. As presented in Table 5, the direct path from BI to DM was positive and significant (β = 0.190, P < 0.001), confirming H1. The path from BI to TC (β = 0.217, P < 0.001) also achieved statistical significance, supporting H2. A strong, significant association was observed between TC and DM (β = 0.630, P < 0.001), confirming H3. Furthermore, the indirect effect of BI on DM via TC was statistically significant (β = 0.229, P = 0.002), thereby supporting H4 and indicating partial mediation (Giannakopoulos et al., 2024; Salah and Alzghoul, 2024).

4.2. Variance Explained (R^2)

The structural model exhibited strong explanatory power. The combined influence of BI and TC accounted for 64.8% of the variance in Digital Marketing performance (Table 6). Additionally, BI explained 16.2% of the variance in Technological Capabilities.

4.3. Collinearity Assessment

To assess multicollinearity bias, Variance Inflation Factor (VIF) values were computed (Table 7). All VIF scores were below the conservative threshold of 3.3, indicating no collinearity concerns among predictors (Giannakopoulos et al., 2024).

Table 5: Structural path coefficients and hypothesis testing

Hypothesis	Structural path	Standardized coefficient (β)	Standard error	t-value	P-value	Result
H1	BI→DM	0.190	0.063	3.777	<0.001	Supported
H2	BI→TC	0.217	0.090	3.981	<0.001	Supported
H3	TC→DM	0.630	0.064	11.248	<0.001	Supported
H4	BI→TC→DM (Indirect)	0.229	0.042	3.069	0.002	Supported

Table 6: Coefficient of determination (R^2)

Dependent variable	R^2 value	Interpretation
Digital Marketing (DM)	0.648	Substantial explanatory power
Technological Capabilities	0.162	Moderate explanatory power

Table 7: Collinearity diagnostics (VIF values)

Predictor	Outcome	VIF
BI	TC	1.10
BI	DM	1.29
TC	DM	1.29

Table 8: Effect sizes (f^2)

Path	Effect size (f^2)	Interpretation
BI→DM	0.057	Small to moderate
BI→TC	0.193	Moderate
TC→DM	0.583	Large

4.4. Effect Size (f^2)

Cohen's f^2 values were calculated to evaluate the contribution of each exogenous construct to the explained variance of endogenous variables (Table 8). The path from TC to DM exhibited a large effect size (f^2 = 0.583), whereas BI's direct influence on DM demonstrated a small-to-moderate effect (f^2 = 0.057) (Goh et al., 2016).

4.5. Bootstrapping Mediation Test

To validate the mediating effect of TC, bootstrapping analysis with 2,000 samples was conducted. The indirect effect of BI on DM through TC was statistically significant (β = 0.229, P = 0.002), confirming partial mediation. This supports the view that technological capabilities are not only enablers of marketing performance but also a mechanism through which business intelligence drives strategic outcomes (Vladimirov, 2024).

In summary, the findings provide robust empirical support for the hypothesized model. Business Intelligence exerts both direct and indirect effects on Digital Marketing performance, with Technological Capabilities playing a critical mediating role. These results underscore the importance of aligning data infrastructure with internal capabilities to realize the full strategic potential of BI in industrial settings.

5. DISCUSSION AND IMPLICATIONS

5.1. Discussion

This research verifies that Technological Capabilities (TC) and Business Intelligence (BI) play essential roles to function as performance drivers for digital marketing (DM) in industrial organizations, mainly in developing economies like Jordan. Based on Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT), it verifies the proposition at a conceptual level that internal capabilities should be supplemented by strategic resources to generate performance outcomes.

The positive relationship between BI and DM supports prior research emphasizing BI's role in enabling targeted, personalized, and data-driven marketing strategies (Morshed et al., 2024; Pașcalău et al., 2024). In industrial settings, this is particularly valuable for managing complex B2B relationships and long sales cycles. Jordanian firms are increasingly integrating BI into strategic marketing, despite ongoing digital transition challenges.

The results also agree that TC—IT infrastructure, integration, and digital skills—enhances the influence of BI. In alignment with previous research highlighting TC as a prerequisite of analytics implementation (Baah et al., 2024; Djiu et al., 2024). Firms with stronger technological readiness are better equipped to act on BI insights and sustain agile marketing practices.

Notably, the intermediary function of TC underscores internal capability and BI systems alignment necessities. Though BI provides strategic insights, interpretation thereof into performance relies on technology maturity—corroborating assertions by Ashal and Morshed (2024) and Vladimirov (2024). That reaffirms data as well as infrastructure dual significance in digital transformation realization.

The results also answer requests for context-sensitive research in Jordan's manufacturing industry, wherein business firms experience skewed digital adoption (Salhab et al., 2025). Companies pairing BI with spending on TC have significantly improved marketing results, highlighting the significance of combined resource development.

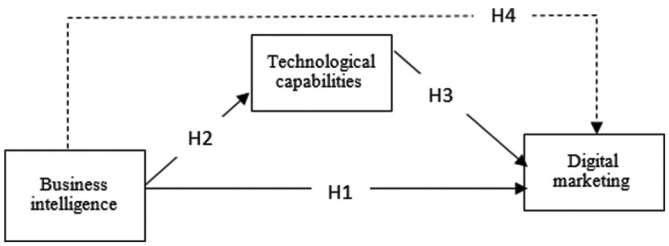
In general, this study discovers that DM's impact from BI is conditional upon high technological competencies available in its environment. The effectiveness of digital marketing is based on data analytics-IT readiness synergy, and needs to be administered strategically within digital transformation in industrial environments.

5.2. Implications

5.2.1. Theoretical implications

This research contributes to theory by combining the Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT) to describe how Business Intelligence (BI) and Technological Capabilities (TC) act together to impact digital marketing (DM) performance. Though existing research has investigated BI and marketing individually, this research contributes to the field by illustrating that BI's strategic value depends on internal technological readiness. Mediation by TC provides

Figure 1: Conceptual framework



empirical support for the argument that capabilities act as resource deployment mechanisms, validating interactive digital transformation asset relationships. These findings augment existing models by highlighting resource alignment's significance over stand-alone investments in analytics or IT.

5.2.2. Practical implications

For managers, the research emphasizes developing integrated BI–TC ecosystems. Companies should not only implement BI tools but also invest in compatible infrastructure, systems integration, and worker upskilling to convert insights to action. In industrial environments, it implies aligning marketing and IT departments so that campaign design and execution can be directly influenced by analytical outcomes. For emerging-economy firms like Jordan, the research points to filling capability gaps as an essential component of any digital strategy. Policymakers can also use these findings to craft industry support programs that connect technology adoption to capacity-building in digital competencies and data integration.

6. CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

This research provides a fresh contribution to the confluence of Business Intelligence (BI), Technological Capabilities (TC), and Digital Marketing (DM) by validating a model from an underexamined context of industrial corporations in an emerging market in an empirical manner. Although existing research hasmostly targeted either BI or digital marketing individually, this research brings together the two within a single framework and emphasizes TC as a mediation process—a bridge between insight derivation and marketing implementation. Based on Resource-Based View and Dynamic Capabilities Theory, our results indicate that performance-synergetic value of BI ensues not by virtue of itself, but when it has strong technological infrastructure and competencies to accompany it. This twin-pathway observation has significant relevance to digital transition firms, as it emphasizes value from analytics as depending upon internal complementary capabilities.

The originality of this research also lies in its sectoral and geographical focus. Jordan's industrial sector, although digitally evolving, has received limited scholarly attention in the context of data-driven marketing. By offering empirical evidence from this context, the study addresses a critical literature gap and expands theoretical applicability to non-Western, industrial, and resource-constrained environments. The integrated model serves as a replicable framework for other emerging economies seeking to leverage BI for strategic marketing performance.

In spite of its contributions, there are some limitations to the study. The cross-sectional nature restricts causal inferences, and future longitudinal studies might more fully capture the developmental path of BI–TC alignment. The self-report data may be a source of bias; future research should be cautious to triangulate data by combining it with archival records or objective marketing KPIs. Additionally, although the industrial context in Jordan lends depth, future research might apply this model to different sectors or regions to enhance generalizability more broadly. Additional mediators (e.g., digital culture, leadership) or moderating variables (e.g., environmental turbulence, firm size) could be included to further develop the explanatory power of the model.

Overall, this research provides a fresh and timely framework, beyond narratives of technological adoption, to highlight BI and TC orchestration as a strategic path to digital marketing effectiveness, and provides both theoretical and pragmatic directions to firms embarking upon digital transformation in emerging economies.

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