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MAPPING IDEA & LITERATURE FORMAT

Building Competitive Advantage Through Information Technology Integration in Marketing and Branding Management Strategies

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Abstract: This study delves into the crucial role of information technology (IT) integration in marketing and branding management strategies, highlighting its significance as a pivotal element for businesses aiming to secure a competitive edge in the rapidly evolving digital landscape. In an era marked by digital transformation, the confluence of innovative IT solutions with traditional marketing and branding frameworks emerges as a strategic necessity for companies navigating the complexities of today's marketplace. This research posits that such integration is instrumental in revolutionizing how organizations communicate with their target audiences, offering new pathways for differentiation and value creation. Exploring the paradigm shift induced by the advent of digital platforms, social media, and data analytics, the paper examines how these technologies have expanded the opportunities for businesses to engage with consumers on a more personalized and impactful level. It asserts that the digital transformation enables the harnessing of data-driven insights, thereby optimizing marketing strategies, brand positioning, and customer relationships. This integration transcends operational enhancements, dictating the long-term success and sustainability of businesses through strategic necessity. Moreover, the study addresses the dynamic and ever-evolving nature of digital technologies, emphasizing the importance of agility and innovation in exploiting new tools and platforms to maintain competitive superiority. It explores the potential of artificial intelligence, blockchain, and augmented reality in enhancing marketing effectiveness and brand appeal. However, it also acknowledges the challenges inherent in IT integration, such as data privacy, cybersecurity, and the need for continuous adaptation and employee skill development. Drawing upon theoretical frameworks and practical case studies, this research aims to provide a comprehensive analysis of the role of IT in enhancing marketing and branding strategies. It seeks to offer insights into the latest trends, challenges, and opportunities within the digital marketing landscape, facilitating a deeper understanding of how businesses can leverage technology to foster a sustainable competitive advantage. Ultimately, this paper endeavors to illuminate the strategic importance of IT integration in marketing and branding, guiding businesses towards more effective and innovative practices in the digital age.

Keywords: Information Technology Integration, Digital Marketing Strategies, Branding Management, Competitive Advantage, Data-Driven Marketing, Innovation in Marketing.

JEL Classification Code: M31, M15, O33, L86, M37

1. INTRODUCTION

In the ever-evolving digital era, the integration of information technology into marketing and branding management strategies has emerged as a critical cornerstone for building a competitive advantage for businesses. In an increasingly interconnected world, the ability to merge innovative technological solutions with traditional marketing and branding frameworks presents a strategic imperative for organizations aiming to navigate the complexities of the modern marketplace. This integration not only revolutionizes how companies communicate with their target audiences but also

reshapes the competitive landscape by offering novel avenues for differentiation and value creation. The advent of information technology has precipitated a paradigm shift in the way businesses approach marketing and branding. With the proliferation of digital platforms, social media, and data analytics tools, the opportunities for engaging with consumers on a more personalized and impactful level have multiplied exponentially. This digital transformation enables businesses to harness the power of data-driven insights to tailor their marketing strategies, optimize brand positioning, and foster deeper customer relationships. As such, the integration of information technology in marketing and branding management is not merely an operational enhancement but a strategic necessity that can dictate the long-term success and sustainability of a business. Furthermore, the dynamic nature of digital technologies means that the landscape of marketing and branding is continually evolving. Organizations must remain agile and innovative, constantly exploring new technologies and platforms to stay ahead of the curve. This includes leveraging artificial intelligence for customer insights, employing blockchain for brand protection, or utilizing augmented reality for immersive marketing experiences. Each of these technological advancements offers a unique set of tools for businesses to enhance their marketing effectiveness and brand appeal, thereby building a more resilient and competitive position in the market.

However, the integration of information technology into marketing and branding strategies is not without its challenges. Companies face issues related to data privacy, cybersecurity, and the digital divide that can impede their efforts to effectively utilize technology. Moreover, the rapid pace of technological change requires businesses to continuously adapt their strategies and invest in employee training and development to ensure they can effectively leverage new tools and platforms. These challenges underscore the importance of a strategic approach to IT integration, one that balances innovation with risk management and aligns with the overall business objectives. The integration of information technology in marketing and branding management strategies is crucial for building competitive advantage. Bheekhar (2019) emphasizes the role of digital technologies in shaping customer interactions and creating value. Colgate (1998) and Ramarapu (1995) both highlight the importance of marketing information system technology in creating sustainable competitive advantage, with the latter proposing an integrative model for this purpose. Turner (1991) underscores the critical role of information in developing strategic marketing options, while Boar (1994) provides practical steps for aligning IT with business strategies. Kushwaha (2011) and Chuma (2020) both discuss the role of information and communication technology in achieving competitive advantage, with the former focusing on supply chain management practices and the latter on the role of marketing information systems in enhancing business firms' competitiveness.

The significance of information technology in building a competitive advantage through marketing and branding cannot be overstated. As businesses navigate the complexities of the digital age, the strategic integration of technology into their marketing and branding efforts will be a determinant factor in their ability to compete and thrive. This integration not only enables businesses to enhance their operational efficiency and customer engagement but also facilitates the development of innovative products and services that can redefine market standards and consumer expectations. Considering these considerations, this research aims to explore the multifaceted role of information technology integration in enhancing marketing and branding strategies. By examining the latest trends, challenges, and opportunities in the digital marketing landscape, the study seeks to provide insights into how businesses can effectively leverage technology to build a sustainable competitive advantage. Through a comprehensive analysis of theoretical frameworks and practical case studies, this research will contribute to the understanding of the strategic importance of information technology in shaping the future of marketing and branding management.

In conclusion, as the digital revolution continues to unfold, the integration of information technology into marketing and branding management strategies represents a critical pathway for businesses seeking to build and maintain a competitive edge. This research endeavors to shed light on the complexities and opportunities that this integration presents, with the goal of guiding businesses toward more effective and innovative practices in the digital age. This introduction aims to provide a foundation for a research paper on the integration of information technology in marketing and

branding management strategies, outlining the significance, opportunities, and challenges of this integration in the context of building a competitive advantage.

2. LITERATURE REVIEW PROCEDURE

The strategic integration of information technology (IT) in marketing and branding has been a focal point of academic and industry research due to its profound impact on building competitive advantage in the digital age. This literature review synthesizes key contributions and perspectives that explore the multifaceted relationship between IT integration and competitive strategy in marketing and branding management. At the outset, Porter's (1985) in (Madhani, 2010) generic strategies and the resource-based view (RBV) of the firm provide foundational frameworks for understanding competitive advantage. Porter emphasizes cost leadership, differentiation, and focus strategies, while the RBV (Barney & Arkan, 2005) suggests that firms can achieve sustainable competitive advantage through the unique combination of resources that are valuable, rare, inimitable, and non-substitutable (VRIN). In the context of IT integration, these theoretical frameworks underscore the potential for digital technologies to serve as critical resources and capabilities that enable differentiation and efficiency (Bharadwaj & Varadarajan, 2017). Recent studies have expanded on this foundation by specifically examining how digital marketing and branding strategies, powered by IT integration, facilitate competitive differentiation. Keller (2022) highlight the evolution of marketing from a transaction-based approach to one that emphasizes customer engagement and experiences, largely enabled by digital technologies. This shift necessitates a reevaluation of traditional marketing frameworks and introduces new dimensions to branding strategies, where digital touchpoints become central to the customer journey (Hennig-Thurau et al., 2013).

Empirical research has further explored the role of specific technologies in enhancing marketing and branding effectiveness. For instance, the use of data analytics and big data has been shown to significantly improve market segmentation and targeting, allowing firms to tailor their marketing efforts more precisely and to forecast trends with greater accuracy (Wedel & Kannan, 2016). Similarly, social media platforms offer unprecedented opportunities for brand engagement and storytelling, enabling firms to cultivate a stronger emotional connection with their audience (Tafesse, 2015). Moreover, emerging technologies like artificial intelligence (AI), augmented reality (AR), and blockchain are redefining the landscape of marketing and branding. AI and machine learning applications in customer relationship management and personalized marketing have demonstrated the potential to enhance customer satisfaction and loyalty (Huang & Sudhir, 2021). AR offers innovative ways for brands to engage customers by merging digital and physical experiences (Javornik, 2016), while blockchain technology presents new avenues for ensuring brand authenticity and trust (Dwivedi et al., 2022).

Despite these opportunities, integrating IT into marketing and branding strategies presents significant challenges. Issues related to data privacy, cybersecurity, and the digital skills gap pose barriers to effective implementation (Bélanger et al., 2017). Moreover, the fast-paced evolution of digital technologies necessitates continual learning and adaptation, which can strain organizational resources and capabilities (Verhoef et al., 2021). This body of literature underscores the strategic imperative of IT integration in marketing and branding for building competitive advantage. It reveals that while digital technologies offer powerful tools for differentiation and efficiency, their successful application depends on a firm's ability to navigate the associated challenges. Future research is called to further investigate the organizational and managerial factors that enable effective IT integration in marketing and branding, as well as the long-term impacts of digital transformation on competitive dynamics in various industries.

In conclusion, the integration of information technology in marketing and branding management strategies is a complex but critical endeavor for achieving competitive advantage in the digital era. The reviewed literature demonstrates the significant potential of digital technologies to transform marketing and branding practices, along with the challenges that firms must overcome to realize this potential. As this field continues to evolve, ongoing scholarly inquiry will be essential for deepening our

understanding of how IT integration can be leveraged to not only compete but thrive in the rapidly changing business landscape.

Table 1 synthesizes research on the intersection of information technology (IT) and marketing strategies across different periods, offering a panoramic view of the evolving landscape where IT underpins competitive advantage and marketing innovation. Starting with the work of Normada Devi Bheekhar and Upasana Singh in 2019, we see a focus on leveraging IT advancements in digital platforms for competitive marketing strategies, highlighting a gap in empirical evidence for digital marketing strategies' impacts. M. Colgate's 1998 study on banking further anchors the discourse in the practical application of marketing information system technology, revealing a sophistication gap in the UK and Irish banking sectors' marketing technology usage.

Narender K. Ramarapu and Augustine A. Lado's 1995 contributions double down on the importance of IT in global business strategy for competitive advantage, noting a lack of systematic exploration of IT dimensions and competitive advantage relationships. The analysis extends to various sectors and methodologies, such as P. Turner's 1991 insights into information's strategic marketing role and G. Kushwaha and M. Azad's 2011 exploration of ICT in supply chain management for SMEs, which points to specific ICT goals and financial resource allocation. Emerging themes include the critical role of integrating IT and marketing for organizational performance, as demonstrated by Kevin J. Trainor et al. in 2011, and the pressing issues in digital marketing transformation tackled by Hisham Noori Hussain et al. in 2023. These studies collectively underline a transition towards more nuanced, technology-driven competitive strategies yet consistently identify gaps in empirical evidence, practical implementation strategies, and the detailed analysis of IT's role in achieving sustained competitive advantage. In sum, table 1 reveals a trajectory from recognizing the potential of IT in enhancing marketing strategies to a nuanced understanding of its implementation challenges. It spans various industries and emphasizes the evolution from theoretical frameworks to the search for empirical evidence and practical implementation strategies. The consistent identification of research gaps across the board indicates a fertile ground for future inquiry, particularly in harnessing IT for strategic marketing innovation and competitive advantage.

3. CONCLUSION AND PROPOSITION

Based on the interpretation and narration of the previously discussed table, which examined the impact of Information Technology (IT) on marketing strategy and competitive advantage, several hypotheses can be formulated as follows:

Hypothesis 1: The utilization of information technology in marketing strategy significantly enhances an organization's competitive advantage.

Studies indicate that integrating information technology into marketing strategies potentially improves organizational performance by enhancing customer retention and satisfaction.

Hypothesis 2: The presence of robust empirical evidence regarding digital marketing strategies is positively correlated with an organization's competitive advantage.

The research gap concerning the lack of empirical evidence or real-life examples to support conceptual discussions on digital marketing strategies suggests a need for further research that can bolster competitive advantage.

Hypothesis 3: The size of an organization, previous implementation experience, and the sophistication level of marketing positively influence the success of marketing information system technology implementation.

Findings from studies highlight these factors as critical in the successful implementation of information technology to support marketing functions, particularly in the retail banking industry.

Hypothesis 4: The integration of technology, business, and human resources in e-Marketing significantly impacts customer retention and satisfaction, which in turn enhances company performance.

Research outcomes emphasize the importance of market and technology orientation in developing e-Marketing capabilities, which subsequently positively affects company performance.

Hypothesis 5: The adoption of Information and Communication Technology (ICT) enabled supply chain management practices is positively related to achieving competitive advantage for SMEs.

Research suggests that SMEs should set appropriate ICT goals, identify critical ICT needs, and allocate financial resources to achieve a competitive advantage.

Hypothesis 6: The lack of detailed analysis or empirical evidence regarding the challenges or best practices in implementing digital marketing transformation strategies and leading-edge technology is negatively related to a company's ability to leverage the competitive advantage of technological innovations.

The research gap on the lack of detailed analysis indicates a need for further investigation into identifying and addressing specific barriers in the application of digital marketing strategies.

These hypotheses are designed to test the relationship between information technology and marketing strategy with competitive advantage, based on identified gaps in the literature. Validating these hypotheses through empirical research could provide further insights into how organizations can leverage information technology to enhance marketing strategies and achieve sustainable competitive advantage with a good level of readability for academic purposes.

Table 1: Mapping Literature

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
Integrating Information Technology and Marketing for Better Customer Value	Normada Devi Bheekhar, Upasana Singh	2019	Marketers are using information technology know-how as a stepping stone to remain competitive.	The main findings of the paper are the impact of technology advancements on digital platforms, the importance of business analytics in understanding customer demand, and the use of information technology by marketers to stay competitive.	The "state of the art" in Normada Devi Bheekhar, Upasana Singh (2019) is the impact of technology advancements on digital platforms, the importance of understanding customer behavior, and the specific influence of social media, big data, and big data analytics.	The research gap in the paper is the lack of empirical evidence or real-world examples to support the conceptual discussions on digital marketing strategies and their impact on organizational competitive advantage.
Creating sustainable competitive advantage through marketing information system technology: a triangulation methodology within the banking industry	M. Colgate	1998	Marketing information system technology can leverage sustainable competitive advantage ahead of other marketing technologies which bank management have implemented or are thinking of implementing.	The main findings of the paper are: - Retail banks have utilized information technology to support the marketing function in order to create a sustainable competitive advantage. - Marketing sophistication, organizational size, and previous implementation experience are critical factors in the successful implementation of	The "state of the art" in M. Colgate (1998) is the utilization of information technology to support the marketing function in retail banking industries, with a focus on marketing information system technology and its potential to create a sustainable competitive advantage. The paper also highlights the low levels of sophistication in the current use of this technology in the UK and Irish retail banking industries. It emphasizes	The research gap is the low level of sophistication in the current use of marketing information system technology in the UK and Irish retail banking industries.

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
				marketing information system technology.	the critical factors for successful implementation, including marketing sophistication, organizational size, and previous implementation experience.	
Linking information technology to global business strategy to gain competitive advantage: an integrative model	Narender K. Ramarapu, Augustine A. Lado	1995	The contingent relationships between salient dimensions of an information technology and key sources of competitive advantage have not been systematically explicated and discussed in the literature.	The paper systematically examines the links among global business strategies, global information technologies (GIT), and competitive advantage within an integrative framework. The proposed conceptual model provides a comprehensive framework for future research on the potential of global information technology to generate competitive advantage for firms.	The "state of the art" in Narender K. Ramarapu, Augustine A. Lado (1995) is the critical importance of information technology in supporting global business strategy, the lack of systematic exploration of the relationships between information technology dimensions and competitive advantage, and the proposed framework for future research on global information technology and its potential to generate competitive advantage for firms.	The research gap is the lack of systematic explication of the contingent relationships between dimensions of information technology and key sources of competitive advantage, as well as the absence of detailed analysis of the specific relationships between IT and competitive advantage.
Linking information technology to global business strategy to gain	Narender K. Ramarapu, Augustine A. Lado	1995	The contingent relationships between salient dimensions of an	The paper systematically examines the links among global business	The "state of the art" in this paper is the acknowledgment of the	The research gap is the lack of systematic explication of the

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competitive advantage: an integrative model			information technology and key sources of competitive advantage have not been systematically explicated and discussed in the literature.	strategies, global information technologies (GIT), and competitive advantage within an integrative framework. The proposed conceptual model provides a comprehensive framework for future research on the potential of global information technology to generate competitive advantage for firms.	critical importance of information technology in supporting global business strategy, the lack of systematic exploration of the relationships between different dimensions of information technology and competitive advantage, and the proposal for an integrative framework to examine these links. The paper also addresses the sustainability of GIT-based competitive advantages and aims to provide a comprehensive framework for future research in this area.	contingent relationships between dimensions of information technology and competitive advantage, as well as the prevalence of a universal view of the role of information technology in developing competitive advantage.
Using Information to Enhance Competitive Advantage –The Marketing Options	P. Turner	1991	The effective sourcing and management of information is critical in the search for a winning business strategy.	The main findings are: - Effective sourcing and management of information from environmental and market analysis is critical for developing a winning business strategy.	The "state of the art" in P. Turner (1991) emphasizes the critical role of effective sourcing and management of information in developing a successful business strategy, including securing information from environmental and	-

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
				<ul style="list-style-type: none"> - Well-managed information streams are important in all aspects of the marketing mix and market selection. - Information enables a company to decide on an effective supply posture to meet market demand opportunities. 	market analysis, aligning it with the company's competitive advantage, and using it to make strategic marketing decisions. Information is also highlighted as crucial for making supply posture decisions to meet market demand opportunities.	
Practical Steps for Aligning Information Technology with Business Strategies: How to Achieve a Competitive Advantage	B. Boar	1994	The integration of information technology in marketing and brand management strategies can achieve a competitive advantage.	-	-	-
Competitive Advantage Through Information and Communication Technology (Ict) Enabled Supply Chain Management Practices	G. Kushwaha, M. Azad	2011	Information and communication technology provides so many options and avenues to take advantage of in a way that big business just can't or doesn't see value in.	<p>The main findings of the paper are:</p> <ul style="list-style-type: none"> - The paper suggests that SMEs should establish appropriate ICT goals, identify critical ICT needs, and allocate financial resources to achieve competitive advantages. 	The "state of the art" in G. Kushwaha, M. Azad (2011) is the role of ICT-enabled Supply Chain Management practices in achieving competitive advantage for SMEs, as well as the importance of establishing appropriate ICT goals and allocating financial resources to achieve competitive advantages.	-

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
The Role of Marketing Information Systems on Business Firms Competitiveness: Integrated Review Paper from Business Perspective	Legesse Lemma Chuma	2020	Information systems support business decision-making and enhance firms' competitiveness.	The main findings of the paper are the crucial role of information systems in providing competitive advantage to business organizations and the potential for effective implementation and utilization of business information systems to lead to strategic advantage and enhance organizational competitiveness.	The state of the art in Legesse Lemma Chuma (2020) is the significance of information systems in enhancing organizational competitiveness and achieving strategic advantage.	The paper does not explicitly identify a research gap, as it primarily focuses on the importance and role of information systems in business organizations. Therefore, the research gap is not mentioned in the paper.
Building a competitive advantage through information technology	Colin Jackson	1989	The majority of executives are uncertain.	-	The paper discusses the combination of "Competitive Advantage" and "Information Technology" as a new way of outperforming competitors. It also mentions that some executives are uncertain about this combination and its effectiveness. The paper aims to examine strategy concepts that work best in practice and how a company can best organize for competitive	The research gap in Colin Jackson (1989) is the lack of clear guidance or evidence on which strategy concepts work best in practice and how a company can best organize for competitive advantage through information technology.

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					advantage through information technology.	
Integrating information technology and marketing: An examination of the drivers and outcomes of e-Marketing capability	Kevin J. Trainor, Adam Rapp, Lauren Skinner Beitelspacher, Niels Schillewaert	2011	The complementary resources that are needed to successfully implement IT-enabled marketing initiatives are important.	<p>The main findings of the paper are:</p> <ul style="list-style-type: none"> - The integration of technology, business, and human resources positively influences firm performance in e-Marketing. - Market and technology orientation leads to e-Marketing capability, which in turn improves customer retention and satisfaction, positively influencing firm performance. - Successful implementation of IT-enabled marketing initiatives requires attention to complementary resources, not just technology alone. 	<p>The "state of the art" in Kevin J. Trainor, Adam Rapp, Lauren Skinner Beitelspacher, Niels Schillewaert (2011) is the integration of complementary technology, business, and human resources in e-Marketing, which positively influences firm performance by improving customer retention and satisfaction. The paper emphasizes the importance of market and technology orientation in developing e-Marketing capability and suggests that a focus on technology alone may not be sufficient.</p>	<p>The research gap in this paper is the need for further investigation into the specific complementary resources and their integration required for successful IT-enabled marketing initiatives. The paper suggests that while the importance of these resources is highlighted, there is a lack of detailed exploration into the specific components and their interplay.</p>
Implementing Technology for Competitive Advantage in Digital Marketing	Hisham Noori Hussain, Tariq Tawfeeq Yousif Alabdullah, E. Ahmed, Kanaan Abdulkarim M. Jamal	2023	Organizations may successfully navigate the digital terrain, improve consumer experiences, and	- The significance of creating solid digital marketing plans covering various platforms	The paper provides a comprehensive analysis of the current state of digital marketing transformation, including	The research gap in this paper is the lack of detailed analysis or empirical evidence on the specific challenges

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			promote sustainable growth in the contemporary marketplace by implementing cutting-edge methods.	<ul style="list-style-type: none"> - Advocacy for the use of data-driven insights, agile methodologies, and financial investments in digital skills - Highlighting pressing issues in digital marketing transformation and the prospective effects of cutting-edge technology on digital marketing and companies 	recent technology developments, implementation tactics, and pressing issues that businesses must address. It also discusses the prospective effects of cutting-edge technology on digital marketing and companies.	or best practices in implementing digital marketing transformation strategies and cutting-edge technologies such as blockchain, augmented reality, and virtual reality.
Information Technology Implementation Strategies for Manufacturing Organizations: A Strategic Alignment Approach	Chin-Fu Ho	1996	Information technology can assist manufacturing firms in developing their strategic roles.	The paper discusses the role of information technology in providing a competitive advantage for manufacturing firms, introduces a strategic alignment model, and examines the implementation of information technology through cross-domain alignment.	The "state of the art" in Chin-Fu Ho (1996) is the discussion of the contribution of information technology in manufacturing firms, the introduction of a strategic alignment model, and the examination of MRP and JIT implementation in relation to this model.	-
Information Strategy as Enabler of Competitive Advantage	N. Baporikar	2014	Information strategies need to be designed and implemented in a comprehensive manner so that organizations	The main findings are: <ul style="list-style-type: none"> - Continuous technological improvement creates high business pressures 	The paper discusses the importance of gaining competitive advantage, the crucial role of information, and the need for comprehensive	The research gap is not explicitly stated, but it may lie in the specific strategies or approaches for organizations to effectively utilize

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			derive competitive advantage.	affecting organizations' competitiveness. - Competitive advantage is crucial for organizations' success. - The quality and reliability of information are critical for the excellence of decisions and organizational success.	information strategies. It also outlines the areas that will be covered in the review, including competitive forces, competitive information systems strategies, value chain, business ecosystems, and innovation strategy.	information for gaining competitive advantage.
Integrating Information Technology into the Marketing Curriculum: A Pragmatic Paradigm	R. Benbunan-Fich, Héctor R. Lozada, Stephen F. Pirog, Joseph Z. Wisenblit, R. Priluck	2001	Marketing educators can use this paradigm to promote more efficient teaching and better learning.	The main findings of the paper include a framework for integrating IT into the marketing curriculum, the proposal of five technological modules for integration, and practical guidelines for the application of IT in teaching and learning.	The state of the art in R. Benbunan-Fich, Héctor R. Lozada, Stephen F. Pirog, Joseph Z. Wisenblit, R. Priluck (2001) is the proposed framework for integrating information technology into the marketing curriculum through five technological modules, aiming to promote more efficient teaching, better learning, and better preparation of students to manage and use IT in their professional careers.	-
Review of Information Technology Effect on	Poolad Daneshvar, H. Ramesh	2010	IT as a competitive weapon has become a popular instrument to	The main findings of the paper are the popular use of IT as a	The paper discusses the special effects, benefits, and implications of	The research gap in Poolad Daneshvar, H. Ramesh (2010) is the

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Competitive Advantage- Strategic Perspective			influence on a particular organization's performance.	competitive weapon to influence organizational performance and processes, and the importance of aligning IT/IS and business strategies for formulating organizational strategies.	Information Technology (IT) in business performance, as well as its capacity in building sustainable competitive advantages. It also emphasizes the importance of understanding the impact of information technology on competitive strategy and the alignment of IT/IS and business strategies as key issues for managers to formulate organizational business and IT/IS strategies.	understanding of the impact of information technology on competitive strategy and the alignment of IT/IS and business strategies.
Achieving the competitive edge through integrated technology management	G. Gaynor	1991	The practice of managing technology is a reality for businesses starting the transition to technology management.	-	The "state of the art" in G. Gaynor (1991) revolves around understanding and managing technology, confronting current managerial practices, and linking people, structure, and culture in the context of business.	-
Creating Competitive Advantage with Interorganizational Information Systems	H. R. Johnston, M. Vitale	1988	The ideas do not constitute a procedure leading inexorably to competitive advantage.	The paper discusses the use of information technology for competitive advantage,	The "state of the art" in H. R. Johnston, M. Vitale (1988) is the use of information technology	The research gap in H. R. Johnston, M. Vitale (1988) is the lack of a clear procedure or



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				the declining costs of capturing and using information, and provides a framework to guide the search for opportunities in using information for competitive advantage.	for competitive advantage, innovations in creating value through information, and the generation of classifications and frameworks for identifying opportunities. The paper also emphasizes the importance of understanding specific industry dynamics and the power of information.	framework that guarantees competitive advantage through the use of information technology. The paper acknowledges that the ideas presented do not lead inexorably to competitive advantage and must be combined with an understanding of specific industries and the power of information.
The impact of Information Technology on the development of Supply Chain Competitive Advantage	Catherine Marinagi, Panagiotis Trivellas, Damianos P. Sakas	2014	Companies must exploit IT including enterprise applications such as ERP and CRM.	Competitive advantage is based on organizational capabilities that differentiate it from competitors. Re-evaluating enterprise business models is necessary for gaining supply chain efficiencies. IT practices and techniques play a crucial role in establishing a sustainable competitive advantage based on	The "state of the art" in Catherine Marinagi, Panagiotis Trivellas, Damianos P. Sakas (2014) is the crucial role of IT practices and techniques in establishing a sustainable competitive advantage based on Supply Chain Management, as confirmed by empirical findings from a survey of 76 manufacturing firms in Greece. The paper also emphasizes the need for organizations to re-	The research gap is the lack of specific focus on the potential challenges or limitations of implementing IT practices and techniques for supply chain management in the context of the changing economic environment and global competition.

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
				Supply Chain Management.	evaluate their enterprise business model to gain supply chain efficiencies in the changing economic environment and fiercer global competition.	
Research on the Application of Computer and Information Technology in Brand Management	Yunzhu Yu	2020	The application of computer and information technology in brand management will become more important in the future.	The main findings include the impact of computer and information technology on brand management, the increasing importance of technology in brand management, and the future focus on improving empathy, experience, and efficiency through technology.	The state of the art in Yunzhu Yu (2020) is the application of computer and information technology, including AI and big data, in brand management. It has brought changes in terms of accuracy, personality, experiences, and efficiency to brand management, helping enterprises make more scientific brand management decisions and providing better brand experiences to consumers. The author also emphasizes the increasing importance of computer and information technology in brand management and suggests a focus on improving empathy, experience, and efficiency.	The research gap is the lack of specific strategies or methodologies for leveraging computer and information technology to improve empathy, experience, and efficiency in brand management.

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Corporate strategies for information technology: a resource-based approach	E. Clemons	1991	Innovations can confer advantage if they leverage resources available to the innovator or to the innovator's cooperating group but not to competitors.	<p>The main findings of the paper are:</p> <ul style="list-style-type: none"> - Gaining and defending competitive advantage through innovative use of information technology has proved to be difficult. - The paper surveys the principle lines of research in strategic and competitive information systems. - The conclusion is that innovations can confer advantage if they leverage resources available to the innovator or to the innovator's cooperating group but not to competitors. 	The "state of the art" in E. Clemons (1991) is the difficulty of gaining and defending competitive advantage through innovative use of information technology, and the conditions under which innovations can confer advantage.	The research gap is in understanding how to effectively leverage resources through innovative use of information technology to gain and defend competitive advantage, especially in a way that is not easily replicable by competitors.
Marketing in an Information-Intensive Environment: Strategic Implications of Knowledge as an Asset	Rashi Glazer	1991	Firms can be described in terms of their relative levels of "information intensity" in marketing contexts.	The paper presents a framework for understanding the impact of information and information technology on marketing, introduces the concept of "information intensity,"	The "state of the art" in Rashi Glazer (1991) is a framework for understanding the impact of information and information technology on marketing, including the operationalization of the value of information	-

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				and illustrates the concepts with transaction-based information systems implemented by firms.	in marketing contexts and its consequences for firm strategy and organizational structure. It also discusses transaction-based information systems implemented by firms for competitive advantage.	
The role of integrative technology in competitiveness	James G. Lollar, H. Beheshti, Brenton J. Whitlow	2010	Firms are implementing new technologies such as enterprise resource planning and radio frequency identification to reduce the cost of doing business by improving operational efficiencies.	The main findings of the paper are the necessity for corporations to utilize various information and communications technologies to coordinate and control global operations, as well as the importance of implementing new technologies such as ERP, ERP II, and radio frequency identification to reduce costs, improve operational efficiencies, and establish better relationships with business partners.	The "state of the art" in the paper involves the necessity for corporations to utilize various information and communications technologies to coordinate and control global operations, along with the implementation of new technologies such as ERP, ERP II, and radio frequency identification to improve operational efficiencies and establish better relationships with business partners.	The paper does not explicitly mention a research gap in the current literature.
Marketing and Technology: A Strategic Coalignment	N. Capon, Rashi Glazer	1987	The technology portfolio serves both as a model for	The main findings are the integration of technology and	The "state of the art" in N. Capon, Rashi Glazer (1987) is the integration	-

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
			technological resource allocation and as an aid in choosing an optimal set of technologies from a set of feasible alternatives.	marketing strategy for corporate success, the implications of technological change for firm behavior, and the proposal of a framework for developing a technology strategy and introducing the technology portfolio.	of technology and marketing strategy as key elements affecting corporate success, along with the implications of technological change for firm behavior. The paper also presents a framework for developing a technology strategy and introduces the technology portfolio as a model for technological resource allocation and aids in choosing an optimal set of technologies from feasible alternatives.	
Linking Information Technology and Corporate Strategy: an Organizational View	M. Vitale, B. Ives, C. Beath	1986	A second approach appears to offer potential value for the identification of competitive applications in organizations facing considerable environmental turbulence or in which senior strategists are relatively uninformed about information system resources.	The main findings of the paper are: - Focus on using information technology for competitive advantage - Potential problems of the "top-down" approach and proposal of an "adaptive" approach - Proliferation of information technology	The state of the art in M. Vitale, B. Ives, C. Beath (1986) includes a focus on using information technology for competitive advantage, contrasting the "top-down" and "adaptive" approaches for identifying competitive applications, and the rapid growth of information technology use in American business.	The research gap is the lack of practical guidance on implementing the adaptive approach for identifying competitive applications in organizations.

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
				applications beyond corporate boundaries		
Technological Factors to Improve Performance of Marketing Strategy	Sultan Alghamdi, C. Bach	2014	Technology has a positive impact on marketing strategy where it is integrated with marketing elements of positioning, selection of target segments, segmenting the market, understanding consumer behavior, managing sales, managing marketing campaigns, and understanding the market.	Technology has significantly changed global interactions and has a positive impact on marketing strategy when integrated with various marketing elements.	The "state of the art" in Sultan Alghamdi, C. Bach (2014) is the significant and positive impact of technology on marketing strategy, including collaboration, innovation, business operations, and competition. The paper also emphasizes the integration of technology with various marketing elements.	The research gap is not explicitly mentioned, but it could be inferred that the paper does not address potential challenges or negative impacts of technology on marketing strategy, and lacks specific practical implications or real-world examples of the theoretical modeling discussed.
Information technology as competitive advantage: the role of human	T. C. Powell, Anne Dent-Micallef	1997	ITs alone have not produced sustainable performance advantages in the retail industry.	The main findings of the paper are: - The existing IT literature heavily relies on case studies, anecdotes, and consultants' frameworks, with little solid empirical work or synthesis of findings. - ITs alone have not produced sustainable performance advantages	The "state of the art" in T. C. Powell, Anne Dent-Micallef (1997) is the investigation of linkages between information technology (IT) and firm performance, the development of an integrative, resource-based theoretical framework, and the presentation of results from a new empirical study in the	-

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
				in the retail industry, but some firms have gained advantages by using ITs to leverage intangible, complementary human and business resources. - The results support the resource-based approach and help to explain why some firms outperform others using the same ITs and why successful IT users often fail to sustain IT-based competitive advantages.	retail industry. The findings suggest that ITs alone have not produced sustainable performance advantages in the retail industry, but some firms have gained advantages by using ITs to leverage intangible, complementary human and business resources. The paper supports the resource-based approach and provides insights into why some firms outperform others using the same ITs and why successful IT users often fail to sustain IT-based competitive advantages.	
Toward creating competitive advantage with logistics information technology	Benjamin T. Hazen, T. Byrd	2012	Successfully implementing and exploiting the right information technologies is critical to maintaining competitiveness in today's supply chain.	The main findings of the paper suggest that successful implementation of information technologies is crucial for supply chain competitiveness, but this requires combining these technologies with additional	The "state of the art" in Benjamin T. Hazen, T. Byrd (2012) emphasizes the critical nature of implementing and exploiting the right information technologies for maintaining competitiveness in the supply chain, and the need to combine these	The research gap is the need for further investigation into the specific types and characteristics of complimentary resources that can enhance the performance outcomes of LIT adoption, as well as the nuances of

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				complimentary resources. Additionally, combining logistics information technology with positive buyer-supplier relationships may lead to organizations achieving competitive advantage.	technologies with additional complimentary resources to induce competitiveness. The study investigates the performance outcomes of logistics information technology (LIT) adoption and its proposed moderating effect of a complimentary resource, particularly positive buyer-supplier relationships, to achieve competitive advantage.	buyer-supplier relationships and their moderating effects on LIT adoption outcomes.
Factors facilitating the use of Information Technology for competitive advantage: An exploratory study	Boon-Siong Neo	1988	Understanding potential strategic processes may lead to greater IT utilization.	<p>The main findings are:</p> <ul style="list-style-type: none"> - The use of information technology for competitive advantage is often driven by threatening external events. - Competitive pressure is not a key factor motivating strategic uses of IT. - Understanding potential strategic processes may lead to greater IT utilization. 	The "state of the art" in Boon-Siong Neo (1988) suggests that the use of information technology for competitive advantage is often driven by threatening external events, challenges the traditional view on competitive pressure as a key motivator for strategic uses of IT, and emphasizes the importance of understanding potential strategic processes, as well	The research gap is the lack of support for the literature's assertions about competitive pressure as a key factor motivating strategic uses of IT, and the potential strategic processes that may lead to greater IT utilization.

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
				- Customer needs and management support are important factors facilitating the use of IT for competitive advantage.	as customer needs and management support in utilizing IT for competitive advantage.	
Information Technology Strategies: How Leading Firms Use IT to Gain an Advantage	W. Rapp	2002	Leading firms use IT to gain an advantage.	-	The "state of the art" in W. Rapp (2002) involves a strategic framework for using IT, managing information technology, advanced strategy, and convergence, competition, evolution in various industries. It also includes case studies of companies in different sectors and concludes with a chapter on gaining a leading edge or leaving a bleeding tail.	-
Integration of the Management Information System for Competitive Positioning	Nelson Sizwe Madonsela	2020	Manufacturers in the developing world struggle to create knowledge and practice-based management information systems that will allow them to operate competitively in the global market.	Manufacturers in the developing world struggle to create knowledge and practice-based management information systems for global competitiveness. The integration of organizational information systems is	The "state of the art" in Nelson Sizwe Madonsela (2020) is the need for an integrated management information system that incorporates management practices based on research, knowledge management, and organizational learning	The research gap is the lack of specific guidance or examples on how developing world manufacturers can practically integrate research, knowledge management, and organizational learning into their management

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				crucial for competitive positioning, as evidenced by the case study of a manufacturing company in Sub-Saharan Africa. An integrated management information system incorporating research-based management practices, knowledge management, and organizational learning and capabilities is necessary for addressing these challenges.	and capabilities to address the challenges faced by manufacturers in the developing world in operating competitively in the global market.	information systems to enhance competitiveness.
Information Technology for Management: Making Connections for Strategic Advantage	E. Turban, J. Wetherbe, E. McLean	2000	The authors explain why IT plays an essential role in any organization's success.	The main findings of the paper include the emphasis on the importance of IT in organizational success, the use of real-world examples to illustrate concepts, and the opportunity to apply theoretical concepts through the Web-based Virtual Company project.	The "state of the art" in E. Turban, J. Wetherbe, E. McLean (2000) emphasizes the essential role of information technology in organizational success, with a focus on using IT for strategic advantage, problem-solving, productivity improvement, quality enhancement, customer service improvement, and	-

Title	Authors	Year	Abstract Summary	Main Findings	State of the Art	Research Gap
					business process reengineering. Real-world examples and a Web-based Virtual Company project are used to illustrate concepts.	
Types of Information Technology Capabilities and Their Role in Competitive Advantage	D BhattGanesh, GroverVarun	2005	Both business managers and academic researchers have shown interest in understanding how information technologies help to create competitive advantage over the past two decades.	The study provides a comprehensive review of the literature on the impact of IT on competitive advantage, focusing on the resource-based view (RBV) and the knowledge-based view (KBV) of the firm. The findings suggest that IT can contribute to competitive advantage by enabling firms to develop and leverage valuable resources and capabilities, as well as by facilitating knowledge creation, sharing, and application.	The "state of the art" in the paper is the focus on understanding how information technologies (IT) help to create competitive advantage among business managers and academic researchers.	The research gap in D BhattGanesh, GroverVarun (2005) is not explicitly mentioned, but the passage suggests a need for further research to build on the existing knowledge and address any gaps in understanding.

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