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# Designing an Ambidextrous Marketing Model with an Approach to Domestic Market Development in Rail Freight Transportation

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## Abstract

Rail transportation, due to advantages such as reducing fuel consumption, increasing safety, and lowering pollution, is one of the key instruments for sustainable development. However, in Iran, this industry has not sufficiently developed due to factors such as infrastructure deterioration and the lack of application of modern marketing approaches. The present study was conducted with the aim of designing an ambidextrous marketing model for the development of the domestic rail freight market. This study employed a mixed-methods research design, combining qualitative and quantitative approaches. In the qualitative phase, data were collected through semi-structured in-depth interviews with rail transportation industry experts and analyzed using grounded theory. In the quantitative phase, data were collected using a five-point Likert-scale questionnaire and analyzed through structural equation modeling (SEM). Data analysis showed that technological factors, organizational and managerial characteristics, and service speed were identified as key causal conditions for ambidextrous marketing. Value creation and knowledge management strategies played a significant mediating role in achieving financial and social outcomes. It was confirmed that ambidextrous marketing can establish a balance between exploiting existing capabilities and exploring new opportunities, ultimately leading to improved organizational performance. The study demonstrated that designing and implementing an ambidextrous marketing model can contribute to the development of the domestic rail freight market and enhance the competitiveness of this industry. This model, with an emphasis on balancing exploration and exploitation, provides a comprehensive approach for improving the financial and social performance of organizations. The use of advanced technologies, organizational learning, and customer-oriented culture are among the influential factors in the success of this model.

**Keywords:** Rail transportation, ambidextrous marketing, sustainable development, structural equation modeling, value creation, knowledge management

## 1. Introduction

In today's turbulent and unpredictable economic and organizational landscape, the role of social capital and organizational resilience in fostering sustainability, innovation, and competitiveness has become increasingly significant. Organizations across industries, especially within startup ecosystems in the financial sector, face unprecedented challenges such as technological disruption, rapid globalization, market volatility, and sociopolitical instability. In this context, the ability to adapt, recover, and



innovate in response to crises relies heavily on the social fabric that connects individuals and institutions, as well as the structural mechanisms that enable collective action (Marzouk & Jin, 2023). Social capital, defined as the networks of relationships, shared norms, and trust that facilitate coordination and cooperation, has emerged as a pivotal factor that underpins resilience at both organizational and societal levels (Hashavia-Tzuri et al., 2024).

The interplay between social capital and organizational resilience is particularly salient in knowledge-intensive and innovation-driven environments. The financial startup ecosystem exemplifies such a context, where firms are simultaneously exposed to high risk and reliant on rapid adaptability. As Li, Cheng, and Lu (Li et al., 2024) argue, organizational resilience is not merely the outcome of internal capabilities but is significantly shaped by information technology capabilities and the mediating role of social capital. By strengthening collaborative networks and trust-based relationships, organizations can transform digital resources into resilience capacities that help them withstand crises and maintain continuity. This highlights the dual role of social capital as both a resource in itself and as a mediator that enhances the effectiveness of other organizational assets.

Recent studies have sought to contextualize social capital in diverse organizational settings, ranging from universities to public institutions, as well as private enterprises. For instance, Taheri Goudarzi, Barani Biranvand, and Zandieh (Taheri Goudarzi et al., 2024) explored how holographic organizational models can facilitate the formation of social capital within academic institutions, underlining the importance of structural and cultural mechanisms in embedding resilience. Similarly, Fathi Chegeni (Fathi Chegeni, 2024) examined the mediating role of social capital in curbing deviant behaviors in government organizations, suggesting that resilient and trust-based networks are crucial for promoting ethical behavior and stability. These insights reinforce the idea that resilience is not solely a structural or procedural outcome, but also a deeply social and relational phenomenon.

The integration of social capital into resilience-building processes has also been emphasized in global contexts. Tanner, Prayag, and Coelho Kuntz (Tanner et al., 2022) proposed the “Herringbone Model,” which demonstrates the intertwined relationships between psychological capital, social capital, and organizational resilience. Their findings underscore that resilience cannot be achieved without addressing both individual-level psychological resources and collective relational mechanisms. Wulandhari et al. (Wulandhari et al., 2022) further support this by exploring how social capital mechanisms contribute to cooperative resilience in organizations, showing that shared norms and trust can buffer the effects of external shocks and foster long-term collaboration.

The application of social capital to innovation and entrepreneurship is another crucial dimension relevant to financial startup ecosystems. Xi et al. (Xi et al., 2022) found that social capital has a direct influence on crowdfunding performance, highlighting its role in mobilizing resources and enhancing trust between entrepreneurs and investors. This resonates with findings by Zhang and Wu (Zhang & Wu, 2023), who demonstrated that social capital, combined with dynamic capabilities, significantly influences the performance of farmer cooperatives, a context that parallels the collective and network-driven nature of startups. Together, these studies illustrate the critical importance of social capital in contexts characterized by uncertainty, resource constraints, and the need for innovation.

In addition to its role in resilience and innovation, social capital is deeply tied to employee behavior, loyalty, and career satisfaction. Agnihotri, Shiva, and Kalia (Agnihotri et al., 2024) revealed how organizational social capital, university image, and perceived employability jointly shape the career satisfaction of IT professionals, suggesting that social capital fosters individual growth alongside organizational success. Similarly, Al-Twal, Alawamleh, and Jarrar (Al-Twal et al., 2024) highlighted the role of “Wasta” social capital in enhancing employee loyalty and innovation in organizational contexts within the Middle East. Their study demonstrates the cultural embeddedness of social capital and its varying manifestations across societies. Likewise, Alipio et al. (Alipio et al., 2024) showed that servant and collaborative leadership in tourism organizations significantly affects performance through the mediation of social capital, emphasizing leadership’s role in building resilient relational networks.

Research has also illuminated the dark side of organizational life and how social capital may mitigate adverse outcomes. Ak et al. (Ak et al., 2024) examined the mediating effect of organizational socialization in the relationship between social capital



and organizational dissent, showing that stronger social capital enables constructive dissent while reducing harmful conflict. This perspective is crucial in startup ecosystems, where rapid decision-making and constant change can exacerbate tensions among stakeholders. Meanwhile, Ghanbari Ghaleroudkhani et al. (Ghanbari Ghaleroudkhani et al., 2023) studied managers' behaviors in reducing psychological challenges during crises, underlining the importance of social capital as a psychological buffer that fosters employee well-being and collective resilience.

Page | 3 The relationship between social and organizational dimensions of capital has also received scholarly attention. Hashavia-Tzuri, Vigoda-Gadot, and Hefetz (Hashavia-Tzuri et al., 2024) demonstrated empirically that organizational social capital is closely linked with communal social capital, suggesting that organizations cannot be isolated from their broader social environment. Similarly, Ilukena, Chowa, and Haabazoka (Ilukena et al., 2024) investigated relational, structural, and human capital as determinants of performance in insurance brokers in Zambia, further evidencing the interplay between social structures and organizational outcomes. These findings suggest that resilience in financial startups cannot be separated from the wider ecosystem in which they operate.

The methodological dimension of studying resilience and social capital has also been enriched through system dynamics approaches. Jadeja et al. (Jadeja et al., 2022) conducted a systematic review of system dynamics modeling to assess the efficiency of public sector innovations, highlighting how feedback loops and dynamic interactions shape organizational resilience. Mishchuk et al. (Mishchuk et al., 2022) expanded on this by analyzing the factors of social capital that foster sustainable competitiveness in enterprises, showing that resilience and competitiveness are mutually reinforcing outcomes of robust social networks. These contributions are particularly relevant for analyzing startup ecosystems where systemic interdependencies and dynamic processes define success or failure.

Digitalization and marketing perspectives also contribute to the discourse. Alizadeh and Ghasemi (Alizadeh & Ghasemi, 2023) explored how tourist preferences influence hotel industry competitiveness, implicitly pointing to the role of social capital in shaping consumer trust and loyalty. In a subsequent study, Alizadeh et al. (Alizadeh et al., 2024) employed grounded theory to propose digital marketing strategies based on customer experience, showing that customer-centric networks function as an extension of social capital in the digital age. These findings have important implications for startups in financial ecosystems that increasingly rely on digital trust and engagement to survive.

Finally, the interconnectedness of organizational culture, knowledge management, and social capital has been examined in several contexts. Jorfi (Jorfi, 2024) demonstrated that organizational culture has a significant impact on social capital, mediated by knowledge management practices. This reinforces the idea that knowledge flows, cultural alignment, and trust-based relationships jointly build the foundation for organizational resilience. Similarly, Marzouk and Jin (Marzouk & Jin, 2023) provided an integrative framework connecting environmental scanning and resilience, aligned with organizational information processing theory, thereby situating social capital within broader strategic processes of adaptation and learning.

Taken together, these scholarly contributions provide a comprehensive view of how social capital functions as a critical enabler of resilience, innovation, and sustainability across industries and geographies. Within the context of financial startup ecosystems, these insights underscore the necessity of cultivating strong relational networks, trust, and collaborative mechanisms to withstand crises, manage uncertainty, and foster long-term growth. By integrating perspectives from leadership, organizational behavior, digital transformation, system dynamics, and cross-cultural studies, the present study positions social capital not only as a relational asset but also as a strategic resource that underpins organizational resilience and competitive advantage.

## 2. Methods and Materials

This study employed a mixed-methods approach, combining qualitative and quantitative methods, to design and validate a comprehensive ambidextrous marketing model for the development of the domestic rail freight market. This approach, by integrating the advantages of both methods, enables a deeper and more precise examination of the relationships among variables.

In the qualitative phase, grounded theory methodology was applied. Data were collected through semi-structured interviews with 15 experts in the rail transportation industry. These individuals included managers, specialists, investors, and researchers



in this field, selected based on criteria such as work experience, relevant academic background, managerial expertise, and research achievements. Qualitative data analysis was conducted through open, axial, and selective coding. The extracted paradigm model included causal conditions, contextual conditions, intervening factors, strategies, and consequences. This model demonstrated that creating a balance between exploiting existing capacities and exploring new opportunities can enhance marketing performance in this industry.

In the quantitative phase, data were gathered through a five-point Likert-scale questionnaire designed based on the findings of the qualitative stage. The statistical population of the study consisted of 107 Iranian rail transportation companies in six different categories. Stratified random sampling was applied, and the sample size was determined using Cochran's formula. To ensure an adequate number of responses, 200 questionnaires were distributed, resulting in 169 valid responses.

For data analysis, grounded theory was used in the qualitative phase, while structural equation modeling (SEM) using SmartPLS software was applied in the quantitative phase. This method enabled examination of causal relationships among variables and contributed to validating the proposed model. The findings indicated that ambidextrous marketing, through balancing innovation and the exploitation of existing resources, can improve financial performance and contribute to the development of the domestic rail freight market.

This study was conducted using a mixed-methods approach, combining qualitative and quantitative methods, to design and validate a comprehensive ambidextrous marketing model for the development of the domestic rail freight market. The mixed-methods approach allowed for deeper exploration of phenomena and the testing of relationships among variables.

In the qualitative phase, grounded theory methodology was used. Data were collected through semi-structured interviews with 15 experts in the rail transportation industry, including managers, marketing specialists, and researchers. Purposeful sampling was employed, and the data were analyzed through open, axial, and selective coding. In this process, initial concepts were extracted from interview transcripts and organized into categories, which ultimately led to the design of a paradigm model of ambidextrous marketing. This model included causal conditions (such as technology and organizational characteristics), contextual conditions (such as human capital and organizational culture), intervening factors (such as competition and organizational structure), strategies (such as value creation and knowledge management), and outcomes (financial and social).

In the quantitative phase, a questionnaire was designed based on the qualitative findings and distributed among 107 rail transportation companies. Stratified sampling was employed, and a total of 169 valid questionnaires were collected. The questionnaire included items related to the main and sub-variables of the model and was structured using a five-point Likert scale.

The results indicated that ambidextrous marketing encompasses aspects such as marketing innovation, competitive strategies, organizational knowledge, and strategic planning, which contribute to balancing the exploitation of existing capabilities and the discovery of new opportunities. Domestic market development requires an understanding of customer needs, introduction of new services, use of digital tools, and promotion of customer-oriented culture. The causal conditions of the model included technological factors such as access to advanced technologies and organizational characteristics such as flexible structure and organizational learning. Marketing strategies emphasized value creation through appropriate pricing, eliminating intermediaries, cost reduction, and ensuring service quality, as well as knowledge management through continuous feedback and identification of market needs.

The outcomes of ambidextrous marketing were examined in two categories: financial and social. Financial outcomes included increased profitability, improved branding, market share growth, and attracting new customers. Social outcomes included the development of creativity and innovation, increased customer trust, maintaining customer loyalty, economic and cultural growth, and business sustainability.

Quantitative data analysis was conducted using descriptive statistics and structural equation modeling. In the descriptive phase, mean and standard deviation were calculated, while in the inferential phase, partial least squares (PLS) SEM was applied to examine path coefficients and test hypotheses. SPSS software was used for descriptive data analysis, and SmartPLS was used for SEM. The results showed that ambidextrous marketing can improve financial performance and contribute to the sustainable development of the domestic rail freight market.



### 3. Findings and Results

Table 1 presents the descriptive statistics for the research sample, including the mean and standard deviation of the variables examined in this study.

**Table 1. Descriptive Indicators of Research Variables**

Variables	Mean	Standard Deviation	Minimum	Maximum
Technological factors	2.88	0.96	1	5
Organizational traits	3.13	0.94	1	5
Managerial traits	3.10	0.99	1	5
Service speed	2.59	0.97	1	5
Ambidextrous marketing	2.99	0.85	1	5
Domestic market dev.	2.74	0.86	1	5
Human capital	3.28	0.85	1	5
Organizational culture	3.45	0.89	1	5
Environmental conditions	2.90	0.91	1	5
Organizational structure	2.94	0.88	1	5
Value creation	2.74	0.88	1	5
Knowledge management	2.88	0.90	1	5
Financial outcomes	2.69	1.03	1	5
Social outcomes	2.96	0.89	1	5

The KMO index, with a value of 0.852, which is above the acceptable threshold of 0.70, was at a satisfactory level and indicated the adequacy of the data and sample for factor analysis.

**Table 2. Structural Model Testing**

Path	Path Coefficients	t-values	Explained Variance
On financial outcomes from:			45.2%
Value creation	**0.417	6.101	
Knowledge management	**0.314	4.339	
On social outcomes from:			60.5%
Value creation	**0.510	7.714	
Knowledge management	**0.334	4.939	
On value creation from:			51.9%
Ambidextrous marketing	**0.258	3.918	
Domestic market development	*0.125	2.061	
Environmental conditions	*-0.126	2.387	
Organizational structure	**-.0.241	3.016	
Human capital	*0.137	2.089	
Organizational culture	0.075	1.171	
On knowledge management from:			43.4%
Ambidextrous marketing	**0.216	2.844	
Domestic market development	0.109	1.382	
Environmental conditions	*-0.123	2.372	
Organizational structure	*-0.146	2.416	
Human capital	*0.140	2.182	
Organizational culture	*0.167	2.020	
On ambidextrous marketing from:			53.9%
Technological factors	**0.290	3.147	
Organizational characteristics	**0.203	3.295	
Managerial characteristics	**0.204	3.337	
Service speed	**0.252	3.647	
On domestic market development from:			42.3%
Technological factors	**0.216	3.108	
Organizational characteristics	**0.232	3.499	
Managerial characteristics	*0.182	2.428	
Service speed	**0.220	3.358	

Based on Table 2, the results showed that the effect of technological factors on ambidextrous marketing and domestic market development was positive and significant. The effect of organizational characteristics on ambidextrous marketing and domestic



market development was positive and significant. The effect of managerial characteristics on ambidextrous marketing and domestic market development was positive and significant. The effect of service speed on ambidextrous marketing and domestic market development was positive and significant. The effect of ambidextrous marketing on value creation and knowledge management was positive and significant. The effect of domestic market development on value creation was positive and significant, but its effect on knowledge management was not significant. The effect of human capital on value creation and knowledge management was positive and significant. The effect of organizational culture on knowledge management was positive and significant, but its effect on value creation was not significant. The effect of organizational structure and environmental conditions on value creation and knowledge management was negative and significant. The effect of value creation and knowledge management on financial and social outcomes was positive and significant. Furthermore, 45% of the variance in financial outcomes, 60% of the variance in social outcomes, 52% of the variance in value creation, 43% of the variance in knowledge management, 54% of the variance in ambidextrous marketing, and 42% of the variance in domestic market development were explained by the research model.

To assess model quality, the redundancy index ( $Q^2$ ) and coefficient of determination ( $R^2$ ) were used. Positive values indicate an appropriate model quality. The main criterion for evaluating endogenous latent constructs in the structural model is the coefficient of determination. This index indicates the percentage of variance in the endogenous variable explained by exogenous variables.

**Table 3. Model Quality Assessment Indices**

Model Quality	$R^2$	$Q^2$
Ambidextrous marketing	0.539	0.275
Domestic market development	0.423	0.248
Value creation	0.519	0.348
Knowledge management	0.434	0.232
Financial outcomes	0.452	0.331
Social outcomes	0.605	0.331

The present study used the redundancy index (Stone–Geisser, 1975) to evaluate the predictive ability of the model. Positive values of this index for the variables indicated adequate data reconstruction and strong predictive power of the model. In addition, the Goodness of Fit (GOF) index was calculated as a criterion for evaluating model quality in the partial least squares method. This index is categorized as 0.01 (weak), 0.25 (moderate), and 0.36 (strong). In this study, the GOF value was 0.56, which indicated a strong model fit and high predictive ability of the latent variables. These results confirmed the quality and validity of the research model.

#### 4. Discussion and Conclusion

In contemporary management research, the concept of ambidexterity—balancing exploitation of existing capabilities with the exploration of new opportunities—has emerged as a cornerstone for achieving sustainable performance in turbulent and competitive environments (Raisch et al., 2009). Organizational ambidexterity is not merely a structural design but a dynamic capability that allows firms to simultaneously refine current processes while innovating for future growth (Gibson & Birkinshaw, 2004). In marketing, ambidexterity has become particularly salient, as firms are pressured to adapt to rapid technological advancements, heightened customer expectations, and volatile market conditions (Gupta et al., 2006). The duality of exploration and exploitation has been shown to have a direct impact on innovation, market agility, and financial outcomes, making it a vital field of inquiry for both scholars and practitioners (Josephson et al., 2016).

The growing interest in ambidextrous marketing stems from its ability to bridge the gap between innovation and organizational performance. Studies suggest that firms capable of managing ambidextrous strategies outperform competitors in terms of adaptability and long-term sustainability (Christofi et al., 2021). Within the domain of international and domestic markets, ambidextrous approaches allow firms to balance efficiency in current market offerings while experimenting with disruptive strategies to capture new opportunities (Khodami et al., 2025). In the context of emerging economies such as Iran,





where industries like rail freight transportation face challenges of outdated infrastructure and insufficient marketing innovation, the application of ambidextrous models becomes especially critical (Majidi et al., 2017; Razini et al., 2015).

Ambidexterity has been linked with multiple antecedents and moderators, such as leadership, organizational culture, knowledge management, and learning orientation. Leadership, for instance, plays a decisive role in creating psychological safety and motivating employees to engage in innovative practices (Zaman et al., 2024). Ambidextrous leadership fosters both exploration and exploitation, enhancing not only team learning but also organizational agility (Kebede et al., 2024). In higher education and research-driven organizations, such leadership has been tied to workplace happiness and innovative behavior, suggesting its universal applicability across sectors (Babu et al., 2024).

At the cultural level, an ambidextrous orientation requires a balance of stability and flexibility. Studies show that a transformational leadership style coupled with an ambidextrous culture significantly enhances innovative work behavior (Lukitasari & Etikariena, 2024). Similarly, embedding ambidexterity in organizational culture requires cultivating openness, adaptability, and trust, with knowledge sharing serving as a crucial mechanism (Berraies et al., 2024). An organizational culture oriented toward learning and innovation amplifies the positive outcomes of ambidextrous strategies (AlSaied & Alkhoraif, 2024).

The human resource function also plays a critical role in enabling ambidexterity. Quality-oriented human resource practices (QHRP) have been identified as drivers of ambidextrous culture, particularly in industries where environmental sustainability and competitiveness intersect (Moreno-Luzon et al., 2024). Such practices, when aligned with ambidextrous innovation, strengthen organizational resilience in uncertain markets (Waseel et al., 2024). Moreover, organizational learning has been established as a key pathway through which ambidextrous innovation contributes to long-term performance (Lee et al., 2024). These findings resonate with broader theoretical perspectives highlighting the mediating and moderating effects of organizational capabilities in the relationship between ambidexterity and performance outcomes (Dezi et al., 2021).

From a marketing perspective, ambidexterity manifests in both strategic and operational capabilities. Strategic marketing ambidexterity involves balancing market exploitation—such as leveraging existing customer relationships and enhancing efficiency—with market exploration through the development of new customer segments, products, or channels (Josephson et al., 2016). Empirical studies in China's manufacturing sector reveal that ambidextrous marketing capabilities directly influence exploratory and exploitative innovation performance, highlighting the sector-specific importance of this approach (He et al., 2021). Similarly, in small and medium-sized enterprises (SMEs), ambidexterity in social capital and dynamic capabilities has been shown to enhance performance when aligned with strong market orientation (Zhou et al., 2021).

The literature on ambidexterity also emphasizes the dynamic interplay between internal and external resources. Firms that effectively integrate internal knowledge with external networks tend to achieve higher levels of ambidextrous innovation, particularly in competitive industries (Aripin et al., 2024). Knowledge management emerges as a central enabler, bridging the tension between exploration and exploitation by ensuring that organizational learning is systematically captured and utilized (Brix, 2020). In this sense, ambidexterity is not simply a balancing act but a continuous process of renewal, requiring firms to oscillate between incremental and radical innovation (Hakeemi et al., 2023).

Research on ambidextrous innovation further highlights the importance of contextual factors. External embeddedness and inter-organizational networks contribute to ambidextrous outcomes by facilitating knowledge flows and market responsiveness (Dezi et al., 2021). At the same time, firm-level agility, built upon ambidextrous strategies, enhances competitiveness in global markets (Waseel et al., 2024). This dual reliance on internal structures and external partnerships aligns with the broader understanding of organizational ambidexterity as a multidimensional construct that spans leadership, culture, knowledge, and networks (Raisch et al., 2009).

In the rail transportation sector, particularly freight transport, the challenges of modernization and competitive positioning are pressing. Prior studies in Iran point to the need for strategic marketing models that integrate ambidextrous approaches to overcome structural inefficiencies and stimulate market development (Majidi et al., 2017; Razini et al., 2015). Marketing based on strategic business units and the formulation of development strategies for rail transportation underscore the necessity



of aligning marketing practices with both exploitation of existing resources and exploration of new opportunities. In this sector, ambidextrous marketing could serve as a framework for balancing operational efficiency with innovation, thereby enhancing competitiveness and sustainability.

Ambidextrous strategies have also been shown to affect financial and social performance outcomes. By fostering both value creation and knowledge management, organizations can achieve profitability while also contributing to broader societal goals such as sustainability and community trust (Berraies et al., 2024; Moreno-Luzon et al., 2024). Empirical studies across diverse industries demonstrate that ambidexterity enhances brand positioning, customer loyalty, and market growth while simultaneously encouraging organizational creativity and resilience (Babu et al., 2024; Waseel et al., 2024). This dual impact reinforces the value of ambidexterity as a holistic approach to organizational development.

Furthermore, advances in information technology provide new avenues for embedding ambidexterity into organizational systems. Digitalization and data-driven cultures amplify the benefits of ambidextrous innovation, linking technological capabilities with sustainable business performance (Lee et al., 2024). This is particularly relevant in infrastructure-heavy sectors like rail freight transportation, where digital technologies can improve efficiency, safety, and customer engagement while enabling firms to explore new service models. The integration of IT capabilities with ambidextrous strategies represents a promising pathway for future competitiveness.

While the theoretical underpinnings of ambidexterity are well established, ongoing research continues to refine its applications in specific contexts. For example, micro-foundational perspectives highlight how individual behaviors and managerial decisions aggregate into ambidextrous organizational outcomes (Christofi et al., 2021). Similarly, contextual moderators such as organizational trust, psychological safety, and workplace happiness significantly influence how ambidexterity translates into performance (Kebede et al., 2024; Zaman et al., 2024). These insights point to the importance of aligning structural, cultural, and human dimensions to fully realize the benefits of ambidexterity.

The current study builds upon these insights by focusing on the design of an ambidextrous marketing model for domestic rail freight transportation. By integrating theoretical frameworks of organizational ambidexterity (Gibson & Birkinshaw, 2004; Gupta et al., 2006; Raisch et al., 2009) with empirical findings from marketing ambidexterity (He et al., 2021; Josephson et al., 2016; Shahriari & Jahanshahi, 2021), this research seeks to contribute both theoretically and practically to the advancement of sustainable and competitive practices in the rail freight sector. Specifically, it examines how factors such as organizational culture, human resources, leadership, and technology can be orchestrated to foster ambidextrous marketing strategies that improve financial outcomes while addressing broader societal needs.

In summary, the literature underscores that ambidextrous strategies are essential for organizations operating in dynamic environments. Whether through leadership, culture, knowledge management, or digitalization, ambidexterity equips firms with the capacity to adapt, innovate, and sustain growth. The rail freight sector in Iran, facing both structural limitations and opportunities for modernization, provides a fertile ground for applying and testing ambidextrous marketing models. This study therefore positions itself at the intersection of theory and practice, aiming to design and validate a model that not only advances academic understanding but also offers actionable insights for industry stakeholders.

## Ethical Considerations

All procedures performed in this study were under the ethical standards.

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## Conflict of Interest

The authors report no conflict of interest.





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