

Unpacking the Drivers of Competitive Advantage: Enhancing Value Creation and Firm Profitability through Transportation and Strategic Innovation

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Abstract: In a time of digital disruption, changing consumer behavior, and shifting strategic priorities, competitive advantage is harder than ever to sustain. This research explores the drivers of value-creating sources of competitive advantage and proposes an actionable model for strengthening them to boost profitability. It also highlights the growing role of transportation systems as strategic enablers of competitive advantage, particularly in industries reliant on logistics, mobility, and infrastructure. Using a qualitative research design grounded in domain theory, the study conducts a thematic analysis of 161 highly cited Web of Science articles (2014–2024). Twelve strategic themes, including innovation, digital transformation, marketing, and sustainability, are identified as key drivers. These themes reflect current academic interest and offer long-term relevance for business strategy. The study introduces a three-step decision-making model incorporating these themes and financial metrics like ROIC and EBITDA. The model helps align competitive advantage sources with strategy and supports firms in navigating hypercompetitive and transportation-intensive environments while balancing stakeholder and shareholder value.

Keywords: Competitive advantage, value creation, transportation strategy, logistics innovation, profitability

1. Introduction

With today's rapidly changing business environment, fueled by technological expansion, globalization, and changing consumer demands, competitive advantage is even more dynamic and increasingly difficult to maintain. Historically centered on physical assets and cost leadership, contemporary strategies revolve around innovation, web responsiveness, and intangible

competencies. Along with evolving logistics and supply chain networks worldwide, the notion of competitiveness has been broadened to encompass aspects like technology, sustainability, public trust, social cohesion, and resilience to shocks such as pandemics or uncertainty surrounding trade [1].

Current evidence suggests that competitive advantage theory is developing alongside swift innovation, digitalization, and transport change. There is still debate over whether ESG practices can ensure sustainable benefits or simply guarantee compliance, with certain research noting possible deficiencies [2]. Kafoe [3] integrates Porter's Five Forces, the Resource-Based View (RBV), and Dynamic Capabilities into an integrative model that supports managers in linking strategy with logistics and operational complexity.

Liwafa et al. [4] established that interest in "sustainable competitive advantage" has increased four times since 2017. Grant [5] maintains that advantage is a condition of disequilibrium, rather than a steady state, liable to constant innovation and reaction to marketplace or transport-related evolution. Competitive advantage cannot be captured by a single definition [6], but is most broadly conceived as generating more economic value than rivals and appropriating some of the value as profit [7]. It is situation-specific, based on a firm's relative position to competition, and may be quantified through outperformance, by utilizing resources (RBV), or responding to external threats [8].

Digital technology has hastened developments in how businesses maintain their advantage. The shift towards product, service, and digital supply models [9] underscores the applicability of inimitable resources, which Rumelt [10] refers to as "isolation mechanisms." Buffett's "economic moat" is another description of how companies defend their advantage with costs, brand influence, or cultural dominance [11]. Yet under increasing freight-tech disruptors and hypercompetitive pressures, enduring advantage dissolves. Firms now compete in areas of ongoing strategic competition [12], and agility and flexibility are required. Transport in this context is a competitive driver of competitiveness, linking firms to markets, resources, and value chains.

Drawing on prior study, it is clear that competitive advantage is a fluid, complex term influenced by both internal and external forces [13]. Strategic renewal, innovation, and adaptability, particularly in transportation-related industries, are increasingly required to maintain competitive advantage in quickly changing markets [14]. However, performance improvements are frequently sought through structural realignments or financial measurements alone, which seldom result in long-term advantages [15,16]. Studies are progressively emphasizing the importance of entrepreneurial aptitude and multidimensional strategy in preserving value creation throughout supply chains and logistics networks [17]. However, many managers are unsure if their company has a durable competitive advantage [18]. Given this evolving landscape, this study seeks to clarify two key questions:

RQ1: What factors influence the potential of a competitive advantage source to increase value created?

RQ2: What sequence of steps can be used to strengthen competitive advantage to improve corporate profitability?

2. Data and Methodology

This study employs a qualitative approach based on Domain theory [19], emphasizing competitive advantage and its sources. Profitability is defined as value creation, as examined in literature under the phrases "created value" and "value creation." The study is divided into two phases: identifying critical elements (RQ1) and then developing a step-by-step methodology for enhancing advantage (RQ2). To answer RQ1, a theme analysis with Conceptual Outputs was used [20], which included highly cited Web of Science articles from 2014 to 2024. This technique discovered basic "themes as factors" that have a substantial impact on the ability of competitive advantage sources to produce value. These patterns were theoretically interpreted, resulting in analytical frameworks that indicate each source's potential for long-term effect or decrease.

Search procedure: In the initial search in the WoS database, the keywords "created value" or "value creation" were used. To filter out undesirable sources from irrelevant fields, only "Management", "Business", or "Economic" fields were included. To target literature with the highest societal relevance and impact, only articles categorized as "Highly Cited Papers" were selected. From the search, a total of 161 articles were found. After reviewing and thematically analysing the abstracts, the articles were grouped into 12 categories called "Themes as factors", which were then conceptualized in terms of content to enhance analytical depth. The thirteenth group was excluded from the analysis as it was irrelevant in terms of its content.

To address RQ2, the research creates a systematic strategy for increasing profitability by enhancing competitive advantage. It combines logical reasoning for decision-making [21] with a conceptual model that links essential constructs into a clear strategic framework [22]. The study proposes a model that necessitates a detailed analysis, identification, and naming of individual input components. The first step in building the model draws directly on the findings from RQ1. At the input stage, the model creation is based on the following assumptions:

- (a) A clear identification and naming of a specific tangible or intangible source of competitive advantage (or a unique combination of multiple resources),
- (b) Understanding the origin, nature, generic attributes, and behavioural characteristics of the source (or unique combination of multiple resources) of competitive advantage and its impact on overall value creation.

(c) Understanding the target category for which the value is created, divided into two groups, namely shareholders and stakeholders.

The output of the model is an increase in the company's profitability achieved through the proposed sequence of activities.

3. Results

In addressing RQ1, the research emphasizes how science may help businesses by identifying trends and developing long-term growth plans. Thematic analysis identifies key trends and forces that impact value generation and competitive advantage. Table 1 shows "Themes as factors," which are produced from grouped and refined research subjects, together with their conceptual interpretations and article counts. These topics highlight the most important and pertinent areas of contemporary academic research, providing insight into the elements that most significantly influence long-term competitive strength.

Table 1 Thematic Categorization of Factors Influencing Competitive Advantage and Value Creation. Source: authors

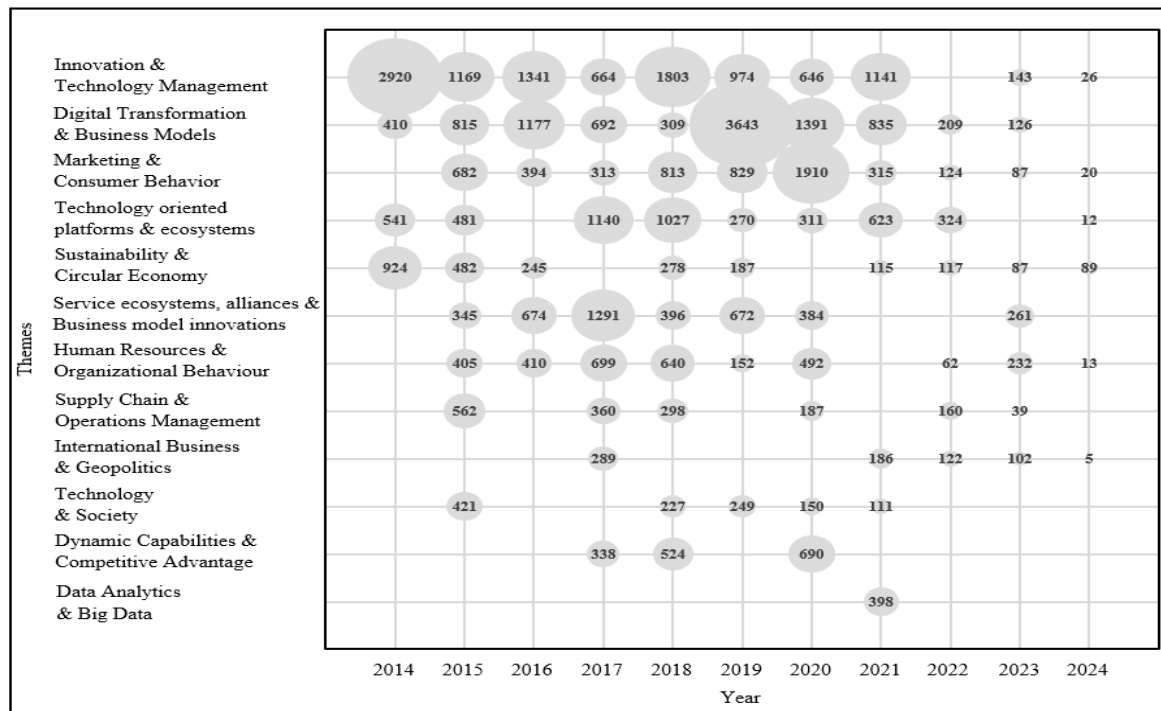
Themes as Factors	Content Conceptualization	No. of Articles (n=161)
Innovation & Technology Management	Open innovation, service innovation, SOI, AI capabilities, platforms, and circular economy integration.	29
Digital Transformation & Business Models	Digital platforms, BMI, 3D printing, digital entrepreneurship, and tech-enabled value creation.	26
Marketing & Consumer Behavior	Influencer marketing, customer engagement, brand activism, mobile AR, and loyalty.	20
Technology-Oriented Platforms & Ecosystems	Platform ecosystems, innovation orchestration, smart city networks, and value co-creation.	15
Sustainability & Circular Economy	SBMs, circular models using Industry 4.0, 3D printing in sustainability.	13
Service Ecosystems & Business Model Innovation	Value capture and co-creation, platform ecosystems, stakeholder alignment.	13
Human Resources & Organizational Behaviour	Leader humility, AI in HRM, job crafting, high-performance pressure, and knowledge management.	12
Supply Chain & Operations Management	Resilience, logistics, collaboration impact, cyber-physical systems.	6
International Business & Geopolitics	Global expansion, techno-nationalism, technology sovereignty.	6
Technology & Society	CSR ethics, civic crisis responses, societal implications of technology.	5
Dynamic Capabilities & Competitive Advantage	BDAC, adaptability, strategic flexibility, and platform leadership.	4
Data Analytics & Big Data	Tourism analytics, IoT, data-driven insights for strategic action.	2
Other	Non-relevant or excluded topics.	10

Another method for assessing the importance of each subject is to examine citation counts from the "Highly Cited Papers" category in Web of Science (2014-2024), as shown in Figure 1. These

citation patterns indicate increasing commercial and societal concerns, assisting in identifying areas with significant strategic potential. Highly cited or emerging subjects might help steer innovation, encourage R&D investment, or identify promising venture capital areas. "Innovation & Technology Management" leads with 29 papers and a peak of 2,920 citations in 2014, demonstrating its continued relevance as AI's influence grows. "Digital Transformation & Business Models" follows with 26 articles and a 2019 citation peak of 3,643, demonstrating continued importance. "Marketing & Consumer Behaviour," with 20 publications, peaked at 1,910 citations in 2020, most likely due to strategic moves during the COVID-19 pandemic.

"Technology-oriented platforms & ecosystems" received 1,140 citations in 2017 across 15 papers, demonstrating its long-term importance. "Sustainability & Circular Economy," which has 13 articles and a peak citation count of 924 in 2014, is on the decline. "Service ecosystems, alliances, and business model innovations" includes 13 articles, a peak of 1,291 citations in 2017, and is expected to exceed citation counts in 2023 despite post-COVID instability. "Human Resources & Organizational Behaviour" received 699 citations in 2017, indicating continuous scholarly interest. "Supply Chain & Operations Management" and "International Business & Geopolitics" both include six articles, with the latter reaching a peak of 289 citations (in 2015 and 2017, respectively), indicating recent significance.

"Technology & Society" has five articles, with interest peaking in 2015 and progressively dropping thereafter. "Dynamic Capabilities & Competitive Advantage" received 690 citations in 2020 over four papers, indicating increasing importance despite little research during the COVID-19 era, most likely due to market uncertainty. "Data Analytics & Big Data" contains only two publications, yet it received 398 citations in 2021, indicating growing social interest and probable development as an important future issue.



Source: authors

For the second research question, this study designs a model based on established constructs of competitive advantage. The created model is shown in Figure 2. The central element of the model is a specific source of competitive advantage. The model aims to identify a sequence of activities that need to be performed to assess: (a) How and for which target group does the source create value, (b) Which factors influence the potential of this source to increase the created value, (c) The method of evaluating the projected financial gain resulting from strengthening this source, and (d) How to ensure the alignment of a specific activity with the overall company strategy to achieve higher overall profitability. As a prerequisite, the input stage (INPUT) requires a detailed and unambiguous identification, definition, and naming of the individual analysed components. Next, the sequence of steps (STEP 1 – STEP 3) is used to refine these components to achieve the desired OUTPUT, ultimately aiming to achieve the overall company profitability.

INPUT: The input data is based on the detailed and clear identification of three main components: A specific and unambiguous definition and naming of one or more tangible or intangible sources of competitive advantage, or their unique and inseparable configuration. These sources comprise assets, resources, activities, and offerings [23]. A clear understanding of the origin, nature, general properties, and behavioural characteristics of the competitive advantage source, as well as their influence on overall value creation [24]. Identifying the target audience for whom value is produced is critical. The model distinguishes between stockholders and stakeholders. Financial metrics used to calculate shareholder value include gross profit, EBIT, EBITDA, ROA, net profit,

ROI, NPV, IRR, and EVA. Stakeholder value aims to maximize profits for all stakeholders involved [25,26].

STEP 1. This stage entails evaluating the possibility of a well-defined source of competitive advantage to increase value generation for shareholders or stakeholders. When many sources are present or linked, each must be evaluated individually to determine its proportional contribution. The findings from Research Question 1 (themes as factors and their conceptualization) lay the groundwork for management evaluation. The detected patterns inform strategic frameworks that influence the strength, relevance, and evolution or decline of certain competitive advantages. The technique assumes that strengthening such a source, or a unique combination of them, would result in increased value generation for the targeted audience.

STEP 2. This phase is founded on the premise that maintaining a competitive advantage necessitates both strategic capabilities and financial investment. Enhancing such an edge entails determining if the anticipated profit gain exceeds the expenditures. This evaluation focuses on individual sources (or combinations) of competitive advantage. The fundamental benchmark is Return On Invested Capital (ROIC), which assesses value gained compared to total costs. Depending on the industry, additional measures such as gross profit, EBIT, EBITDA, ROA, net profit, ROI, NPV, IRV, or EVA may also be suitable.

STEP 3. In this step, managers evaluate whether the proposed activity to enhance a specific source (or configuration) of competitive advantage aligns with the company's long-term strategic direction. Strategy, a multifaceted framework, integrates core elements—one of which is competitive advantage, linking strategic goals with market competitiveness. Strategic competitiveness is realized when a firm successfully crafts and executes a value-generating strategy. Defined as a coordinated set of commitments and actions exploiting core competencies, strategy must align closely with the identified competitive advantage. This step marks the final managerial decision prioritizing sources and selecting the activities, process changes, or innovations necessary to support strategic goals.

OUTPUT: Following the successful completion and implementation of the above steps, while assuming relatively stable environmental conditions and the absence of major disruptive changes, an increase in overall profitability can be expected. This profitability gain results directly from the strengthening of a specific and well-defined source (or unique configuration of multiple sources) of competitive advantage. The increase is quantifiable using established financial performance metrics and may also contribute to a desirable rise in the company's overall capitalized value.

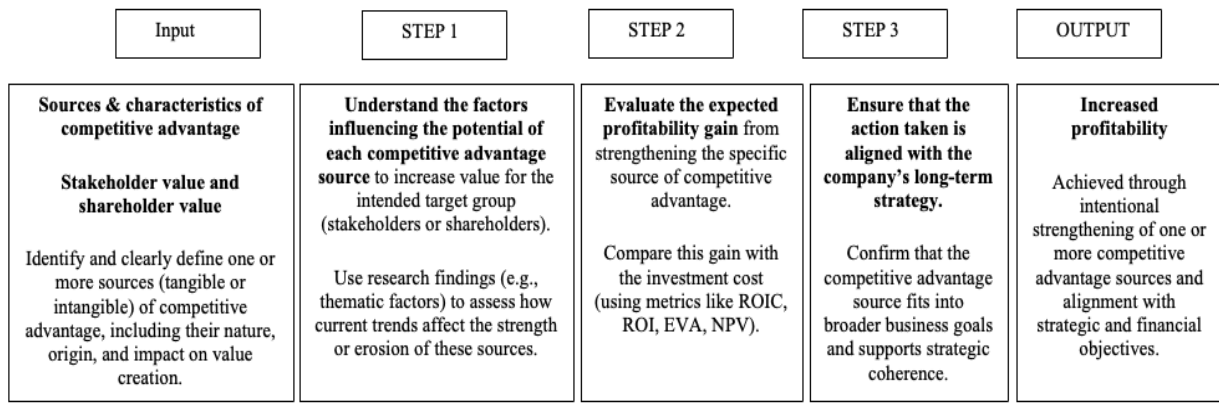


Fig. 2 Managerial Model for Strengthening Competitive Advantage to Increase Profitability.

Source: authors

This model can be understood as a proposal for a practical methodological guide for managers, supported by a form of scientific inquiry, outlining a logical sequence through which they can actively work with and strengthen sources of competitive advantage to achieve higher overall corporate profitability.

4. Discussion

RQ1: What factors influence the potential of a competitive advantage source to increase value created?

The findings from RQ1 show that the most influential elements influencing the potential for competitive advantage to increase value creation correspond to twelve theme clusters drawn from a widely referenced body of research. These criteria represent not just current strategic goals, but also areas of the greatest academic and societal interest, implying an increasing impact in defining business models and strategic results. The themes with the most scholarly focus, Innovation & Technology Management, Digital Transformation & Business Models, and Marketing & Consumer Behavior, indicate a widespread agreement that technological adaptability, business model innovation, and customer-centric strategies are now critical components of competitive advantage. The citation volume also suggests that these sectors will continue to be strategically important shortly, particularly as businesses engage in AI skills, big data analytics, and platform-based ecosystems.

Sustainability & Circular Economy and Service Ecosystems & Alliances are two significant topics that represent a trend toward responsible innovation and collaborative value generation. These verdicts demonstrate that value creation is no longer limited to internal efficiency or cost leadership, but is also influenced by larger environmental, social, and relational factors. Furthermore, despite their low representation, lower-frequency subjects such as Dynamic Capabilities & Competitive Advantage and Data Analytics & Big Data show increasing citation patterns. This shows that these are new areas of interest that might form the next frontier of strategic difference, particularly in digital

and hypercompetitive situations. In conclusion, RQ1 demonstrates that value-enhancing competitive advantage is heavily influenced by characteristics like as flexibility, data-driven decision-making, collaborative ecosystems, and technology responsiveness, all of which must be managed proactively to maintain advantage over time.

RQ2: What sequence of steps can be used to strengthen competitive advantage to improve corporate profitability?

RQ2 results resulted in the development of a three-stage strategic model that links competitive advantage to profitability through a logical process. The model is based on three basic stages: Input, Stepwise Actions (Step 1 to Step 3), and Output, and uses both strategic and financial performance measures for judgment. Input stage recognizes the severity of unequivocally defining and specifying a firm's source(s) of competitive advantage, whether tangible or intangible. By prompting managers to make a value distinction between shareholder-centric and stakeholder-centric value, the model is accommodating both financial and non-financial dimensions of performance. This double-vision perspective captures the shift in firm value from shareholder primacy to multi-stakeholder approaches.

Step 1 is the potential evaluation step, which brings together the thematic results of RQ1, allowing managers to decide how the revealed source is affected by emergent trends (e.g., AI, platform leadership, sustainability). This evidence-based thematic foundation provides a robust analytical structure for strategically setting priorities. Step 2 introduces a cost-benefit consideration, overlaying the construction of competitive advantage on financial measures such as ROIC, EBITDA, or NPV. This makes the model more useful in practice by maintaining profitability as a function of strategic investment. Step 3 involves strategic alignment, ensuring that selected sources of competitive advantage and activities are aligned with the corporate strategy overall. This final step guarantees strict correspondence between strategic planning and operational deployment, a consideration necessary in generating long-term improvement in performance. Together, these steps provide a managerially relevant model for reinforcing competitive advantage in an uncertain environment. The model is versatile, allowing firms to change their approach in line with resource architectures, industry conditions, and changing strategic goals.

5. Conclusion

During an era of fast-paced technological disruption, shifting consumer goals, and emerging business models, sustaining a competitive edge has become more complex as well as increasingly crucial than ever. This study addresses this strategic imperative by identifying the most significant drivers of competitive edge in the contemporary era and by developing a pragmatic, evidence-based model linking these drivers to corporate profitability. Drawing on a systematic examination of highly cited

literature, the study discovers twelve prevalent themes ranging from innovation management and digital transformation to stakeholder value creation and dynamic capabilities that are currently influencing value creation. They are not mere academic inputs but practical indicators for managers seeking to navigate through an uncertain business landscape.

The study also contributes by proposing a systematic decision-making model, enabling managers to systematically analyze, construct, and align competitive advantage sources with profitability metrics. Through marrying strategic sense with profitability measures, the model bridging theory and practice gaps offers a template for long-term value creation. In this context, transportation emerges as a crucial infrastructural element that supports the scalability and execution of competitive strategies across diverse industries. This study finally confirms that competitive advantage is not universal nor static, but rather context-specific, dynamic, and multifaceted. Firms must embrace strategic agility, stakeholder thinking, and evidence-based decision-making to generate and sustain advantages in a hypercompetitive environment. The ability to continually innovate, reconfigure, and realign sources of advantage very likely will be the most enduring foundation of competitive strength in the future.

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