DAYANANDA SAGAR
BUSINESS SCHOOL
Realising the Dream

Decoding Competitive Forces: An In-Depth Analysis of Porter's Five Forces and Its Strategic Implications for the Future

Dr. Parul Tandan

Associate Professor, Dayananda Sagar Business School, Bengaluru, Karnataka, India

Abstract

Porter's Five Forces framework's ongoing relevance and application in modern strategic management are evaluated critically in this assessment. Through a synthesis of previous research, it methodically assesses the model's advantages and disadvantages with the goal of improving understanding of its usefulness. The assessment notes criticisms of the Five Forces framework's static character and poor reactivity to changing developments like globalisation and digitisation, despite the fact that it provides insightful information about industry structure and competitive dynamics. This study adds to the continuing discussion over strategic analysis tools by offering a fair assessment of the model's benefits and drawbacks. It provides a thorough grasp of the framework's applicability and adaptability in the fast-paced business world of today for both academics and practitioners.

Keywords: *Competitive Advantage, Business Strategy, Strategic Management, Industrial Analysis, and Porter's Five Forces Model.*

Introduction

In 1980, Michael Porter released his theory of competitive strategy, which impacted a generation of academics and professionals (Magretta, 2011). Porter's seminal work (Porter, 2008) described the "five forces" that form the structure of any industry, greatly influencing the dynamics of competition and the fundamental drivers of profitability within it. Porter (1979) asserts that "The combined influence of these forces dictates the ultimate capacity for profit within the industry" (p. 3). According to Johnson et al., strategic analysis is possible even when profit criteria are not relevant. This method has altered the way managers, consultants, and practitioners see the competitive environment, claim Slater and Olson (2002). It provides a fresh perspective for assessing industry profitability and attractiveness, as evidenced by research by Thurlby in the electricity supply sector and Blair and Buesseler in the medical group business.

The management technique "Porter's five forces" is still widely used in both the academic and professional domains. A short search on Google Scholar turned up thousands of academic publications about the topic published in the past six months.

However, its relevance in today's globalised society is still debatable, which offers an opportunity for more research contributions. As sectors undergo revolutionary transitions, the necessity for a more sophisticated and adaptable model becomes increasingly apparent.

In the past four decades, numerous models have been improved, either by introducing new forces like "digitalisation, globalisation, and deregulation" (Dälken, 2014; Adelakun, 2020), "complementors" (Brandenburger & Nalebuff, 2021), or "NGOs". This is in addition to the Integrated Strategy Framework (Anton, 2015) and Blue Ocean Strategy. Globalisation, the quick development of technology, and growing stakeholder expectations are some of the factors driving this change.

The goal of this study is to evaluate and analyse Michael Porter's revolutionary Five-Forces model critically. Through conducting this analysis, we want to provide insightful information and advance a deeper understanding of Porter's Five Forces idea and its implications for strategic thinking and corporate practice.

Review of Literature

The Framework of the Five Forces Model

Understanding how attractive and competitive an industry is is important since it has an immediate impact on a company's ability to make a profit. In today's dynamic business environment, where technology is advancing quickly and new rivals are always emerging, organisations must continually adapt to be successful (Porter, 1979).

Because it provides businesses with a systematic approach to understanding and responding to these industrial dynamics, a strategic framework is essential for understanding them. To meet this need, Michael Porter presented the Five-Forces paradigm in 1980. Companies utilise it as a tool to evaluate the degree of competition in their sector and ascertain its possible attractiveness.

This paradigm, which is widely acknowledged for its value, encourages a broader view of competition and transcends managers' usual limited viewpoints (Grundy, 2006). It strengthens the organization's capacity to successfully confront or even reverse competitive forces to its benefit by serving as a guide for organisational positioning, particularly within an industry.

Porter's Five Forces model originated in the industrial-organizational (IO) or industrial economics approach. This approach holds that an industry's market structure greatly influences its attractiveness as it has a direct impact on the decisions and behaviours of market players (Slater & Olson, 2002). Businesses' strategic engagement is influenced by the market structure; for instance, competitive strategy is essential to market success. Ultimately, the structure of the market affects an organization's performance.

Competitive strategies become essential. By defining the specific tactics a company plans to use in different business areas, they help it stand out from competitors. By combining these strategies with data from Porter's Five Forces, organisations may strategically position themselves, attract clients, and handle competitive problems.

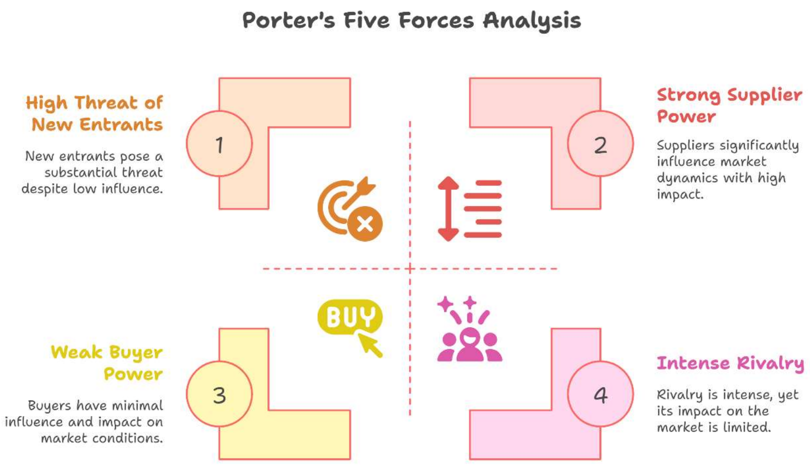


Figure 1 Porter's Concept of Five Forces

Porter's five competitive forces, which pose significant threats to a company's profitability, may also affect an industry's long-term profitability when they are beneficial (Porter, 1979). These elements include the degree of rivalry between present rivals, the possibility of new competitors joining the market, the negotiating power of suppliers and customers, and the risk of competing products and services. According to Fig. 1 (above), these pressures promote competitive dynamics. To give one example, Saha highlighted how these elements contributed to the airline industry's purchase of Air India in 2023.

Competition among Present-Day Rivals

Known as "Rivalry Among Existing Competitors" or "Internal Rivalry," this dynamic encompasses a variety of competing tactics such as price reduction, the introduction of new products, advertising campaigns, and service improvement (Porter, 2008). Nevertheless, the degree of competition in the industry, which is influenced by factors such as the rate of industry growth, fixed and storage costs, market balance, customer switching costs, product differentiation, and exit barriers, determines how frequently these behaviours occur (Slater & Olson, 2002).

Intense rivalry among existing competitors may have a significant influence on an industry's profitability, especially when growth is slow or there are many competing companies. The two main factors that determine this are often the level of competition and the basis on which companies compete for dominance (Porter, 2008). When enterprises struggle to accurately interpret each other's market signals, they often find themselves in circumstances similar to the Prisoner's Dilemma in game theory, where collaboration seems impossible. The prosperity of one company often comes at the expense of another in these circumstances. This risk might turn into a positive-sum game, though, if competitors focus on other market segments and set greater goals (Porter, 2008).

A company's competitive edge and position in the market are largely determined by threshold values in sales performance parameters, such as client acquisition cost and sales conversion rates, which go beyond simple metrics.

Similarly, businesses with low employee satisfaction or inefficient processes may struggle to grow or compete, which may intensify competition between rivals.

Risk of New Rivals

Newcomers to an industry, who are frequently backed by substantial resources, bring with them increased capability and a fierce desire to increase their market share. This puts pressure on pricing, costs, and the expenditure needed to position oneself competitively (Porter, 2008). Yet, the level of entry barriers and the number of well-established companies in the market have a big influence on the risk that these newcomers provide, which in turn affects the "Rivalry among Existing Competitors".

Entering an established market challenges the competitive advantages of existing companies and causes disruptions. Existing firms' profits are lowered by the extra supply for the same amount of demand when new rivals encourage them to decrease their pricing. In some circumstances, these new rivals may force out incumbent companies (Porter, 2008).

The seven main barriers to market entry are as follows, according to Porter (2008): (1) supply-side economics of scale; (2) demand-side benefits of scale; (3) cost of switching customers; (4) capital requirements; (5) incumbency advantages regardless of scale; (6) differences in distribution channel access; and (7) restrictive regulations.

A greater threat from the new entrants is correlated with lower entry barriers. According to research, industry profitability is greatly impacted by the degree of entry barriers. Having distinctive qualities that rivals cannot replicate can help maintain the barrier, making it simple for the company to enter the market but extremely challenging for everyone else.

The only effective hurdles to entrance, according to Chicago school economists, are those erected by the government (legal barriers). The expectations of the newcomer regarding potential reprisal by established enterprises also influence barriers to entry. This could involve price reductions, more advertising, or even legal action.

Strategies like encouraging brand loyalty to raise the cost of switching customers or managing distribution networks to prevent entrants from streamlining their supply chains are examples of entry barriers. Potential entrants may be deterred by aggressive pricing through intensive marketing because they fear competition from existing businesses who would lower their prices.

Supplier Bargaining Power

The ability of suppliers to affect the costs of goods or services, which could negatively impact a company's profitability, is known as their bargaining power. High-bargaining power suppliers have the ability to pressure businesses into paying more, lowering the calibre of their products or services, or passing costs on to customers, all of which can be detrimental to the sector. A supplier's bargaining strength can be increased by a number of ways. For instance, this concentration offers a select group of suppliers greater market power if they control a large portion of an industry. Furthermore, these suppliers might have more negotiating power if the industry isn't their primary client (Porter, 1979).

The size of the supplier group, the quantity of providers accessible, and whether or not customers have other options all affect the bargaining strength of suppliers (Slater & Olson, 2002). Porter (2008) asserts that suppliers have greater clout when they are less numerous than the businesses in the sector, are not overly reliant on it, and when switching suppliers is expensive for businesses. Suppliers have more leverage when they provide unique goods or services or when there are no alternatives. Furthermore, suppliers have the ability to threaten to enter the market directly through forward integration, which increases their influence and affects pricing policies.

Strong suppliers can frequently extract a greater share of an industry's value. They might cut back on services, raise costs, or diminish quality, all of which might hurt the industry's businesses' bottom lines. For instance, suppliers with substantial bargaining strength, like labour unions or fuel suppliers, might impose terms or raise prices that make it more difficult for airlines to remain profitable (Porter, 2008). Furthermore, because they may increase revenues from each business without becoming too dependent on any one, suppliers that cater to several industries have even greater clout.

Customers' bargaining power might also have an impact on suppliers' influence. Customers can lessen supplier influence and, consequently, industry profitability when they have the opportunity to demand better quality, lower pricing, or more services. Because it influences the terms of pricing and trade agreements between suppliers and industry participants, vendors' ability to deliver high-quality goods or services also has an impact on the balance of power.

Customer Bargaining Power

The "bargaining power of customers," which is essentially the opposite of the power that suppliers have, refers to the influence that customers have on enterprises (Porter, 2008). The degree of power that buyers have might vary depending on the market structure. For example, in a competitive market with many of buyers and suppliers, purchasers usually have less sway. However, when there are fewer suppliers and buyers, purchasers could have more clout. Buyers have the most power to demand better terms in monopolistic marketplaces, where there are many suppliers but few consumers (Slater & Olson, 2002).

Buyer power is greater in some industries, particularly when a few buyers control a sizable share of the market. In industries with significant fixed costs, this is typical. Standardised products can provide buyers more clout, allowing them to move suppliers more easily and affordably (Porter, 2008). Buyers may even decide to backward integrate and create the items themselves if suppliers seem to be earning unreasonably high profits (Porter, 2008).

Companies can employ tactics like raising switching prices, fostering strong brand loyalty, and providing distinctive products to lessen price as a deciding element in order to decrease buyer power. The buyer's bargaining power can also be shaped by the performance of salespeople, which is impacted by factors including their product knowledge and competition awareness.

Danger of Alternatives

In the widest sense, competitors in any field face out against companies who provide alternatives to their own products or services. Finding alternatives is looking for products or services that provide the same purpose as those in the industry in question. Substitute products and services can lower an industry's potential profit since they essentially cap the prices that companies can charge for their goods and services (Porter, 1979).

When customers confront low switching costs or when price and performance are favourably balanced, the threat of alternatives is especially powerful. Even though it can seem like a simple problem to solve, it's frequently more complicated than that. Many times, businesses may not even be completely aware of every possible substitute that could have an effect on their market. This ignorance can make it harder for businesses to deal with the challenges of competition from replacements, as Porter (2008) points out.

Despite consumers' desire for a wide variety of alternatives, it is crucial to maintain a low danger from substitutes from an industry and economic perspective. In other words, the availability of substitute goods and services decreases when switching costs are high or when the cross-price elasticity of demand is low, indicating a low responsiveness to price changes in alternative commodities.

Reducing the threat of alternatives in the IT/ITES sector requires cross-functional sales performance variables, such as market responsiveness and customer satisfaction. By strengthening client relationships and reacting swiftly to market shifts, these factors assist companies in remaining competitive.

Hubbard and Beamish state that the Threat of Substitutes is influenced by a number of factors. The existence of switching costs—the expenses consumers suffer when transferring from one good or service to another—is one of the crucial elements. Customers are less likely to move to other goods or services if these switching costs are significant. The degree of threat that substitutes provide to an industry can also be influenced by consumers' propensity to choose other goods or services. The possibility of substitutes rises as consumers are more likely to explore other options, which could put pressure on original industry prices and earnings.

Getting the Best Competitive Position by Applying Porter's Five Forces

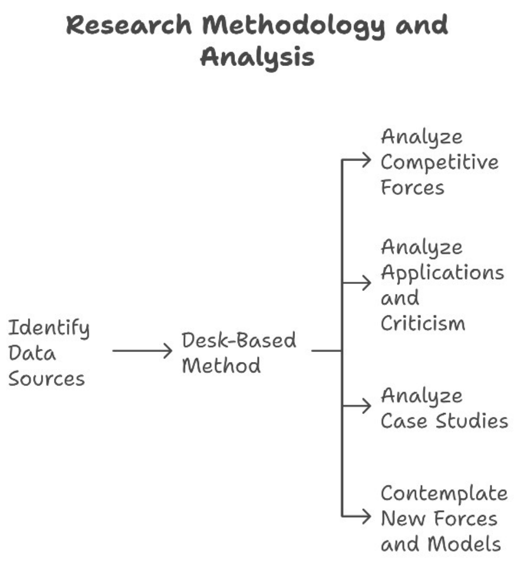
Porter's Five Forces paradigm states that the first four forces—supplier power, buyer power, the danger of new entrants, and the threat of substitutes—finally influence the fifth factor, competitive rivalry. The quantity and calibre of competitors in an industry determine how fierce this competition is. The profitability of enterprises is often negatively impacted by these factors. Porter (2008) claims that regardless of economic conditions, technological advancements, or government involvement, this strategy is often applicable across sectors.

Porter asserts that the best competitive position is found in industries with high barriers to entry, or those where it is difficult for new rivals to enter the market. Suppliers and buyers are less able to put pressure on companies in the industry since they lack the negotiation power. Additionally, the danger of new rivals should be minimal, and there should be few or no alternatives to the industry's goods and services. Finally, there should be minimal competition among existing rivals since intense competition may lower sales. This strategic location allows businesses to stay profitable and competitive in their industry.

Objectives

The study's goals include-

- To assess the effectiveness and current application of Porter's Five Forces model in a variety of corporate settings and sectors.
- To objectively examine the benefits and drawbacks of the Five-Forces concept in order to provide a comprehensive understanding of its application.



The fact that Porter's Five Forces framework places more of a focus on external analysis than the conventional SWOT method is one of its main advantages. This transformation enables businesses to concentrate less on evaluating their own internal strengths and shortcomings and more on how they react to changes in the external environment. Additionally, the framework works well with other strategic models that assist businesses in understanding and adjusting to changing market forces, like PESTEL forces (Martinez-Contreras et al., 2022). It also works well with the Blue Ocean approach, the resource-based view (Barney, 1991), and the Delta Model, which emphasises attracting and retaining customers (Hax & Wilde, 2001).

The model shows how businesses can make supernormal profits in imperfect markets, which aren't achievable in markets with perfect competition. The framework's major component is competitive rivalry, which is influenced by the interactions between the other forces—suppliers, buyers, substitutes, and new entrants. Together, these factors shape the market's competitive dynamics and the industry landscape (Grundy, 2006). When assessing an industry's attractiveness, Porter's Five Forces takes into account more than just market growth rates (Grundy, 2006).

Businesses can evaluate their strengths and weaknesses in respect to different market forces by using the Five Forces framework, which offers insight into how industry structures function. This knowledge enables companies to make well-informed strategic choices, including how to respond to changes in the market, position themselves against rivals, and even change the structure of the industry to their benefit (Porter, 2008).

Additionally, by changing the definition of profitability or increasing the total profit pool, businesses can actively influence the structure of the sector. Businesses can maintain long-term success and strengthen their position in the market by taking this proactive strategy (Porter, 2008).

According to Stonehouse and Snowdon (2007), strategic planners frequently apply the Five Forces model in three crucial areas:

Decisions regarding entering or leaving markets, contrasting competitors, and assessing the effects of different choices are all part of statistical analysis.

Dynamic Analysis: Businesses can estimate an industry's future attractiveness and generate alternative scenarios to predict its results by integrating the model with environmental analysis.

Analysis of Options: Businesses can determine the best strategic options to obtain a competitive advantage by using the information gathered from the first two forms of analysis.

Criticism and Discussions

Although Porter's Five Forces model has been a useful tool for analysing industry competition, there are some issues with it. The fact that Porter first disregarded the function of complements in the industry is one of the main arguments made by detractors. Products or services that add value to an industry's offerings without directly competing with them are known as complements. Porter did not incorporate complements into his initial model, although acknowledging the significance of substitutes. He did, however, acknowledge in later editions that the Five Forces framework might be used to analyse complements (Brandenburger & Nalebuff, 2021). To properly explain these complimentary products, some management theorists even suggest adding a sixth force. This change in viewpoint indicates that the model must adapt to be relevant in a market that is changing quickly.

The use of the Five Forces paradigm is made more difficult by the growth of digital innovation and e-commerce. As industries become more integrated, the conventional idea of industrial barriers is losing significance. Although there used to be substantial barriers to entrance, businesses can now thrive in unexpected industries. Coca-Cola, for instance, began as a pharmaceutical product before rising to prominence in the beverage sector. Similar to this, businesses like Amazon and Netflix have upended a variety of industries in the digital age, demonstrating that new competitors can emerge from non-traditional sectors. Porter's approach ignores the flexible borders that exist now and rigidly classifies industries, hence it falls short in addressing these developments.

Porter contends that an industry's structure, rather than other outside variables like technology, regulations, or the industry's stage of development, significantly influences its competitiveness and profitability (Porter, 2008). Critics argue that this perspective is overly limited, though. A company's profitability can be significantly impacted by additional factors, such as changes in legal frameworks or government intervention. Government rules, including antitrust laws, can change the competitive environment in the tech sector, for instance, in ways that the Five Forces model does not account for. Furthermore, an idealised "perfect market," which does not exist in reality, is assumed by the model. Because real-world markets are far from ideal, elements including consumer preferences, market differentiation, and brand loyalty are important determinants of profitability. Additionally, the model ignores enterprises' internal resources and capabilities, which are becoming more and more important for competitive success. Porter's emphasis on outside influences overshadows the strategic significance of internal elements including as innovation, intellectual property, and corporate culture.

The approach is criticised by Grundy (2006) for oversimplifying industry value chains. He contends that although consumers differ in their demands and buying habits, Porter's framework views them as a single, homogenous group. For instance, the effect of distributors or middlemen might be very different from that of final consumers in businesses where they are important. Distributors may eventually turn into rivals in these situations by providing comparable or even rival goods. Porter leaves a hole in the model's applicability by failing to offer precise instructions on how businesses can rank these various customer kinds.

The Five Forces model's static nature is another drawback. According to Dulčić et al. (2012), the framework gives a picture of the industry at a specific moment in time but ignores changes over time. Industries change quickly in the fast-paced, dynamic market situations of today, and businesses need to adjust as necessary. Porter's model is less helpful for long-term strategy planning in dynamic marketplaces due to its static character. The methodology doesn't provide much insight into how businesses might maintain their competitive advantage over time, even though it might be useful for making decisions in the short term. The Five Forces paradigm is less applicable in sectors that are marked by constant innovation and quick change since it ignores time and market dynamics (Beattie, 2022).

Porter's model is unable to adequately represent the intrinsic dynamic nature of industries. In an era of fast globalisation and technological disruption, the traditional framework's premise that industries function in a stable environment is becoming less and less practical. Businesses nowadays must be flexible and quick to react to changes in customer needs, new technology, and rivalry. Porter's static model doesn't give businesses the resources they need to deal with these changes and keep their competitive advantage over time.

Porter's model over-emphasises the economic climate of the era in which it was developed. In the 1980s, when the economy was rather steady, the Five Forces model was created. However, the model's presumptions might no longer be valid in the volatile and uncertain globalised economy of today. Porter's theory ignores the ways in which industry dynamics can be impacted by shifts in global commerce, geopolitics, and economic crises. This makes the model less appropriate in the current context and restricts its ability to adjust to modern corporate situations.

Another flaw in Porter's framework is that it lacks structural flexibility. Although the five elements are separated into separate categories, in practice, they frequently overlap and have an impact on one another. For instance, customers' bargaining power and the danger of substitutes are frequently tightly related. The threat of replacements may increase if consumers have more ability to demand better quality or lower pricing. Similar to this, an industry's competitive rivalry may be impacted by suppliers' bargaining power or the availability of alternatives. Porter's approach oversimplifies the complexity of real-world companies by treating these aspects as independent.

Merchant (2012) questions Porter's conventional wisdom by emphasising the emergence of "gazelles"—nimble, quick-thinking businesses that prosper in the modern, social media-driven, digital environment. These businesses outmanoeuvre established industry titans by prioritising speed and adaptability over market domination. For instance, Netflix's quick ascent upended Blockbuster, a business that did not adjust to the digital era. Porter's emphasis on attaining and preserving market dominance stands in contrast to this viewpoint, which stresses adaptability and prompt decision-making. In today's technologically advanced, fast-paced world, businesses must be more flexible than Porter's model implies.

The fact that Porter's model ignores the sustainability of competitive advantage is still another significant flaw. Although the approach emphasises gaining a competitive edge, it offers no guidance on how businesses might maintain that edge over time. On the other hand, frameworks such as the Resource-Based View (RBV) highlight how crucial internal resources and capabilities are to preserving a long-term competitive advantage. The RBV emphasises the development of distinctive competences that can yield long-term benefits, such as organisational culture, intellectual property, and technical innovation. However, Porter's Five Forces approach is less helpful for businesses looking to hold onto their market share because it provides little advice on how to develop or preserve these competencies.

In summary, although Porter's Five Forces model provides insightful information about industry competitiveness, it has a number of drawbacks that limit its applicability in the rapidly evolving business landscape of today. Its effectiveness is limited by its static character, oversimplification of market dynamics, disregard for internal considerations, and disregard for long-term sustainability. In order to successfully negotiate the intricacies of contemporary markets and sustain their competitive edge over time, businesses today require more dynamic, adaptable frameworks.

Inference on the Future Framework of Porter's Five Forces Model

The visual on Schools of Thought on Strategic Adjustments suggests an evolving and increasingly adaptive view of Porter's Five Forces model. Based on the depicted adjustments—ranging from minor to major—the following inferences can be drawn about the future of the framework:

Increased Contextual Sensitivity

- Future adaptations of the model are likely to integrate context-specific variables like:
- Time dynamics to reflect industry change over time
- Non-profit and small business considerations, which are often overlooked in traditional competitive analysis
- Corporate social responsibility and collaborative networks, especially relevant in sustainability-driven economies

Is the Five Forces Model of Porter Still Applicable Today?

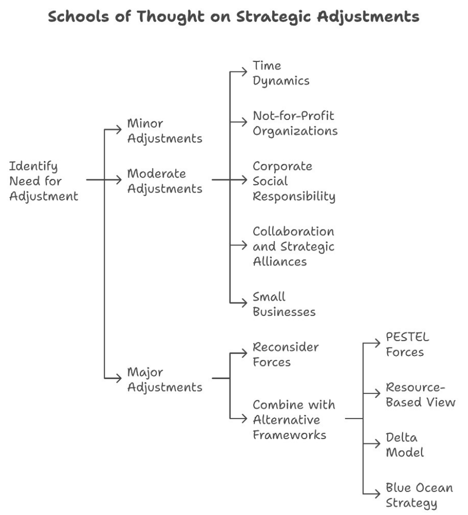


Figure 2 Porter's Framework Modifications

Expansion beyond Industry Boundaries

- The shift toward major adjustments suggests that:
- Traditional forces may not fully capture the realities of modern global, digital, and innovation-driven markets
- Forces will be reconsidered or redefined to reflect hybrid market behaviors (e.g., platform economies, gig work, AI disruption)

Integration with Alternative Strategic Frameworks

- Porter's model is likely to merge with or be complemented by:
- PESTEL Analysis, to factor in political, environmental, and technological forces
- Resource-Based View (RBV), to internalize firm capabilities alongside external threats
- Delta Model, to prioritize customer bonding over competition
- Blue Ocean Strategy, to focus on market creation rather than competition in existing markets

From Static to Dynamic

- Critics have long highlighted the model's static nature. Future versions will likely:
- Embrace real-time competitive intelligence
- Utilize AI and big data for dynamic force evaluation
- Adapt more fluidly to industry convergence and disruption cycles

Future Scope

Building on Johnson's description of innovation as an extra force, more investigation is necessary to determine how innovation affects industry rivalry. Examining how innovation shapes industry dynamics and how it influences strategic choices may provide insightful information.

Future research should focus on developing more dynamic iterations of the Five-Forces framework in light of the criticisms of the model's static character. This can entail adding adaptability and flexibility to match the dynamic competitive landscape.

Evaluating the Five-Forces model's applicability in other sectors and businesses is also essential. Research might look into whether the model needs to be adjusted to fit the unique features of the sector and provide best practices for using it in a variety of contexts.

Furthermore, it is important to investigate how industrial dynamics are impacted by cultural norms, geopolitical tensions, and regulatory laws. The framework would gain depth by researching how these elements affect strategic behaviour and competitive dynamics in different geographical areas.

Lastly, incorporating social and environmental factors into the Five-Forces paradigm may be crucial. Understanding how sustainability and corporate social responsibility affect industry rivalry and strategy is essential for making well-informed decisions as these concepts gain popularity.

Conclusion

This review research carefully examines the applications, limitations, and potential for improvement of Porter's Five-Forces model. It assesses the model's suitability and effectiveness in the contemporary business climate, highlighting the need for modifications to account for recent advancements like as globalisation, digital transformation, and technological revolutions. The paper also discusses the model's benefits and drawbacks, highlighting how crucial it is to include social and environmental factors while formulating strategic plans. Additionally, it highlights areas for further study to enhance the model's use, such adding sustainability, adapting to technological advancements, and improving its predictive abilities. The assessment's conclusion emphasises the Five Forces model's continued relevance as a critical strategic framework and calls for its advancement to stay up with the evolving business environment.

References

Adelakun, A. (2020). Should Porter's Five Forces have value in Businesses Today.

Anton, R. (2015). An Integrated Strategy Framework (ISF) for Combining Porter's 5-Forces, Diamond, PESTEL, and SWOT analysis. *Open Science*.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.

Beattie, A. (2022). The pitfalls of Porter's five forces. *Investopedia*.

Brandenburger, A., & Nalebuff, B. (2021). The Rules of Co-opetition. *Harvard Business Review*.

Dälken, F. (2014). *Are Porter's Five Competitive Forces still applicable? A Critical Examination concerning the Relevance for Today's Business*. University of Twente.

Dulčić, Ž., Gnjidić, V., & Alfirević, N. (2012). From Five Forces to Five Collaborations Forces: Revised view on industry structure-firm interrelationship. *Procedia - Social and Behavioral Sciences*, *58*, 1077-1084.

Grundy, T. (2006). Rethinking and reinventing Michael Porter's Five Forces model. *Strategic Change*, *15*(5), 213-229.

Hax, A., & Wilde, D. (2001). The Delta Model – Discovering New Sources of profitability in a Networked Economy. *European Management Journal*, *19*(4), 379-391.

Lee, H., Kim, M., & Park, Y. (2012). An analytic network process approach to operationalization of five forces model. *Applied Mathematical Modelling*, *36*.

Magretta, J. (2011). *Understanding Michael Porter: The Essential Guide to Competition and Strategy.* Harvard Business Press.

Martinez-Contreras, R. M., Hernandez-Mora, N. C., Vargas-Leguizamon, Y. R., & Borja-Barrera, S. M. (2022). Pestel Analysis and the Porter's Five Forces: An Integrated Model of Strategic Sectors. In R. Perez-Uribe, C. Salcedo-Perez, & A. Carvajal-Contreras (Eds.), *Handbook of Research on Organizational Sustainability in Turbulent Economies* (pp. 292-314). IGI Global Scientific Publishing.

Merchant, N. (2012). Why Porter's Model No Longer Works. *Harvard Business Review*.

Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Business Review*.

Porter, M. E. (2008). The Five Competitive Forces That Shape Strategy. *Harvard Business Review*.

Slater, S. F., & Olson, E. M. (2002). A fresh look at industry analysis. *Business Horizons*, *45*(1), 15-22.

Stonehouse, G., & Snowdon, B. (2007). Competitive advantage revisited: Michael Porter on strategy and competitiveness. *Journal of Management Inquiry*, *16*(3).