Five Forces Framework

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Abstract

Michael Porter's five forces framework builds on the contribution of industrial organizational economics and is a relatively comprehensive tool for assessing the attractiveness of an industry in strategic management. We trace the origins of the framework, portray the components in the framework, briefly review the empirical works and examine its utility. Finally, we review some of the factors that limit the generalizability of the framework.

Michael Porter's five forces framework portrays industry structure and explains its profitability. Industry structure analysis has implications for incumbents in an industry as well as for firms considering entry into the industry. Incumbents may develop effective strategies to deal with the threats from the different forces, while the profitability potential influences an entrant's decision to enter the industry. This contribution discusses the origins and the elements of the framework and pinpoints its key limitations.

Definition The five forces framework portrays the structure of an industry in terms of: (1) the threat from potential entrants, (2) the bargaining power of suppliers, (3) the bargaining power of buyers, (4) pressure from substitute products, and (5) the intensity of competitive rivalry. The structure is used to explain industry profitability and enable a firm to position itself favourably vis-à-vis its competitors.

Origins of the Framework

Porter built his framework for strategy formulation on two foundations. First, the ► structure–conduct–performance paradigm (Mason 1939; Bain 1968) in industrial organizational (IO) economics delineates the influence of the structural characteristics of an industry on the performance of firms through firm conduct in the form of pricing, advertising and product-related actions. The Bain–Mason paradigm focused on explaining industry-level, competition-reducing mechanisms from a public policy perspective and hence was not directly relevant for business policy practitioners. Also, traditional IO research presented a static view of industry, whereas policy practitioners believed that industry structure could

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be modified by firms' actions. IO work has since progressed to recognize the feedback effects of firm conduct on ▶ market structure and considers firm and industry as units of analysis among other issues that occupy centre stage for business policy scholars (Porter 1981). Second, the Learned, Christensen, Andrews and Guth (LCAG) framework in business policy (Andrews 1971) underscored the relations between environmental conditions, a firm's strengths and weaknesses, the personal values of implementers and societal expectations. However, it did not address ways to solve the day-to-day issues faced by general managers or the contents of each of the elements of the framework. It is against the backdrop of these developments that Porter introduced the five forces framework.

The Five Forces Framework: Determinants of Industry Competitive Advantage

Figure 1 illustrates the five forces framework proposed by Porter (1980). An industry is a group of competing firms offering customers similar products or services. The industry's underlying structure is analysed in terms of the five forces, namely, potential entrants, substitute products, suppliers, buyers and rivalry among existing firms.

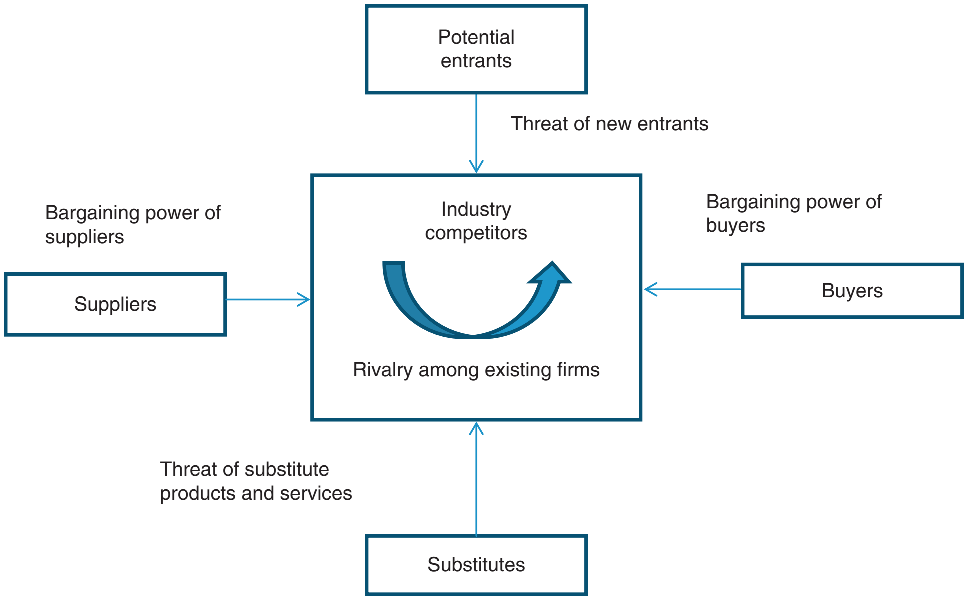
Threat of Entrants

Potential entrants threaten the market share of existing competitors by increasing supply and pushing prices down to competitive levels. Diversifying entrants – firms that have established businesses in other product markets – are capable of leveraging their capabilities and resources to develop a ▶ competitive advantage. For example, Microsoft leveraged its capabilities in software development, positioning it at a competitive advantage when it made an entry into the video game industry. Its most valuable weapon was Direct X, a set of application programming interfaces intended to make game development easy for third-party game developers (Hagiu 2006). Smaller entrants may threaten the market share of existing firms that have inefficient cost structures. For example, Southwest Airlines's focused, cost-efficient and price leadership strategies forced incumbents such as Delta Airlines to change their strategies. ▶ Entry barriers, the advantages accrued to incumbents relative to entrants and expected retaliation from the incumbents influence the rate of entry (Porter 2008).

Sources of entry barriers include economies of scale, which are the efficiencies incumbents gain from large-scale operation in different business functions, product differentiation advantages leading to customer loyalty and increased switching costs, initial financial resources for plant and equipment, other start-up costs, and/or R&D. Access to distribution channels gained through reputation and relationships over time, government policy and legal/regulatory restrictions in industries such as pharmaceuticals, trucking and liquor industries are also sources of entry barriers. Generally, increased entry is likely when entry barriers are low and incumbents are less likely to react through actions such as intensive advertising and price cuts. For example, start-up costs in the form of financial investments and distribution channels are few for potential entrants in the consumer application software sector, accounting as a factor for continuous growth in the sector.

Pressure from Substitute Products

Substitutes are goods or services that from the point of view of customers perform functions similar to those of the focal product. Substitutes constitute separate industries, which are often adjacent to the focal industry. For example, plastic is a substitute for steel in many end products. Substitutes depress sales of focal products when they have differentiated features valued by the consumers, are not part of the focal product experience and are available at competitive prices. For example, brick-and-mortar video rental outlets such as Blockbuster faced bankruptcy due to the competition from substitutes in the form of online



Five Forces Framework, Fig. 1 The five forces framework (Adapted from Porter 1980)

video rental services provided by firms such as Netflix.

Bargaining Power of Suppliers

Suppliers, the providers of inputs such as raw materials, technology and the components required to manufacture the end product, constitute the supplier industry. For example, in the automotive industry, manufacturers such as Ford, General Motors and Toyota constitute the focal industry; the supplier industry consists of firms such as Visteon and Delphi who supply the parts and accessories that make up the car. Supplier firms influence the competitiveness of focal firms primarily through their control over supply, quality and pricing of the inputs they provide to the focal firms. Suppliers tend be relatively powerful when: (1) they constitute a more concentrated segment than the buyer group to which they sell, and (2) they can pose a credible threat of forward integration. Further, suppliers tend to have greater bargaining power when their goods are critical to the buyer group's success and substitutes available to the buyer (focal) group of firms are scarce, which leads to high switching costs for the buyer group of firms. Also, diversified supplier firms are likely to exercise greater bargaining power in their relationships with buyer firms.

Powerful suppliers exert control over the relationship through actions such as unilaterally increasing the price of their products, limiting the availability of their products or through acquisitions to consolidate their sector.

Bargaining Power of Buyers

Buyers, the customers of the focal firms of the industry, influence the relationship with focal firms by demanding higher quality goods, lower prices and switching to substitute and competitor products. In many cases, the buyers constitute a separate industry. A firm's buyer group tends to be powerful when the buyer segment is concentrated, purchases a large portion of an industry (focal)'s total output and poses a credible threat of backward integration. In industries such as telecommunication equipment and bulk chemicals, which are characterized by high fixed costs, large volume buyers tend to be powerful (Porter 2008). Such buyers pose the threat of backward integration and of producing the focal industry's products themselves. Buyers tend to have greater power when they experience low switching costs, as is the case when firms in the focal industry produce standardized products. In the automotive industry, the buyer industry is made up of the general public purchasing the vehicles as well as businesses purchasing vehicles for industrial and business use.

Intensity of Rivalry Among Existing Competitors

Rivalry occurs and escalates among competitors through actions such as price cutting, product introductions and extensive advertising to improve their competitive position. Such actions typically prod other firms to respond, leading to a pattern of moves and counter moves.

When the industry is dominated by only a few firms, high stakes can be involved and firms often possess the resources to retaliate, leading to higher likelihood of intensity in rivalry. For example, the airline industry has witnessed intense price competition among the dominant players. Price competition benefits consumers but lowers industry profitability; moreover, this is a tactic that is usually easy for competitors to see and match. Declining industry growth, lack of differentiation and/or low switching costs also enhance the intensity of rivalry. Finally, high ► exit barriers arise from firms committed to the development of highly specialized assets, management's attachment to a particular business or large and fixed costs of exit, such as labour agreements and institutional restrictions. Such barriers also cause firms to continue competing in industries even when their performance falls below expectations.

In summary, Porter incorporates the ideas of extended rivalry (potential entrants, existing firms and substitutes), bargaining with suppliers and buyers, and efficiency in value chains, providing a frame of reference for managers to assess the profitability potential of an industry and identify success factors for operating in the industry. Using the concept of strategy groups developed by Hunt (1972), Porter extended the framework to give managers greater precision in their analysis, a topic to which we now turn.

Strategic Groups

Although the five forces framework is useful to analyse industry attractiveness, some firms are likely to be more profitable than others in an industry. Porter introduced the concept of strategic groups to explain differences in profitability among groups of firms operating in the same industry. An analysis of the competitive forces in an industry facilitates the classification of firms into clusters according to a selection of strategic dimensions that capture the similarities and differences in their ► competitive strategy. Such a classification provides an intermediate frame of reference for analysis between the entire industry and an individual firm (Porter 1980). Strategic groups in an industry are typically represented along a two-dimensional map. Strategic dimensions for classifying firms include the extent of product diversity, degree of vertical integration and pricing strategies. For example, firms in the pharmaceutical industry can be grouped according to product quality and pricing strategies. One strategic group is constituted by large firms such as Eli Lilly and Merck that invest heavily in drug development and patenting to produce branded products perceived to be of high quality. These firms also price their products on the premium end to recover development costs. Firms such as Teva Pharmaceutical, Sandoz and Mylan constitute another strategic group making generic drugs, investing significantly less in drug development and patenting. Further, their pricing strategy differs from the firms in the first group and targets a broader set of consumers.

Strategic groups differ from market segments in that the former portrays a firm along critical dimensions in the context of competitive groups in the industry, while the latter delineates distinct groups of consumers based on demographic and psychological attributes to enable development of products and services catering to heterogeneous and similar needs.

► Mobility barrier permeability prevent the movement of firms from one strategic group to another, making it difficult for firms in one strategic group to imitate strategies of firms in another strategic group. Firms in a strategic group tend to have similar market shares and competitive response and action profiles. Firms in strategic groups with high mobility barriers will generally be more profitable than firms in groups with low mobility barriers. Mobility barriers in an industry are not static, however, and structural and technological changes in the industry influence the formation of new strategic groups and dissolution of existing ones. For example, disintegration in the PC industry led to the creation of new dimensions such as value chain disintegration and coordination along which firms competed, a far cry from the full vertical integration strategies pursued by firms such as IBM and DEC in the early 1980s. Strategic groups in an industry tend to differ in terms of the bargaining power in dealing with buyers and suppliers, threats from substitutes and the extent of competitive rivalry, differences attributable to serving the needs of different customer groups, variation in technological sophistication of products, pricing strategy differences or degree of product differentiation.

Empirical Works

In a series of case studies across a range of industries, Porter (1983) demonstrated the utility of the framework for strategy formulation at the firm level. Empirical studies using the framework have attributed approximately 20 % of a firm's profitability to the structural characteristics of its industry. Additionally, industry is more significant in influencing profitability in service sectors such as wholesale and retail, while business segment effects dominate explanation of profitability in the manufacturing sector (Rumelt 1991; McGahan and Porter 1997). Industry profitability has also been shown to influence firm strategy in terms of the extent of diversification into other markets. Specifically, firms in less profitable industries tend to become more diversified (Stimpert and Duhaime 1997).

Empirical work has also demonstrated that strategic groups are not abstract artefacts (Nath and Gruca 1997; Osborne et al. 2001; Ketchen et al. 2004). The mechanisms that lead to strategic group formation include the risk propensity of firms to invest in innovation and the tendency of firms to imitate the innovator firms (Greve 1998; Lee 2003). Finally, although the relationship between strategic group membership and performance is not conclusive, performance differences have been found to exist across strategic groups (Ketchen et al. 2004).

Utility of the Framework: Implications for Decision-Making and Strategies

The systematic structural analysis of an industry enables potential entrants and incumbents to establish (or maintain) a competitive advantage with respect to competitors by making smart decisions. First, it allows an entrant to make informed decisions on entry based on the level of industry profitability and the strength of the five forces. Industry analysis also allows a potential entrant to devise strategies to gain a foothold in an industry where the five forces are strong yet incumbents have weaknesses. Second, the analysis enables an ► incumbent firms to assess the positions of competitors and prepare a competitor response profile (Porter 1980). Such a profile includes an understanding of the competitor's future goals, strategies, assumptions, strengths and weaknesses, allowing the focal firm to predict the competitor's likely future moves. Further, it enables an incumbent to choose and execute strategies to create a competitive advantage, mostly by creating barriers to entry/mobility barriers. Third, an understanding of the key entities in the industry allows an incumbent or entrant firm to build strategic interrelationships with key stakeholders to alter the bargaining power in its favour. At the extremes, backward or forward vertical integration may be options to either minimize these threats or establish dominance in the industry. Further awareness of the power of substitutes from another industry prepares the firm to devise defensive mechanisms from unlikely entrants.

Finally, recurrent industry analysis gears a firm to make timely decisions in exiting from industries that have become unprofitable or are likely to become unprofitable in the future.

Limitations of the Framework

Although the five forces framework has been highly influential in the strategy literature, two boundary conditions limit its usefulness. First, the framework assumes relative stability in the structural characteristics and hence does not explain the distribution of profits among industry players over time. For example, in technology-based industries, returns from innovation cannot be sustained by consideration of the industry factors alone. The intellectual and property rights regime in the industry, the significance of complementary assets and the stage of industry development are essential factors in influencing the distribution of profits between innovators and imitators (Teece 1986). Thus, industry factors alone fail to explain why leading firms fail when technologies or markets change. Reliance on established relationships with customers and suppliers has been shown to explain the failure of leading firms such as DEC when disruptive technologies introduced product characteristics unfamiliar to existing customers (Bower and Christensen 1995). In such industries, recognition of the importance of complementors making complementary products has gained prominence (Brandenburger and Nalebuff 1997) and so recent strategy textbooks scholars have added a sixth force, that of complementors. For example, in the computer industry, peripheral equipment and add-on suppliers have emerged as a strong force in influencing profitability of the computer manufacturers. Porter (2008) recognizes industry growth rate, technology and innovation, government, and complementary products and services as attributes influencing industry structure, but argues that a normative inference cannot be made regarding these factors, ruling them out as potential force (s) in the framework.

Second, the framework is best suited for industry analysis in developed economies. With its origins in the United States, the framework does not incorporate the influence of institutional contextual factors (such as market-supporting formal institutions) in developing economies (Narayanan and Fahey 2005).

Further, globalization has brought its own set of influences on industry structure and profitability. Globalization has made assets mobile, extending the possibility that firms around the world acquire the tangible and intangible sources of competitive advantage. This, in turn, has caused greater similarity in customer demands, supply capabilities and government policies. In a global economy, created assets such as technological capabilities, organizational systems and innovation skills gain prominence over natural assets such as land and untrained labour, just as the role of multinational enterprises and their strategies in coordinating with firms in host nations. Further, in a globalized economy, negotiating with international bodies such as the World Trade Organization (WTO) influences a multinational firm s competitive advantage. These factors influence the structure of the industry through their impact on the five forces in the industries of the nations in which the firms compete.

See Also

- ► Competitive Advantages
- ► Competitive Heterogeneity
- ► Competitive Strategy
- ► Entry Barriers
- ► Exit Barriers
- ► Incumbent Firms
- ► Industrial Organization
- ► Market Structure
- ► Mobility Barrier Permeability
- ► Structure–Conduct–Performance

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