The Determinants of the Attractiveness of an Industry: An Extension of The Porter’s Five-Forces Framework

By Osiebuni Collins OBU

Abstract- In this paper, I review and provide a more extensive theoretical grounding for Porter’s five-forces model for the determination of the attractiveness of an industry. I argue that the model is incomplete given its implicit assumptions about a firm’s financing activities in implementing its competitive strategy. I would suggest that an absolute paradigm for the determination of the attractiveness of an industry must take into consideration the industry’s optimal capital structure as well as the tendency for the power of providers of debt capital to vary across industries and to be crucial in the formation of industry profitability. Therefore, I propose an extended model for the determination of the potential profit of an industry, incorporating the industry’s optimal capital structure and the power of lenders. The pivotal connotation of this extended model is that the efforts of firm managers in formulating effective competitive strategies or in establishing a strategic position must not only consider ways of dealing with the bargaining power of buyers, the threat of entry, the negotiating power of suppliers, industry rivalry, and the threat of substitutes but must also account for the profit-contributory roles of both the optimal structure of the capital with which those strategies must be implemented and the power of lenders in setting constraints on the utilization of the firm’s capital, culminating in the proposition of a seven-structure paradigm for the determination of the attractiveness of an industry.

Keywords: industry attractiveness, competitive forces, optimal industry capital structure, power of lenders.

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I. Introduction

The extent of profitability of an industry varies from one industry to another industry and the profitability of a specific industry can be accounted for on the premise of the strength of competitive forces that are prevalent in that industry (Porter, 1980). Porter (1980) developed a model that strived to identify and explain the economic structures that shape the overall impending profit potential of a given industry. Specifically, Porter (1980) established the five forces framework that sought to account for the factors that underpinned the ability of a firm to create and capture profits within an industry. According to Porter (1980), the attractiveness of an industry (A) is a function of the bargaining power of buyers (B), the bargaining power of suppliers (SS), the threat of new entrants (E), the intensity of industry rivalry (R), and the threat of substitutes (S). The functional form representation of this theory can be expressed as follows.

Industry Attractiveness, A = f (B, SS, E, R, S)

Ensuing work implemented by several other researchers has corroborated or provided supplementary evidence that substantially lends credence to the model of industry attractiveness as proposed by Porter (1980). Notwithstanding the significance and appeal of the paradigm projected by Porter (1980), I would argue that it is not comprehensive. I maintain that there is at least one other variable that impacts on the fortunes of industries to a varying degree and thus possesses the capability to bear a tremendous threat on the long-run potential profitability of an industry. More explicitly, Porter’s model does not incorporate the fact that in non-perfect capital markets the value of a firm is dependent on its capital structure (Modigliani and Miller, 1958) and by implication the maximum value or attractiveness of an industry is also dependent on the optimal average capital structure of the industry. Modigliani and Miller (1958) posited that given perfect capital market conditions, the market value of any economic organization does not depend on its capital structure and is derived by discounting its expected cash flows at the discount rate suitable for the firm’s risk. The market value of an industry is analogous to and/or is one tool that can be applied in evaluating the attractiveness of an industry (Ceccagnoli, 2009). Porter’s model invariably provided grounds for explaining how the value of the expected cash flows of the firm emanates but clearly did not account for the role of capital structure in assessing the attractiveness of an industry under natural capital market conditions. Furthermore, Porter’s model did not consider the role of the power of lenders, who the firm may elect to leverage upon to implement its strategy and maximize the value of the organization, in the determination of the attractiveness of the industry.

In a bid to plug this orifice, this essay attempts to integrate corporate finance theory in accounting for the determinants of the attractiveness of an industry in consistency with the propositions of Myers (1974) for simultaneity in making company financing decisions and corporate investment choices given the high level of...
interdependence between them. This article also strives to explain why the concepts of the optimal capital structure of an industry and the power of lenders are indispensable elements of any completely specified paradigm of the attractiveness of an industry.

II. Key Assumptions and Definitions

Prior to advancing further, it is essential to: explain vital concepts; describe the bounds of this essay; deliberate upon the circumstantial foundation of the protracted theoretical paradigm of the attractiveness of an industry proposed; and scrutinize the significant assumptions that led Porter (1980) to exclude the optimal average industry capital structure and the power of lenders from his model.

a) Definitions and Scope

For the purpose of clarity and precision, I will provide a working definition of important concepts applied in this essay and delineate the scope of the model of interest. Andrews (1949) defined an industry as any cohort of individual businesses which are characterized by operational processes and systems that are tremendously comparable and having adequately analogous foundations of knowledge and experience such that each of them could produce the specific product that is the focus of consideration, and would undertake that if it is adequately profitable.

Hofstrand (2009) posited that profitability is the principal objective of the entirety of business organizations. In the absence of profitability, the business will lack the capacity to subsist in the long run, all other factors held constant. He further highlighted that profitability could be measured with a statement of income and expenses. While revenue is money engendered by the firm’s economic activities, expenses constitute the cost of resources expended in the course of undertaking the economic activities of the firm.

The attractiveness or potential profitability of an industry is not cast in stone and can change over a period of time, given that firms can influence the strength of the five competitive forces through competitive strategy (Porter, 1980). We can predict the profit potential or the attractiveness of an industry by utilizing the five-forces framework (Porter, 1980). In this essay I propose that the power of lenders and the optimal capital structure of the industry be incorporated into the framework for the assessment of the attractiveness of an industry. Finally, in this paper, the optimal capital structure is delineated to imply or infer the optimal usage of debt in the structure of the firm’s capital (Bowen, Daley & Huber, 1982).

b) Applicable Theories of Corporate Finance

Given perfect capital market conditions, Modigliani and Miller (1958) proposed that the market value of any business organization is not dependent on its capital structure and is derived by discounting its expected cash flows at the discount rate suitable for the firm's risk. Therefore, the theory proposed by Modigliani and Miller (1958) helps us to understand that in the absence of perfect capital market conditions, capital structure is an important determinant of a firm’s market value because of the tax benefits of debt, financial distress costs associated with debt and agency costs of asymmetric information.

Berk and DeMarzo (2006) enumerated several costs and benefits of incorporating debt in the capital structure. Tax benefits of debt result from the reduction in the taxable income of the firm arising from the tax deductibility of interest expenses on the debt of the firm. Thus, interest tax shield contributes to an increase in the value of a firm. Debt can assist the equity holders or investors of the firm in extenuating agency costs connected to the uncoupling of ownership from the management of the firm. Capital structure is also crucial for the reason that agency costs can emanate from asymmetric information. There is an occurrence of asymmetric information whenever the management of the firm is in possession of information about the firm’s risk, potential profitability, and prospects that are inaccessible to the investors or other imperative stakeholders of the firm. In this situation debt capital, or commonly the nature of the firm’s capital structure can be applied to signal the projections and prospects of the firm to members of the investment community and other crucial stakeholders of the firm. This can be monumental in ensuring that investors allocate the firm a befitting valuation in the course of any round of capital raising. Furthermore, debt can support the shareholders in precluding the managers of the firm from embarking on unwarranted consumption of perquisites or executing projects that do not engender positive cash flows for the firm. Although the usage of debt can be advantageous to a firm by enhancing the value of the levered firm, on the flip side, the existence of debt in the capital structure can generate substantial explicit and implicit costs in the event of crystallization of financial distress upon the firm. We understand that a firm can be in financial distress regardless of its capital structure. However, the exploitation of leverage can significantly raise the risk of bankruptcy since the firm is obligated to make payments of interests and repayments of capital borrowed, notwithstanding its liquidity and profitability. If the firm is wholly financed with equity capital, it is more likely to encounter a lower risk of financial distress because it is not obligated to make payments to shareholders.

Jensen & Meckling (1976) provided an exhaustive explanation of the agency costs associated with financing provided by outsiders. Jensen & Meckling (1976) identified that rational investors anticipate that their stake in the organization will alter the manager’s incentives. Therefore, they discount the value they are
prepared to pay for the shares of the firm. They further stipulated that agency costs can also arise when outside investors invest in the debt of a firm managed by insider owners. Debt financing engenders a motivation for asset substitution for the reason that debt enables equity to become a call option on the firm. Debt financing has other agency costs, including costs of monitoring and enforcing contractual covenant provisions as well as costs of bankruptcy and reorganization. However, Jensen (1986) pointed out that debt may also have an advantageous effect on agency costs in the manager - shareholders relationship since debt may also have an advantageous effect on agency costs in the manager - shareholders relationship since debt commitments the firm to pay out free cash flows and therefore introduces a constraint on the volume of funds accessible to the manager for spending on perquisites.

Finally, I summarize the works of Bowen, Daley & Huber (1982). Bowen, Daley & Huber (1982) deduced four main inferences from their research study. Firstly, there is a statistically significant variance between average industry capital structures. Secondly, that the rankings of average financial structures of industries were characterized by a statistically substantial steadiness over the complete period of time examined. Thirdly, that companies demonstrate a statistically substantial propensity to navigate towards their industry average over both five-year and ten-year periods of time. Finally, they furnished evidence consistent with the DeAngelo-Masulis postulation that the level of tax shields (made available by depreciation, tax credit emanating from the firm's investment activities, and tax loss carry forward generated from the firm's operating activities) contributes substantially in shaping the optimal utilization of debt in the financial structure of unregulated firms at the industry level.

3) Implicit Assumptions of the Porter's Five-Forces Framework

Porter's five-forces framework recognizes the power of suppliers in the determination of the likely profitability of an industry. I would believe the intention of Porter (1980) in incorporating suppliers into his model was not to associate or integrate suppliers of capital in his denotation of the concept of suppliers because there was no detailed description of the potential role of debt capital providers in the determination of the fate of an industry in his model. However, the ability of a firm to raise debt capital can significantly alter its profitability circumstances and the value of the firm (Modigliani and Miller, 1958). More so the nature and size of providers of debt capital can vary from industry to industry. For instance, in the banking industry, I would argue that the plethora of savings account holders can be viewed as providing debt capital but characterized by minimal bargaining power. However, in other industries, absent trade credit, debt capital is predominantly sourced from financial institutions. Thus, the power of providers of debt capital is fundamental in shaping the attractiveness of an industry and the magnitude of that power can vary across industries (Broberg, Tagesson & Collin, 2010; Sengupta, 1998). In the worst-case scenario, lenders can wholly shut down the competitive activities of a firm in the event of bankruptcy and take over the entire assets of the firm to the extent that it can support the recovery of their debt investments (Berk and DeMarzo, 2006). We can therefore understand that the power of lenders is a force that cannot be overlooked in the assessment of the potential profitability of an industry. This tendency of lenders or providers of liability to facilitate or debilitate the outcome of an industry in terms of profitability was not accounted for in Porter's five-forces framework. Thus, by not accounting for the role of capital structure and or liabilities (debt) in the determination of the future fortunes of an industry, Porter's framework makes two implicit assumptions, including the following.

1. The optimal capital structure of the industry has, at best, peripheral explicit effect both on the performance of a firm as well as the success of its strategy and on the attractiveness of an industry.
2. The firms in an industry always possess sufficient financial resources to implement their chosen strategy or can always finance the implementation of their strategy or the execution of their projects through the issuance of equity.

Taking into consideration the applicable theories of corporate finance, any theory that accounts for the determinants of the future potential profitability of an industry should incorporate a reflection of the optimal capital structure of the industry (OC) and the power of lenders (PL) within that industry as demonstrated in the functional relationship shown below.

Industry Attractiveness, \( A = f (B, SS, E, R, S, OC, PL) \)

III. Extending the Porter's Model of Industry Attractiveness (the Initial Steps)

a) The Power of Buyers

Porter (1980) undertook a thorough evaluation of the power of buyers. He posited that buyers embody a competitive force given that they can exert a downward pressure on prices, make an order for superior quality or additional services, and influence rivalry among competitors. Numerous other scholars corroborate the proclamations of Porter (1980). Kelly & Gosman (2000) observed that buyer concentration reduces profitability primarily in competitive industries as against in oligopolistic industries. Cowley (1986) observed that the profitability of a sample of business units was unfavorably connected to buyer concentration. Cool & Henderson (1998) demonstrated that buyer power elucidates a considerably larger fraction of the variance in the profitability of sellers than...
does supplier power. Contrary to Kelly & Gosman (2000), Schumacher (1991) recognized that exceedingly concentrated buyers display substantial power to weaken profitability particularly in oligopolistic industries specializing in consumer goods. Gabel (1983) demonstrated that the growth in seller profitability is directly proportional to the extent to which buyers are disseminated across numerous industries, nevertheless that no other buyer attribute applies a substantial effect on either the concentration or the profitability of the selling industry.

According to Porter (1980), a buyer group will be influential if it buys substantial volumes in relation to the total revenue of the seller, so it becomes financially crucial to the seller to retain the big buyer’s business. This position was corroborated by Snyder (1996), who demonstrated that big buyers obtain lesser prices from sellers, given that suppliers compete more aggressively for the business of larger buyers, creating an opportunity for big buyers to pay lesser than their smaller rivals. Buyers can seek to enhance their power. Porter (1980) highlighted that if buyers are either previously partly integrated or can credibly signal a robust threat of backward integration, then their bargaining power is strengthened. Inderst & Shaffer (2007) demonstrated that, in the aftermath of a merger, a retailer might be motivated to boost its buyer power by pledging to a ‘single-sourcing’ procuring strategy. The absence of influential buyer groups or price discrimination may lead to diminishing competition in the buyers’ industry. Grennan (2013) found that a greater degree of uniform pricing is unfavorable to hospitals resulting in softer competition.

Buyers can sometimes seek to match the degree of concentration within the ranks of suppliers. However, on some other occasions, they implement strategic actions to boost their productivity. Lustgarten (1975) postulated that buyer concentration was definitely associated with seller concentration and undesirably associated with the cost margin of seller prices. Snyder (1996) demonstrated that buyers’ mergers increase profit for all buyers, not just the merging pair, at the expense of the sellers. On the contrary, he further specified that the organic growth of buyers is detrimental to buyers that do not experience growth and is advantageous to sellers. Chambolle & Villas-Boas (2015) asserts that competing retailers may elect to differentiate their suppliers or supplying manufacturers, even at the cost of reducing the value of the goods proffered to consumers, in a bid to enhance their buyer power. Chipity & Snyder (1999) showed that cable operators integrated horizontally in order to achieve productivity gains rather than to improve their bargaining position against suppliers of programs.

Finally, the bargaining power of purchasers can also be a function of the importance of the supplier’s product in the buyer’s operations or business and the switching costs that must be incurred in a bid to change suppliers (Porter, 1980). Bedre-Defolie & Biglaiser (2017) postulated that in markets characterized by long-term contracts, early-termination or breakup fees, a form of switching cost, are gainfully exploited to preclude entry, notwithstanding the new entrant’s productivity advantage or switching costs levels, with accompanying effects of a reduction in the welfare of consumers.

b) The Power of Suppliers

Porter (1980) highlighted that suppliers could wield competitive power in an industry by elevating prices or diminishing the standard of quality of the goods they sell, squeezing the profitability of adjacent industries in the supply chain. Porter (1980) further argued that the factors that deepen supplier’s power include; the domination of the supplier group by a limited number of firms and the supplier industry possessing a greater degree of industry concentration than the industry it sells to; suppliers wielding a reliable threat of forward integration; suppliers not having one specific industry representing a substantial part of sales; the ability of the supplier to differentiate its products and establish switching costs.

Several studies corroborate these postulations. Cool & Henderson (1998) found the occurrence of various power concepts in the samples they studied. Additionally, they demonstrated that the effects of industry characteristics are more significant than the effects of organizational factors in accounting for the profitability of a seller and recommended that supplier power explains a substantial proportion of variation in seller profitability. Neumann, Böbel & Haid (1979) observed that market structure and risks existing within the ranks of suppliers account for a major fraction of the profitability of joint stock firms of German origin. Cowley (1986) observed that the profitability of a sample of firms studied are favorably related to the concentration of sellers.

Porter (1980) paid close attention to the power of employees and identified labor as a specific form of supplier. He posited that labor exerts great influence in numerous industries, and that the potential for labor to exert tremendous influence is dependent on the scarcity and skill of labor, the capacity for expansion of the scarce varieties of labor, the unionization of labor and the extent of organization of labor. Other factors can consolidate or erode the power of employees in influencing the attractiveness of industries. Employee wages, organizational culture, and employees’ organizational commitment can be a source of value creation and can vary across industries. Dickens & Katz (1986) observed that even after controlling for an extensive array of individual features and geographic location, a significant amount of individual wage discrepancy could be accounted for by industry disparity among non-union employees. Chasserio &
Legault (2009) observed that the creativity and innovativeness of highly skilled workers in Canadian business-to-business (B2B) technology services firms was a form of organizational commitment and a source of competitive advantage for these firms over firms in other industries. Christensen & Gordon (1999) demonstrated that the connection between culture and performance is contingent upon the type of industry. Bernhardt, Spiller & Theodore (2013) investigated minimum wage, overtime, and other workplace infringements in the labor market for low-wage employees. They observed the existence of significant disparity in both the combination and the pervasiveness of violations across industries. Weil (2007) noted that though government agencies would wish to see a reduction in the prevalence of infringements of workplace policies, constraints in available resources for investigation and the frequently-politicized environment surrounding regulatory decisions have resulted in agencies of government relying on worker complaints for enforcement of workplace policies. Additionally, Weil (2007) observed; that there exists a high degree of variation in complaint rate across industries and that fundamental compliance circumstances explicate a comparatively trivial percentage of total complaint activity. I would argue that such variations in compliance with workplace policies across industries can contribute to disparities in inter-industry value creation.

Additional factors that can facilitate or enervate the power of employees in influencing the attractiveness of industries include employee stability and labor productivity. Organizational performance is positively related to employee stability (Kurdi & Alshurideh, 2020), and labor productivity (Edwards, 1958). Employee stability, in turn, varies by industry characteristics. Feinberg (1979) observed that even after controlling for worker differences, more concentrated industries provide less stability in employment (excluding women and workers with the most outstanding educational attainments). Weiss (1966) noted that this would probably not be problematic if workers are compensated for the added employment risk; however, Weiss (1966) found, after accounting for personal characteristics, that more concentrated industries did not pay higher wages. Edwards (1958) demonstrated that labor productivity varies considerably from industry to industry and from industry group to industry group.

Researchers have observed the possibility for a consolidation or a weakening in the power of suppliers. Suppliers’ power can be debilitated by the embeddedness and brand recognition of firms in the successive stage in the supply chain. Kim (2017) demonstrates that customer concentration and interconnection unfavorably impact the supplier’s ensuing year returns on assets. In contrast mutual dependence augments them and decreases the unfavorable effect of customer concentration on the profitability of suppliers. Amato & Amato (2009) observed that the profitability of small manufacturing firms is unfavorably impacted by substantial market share of shopping-goods retailers. On the contrary, in markets for convenience goods, the big market share of retailers has no impact on manufacturers’ return. They posited that strong private brands might offer bargaining power for convenience goods retailers when they negotiate with brand manufacturing firms that have a national presence. Suppliers’ power can as well be strengthened by bundling practices. Chambolle & Molina (2019) demonstrated that buyers’ bargaining power elucidates the advent of bundling practices by a multi-good producer in foreclosing more resourceful upstream rivals.

c) The Threat of Entry

The entry of new firms into an industry frequently brings about a reduction in the profitability of the industry. Porter (1980) posited that new entrants to an industry introduce new capacity, the yearning to capture market share, and frequently tremendous resources. They can exert downward pressure on prices or worsen cost positions, reducing industry profitability. However, there are other consequences of entry that can improve the fortunes of incumbent firms. McCann & Vroom(2010)examined the prospect that entry could also furnish opportunities for existing firms. On the basis of the theory of agglomeration, which delineates the advantages that could emanate from collocation of competitors, McCann & Vroom (2010) explicitly investigated the agglomeration and competitive impact of entry by applying unique data about Texas hotels and found that existing firms could set higher prices when confronting entrants whose agglomeration advantages are expected to overshadow their competitive consequences. Geroski (1989) posited that under some conditions and to a certain degree, entry and innovation can stimulate the economic productivity of incumbent firms.

For entry to be made, potential new entrants have an expectation about attainable profits in the industry. Porter (1980) asserted that entry decisions frequently hover around the entry deterring price, which is defined as the price, which after adjusting for the good’s quality and service, is just sufficient to cover the expected rewards from entry against the anticipated costs. Porter (1980) additionally posited that entry costs into an industry would be dependent on the probable reaction from existing competitors and significantly on barriers to entry into the industry. The entry deterring price can be a limit price in which the incumbent firm charges a price between the monopoly price and the long-run average cost (Bain, 1949). However, under certain conditions, the limit price can lie above the monopoly price. Harrington (1986) demonstrated that, in a monopoly market, if the potential new entrant is not
certain about its cost function and if unit-level costs of the entrant and the incumbent firm have adequate positive correlation, the limit price will be higher than the monopoly price and entry can be deterred by the incumbent by setting a price that is equal to or greater than the limit price.

New players, in a bid to participate in production in an industry, must challenge certain barriers to entry. Porter (2008) posited that the entry barriers that would probably be confronted by a new entrant include “supply-side economies of scale”, “demand-side benefits of scale”, “customer switching costs”, “capital requirements”, “incumbency advantages independent of scale”, “unequal access to distribution channels”, and “restrictive government policy” (pp:26-28). Other researchers have demonstrated the existence and significance of entry barriers in various ways. Pehrssson (2009) observed that new entrants to an industry acknowledge the existence of entry barriers and respond both by selecting a broader product/market scope and by differentiating its products to a greater degree than executed by initial entrants. Ceccagnoli (2009) demonstrated that sturdier appropriability at the level of the firm, accomplished via patent protection or the proprietorship of dedicated complementary resources, results in greater financial performance, as evaluated by the market valuation of the equity of an organization’s R&D assets. Rosenbaum & Lamort (1992) demonstrated that entry barriers of product differentiation diminish rates of entry, and costs associated with sunk capital lower rates of exit. Dreher & Gassebner (2013) indicates that the occurrence of proliferation of procedures mandatory for starting a business, and a more immense minimum amount of capital required to bring a business to reality are damaging to the evolution of entrepreneurship or new entrants in an industry. Robinson & Phillips McDougall (2001) observed the mediating impacts of the stage of the industry life cycle and entrepreneurial strategy on the discrepancy in firm profitability and organizational growth. Burke & To (2001) demonstrated that investment in endogenous barriers to entry and wage ceilings on executive salaries might enhance market performance.

There are other sources of entry barriers, as demonstrated in a plethora of research works, though they are closely related to the entry barriers identified by Porter (1980). Schmalensee (2004) postulated that an increment in the significance of sunk cost is associated with a reduction in the attractiveness of entry, making it plausible in some policy settings to infer that sunk cost generates a barrier to entry. Eaton & Lipsey (1980) demonstrated that the durability of capital is a source of entry barriers. Mueller & Tilton (1969) demonstrated that research and development costs are a specific form of entry barrier arising primarily from the existence and degree of economies of scale in research and development activities and secondarily in the buildup of patents and knowledge by the incumbent firm. Eswaran (1994) demonstrated that an existing firm in a market susceptible to the threat of entry could capitalize on its first-mover advantage by incentivizing firms not including probable entrants but those that would otherwise not enter the industry to purchase a license to its technology in order to deter entry, effectively instituting licensing as a form of entry barrier to certain potential entrants.

Porter (2008) asserts that the threat of entry is dependent on the height of barriers to entry and the expected reaction of the incumbents to entry. Porter (1980) went further to assert that high entry barriers and the accompanying low threat of entry generate an auspicious environment for enhancement in firm performance. This assertion is consistent with the line of thought of several researchers. Schivardi & Viviano (2011) found that entry barriers are accompanied by considerably greater profitability and lesser efficiency of existing firms. Sharma & Gadenne (2010) demonstrated that prevailing organizations’ capacity for creating barriers to entry enables amplified opportunities for advancing their corporate performance and that the extent of executing quality management is positively related to entry barriers, diminishing the depth of threat of entry that could arise from new competitors. Sharma & Gadenne (2010), additionally demonstrated that organizations with great depths of managerial commitment to quality management and those that closely focus on the needs of customers have a proclivity for enhancing their competitive position. Cool, Röller & Leleux (1999) demonstrated that potential rivalry substantially diminished the profitability of organizations in the pharmaceutical industry in a study that spanned a twenty-year period.

The effectiveness of entry barriers can be influenced by a number of moderating variables. The effectiveness of capital as a source of entry barrier is critically contingent upon its durability (Eaton & Lipsey, 1980). Eaton & Lipsey (1980) defined the durability of capital as a particular capital commitment to a market over periods of time (intertemporal), in amalgamation with reducing costs. They, further, posited that an active strategy regarding capital durability and capital replacement is essential for maintaining a firm’s market power position. The effectiveness of regulations as an entry barrier can be mitigated by corruption. Dreher & Gassebner (2013) examined whether bribery and corruption diminish the unfavorable effects of regulations on entry into exceedingly regulated economies and demonstrated that corruption makes it easier for firms to enter highly controlled economies. Schnell (2004) found that an industry’s environment, and an entrant’s goals, attributes, and strategies impact the success of entry barriers in impeding entry into the unregulated airline industry.
d) The Threat of Substitutes

Substitutes are detrimental to the long-run profitability of an industry. Porter (1980) posited that substitutes constrain the profit potential of an industry by instituting an upper limit on the prices organizations in the industry can put in place. The greater the attractiveness of the price-performance tradeoff proffered by substitutes, the stiffer the lid on the profits of the industry (Porter, 1980).

Several other studies substantiate Porter’s overall postulations about the threat of substitutes. Ganitiya (2013) observed that the growth in the volume of production of cassava and corn as substitutes for rice in Indonesia may affect the quantity of rice imported. Forman, Ghose, & Goldfarb (2009) demonstrated that the parameters in prevailing theoretical paradigms of channel substitution including cost of offline transportation, cost of online disutility, and prices of products, available offline and online, interrelate to govern consumers’ preference for channels. On the basis of empirical observation, Forman, Ghose, & Goldfarb (2009) investigated the tradeoff between the advantages of purchasing online and the advantages of purchasing in a local retail outlet and demonstrated that when a retail store commences operation locally, consumers replace online buying with offline purchasing, even when they controlled for product-specific choices by geographic location. They further demonstrated that the entry of offline retail stores diminishes consumers’ sensitivity to price discounts offered by online stores. Lipatov, Neven, & Siotis (2021) observed that in a situation where by organizations execute competition on the basis of quality-enhancing promotion and prices in markets for differentiated goods, the entry or emergence of a closely perfect substitute to any of such goods, for instance, a generic variety of a pharmaceutical product, deepens competition on the basis of price but relaxes rivalry on the basis of product promotion.

Substitutes for a product, if currently absent, will definitely evolve from technological changes. Goldberg (1970) posited that, in the long run, technological transformations will generate products that constitute decent substitutes for a specified product in several of its markets.

Products that are strategic substitutes can have ripple effects on competitors’ actions in multimarket oligopolies. Bulow, Geanakoplos & Klemperer (1985) demonstrated that when competitors products are strategic substitutes, and they compete in multimarket oligopoly, a firm’s action in one market can transform competitor’s strategies in another market by impacting its marginal costs in that other competitive market.

e) Industry Rivalry

Porter (1980) posited that rivalry among prevailing competitors takes the conversant shape of competing for position by applying marketing strategies such as a price war, advertising skirmishes, the introduction of new products, and improved customer services or guarantees. Rivalry happens for the reason that one or more competitors either sense pressure or perceive the prospect of enhancing its competitive position.

Porter (1980) went further to elucidate the conditions necessary and sufficient for intense rivalry. He posited that when there are numerous players in an industry, the odds of having mavericks that will ignite rivalry is great, given that some firms may have confidence in their ability to engender moves devoid of being observed. Even if there are relatively few firms, if they possess approximately the same magnitude of resources for a continuous and robust retaliation, they may become susceptible to taking on each other. On the other hand, when an industry is associated with a high degree of industry concentration or is dominated by a single or a few firms, the equilibrium of relative power will be sustained for a more extended period and would also be visible to every participant in the industry. Porter (1980) asserted that there exists additional factors that could provide fertile grounds for intensive industry rivalry including, slow industry growth (by constituting a destabilizing power for competition), high fixed costs (by creating sturdy problems for all firms to plug capacity, frequently leading to quickly rising price cuts) and whether the industry product is viewed as a commodity or a differentiated product or otherwise. A plethora of scholarly works supports the expositions of Porter (1980) with regard to industry rivalry. Ferrier, Smith & Grimm (2017) showed that industry leaders would be more disposed to encounter erosion of their market share and/or deposition of their industry position relative to industry challengers in situations where they exhibit less aggression in competition, undertake more manageable range of actions, and execute competitive activities in a slower fashion. Mas-Ruiz & Ruiz-Moreno (2011) examined rivalry at the level of strategic groups within the Spanish banking industry and demonstrated that amplified rivalry and diminished performance characterized organizations fitting a strategic group that encompasses smaller organizations.

Industry rivalry has consequential implications for industry profitability. Cool, Röller, & Leleux (1999) showed that, during the 1960s, competition among the firms studied did not immensely impact the profitability of firms, nevertheless, in the course of the 1970s, rivalry among incumbents posed a progressively detrimental effect on firms’ profitability. Cool & Dierickx (1993) demonstrated that an examination of the United States pharmaceutical industry in the course of the period 1963 to 1982 showed that a considerable decline in industry profitability is sturdy related to growing competition. They further demonstrated that snowballing rivalry is connected with variations in strategic group structure.
and an attendant change from intra-group competition to inter-group rivalry. Teixeira Dias et al (2020) observed that rivalry and organizational size impacted competitive position, while dynamism, on the other hand, had minimal effects on competitive position. Chatain & Zemsky (2011) demonstrated that rivalry interrelates significantly with other competitive forces impacts on industry potential profitability.

IV. Further Extensions to the Porter's Model of Industry Attractiveness

a) Optimal Capital Structure of the Industry

Numerous studies have documented the existence of an optimal capital structure. In other words, a specific combination of debt and equity or a mix of capital structure that maximizes the value of the firm. Given certain conditions, Miller (1977) showed that a single optimal level of aggregate debt prevails for the entire corporate sector or industry. However, he also posited that debt and value are independent at the specific firm level. Modigliani and Miller (1958) investigated the importance of taxes for the irrelevance of equity versus debt in the capital structure of the firm and, together with Miller (1977) demonstrated that under certain assumptions, the optimal capital structure can be complete debt finance because of the preferential treatment of debt in relation to equity in the tax laws. Nevertheless, issuing equity does not amount to leaving shareholders’ money on the table in the form of superfluous company income tax expenditures. Miller (1977) demonstrated that an organization could generate higher after-tax income by elevating the debt-to-equity ratio and utilize this supplementary income to accomplish a larger payout to bondholders and stockholders. Still, this financial transaction would not certainly result in an increment in the value of the organization. This is because as equity is replaced with debt, the percentage of firm payouts by way of interest on debt capital increase in relation to payouts by way of dividends and gains on equity capital (Miller, 1977). If taxes on interest payments are higher than that on dividends as usually is the case, the advantage of debt finance to the organization is eliminated. In the final analysis we would end up with an optimal capital structure at which point there is no incentive to further increase debt or equity and that which maximizes the value of the firm (Miller, 1977). Other empirical works provide additional evidence in support of the existence of an optimal capital structure. Flath & Knoeber (1980) provided empirical abutment to theoretical proclamations that taxes and costs of financial distress do suggest an optimal capital structure, at least for industries. Lew & Moles (2016) investigated indications of the reality of an optimal capital structure and found evidence for the incidence of orderly patterns in debt ratios and approaches that firms adopt to regulate their capital structures. They asserted that these observations constituted implicit evidence for the paradigm of optimal capital structure and suggested that firms should seek to establish the appropriate capital structure predicated on industry and republic factors.

Although it is established that an optimal industry capital structure exists, whether firms actively seek to optimize their capital structure is another issue. Bowen, Daley & Huber (1982) demonstrated that companies exhibited a statistically substantial propensity to navigate towards their industry average over both five-year and ten-year periods of time. Myers (1984) contrasted two approaches to thinking about capital structure, including the static tradeoff framework and the pecking order framework. In the static tradeoff theory, the firm is perceived as setting a target debt-to-value ratio and steadily navigating towards it, in a manner closely related to the methods that a firm alters dividends to locomote to a targeted payout ratio. On the other hand, in the pecking order framework, the firm has a preference for internal over external financing, and debt over equity whenever it sells financial securities so that in the pecking order model, the firm does not possess any precisely-defined targeted debt-to-value ratio. Myers (1984) further argued that the pecking order theory accomplishes at the minimum as adequately as the static tradeoff theory in elucidating existing knowledge of financing preferences and their mean effects on the prices of financial securities.

The extant capital structure that is observable among industries does vary from industry to industry (Bowen, Daley & Huber, 1982; O’Reilly Media Inc, 2022) and is determined by specific industry attributes. This may imply that either the optimal capital structure varies from industry to industry and/or that not all industries are able to attain the optimal capital structure. Industry characteristics can exert a bearing on a firm’s ability to navigate towards the optimal capital structure or a firm’s preferences for capital structure. Numerous researchers have argued that, industry-specific attributes along with firm-level elements, can impose a noteworthy bearing on the financial choices of firms (Harris and Raviv, 1991; MacKay and Phillips, 2005). Saxena & Bhattacharyya (2022) explicitly analyzed the influence of industry-level characteristics on capital structure decisions of firms and found that an increment in industry munificence motivates firms to reduce their reliance on external financing and additionally that firms in a comparatively concentrated industry that is associated with more excellent opportunities for growth elevate their dependence on debt financing. Maksimovic (1988) demonstrated that, under certain conditions, there exists an optimal capital structure, which is dependent on the degree of concentration of the industry, the prevailing discount rate or cost of capital for the industry, the elasticity of demand, and other associated factors that impact on market equilibrium for products generated in...
oligopoly industries. Degryse, De Goeij & Kappert, (2012) demonstrated the existence of considerable heterogeneous intra-industry attributes, portraying evidence for the fact that the degree of industry rivalry, the extent of agency skirmishes, and the lack of homogeneity in the technology employed across industries are crucial determinants of the structure of capital in the industry. Bancel & Mittoo (2004) found that the financial policies of firms are shaped by both their international operations and the institutional environment. Kale & Shahrur (2007) found lesser levels of debt for firms functioning in industries characterized by predominant occurrences of joint ventures and strategic alliances with organizations in customer and supplier industries. They also found a favorable relationship between the firm level of debt and the extent of concentration in industries of customer and/or supplier in consistency with a negotiating attribute of debt.

The capital structure of a firm has consequences for the firm’s investment decisions, product strategy, product innovation, organizational profitability, the value of the firm, and therefore, the overall attractiveness of the industry. Myers (1974) postulated that corporate financing and investment choices should be executed concurrently, for the reason that both decisions intermingle in significant ways. Brander and Lewis (1986) demonstrated that the capital structure of a firm might signal the credibility of its precommitment to impacting strategic interaction within an industry. O’Brien (2003) proposed the necessity for organizations that seeks to develop a competitive strategy founded on innovation to maintain some level of financial slack, the absence of which might result in poor performance. Gill, Biger, & Mathur (2011) demonstrated that a favorable relationship exists between both short-term debts to total assets and total debt to total assets and profitability in the service industry. They also found a favorable relationship between short-term debt to total assets, long-term debt to total assets, and total debt to total assets and profitability in the manufacturing industry. Chevalier (1995) found that the announcement of leveraged buyouts (LBOs) of supermarkets elevated the firm market value of local rivals of the LBO chain and that supermarket chains have a greater propensity to make an entry and undertake expansions in a local market if a substantial proportion of the incumbent organization in the local market implemented leveraged buyouts. Abor (2005) found a substantially favorable relationship between the short-term debt to total assets ratio and return on equity for firms listed on the Ghanaian Stock Exchange but, on the contrary, an unfavorable relationship between the long-term debt to total assets ratio and return on equity and finally a significantly favorable relationship between the total debt to total assets ratio and returns on equity. Nasimi (2016) empirically analyzed the impact of capital structure and determined that an optimal level of capital structure, as well as effective application and allocation of available resources is fundamental to achieving the target level of productivity in business. Shubit & Alsawalhahn (2012) found substantially unfavorable relationship between debt and profitability for industrial companies listed on the Amman Stock Exchange in the course of a six-year time frame ranging from 2004 to 2009. Adeyemi & Oboh (2011) observed a significant positive relationship between the preferences for the capital structure of a firm and its market value within the ranks of publicly listed firms in Nigeria.

b) The Power of Lenders

Lenders are powerful and their tendency to portray this supremacy has various ramifications. Boot & Thakor (2011) demonstrated that since lenders will institute control rights over firms, firms have a preliminary management preference for financial securities that make the most of executive project-selection independence, suggesting the prevalence of lenders proclivity to exercise their power over firms through debt covenants that can restrict the executive capabilities of firm managers. The power of lenders is also exhibited in terms of the cost of debt capital provided or the amount of loan extended. Sengupta (1998) provides evidence that firms that receive high disclosure quality ratings from market or financial analysts have access to a lesser effective cost of raising debt capital. Broberg, Tagesson & Collin (2010) demonstrated that firms with superior disclosure practices have higher debt ratios. The power of lenders is also be reflected in the variability of the ease with which firms in various industries can raise debt capital. The airline industry is characterized by excessive debt load and a resultant excess capacity (Oum, Zhang & Zhang, 2000), signaling relatively more straightforward access to raising desired capital for capacity expansion. The real estate industry, including real estate investment trust companies (REITs) and property firms, have higher levels of debt capital because of their perceived lower level of operational risk in relation to other industries (Morri & Cristanziani, 2009).

There are variabilities in the power and nature of lenders native to a specific industry. Large retailers can substantially rely on trade credits from suppliers (Liberman,2014), who, because of their relatively smaller size, have lower bargaining power. The financial industry, and specifically commercial banks, are uniquely blessed with the breadth and depth of lenders that are available at its disposal. As I have previously suggested, deposit providers or savers in commercial banks can be viewed as lenders to banks with a flexible or indeterminate maturity on their loans (savings). In addition, commercial banks can access loans from the central bank (acting as the lender of last resort) in the
event of unforeseeable events, financial crises or a liquidity crunch. Banks have a financing advantage over firms in other industries from the perspective of having unparalleled access to lenders (savers) that are in a weaker bargaining position and to statutory lenders (the central bank) that would not renege on their promise or disappoint in times of adversity.

Many finance authors assert that the cost of debt is lower than the cost of equity (for example Modigliani & Miller, 1958). Therefore, a firm is likely to be more profitable, the higher the level of debt that is incorporated into its capital structure, all other factors held constant. As a result, a firm that can mitigate the power of lenders, by way of raising debt capital at a cheaper cost, stands a chance of enhancing its profitability. The ability of commercial banks to attract cheaper financing from deposit providers is fundamental to their profitability. Trujillo-Ponce, (2010) demonstrated, by the application of the GMM-SYS estimator to an extensive sample of banks in Spain, that the relatively substantial profitability of Spanish banks for the period studied was related to a significant fraction of deposits of customers, among other factors. Although Al-Harbi (2019) reported that deposits contributed negatively to the profitability of banks, this should be understood from the perspective of the interest rates paid on bank deposits, such that a rise in interest rates on bank deposits will result in a lowering of banks’ profits. Some large retailers develop cheap sources of debt by relying on supplier credit. For instance, Walmart, a retail behemoth in the United States, employs four-times more financing from suppliers than short-term debt (Liberman, 2014).

The power of lenders to advance loans or impose a higher cost of debt tends to be influenced by the disclosure practices of firms. Sengupta (1998) furnishes indication that firms that have the privilege of great disclosure quality ratings coming from financial analysts benefit from a lower effective interest cost of issuing debt. This observation is in line with the debate that a policy of timely and detailed disclosures diminishes lenders’ perception of the risk of default for the disclosing firm, decreasing its cost of debt. Broberg, Tagesson & Collin (2010) found that size, and the debt ratio are favorably related to the depth and breadth of material voluntary disclosures. Given that Industry characteristics significantly influence voluntary disclosures (Broberg, Tagesson, & Collin, 2010); the inclination for firms in industries with a more extensive intensity of concentration to make less disclosure and circumvent certain financing choices that have significant disclosure consequences (Ali, Klasa, & Yeung, 2014); and the variability of the power of lenders in consonance with disclosure practices (Sengupta, 1998; Tagesson & Collin, 2010), then I would argue that the power of lenders must exhibit a dependency on and is at variance with industry characteristics.

V. Conclusions

In this essay, I provided additional theoretical grounding for porter’s five-forces framework. I specified the elements that make the model incomplete and provided a theoretical justification for the incorporation of these elements. In the final analysis, I propose that the attractiveness of an industry could be more exhaustively explained by extending the five-forces framework into the seven-structure paradigm. The chief implication of this extended model is that firm managers’ attempt to formulate effective competitive strategies must not only consider ways of dealing with the bargaining power of buyers, the bargaining power of suppliers, the threat of entry, industry rivalry, and the threat of substitutes but must also account for the feasible industry optimal structure of the capital with which those strategies must be implemented and the power of lenders in setting constraints on the utilization of the firms capital.

References Références Referencias


