



RESEARCH PAPER

Revisiting Porter Five Forces Model: Influence of Non-Governmental Organizations on Competitive Rivalry in Various Economic Sectors

Anjeela Khurram¹, Dr. Saad Hassan² & Dr. Shahzad Khurram³

1. Researcher, RITM, University of Paris Saclay, France
2. Assistant Professor, School of Management, Air University, Islamabad, Pakistan
3. Assistant Professor, School of Management, Air University, Islamabad, Pakistan

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ABSTRACT

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Corresponding

Author:

anjeela.haroon@u
-psud.fr

This study aims to revisit an influential model in management literature—i.e., Michael Porter’s five forces model. It is used to determine the attractiveness of an industry through—buyers power, competitive rivalry, threat of new entrants, suppliers power and substitution goods. Notwithstanding the acclaim that this model has won, it is now facing mounting criticism due primarily to its limited applicability in ever changing global context. This study critically analyzes the literature available on the subject to bring into limelight the weaknesses of this model. We propose an integrated, comprehensive and updated model that captures effects of all forces including a new force—i.e., non-governmental organizations. We suggest that NGO activism interacts with each force to either ameliorate or reduce its effect on the competitive rivalry of the firms. Strategists, consultants and managers are recommended—based on this updated model—to include NGO activism in their assessment of industry’s attractiveness.

Introduction

Since its introduction in 1979, Michael Porter’s five forces model has been used to identify forces in any economic sector (industry) that drive competition and profitability (Johnson, Scholes & Whittington, 2008). This model molded the thinking of a generation of academics and practitioners and has been cited over 57000 times on Google scholar as of December, 2019. Until today, it is used by practitioners to determine the attractiveness of an industry (Magretta, 2011; Porter, 2008) and is being taught in business, economics and public policy schools (Bartlett, 2002; Grundy, 2006, Lee, Kim & Park, 2011). The simplicity and universality of Porter’s framework make strategists, consultants and firms to understand and easily implement the Porterian view of competitive advantage

(Aktouf, Chenoufi & Holford, 2005). Five forces included in this model are—buyers, threats by competitive rivalry, new entrants, suppliers and substitute products. The combined strength of these forces not only determines the definitive profit potential in the industry (Porter, 1980), but also helps to understand *strategic implications* for a firm within an industry (Porter, 2008).

That notwithstanding, limited attempts have been made to critically analyze and extend this model. In the face of hyper competition and swiftly growing industries, some researchers criticize the bearings of Porter's model to the modern world (e.g. Dälken, 2014; Grundy, 2006). Porter (2008) himself acknowledges difficulties in practical application as well as misapplications of the framework. In extant research some limitations in Porter's model—e.g., lack of depth, strategic insight and structured analysis etc. have been identified (Allio & Fahey, 2012; Lee et al., 2012; Magretta, 2011). More importantly, an established stream of literature recognizes the static nature of Porter's five forces framework and views it as devoid of the necessary dynamics (Dulčić, Gnjidić & Alfirević, 2012; Thyrlby, 1998). Its static nature wanes its relevance with evolving global competitive milieu (Karagiannopoulos, Georgopoulos & Nikolopoulos, 2005), limiting its applicability as a tool to gain sustainable competitive advantage (Aktouf, 2004). Therefore, it cannot gauge market trends in highly changing and dynamic competitive markets (Dulčić et al., 2012). Contributing to this stream of research, we suggest that several new phenomena—e.g., NGOs, have emerged during the recent decades, affecting remarkably the overall global business environment (Teegen, Doh, & Vachani, 2004; Vachani, Doh & Teegen, 2009), but are largely absent in this stream of research.

NGOs constitute the 8th largest economy (Yaziji & Doh, 2009), with more than 10 million NGOs worldwide. NGOs activism and influence have grown to such an extent that now NGOs are considered as a third sector (Yaziji & Doh, 2009). The influence of NGOs, on competitive rivalry and overall international business (IB) has been getting momentum (Teegen et al., 2004). NGOs behave as a force making firms to employ socially responsible strategies (e.g. Doh & Guay, 2006; Teegen et al., 2004). Despite the emerging and decisive impact of NGOs on firms, quite limited research has been devoted to explore the crucial effect of NGOs on the competitive rivalry among the firms in terms of Porter model (1980). We believe that several phenomena surrounding Porter's model and underlying market competitiveness are yet to be fully explored. One such phenomenon is exponentially increasing influence of NGO on market competitiveness. Our research fills this gap.

In this research, we have critically analyzed, if not all, most of the literature available on the subject. This study contributes to the existing body of literature in many ways. Firstly, this study complements with emerging phenomenon (e.g. NGOs) and opens the gateway for future researchers to examine the effects of the emerging forces in the realm of market competitiveness literature. Secondly, our

upgraded model better helps in identifying attractiveness of a today's industry. Thirdly, our work successfully complements the previous research that has attempted to explore the industry structure. Last but not least, firm to firm interaction and competitive forces effect on this interaction have been studied in terms of NGOs activism for the first time in literature.

This study is organized as follow. In the first part, we introduce the five forces model, highlighting its merits and outlining the criticism it has received in the research. In the same section, the emerging significance of NGOs in the international setting is discussed. Building on theoretical explanations, we then propose the significance of NGOs and present our case that why NGOs are important enough to be considered as a constituent part of Porter's five forces model in the discussion section. We conclude with limitations and implications of this research.

Theoretical Framework of Porter's Five Forces Framework

Porter's five forces model (**Figure 1**) identifies the forces that determine the degree of competition within an industry. This model is one of the most pragmatic strategic frameworks used today (Pringle & Huisman, 2011) as it successfully widens the routine myopic stance of managers to compete in a wider perspective (Grundy, 2006). It is considered fully workable for "strategic analysis even where profit criteria may not apply" (Johnson et al., 2008). It guides the positioning of organization, particularly within its industry, enhancing its capabilities to face competitive forces, or making them favorable (Hua, 2011). Porter's model shows that these five forces are intense in some industries – e.g., airlines, textiles, and hotels – and reduce their profitability as compared to some industries like software, soft drinks, and toiletries, earning them profit (Porter, 2008).

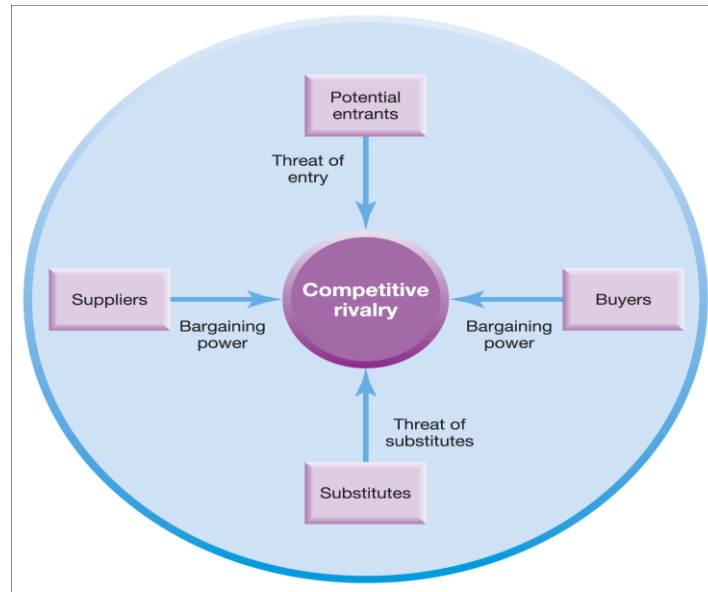


Figure 1: Porter's Five Forces Model

Porter's five forces model has its roots in the industrial organization theory, which states that market structure decides the behavior of market participants, thus determining the desirability of an industry in which a firm operates (Raible, 2013). Porter (2008) states that the underlying factors of profitability of all industries are same and include –global auto-industry, art masterpieces or health-care delivery industries in Europe. Mohapatra (2012), on the other hand, posits that the impact of Porter's forces cannot be assumed uniform for all industries; rather it tends to change with changing government policies and macroeconomic conditions.

Extant literature, therefore, criticizes the applicability of Porter's five forces model in the present digital era for being abstract and lacking practicalities (e.g. Grundy, 2006). Established in *the brick-and-mortar firm context*, Porter's model (1980) is quite opposed to the present *digitized business context* (Grundy, 2006). Besides, this model seems to be self-contained, not considering the dimensions of political, economic, social, technological and market growth factors and dynamics (Grundy, 2006). Downes(2000) also posits adequacy of Porter's Five Forces during years 1980's and 1990's. However, in the present age this framework needs rethinking and therefore, three new forces need to be introduced to Porter's Model –digitalization, globalization, and deregulation (Downes, 2000). In a similar line of inquiry, some researchers have also extended the original Porter' Model (Aktouf et al., 2005; Brandenburger, 1997) proposing a sixth force called "complementors" that should be included in Porter's framework. Building on this research, Hill and Jones (2014) proposes to include the power, vigor and competence of complementors as a sixth force. In revisiting his model, Porter

(2008) himself acknowledges that government and its subordinate variables can be considered as a factor not as a force. He finds that government does not exert direct influence as a competitive driver; only government policies can affect the five competitive forces (Porter, 2008). This line of research has yet not exhausted and demands a novel and a fresh view of forces to include several new emerging forces – e.g., NGOs.

Non-government Organizations (NGOs)

NGOs are the product of sustained social movements and their effect on IB has risen in recent years (Teegen et al., 2004; Yaziji & Doh, 2009). NGOs have become significant players in the global political, social, economic, and business environment, with 400percent increase in the number of international NGOs (Yaziji, 2004). In year 2001, 1.4 million NGOs existed in the USA alone, with approximate \$680 billion revenues and 11.7 million employees (Bass, 2002). The increasing salience, number, power and influence of NGOs on corporate behavior (Campbell, 2007) and government policies (Doh & Guay, 2006) resonate in research. Scholars have advocated the role of NGO activism in different domains – e.g., in defining the role, scope and definition of firms in the global economy (Khurram & Pestre, 2016; Khurram & Charreire-Petit, 2017; Teegen et al., 2004) and in shaping government-firms dyad (Doh & Teegen, 2004). NGO activism has its significant role in business behavior and governance, societal, governmental policy and legal and institutional structures (Doh & Teegan, 2003). This activism is determined also by the intensity of the negative externalities produced by firms. More and severe the negative externalities, greater will be the NGO activism (Soule, 2003).

Non-Governmental Organizations as a New Force

Extant research confirms the validity of Porter's framework for most competition-based economies. It is considered as relevant and applicable owing to its descriptive nature. However, in the era of internet and global networking, an extension of Porter's Model is inevitable (Ural, 2014). In line with this advocacy, other relevant forces should also be incorporated in the existing Porter's five forces model in the face of present, highly dynamic business context (Ural, 2014). However, an agreed stance what other forces to be included to Porter Model does not exist in extant literature, nor NGOs activism has been considered as a salient force affecting business dimensions. In this study, we posit that NGOs are important forces that merit the attention in terms of Porter's framework. NGOs activism can equally determine the competitive advantages of firms. In this study, we do not intend to challenge the merits of Porter's five forces model. We only propose that new drivers – e.g., NGOs have been gaining momentum in research, as far as their relationship with firms is concerned. Notably, in the era of globalization, the role of the booming sector of NGOs cannot be undermined in deciding the competitive position of firms. Therefore, in the following section, the

effect of NGO activism on relationship between market competitive rivalries in terms of each force in Porter's model will be discussed.

Threat of New Entrants and NGOs Activism

High or low barriers to new entrants in an industry determine the intensity of competitive rivalry (Anand, 2012). Various factors like economies of scale, capital requirements, buyers' resistance etc., determine the potential entry of new competitors in an industry (Martinez & Wolverton, 2009a). In this study, we propose that besides other drivers, NGOs also play a decisive role in determining the competitive advantage in an industry by facilitating or impeding entry barriers. Extant research acknowledges the influential impact of NGOs activism on firms' entry modes in the host country either by facilitating or impeding firms' investment plans (Henisz, 2000; Henisz & Zelner, 2000, 2006). One possible proposition is that NGOs persuade government institutions to implement new ISO standards. These ISO standards may readily be implemented by present firms, but would be difficult to be implemented and maintained by new competitors (Figure 2).

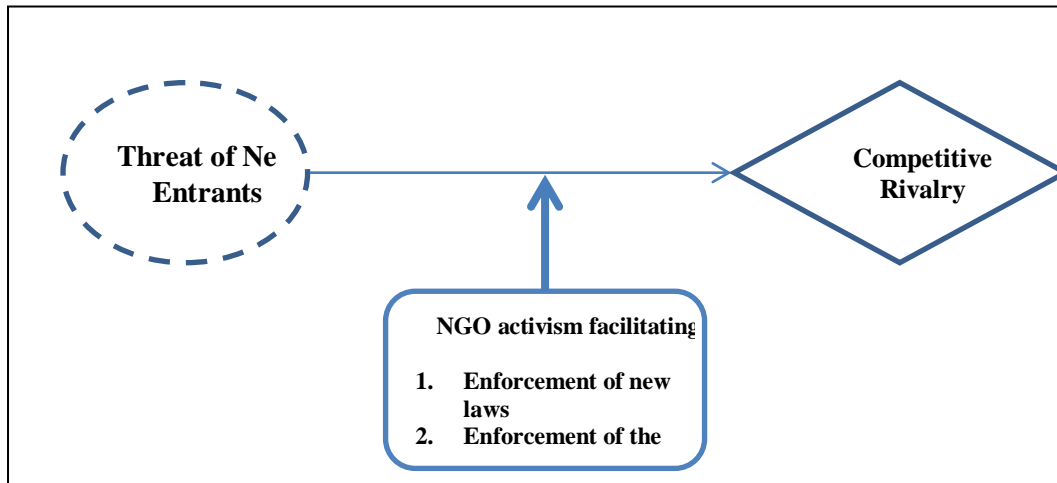


Figure 2: NGO activism on the relationship between Threat of new entrants and Market Competitive Rivalry

Institutional structure of a market may also determine the degree of competitive rivalry of firms in an industry. Institutional voids and unstable infrastructure in developing countries count for one of the major entry barriers to impede firms' operations and to affect their investment strategies. These barriers cause the risks of compromising intellectual property and brand names for firms. Owing to these institutional voids, firms cannot implement strategies to serve the bottom of the pyramid (Khanna, Palepu, & Sinha, 2005; Vachani & Smith, 2008). NGOs being institutional actors can fill these institutional voids and facilitate

firms. For example, with pharmaceutical multinational firm like Glaxo-Smith-Kline has collaborated with service-delivery NGOs in developing countries like South Africa to distribute AIDS drugs among poor without compromising their intellectual property (Vachani& Smith, 2004). This collaboration not only ensures the monopoly of multinational firms but also ensures that AIDS drugs should not be sold in gray markets of Europe and US, without hurting developed-country pricing strategy (Vachani& Smith, 2004). Therefore we propose that:

Proposition 1a. NGOs activism amplifies the effect of the threat of new entrants on competitive rivalry when it is directed to lower the entry barriers.

Proposition 1b. NGOs activism reduces the effect of the threat of new entrants on competitive rivalry when it is directed to raise the entry barriers.

Threat of substitutes and NGOs activism

Threat of substitutes determines the degree of competitive rivalry among firms in an industry. If various substitutes--products and services--are readily available, this attenuates the degree of competitive rivalry. In general, threat of substitutes is defined by the attributes--time, application and convenience (Martinez & Wolverton, 2009a, 2009b).

In this study, we propose the effect of NGOs activism on relationship between threat of substitutes and competitive rivalry by citing Volkswagen scandal (2015). Volkswagen has been violating the allowed emissions rates for engine since 2009. This violation was highlighted by a USA NGO--the Environmental Protection Agency (EPA)--in 2015, which raised its concerns about green emissions at ICCT (International Council on Clean Transportation). This NGO activism caused an immediate net loss of 1.84\$ billion in September 2015, pulling down Volkswagen shares from 38.03% to 23.08% in two weeks time. The total settlements for all courts and customer repayments are estimated to be 15\$ billion (Gates, Ewing, Russell & Watkins, 2017). The availability of substitute products and services by Volkswagen competitors like Renault, Peugeot, Nissan and BMW affected its market adversely (Zhou, 2016). This exemplifies that how NGOs activism can shape relationship between threat of substitutes and market competitive rivalry of firms in an industry (**Figure 3**).

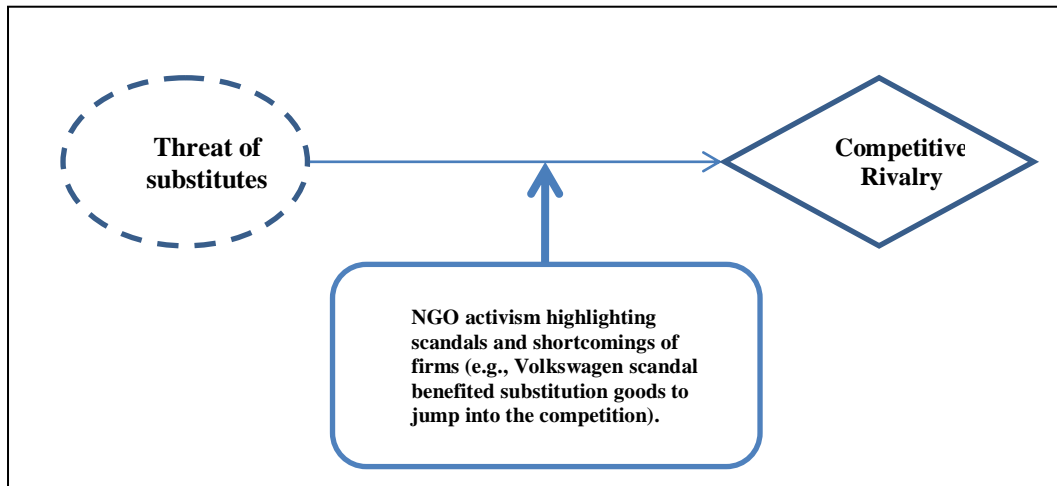


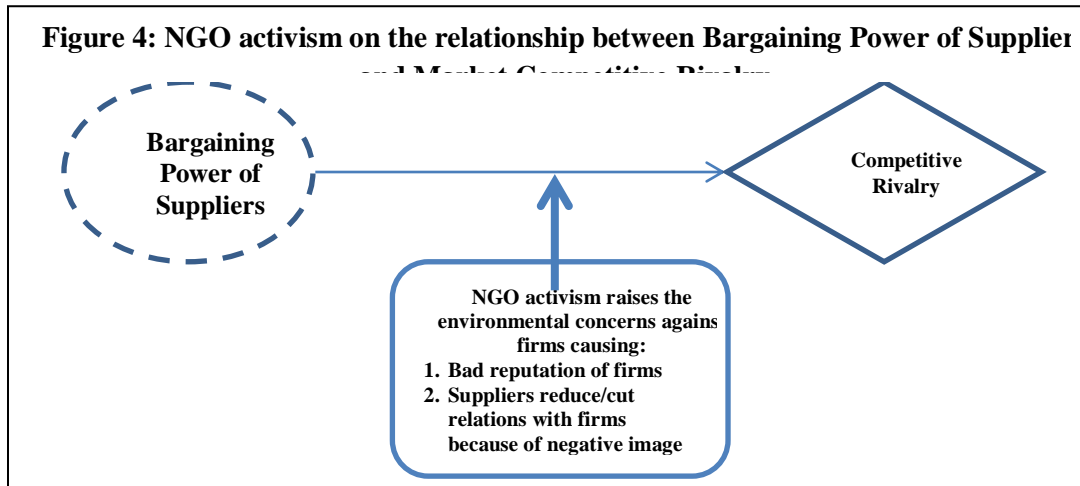
Figure 3: NGO activism on the relationship between Threat of substitutes and Market Competitive Rivalry

Therefore we propose that:

Proposition 2. *NGO activism amplifies the effect of threat of substitution on competitive rivalry to the extent it tarnishes the reputation of one economic sector giving an opportunity to another economic sector to provide substitution goods (e.g., Gas vs. Oil for vehicles).*

Bargaining Power of Suppliers and NGOs activism

The bargaining power of suppliers is determined by the factors like the size and number of suppliers and availability of alternatives (Olson & Slater, 2002). NGOs play a crucial role in affecting the power of suppliers. NGO activism can build or deteriorate an industry reputation, raising safety, social and environmental concerns (Vachani et al., 2009). This reputation, in turn, generates a bad and negative perception in the minds of its suppliers, and raises concerns against that industry worldwide. The suppliers, generally, do not want to mar their reputation and their market share, thus, they switch to others (**Figure 4**). For instance, Mattel, a Chinese toy maker, has always considered the aspects of social responsibility and workplace safety, thus a scandal of using lead and other harmful chemicals in toys cannot bring much NGO activism against it. Rather, Mattel tried to sort the problem out in collaboration with International Centre for Corporate Accountability (Vachani et al., 2009). On the contrary, the presence of pesticides in CocaCola in India aroused NGO activism and the company had to pay compensations (Stecklow, 2005).



Therefore we propose that:

Proposition 3. NGO activism amplifies the effect of threat of bargaining power of suppliers on competitive rivalry to the extent it successfully projects firms as socially and environmentally irresponsible.

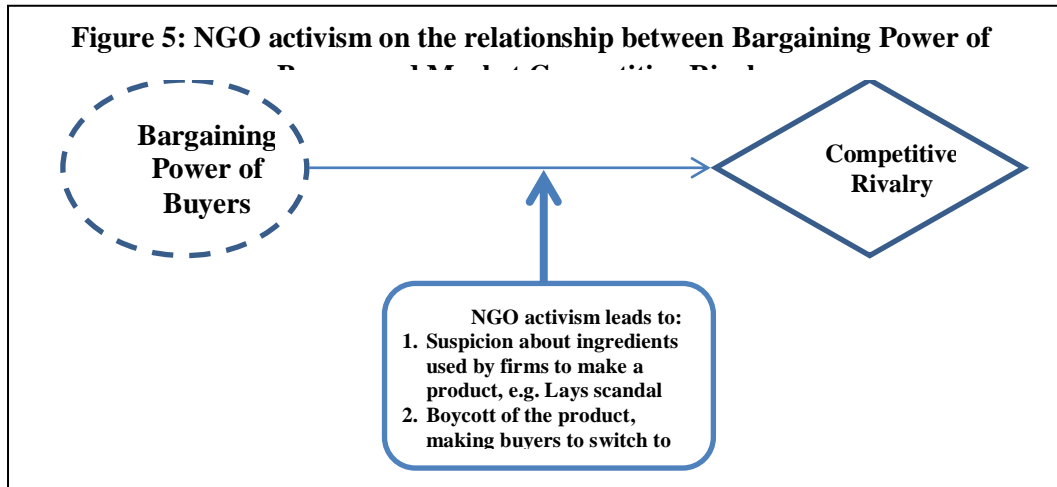
Threat of Buyers and NGOs Activism

When services or products become more standardized, buyers can readily compare offers, making more informed choices with lower switching costs (Pringle & Huisman, 2011). More options, new substitutes and new entrants erode the monopoly of an industry (Collis, 1999). The buying power is also affected by the parameters of information and choices (Martinez & Wolverton, 2009a), allowing comparison in terms of quality and breadth of offerings.

In terms of threat of buyers and competitive rivalry, we cite here an example of NGOs activism against PepsiCo for using E631 (mostly extracted from pig fat) in Lays in 2009. As pig fat is prohibited in Islam, this campaign has marred PepsiCo's image and sales in Pakistan, (Figure 5). Therefore, NGOs activism has affected the bargaining power of buyers. Another example comes from late 1990's, when a coalition among NGOs-- Greenpeace, Friends of the Earth (FoE) and the Rural Advancement Foundation International (RAFI) --had started campaign against GMO (Genetically Modified Organisms) (Yaziji & Doh, 2009). This activism has forced Aventis to GM StarLink corn from buyers paying back more than \$500 million, thus enhancing the power of buyers, which in turn affects competitive rivalry.

Therefore we propose that:

Proposition 4. NGO activism increases the effect of bargaining power of buyers on competitive rivalry when it successfully projects firms as socially and environmentally irresponsible.



In this study, we have proposed the effect of NGO activism on each force of Porter’s framework. Thus, we have incorporated sparse literature to present an integrated model. This integrated theoretical model seamlessly integrates NGOs activism as a force into Porter model and better explains attractiveness of various economic sectors.

Discussion and Conclusion

The Porter’s framework (1980) explains the degree of competitive rivalry in terms of forces—threat of new entrants, bargaining power of suppliers and buyers and threat of substitutes. This renowned model provides firms a strategic framework to better position themselves to gain competitive advantages (Grundy, 2006; Hua, 2011; Pringle & Huisman, 2011). Despite its eminence, extant literature is replete with criticism directed at the abstract nature of Porter’s five forces model in the current digital era (e.g. Grundy, 2006). This criticism is built on the argument that Porter model was considered adequate during years 1980’s and 1990’s, but this needs to be revisited and evolved with time (Downes, 2000). Therefore, some research has been conducted to upgrade this model. Downes (2000) has included three new forces like digitalization, globalization, and deregulation into the model, while various combinations of a sixth force called “complementors” have been added in the model by some scholars (e.g., Aktouf et al., 2005; Hill and Jones, 2014).

In this study, drawing from and extending Porter’s five forces framework (1979), we have shown how NGO activism affects the mutual relationship between each force and competitive rivalry in an industry to gain competitive

advantage for the first time in literature. NGO activism not only coerces firms to develop social development strategies, but also makes firms to realize their negative externalities. Similarly, this upgraded model also makes clear how firms in an industry struggle to get competitive advantage.

This study carries certain future implications. Strategists, consultants and managers can consider the implications of the presented propositions in terms of NGO activism *vis-à-vis* Porter's model in business contexts. This study opens avenues to investigate further this upgraded model to provide deeper insights and to anticipate the consequences of firms' strategies and operations in various institutional contexts. No research work is complete, until its limitations have been recognized. This upgraded model can attract researchers' criticisms for being general in nature. The implementations of this study in different industries may lead to different implications, owing to different institutional and macro contexts. However, the ascending influence of NGO activism in various economic sectors cannot be overlooked, which makes this upgraded model a better fit.

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