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Porosity or Tightness of the Barrier to Entry of A Coopetitive Market in the Alternative Transport Sector

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Abstract:*This paper attempts to study the behavior of the barrier to entry in a coopetition. We look at this barrier to entry (BtoE) through the prism of interactions between market actors and not that of market characteristics. The theoretical anchoring of this paper is based on the theory of the contestable market and a review of the literature to explain free entry and exit from the market. The primary data used come from the administration of a questionnaire to 321 clandos and 321 clients, and from 14 regulators of the activity to obtain cross-views. We adopt a hypothetico-deductive posture and a mixed methodological approach, quali-quanti, based on the qualitative compared analysis (QCA) in its mvQCA variant. The results show that the BtoE of this market is either impermeable or watertight, or permeable or porous under specific conditions. We obtain two theorical models of the tightness and porosity of the BtoE and their determinants.The coopetition, the distrust between clandos, a good reputation of the clandos, the decrease in the financial performance of culturally close national clandos, permeabilizes the BtoE of the market and an increasing financial performance of the clandos, doesn't permeabilizes the BtoE of the market.The trust between clandos and the cultural proximity of the clandos, impermeabilizes the BtoE of the market.Thus, we conclude that the market of clandos is contestable. We propose quite rich theoretical and managerial implications.*

Keywords: Barrier to entry, Coopetition, Porosity, Tightness,Market of clandos

I. INTRODUCTION

The concept of barrier to entry (BtoE) is transversal. It is used in several fields, including economics, law and management sciences. It must be taken into account when we seek to understand the position of a company compared to others already established in a given market. More precisely, when we explore the reasons that may dissuade new entrants from entering this market or certain companies from leaving it. The term refers to an obstacle that makes it difficult for a company to access a market.There is, however, a controversy over the types of obstacles that we might call "barriers to entry" (OECD, 2005, p.55). A cautionary note is summarized in OECD (2005, p.15) on several possible cases for judging a market and its BtoE, in particular "the fact that a firm has succeeded in entering a market in the past does not necessarily prove that it was easy, that this entry was significant in terms of competition, or that it is likely to happen again. Furthermore, potential entrants may not be subject to the same conditions as their predecessors. Conversely, a long period without new entry into a market does not necessarily mean high BtoE, nor does it mean that any new entry is unlikely in the future."The majority of work on the subject has always analyzed BtoE in the competition of large companies. It is rarer to find in the literature studies on BtoE targeting very small companies such as sole proprietorships (SP) in a coopetition. This is a strategy that is increasingly examined in various markets. BtoE depend on the market considered. To access these markets, companies must meet predominant conditions (Fjeldheim Ek &*al.*, 2010, p.10).This paper aims to see how BtoE behave in a coopetition between individual companies operating in the suburban transport sector, by seeking the causes in the behaviors and interactions of the stakeholders in the market. Suburban transport is a transport activity locally called, clandos, carried out by craftsmen or individual entrepreneurs who put their vehicles, often dilapidated, second or third hand, at the service of populations living in under-integrated neighborhoods, difficult to access by conventional taxis, who refuse to serve them. The reasons for the taxi drivers' refusal are the poor condition of the roads, the insecurity that reigns in these under-integrated neighborhoods, the untimely police checks, or the remoteness of these areas which are not profitable for conventional taxis. In the vein of Salop (1979) and Shepherd (1988) who distinguished innocent and strategic BtoE on the one hand, and exogenous and endogenous causes on the other hand, we will try to give the endogenous contextual conditions that show the porosity of the strategic BtoE of a coopetitive market of a transport activity. We will find the most contextual factors (OECD 2005, p.305) but the list is not exhaustive. We note that recent work on BtoE is rare, to our knowledge, particularly in the field of ecology as work on green barriers with porosity properties is extremely rare (Issakhov et *al*., 2022). Thus, our question is "is the suburban transport sector market free of entry?" In other words, is it contestable? The objective of this paper is to find the causes or conditions that explain that SPs (clandos) enter this market freely or not. The interest of this research is twofold. It is located in the completeness of the literature on the notion of BtoE and the search for new relevant factors or determinants which explain the porosity or permeability of the BtoE of a market in a coopetitive context, instead of a competitive context. To answer this research question, the outline of this paper will present the conceptual and theoretical approaches followed by the research methodology which will be essentially mixed, then we will present the results, their discussions and the managerial contributions, to end with the conclusion.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2. CONCEPTUAL AND THEORETICAL FOUNDATIONS

We present the notion of barriers to entry of a market, composed of individual companies, then the factors that would explain the tightness or porosity of these barriers to entry and then we will present our theoretical anchoring.

2.1. Barriersto entry: a notion without consensus

The lack of commonly accepted consensus on the definition of BtoE, causes many proposals on what exactly this notion is. Authors such as Bain (1956), Stigler (1968), Kotsios (2014) have given some of them. Bain (1956, p.3, 5) defines a barrier to entry as a set of advantages of established companies in a sector compared to potential entering companies, which is reflected by practicing prices higher than the minimum average cost in the long term without encouraging new companies to enter the market. As for Stigler (1968, pp.67-70), a BtoE can be defined as "a cost of production (...) that must be borne by a firm seeking to enter an industry but that is not borne by firms already established in that industry." McAfee &*al*. (2004, p.465) propose a pragmatic definition of the BtoE of a market, anything that has the effect of preventing entry into a market can be considered a BtoE. According to Kotsios (2014, p.2), "a barrier to entry can be defined as anything that restricts competition in a sector, when more competition would be socially beneficial." For Fisher (1979, p.23) "A barrier to entry is anything that prevents entry when entry is socially beneficial. »In the new context of the strategy where we are talking more about the strategy of coopetition instead of pure competition or pure cooperation, it is necessary to propose a definition of BtoE that fits better with this conceptual evolution of the field. We will retain the definitions of McAfee et *al.* (2004, p.465) and Kotsios (2014, p.2) that we will adapt by proposing a contextualized definition. Indeed, "BtoE are all the strategic factors or conditions developed by companies established on a market that relatively reduce in the short, medium or long term, the penetration of new entrants or the appearance of a new producer of goods or services on a coopetitive market in a given sector - when more coopetition can be socially profitable for clients." Strategic BtoE are intentionally set up by established companies, if necessary to dissuade potential candidates from seeking to enter the market. We will focus on the "hit and run" type of entry, i.e. the actor in a lightning operation enters the market because he sees an opportunity to make a profit. He can exit the market without cost if this opportunity disappears (OECD, 2005, p.58).We are in the presence of a market made up of individual companies. A sole proprietorship (SP) is the legal form of business creators who plan to exercise their activity alone, in particular thanks to the possible options for the micro-enterprise regime, the self-employed status. The company is confused with the personal assets of the entrepreneur. In our case, it is a craftsman, a driver who operates clandestinely or a suburban transporter.The market of clandos has BtoE. The endogenous causes of these BtoE are the result of strategic actions depending only on the established companies of the market (Shepherd, 1988, p.3). A large number of BtoE have been identified and examined in (OECD, 2005, p.16, 304) without being exhaustive, including equity, fixed costs, exclusivity agreements, regulations, territorial restrictions, economies of scale, reputation, cooperation networks, exit barriers, first-mover advantages, vertical integration, predatory pricing, etc. The barriers to entry in our context do not concern the characteristics of the market but they concern the exploitation, interactions and strategic behaviors of the actors installed in a restricted parking space, overcapacity, reputation or opportunism of the actors, first-mover advantages, alliances of cooperation and competition between actors, the level of revenue of the actors, links of trust or mistrust between actors, etc. These characteristics can influence the porosity or tightness of the BtoE. In the context of this study, porosity or permeability refers to the ease for new entrants to penetrate the market, while tightness or impermeability concerns the ability of established players to protect their positions. Appelt (2010, p.34) suggests a reduction in the number of independent firms, as recent market entry does not significantly alter competition unless it results in four or five new entrants at most. Business managers should assess a potential market by considering, among other things, the number of competitors - if the market is saturated with competition then it cannot accept any new entrants (EoM, 2009, p.885).

Market saturation is an additional barrier to entry (OECD, 2005, p.209). Hjalmarsson et *al.* (2014, p.4) consider high competition in a market and market saturation to be barriers - the only way to gain market share is for someone else to lose that same share. Sölvell (1987, p.112) notes that countries dominated by national firms are characterized by oligopolistic market structures and are therefore surrounded by considerable BtoE. We will examine in detail the contextual factors for the entry of an IE market, cited above.

2.2. Potential and contextual explanatory factors of a barrier to entry

The height of the BtoE depends on a wide variety of factors. The actions and reactions of established firms also matter (OECD, 2005, p.75). We present a category of entry conditions intentionally created or reinforced by established firms – but not always, with the aim of deterring entry. In this paper, we will exclude market characteristics such as prices and exit costs as BtoE, because they can easily change and they can distort a market by accentuating the rent of established firms (St-Amant, 2008, p.19). However, in our empirical case, they are fixed. The conditions sought are related to commercial BtoE - they are linked to the behaviors of established players in the market, in their daily interactions. These conditions are:

2.2.1. Coopetition: More Cooperation or More Competition

Basically, successful ecosystems require firms to balance competition and cooperation Hannah & Eisenhardt (2017, p. 1, 5, 35). The authors suggest that balancing competition and cooperation over time is done through the bottleneck strategy. In foreign markets, where firms are not present, all parties cooperate to overcome the BtoE of the market (Santos & Baptista, 2015, p. 11). After the BtoE is overcome and the first foreign firm has entered the market, cooperation turns into competition (Santos & Baptista, 2015, p. 11; Easton & Araujo, 1992). The ability to access some markets in developing countries or those with invisible BtoE such as Japan, may be possible only through cooperation with a local firm (Child &*al.*, 2005, p.2). Cooperation between an established firm and a new entrant can help overcome BtoE (Kogut &*al.*, 1995, p.82). Dal-Soto and Monticelli (2017, p.69) and Hannah and Eisenhardt (2017, p.35) emphasize, respectively, that cooperation helps gain resource shares to enter new markets and create BtoE. However, Khan (2017, p.746) notes the need to adopt a competitive process that would address BtoE, the emergence of bottlenecks, and the dynamics of bargaining power. Competition is seen in the literature as a regulatory force, an organizing principle of society and of the existing imbalances in markets (Maillard, 2005, p.14). Our context is a market with zero price variation as soon as new entrants, two or more, compete in a market (Appelt, 2010, p.84). Aggressive strategies used to threaten competitors can be withdrawn from the market once the competitive threat of the rival is removed or reduced (Paelo & Vilakazi, 2016, p.42). Bernat (2006, p.5) argues that firms that gain a position in a market are forced to deal with BtoE - when they have already gained it, they start to establish the same barriers to limit the possibility for others to catch up through competition. Karnani & Wernerfelt (1985, p.93) explain why high BtoE can promote defensiveness in competition: if an attacked firm is already in the market where BtoE are high, it would be more profitable to defend itself than to retaliate; if the offensive firm succeeds in putting the attacked firm out of this market with high BtoE. Luo (2007, p. 136) notes that low competition intensity exists because of high BtoE in the market. Competition creates BtoE and BtoE create market positions (Fjeldheim Ek &*al.*, 2010, p.10).We observe that the notion of BtoE is often associated, in the literature, with the strategy of competition. We will try to show that this is not sufficient and that it should be analyzed more with the strategy of coopetition. According to Dagnino &*al.* (2007, p.95), a system of actors that interact on the basis of a partial congruence of interests and objectives. Coopetition allows opportunities to be created, external obstacles to be moved or threats to be neutralized (Dal-Soto & Monticelli, 2017, p.69). BtoE create a significant limit that leads to the need to overcome them by developing peripheral coopetitive strategies (Granata, 2015, p.20). The construction of BtoE improves or strengthens cooperation between members and the success of the coopetition strategy (Granata, 2015, p.12) and risks slowing down competition (Dana & Granata, 2013, p.430, 439). A collective governance structure allows, among other things, the construction of BtoE and the agreement on the legal rules of use (Granata &*al.*, 2017, p.17).Luo (2007, p.136) argues that an isolation situation exists when firms maintain low cooperation and low competition and therefore low coopetition. Coopetitive relationships are protective in nature: they strengthen and protect market position and increase BtoE (Cygler &*al.*, 2018, p.5). Indeed, cooperation and competition create BtoE and cooperation alone creates market position, which protects established coopetitors from entry candidates. From the above, we infer hypothesis H1: "coopetition permeabilizes the BtoE of the market." Indeed, the component of coopetition that creates BtoE can be moderated by the other component, which thus lowers BtoE which are often high.

2.2.2. Trust or distrust

Trust is a social resource that facilitates cooperation by allowing for better coordination of interactions (Mayer et *al.*, 1995, pp.710-711; McAllister, 1995, pp.24, 32). McGee (2014, p.2) argues that a firm's trust immediately upon entering a market is significant and depends on early outcomes. The potential new entrant always enters the first time, thus, the uncertainty or distrust it may have about the unknown market it is about to enter never deters entry (Smith Ring et *al*., 2005, p.310). Jeon & Lovo (2011, p.3) suggest that people trusting the incumbent is a natural source of BtoE in reputation-based markets. According to Jeon & Lovo's (2011, p.23) model, there is no guarantee that new entrants will gain the public trust that is necessary to survive in markets. Small firms have had to sacrifice some degree of autonomy for trust in order to access markets with high BtoE (Child et *al*., 2005, p.45). The existence of specific barriers forms the response of mutual distrust in the interactions of society, firms and the state (Mihajlovich Krasavin & Aleksandrovna Krasavina, 2014, p.144). Larger incumbents may be wary of potential losses from underinvestment in the absence of an independent regulator (OECD, 2016, p.45). From the above, we infer hypothesis H2: "trust between actors impermeabilizes the BtoE of the market and distrust permeabilizes it." Indeed, we assume that mutually trusting clandos can band together to prevent new entrants into the market and distrust has the opposite effect.

2.2.3. The culture of the actors

Madsen (1994) and Claval (1992, p.6) define culture as attitudes, preferences and ways of doing things. Guiso &*al*. (2009, p.2, 11) and Huntington (2007, p.29) show that sharing the same language or the same culture promotes mutual trust which, in turn, has a positive influence on exchanges. Rousseau (2011) and Guay (2018, p.44) argue that members of the same community feel a sense of belonging and recognition in action. Linguistic or cultural proximity helps improve the understanding of certain economic behaviors (Ginsburgh, 2016, p.1, 13, 22). Ahlert &*al*. (2014, p.12) argue that the availability of appropriate market information and data only in local languages is a significant BtoE in a market. Characteristics such as language and habits constitute additional BtoE for market entry (OECD, 2005, p.209). Blees &*al*. (2003, p.54) highlight that cultural distance is an important BtoE related to foreign market penetration.From the above, we infer hypothesis H3: "the cultural proximity of actors impermeabilizes the BtoE of the market." Indeed, clandos who share the same nationality or language are culturally close and therefore can coalesce through nationalism or communitarianism to strategically prevent market access to new entrants who are not of their culture.

2.2.4. The reputation of coopetitors

In the definition of organizational reputation, Fombrun & al. (2000, p.241, 243) take it as a potential BtoE in management. Harbord & Hoehn (1994, p.417) ask the question: "in which cases [...] can a good reputation create BtoE?" Demsetz (1989, p.87) and Tullock (1965, p.464) introduce as innocent barriers, among others, reputation and experience (Wohlgemuth, 1999, p.182). Reputation serves to differentiate companies that have been present for a certain time on a market and functions as a BtoE against those that have not yet built their "history" (Maillard, 2005, p.9). Reputation can be a BtoE (OECD, 2005, p.106). If established entrants in a market already have a proven reputation for quality and reliability, a new entrant must incur substantial costs to convince its clients (Bucciorossi, 2014, p.31). This author also argues that the reputation deficit of the new entrant is a risk. For Jeon & Lovo (2011, p.2), the survival of a new entrant depends on its ability to accumulate a reputation compared to the established candidate. The reputation of already established players and the practice of long-term contracts in the market can constitute BtoE for new competitors by reducing their chances of success in the short term (St-Amant, 2008, p.33). Primary BtoE can be reinforced by the already established candidate if it succeeds in establishing a reputation of being a tough competitor who is willing to fight to enter the market rather than to accommodate (Bucciorossi, 2014, p.32). Established entrants can establish a reputation for predatoriness that is sufficient to further discourage entry by new entrants (Kreps & Wilson, 1982, pp. 254-255; Milgrom & Roberts, 1982, p. 281; Bucciorossi, 2014, p. 38). Innocent BtoE put incumbents who have earned a reputation for retaliating against new entrants in a position where they can effectively deter entry (Dotterud Leiren & Fearnley, 2007, p. 2). Market regulation would aim to incentivize players to "behave well" so as not to risk being called into question and suffering reputational consequences (Toledano, 2017, p. 18).From the above, we infer hypothesis H4: "a good reputation of the actors permeabilizes the BtoE of the market." Indeed, the clandos already established on the market with a reputation of cheating or opportunism, can contribute to dissuading potential entrants. Conversely, a good reputation on the respect of the rules, can give potential entrants, a perception of an environment conducive to business.

2.2.5. Financial performance: level of revenue of the actors

Ferguson (1974, p.10) argues that barriers to entry are the creation of unfavorable potential competitive factors, while established firms can set their prices above marginal costs and constantly earn monopoly profits. On the other hand, Aghion &*al*. (2007, p.1) show that financial development has no effect or a negative effect on the entry of large firms in a market on the one hand, and Bain (1956, p.3) argues that a barrier to entry is something that allows firms in the market to earn profits above normal without a threat of entry, and established players who have a high financial performance will maintain the BtoE of the market impermeable to continue to earn more, on the other hand. High charges for fares can be particularly damaging to competition, as their costs are likely to fall mainly on new entrants, who generally do not have a large enough revenue stream to cover such charges (OECD, 2008, p. 17). Incumbents, on the other hand, generally have larger revenue streams and capacity to match their acquired rights (OECD, 2008, p. 17). High charges for the deployment of fibre optics can discourage potential competitors to the incumbent operator, who generally do not have the same revenue streams as the incumbent operator (OECD, 2008, p. 82). For example, in the bus transport sector, a competitor was forced to use the incumbent operator's ticketing system, even though the incumbent operator did not pay the incumbent the corresponding revenues in a timely manner (OECD, 2008, p. 94). From the above we infer hypothesis H5: "an increasing financial performance of the players, permeabilizes the BtoE of the market." Indeed, candidates for entry perceive a market which favors the increase in revenues and therefore financial performance, as a flourishing market which can motivate the choice to enter it.

2.3. Theoretical anchoring

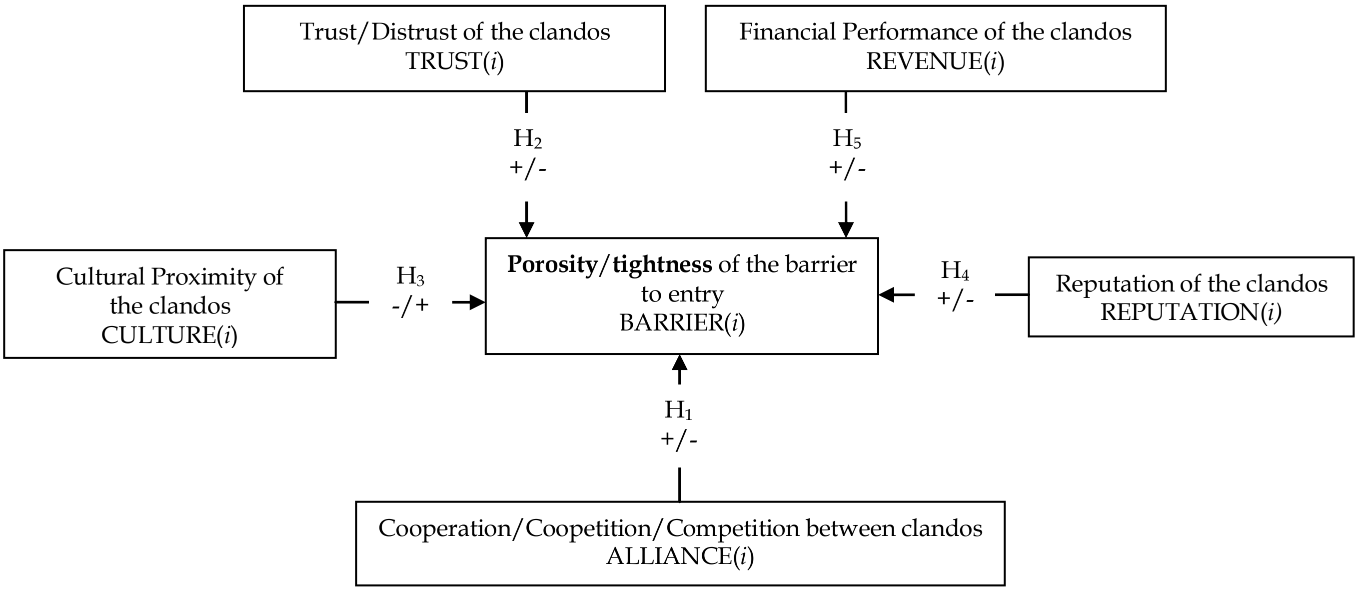
We anchor this research on the theory of contestable markets. Indeed, the theory of contestability of Bain, Sylos Labini and others, states that like active competitors, "potential competitors can constrain market power, so that when the number of those installed in a market is small or even limited to one firm present, sufficiently low barriers to entry can make regulatory or antitrust policy measures unnecessary" (Baumol & Willig, 1986, p.22). Firms can acquire market power (Santos & Eisenhardt, 2009, p.654) by entering components before others, and then preventing other entries (Jacobides &*al.*, 2015, p.46). According to Sylos Labini (1976) and theorists of contestable markets, competition is not measured by the number of firms in the sector but by the magnitude of the pressure on entry into the sector exerted by potential entrants. Baumol (1982, p.2) states that it is necessary to enrich the notion of competition, too often linked to the number of players in a market, with the notion of "contestable markets where barriers to entry must be non-existent or, failing that, marginal". To fulfill its character of contestable market, we ask ourselves the following questions: does this market meet the two conditions of freedom of entry and exit? In addition, are the costs incurred to launch on the market low? We note that the theory of contestable markets does not depend mainly on the number of companies on the market but essentially on the freedom of entry and exit on the markets to preserve the conditions of contestability. The empirical case studied presents some slight deviations in the conditions of application of this theory. This market is the scene of coopetition, that is, cooperation and competition of actors simultaneously. We therefore seek to show that this market is, under certain conditions, permeable or porous and under other conditions, impermeable or watertight. This freedom of entry and exit of SPs in coopetition, conferred by the theory of contestable markets, will give us the behavior of the BtoE of the market. Hence our research question "is the suburban transport sector market free of entry?" From the above, we infer the basic hypothesis H: "the suburban transport sector market is contestable."

2.4. Hypothetical model

The hypothetical model in Figure 1 summarizes the previous inferences. It indicates that factors such as trust between already established clandos, their reputation, coopetition between clandos, etc. promote the porosity or permeability of the BtoE of the market.

Indeed, trust between clandos can negatively impact the entry of new clandos into the market through a coalition effect of already established clandos or mistrust between clandos can positively impact the entry of new clandos because this coalition will not exist. Cultural proximity, which is based on language or nationality, would tend to negatively impact market entry through a coalition of already established clandos, who share the same culture. Cultural distance will have the opposite effect. A good reputation of clandos can have a positive effect on the porosity of the BtoE of the market because compliance with the market operating rule is good publicity to attract new entrants. A bad reputation of already established clandos, due to cheating or opportunism, will have a repulsive effect on new ones. Cooperation between clandos will have a negative impact on the porosity of the BtoE, because it leads to coalition and therefore creates a position of market power. Competition will have a negative effect on the porosity of the BtoE because established actors will impose, through acquired experience, their supremacy over entrants.

Figure 1: BtoE analysis model: determinants and their expected impacts



Source : Author 2024

However, coopetition will have a positive effect on the porosity of the BtoE because cooperation will mitigate the effects of competition and vice versa, hence the reduction of the BtoE.A decreasing financial performance of the players will tend to seal the BtoE of the market because the market will be considered uninteresting for candidates for entry. On the other hand, an increasing financial performance of the players already established will be perceived as a breath of fresh air for new entrants who will consider this market as buoyant and financially flourishing. As for a stable financial performance of the players already established, it will tend not to be considered as a determining selection criterion by candidates for entry into the market. We summarize the different hypotheses retained: H: "the suburban transport sector market is contestable."; H1: "coopetition permeabilizes the BtoE of the market."; H2: "trust between players impermeabilizes the BtoE of the market and distrust permeabilizes it."; H3: "the cultural proximity of the players impermeabilizes the BtoE of the market."; H4: "a good reputation of the players permeabilizes the BtoE of the market."; H5: “an increasing financial performance of the players, permeabilizes the BtoE of the market.”

III. RESEARCH METHOD

3. RESEARCH METHODOLOGY

We present the context, the research data, the variables used and their modalities, then the research methodology and the data processing technique.

3.1. Research context, data and variables used

The primary data that we used were captured by administering a questionnaire with a few questions adapted to the type of target. The sample was randomly constituted by 321 clandos and 321 clients who usually use clandos in the 6 districts of the commune of Libreville, capital of Gabon and in the two districts of the commune of Owendo, bordering the south of Libreville, on the one hand and it was constituted for convenience by 14 chargers who agreed to respond, on the other hand. The face-to-face administration of the questionnaire was done at the workplace of the loaders and clandos, between two shifts or on board the vehicles in the period between August-october 2023. The questionnaire contained 29 questions, 10 of which were open and 19 closed. They covered information on the actors, the relationships between them, the type of strategic alliance applied in this activity, the regulation of the environment, the rules applied in the activity, the conditions for entering the activity, market saturation, etc. The open questions will give us explanations on certain points such as the role of the loader, the behavior of clandos, etc. The same questionnaire was used for the three targets, but adaptations on some questions were necessary. We wanted to have cross-views from the stakeholders in the activity to better understand the phenomenon studied. We give an image of the clandos’ market by showing the BtoE that is created by the interactions and strategic behaviors of stakeholders, clandos, clients and chargers. Our context is a market formed by SPs or clandos in the suburban transport sector. It is a small market by the number of clandos. On the 14 sites investigated, we encountered a minimum of 20 SPs in a given site and a maximum of 100 SPs. Overall, we count 30 (SPs) on average per site. In addition, the sites in which the SPs operate are spatially

limited. The clandos park and occupy these public spaces managed by the Town Halls. The number of clandos and the smallness of the space allocated to the alignment of clandos, justify that this activity is a market quickly saturated by coopetitors and presents a BtoE. The SPs in this sector do not bear any exit costs because they can stop this activity at any time. On the other hand, the costs they incur to enter this market are limited to the payment of the deposit to the market regulator (20,000 FCFA) who in turn pays them to the cash register held by the President of the association of clandos; and 500 FCFA daily (i.e. 15,000 FCFA monthly) to be paid to the loader for his work. This market does not allow a SP to have a position of power because the regulator ensures this, by being as impartial and fair as possible. The strategy that reigns in this market is not only competition but coopetition composed of cooperation and competition. Indeed, clandos compete to park their vehicles in line to be the first to be loaded. Consequently, they will make as many trips as possible to make the maximum daily revenue. At the same time, they cooperate regarding the price of the journey that they set and apply by mutual agreement, 200 FCFA. In addition, the clandos get along because they are members of the clandos association in each site, which they created to perpetuate the activity. They organize their leisure time together, they play football together, they consider each other as brothers, they form a family in a given site and they assist each other in the event of mourning or marriage of one of them. The new clandos at the entrance to the market do not contest the position acquired by the already established clandos. These SPs do not make exorbitant profits over a long period of time but the latter are sufficient to attract potential coopetitors into the market (the daily revenue of aSP is estimated on average at approximately 20,000 FCFA or 600,000 FCFA or approximately 1000 euros per month).
Concerning the variables used, we retain the explained variable the BtoE coded BARRIER{i} which takes as modality BARRIER{0} which represents the porosity or permeability of the BtoE, that is to say the capacity of the SPs or clandos established in the market to let other candidates enter. We obtained it with the responses of the clandos, clients and chargers (what do you think if another clando is added to the circuit? Should clandos be added or removed? How many?); BARRIER{1} represents the tightness or impermeability of the BtoE of the market, which is the capacity to prevent its entry by new entrants. The explanatory conditions retained are: TRUST{i} whose modalities are TRUST{0} which represents the mistrust between clandos, the state of mind of someone who is on guard against someone else or about something; TRUST{1} which represents trust between clandos. REPUTATION{i} whose REPUTATION{0} represents the bad reputation of clandos who cheat with the alignment rule (they have opportunistic behavior) and do not welcome newcomers; REPUTATION{1} represents the good reputation of clandos who respect the alignment rule; the condition ALLIANCE{i} whose modalities are ALLIANCE{0} which represents the coopetition relationship between clandos with a preponderance of cooperation over competition, that is to say that clandos are more in cooperation than in competition; ALLIANCE{1} represents the coopetition relationship between clandos; ALLIANCE{2} represents the coopetition relationship between clandos with a preponderance of competition over cooperation, that is to say that clandos are more in competition than in cooperation.

Table 1: variables and their operationalization

Conditions	Valuesof variables		
BARRIER{i}	*i*=0 : Porosity of the barrier to entry (non-saturation of the market by clandos, it is possible to add clandos)	*i*=1 : tightness of the barrier to entry (market saturation by clandos, clandoss must be removed)	
TRUST{i}	*i*=0 : Distrustbetween coopetitors	*i*=1 : Trust between coopetitors	
REPUTATION{i}	*i*=0 : Bad reception by competitors at the start of the activity and cheating with the parking rule	*i*=1 : Good reception by competitors at the start of the activity and respect for parking rules	
ALLIANCE{i}	*i*=0 : Coopetition with more Cooperation	*i*=1 : Balanced coopetition	*i*=2 : Coopetition with more Competition
CULTURE{i}	*i*=0 : Gabonese nationality	*i*=1 : Nationals of Central Africa except Gabonese	*i*=2 : Ressortissants de l'Africaine de l'Ouest
REVENUE{i}	*i=0 :* Decrease in clandos' revenues	*i=1 : Clandos revenues at the same level or revenue stability*	*i=2 : Increase in clandos' revenues*

Source : Author 2024

The condition CULTURE{i} whose modalities are CULTURE{0} which represents clandos of Gabonese nationality, nationals; CULTURE{1} represents the clandos from Central Africa except the Gabonese clandos, these are the Cameroonian, Congolese, Equatorial Guinean, Chadian, etc. clandos. These last two categories represent the relatively individualistic Bantu culture of the citizens of Central Africa; CULTURE{2} represents the nationalities of the clandos from West Africa, with a more supportive and communitarian culture. These are 10 nationalities: Ivorians, Togolese, Ghanaians, Beninese, Burkinabe, Senegalese, Malians, Guineans, Nigerians and Nigeriens. As for the modality of the condition revenueREVENUE{i} which indicates the financial performance of the clandos already established on the market, REVENUE{0} represents the decrease in revenue, REVENUE{1} represents the stability of the clandos' revenue, that is to say that they remain at the same level and REVENUE{2} represents the increase in the clandos'revenue.

3.2. Data processing technique

Our approach is hypothetico-deductive. We adopt a mixed, quali-quanti methodology based on the technique of comparative quantitative analysis (QCA) in its multivariate version (mvQCA). It is a multi-case method. We justify this mixed methodology by the fact that we are trying to find new factors that would explain the porosity and/or the tightness of the BtoE of a new market (the suburban transport of clandos). The multi-case method allows us to examine a larger sample, in this paper 321 clandos, 321 clients and 14 regulating intermediaries, and is similar to quantitative approaches (Berg-Schlosser & De Meur, 2009). This method is also useful for generating new ideas, revealing processes, dealing with configurational complexities and equifinality, presenting subtle constructions, and exploiting extreme cases (Eisenhardt &*al.*, 2016, p. 1115) as in our context. Multiple cases generally yield more robust results and generalizable theory than isolated cases. Our methodology places us on the Ariadne's thread between quantitative and qualitative, as Passeron (1991) notes, current social sciences rather adopt an "in-between" posture. The mvQCA processing technique is suitable because it offers more advantages than the other variants Crisp-QCA (csQCA) and fuzzy-QCA (fsQCA). It analyzes multi-level conditions and can capture an additional dimension of causal complexity (Haesebrouck, 2016, p. 5). The Tosmana 1.61 software developed by Cronqvist (2018) enabled data processing. The main analytical steps of the mvQCA procedure are:

- The first step: the construction of the data table in which a value on the conditions and the result is assigned to each row or each case. mvQCA allows multi-value or multimodal conditions. In mvQCA, each category is represented by a natural integer (i = 0, 1, 2, 3...) (Cronqvist & Berg-Schlosser, 2009, p.70). These values represent the importance with which a single category is present in a given case, for example, for the variable condition{i} we can have condition{0}, condition{1 }or condition{2}). Once a value has been assigned to each case on the conditions and the result, the resulting data file is converted into a truth table. A QCA truth table contains a row for each possible combination of conditions. The number of lines of the truth table that gives the expressions of logically possible combinations, is given by the formula N(mvQCA)=2^{k2} * 3^{k3} …* n^{kn} with k=the number of conditions and n=number of modalities. In this paper, we have 2 binary conditions, 2 ternary conditions: 2^2*3^3=4*27 =108 empirical cases needed. In our context, we have 656. This sample is largely sufficient to obtain robust results. This robustness of the results will, therefore, allow to explain and to clearly identify the complexity of the phenomenon studied, in particular the behavior of the barrier to entry. The empirical cases are assigned to the line that corresponds to their specific combination of conditions. In the mvQCA, a result value of 1 is assigned for example condition{2}=1, if the result is present in all cases of a line. This indicates that the corresponding combination always leads to the result that suggests that it constitutes a sufficient combination. A result value of 0 is assigned to the row where the result is absent in each case, for example condition{2}=0. If a row in the truth table contains empirical cases where the results are present and cases where the results are absent, that row is considered a contradictory configuration. Rows in the truth table that do not correspond to any observed case in the field are considered logical cases.
- The second step: the reduction to the minimum of the truth table to arrive at a solution or a shorter formula, integrating the logical cases and contradictory cases, this is the parsimonious formula. Chanson & *al*. (2005, p. 33) explain that "*the parsimonious result represents the most reduced possible explanation of the phenomenon studied*". The conditions are expressed with capital letters, their modalities are presented in braces e.g.: condition{2}. Two basic operators are used in QCA. [*] Represents logical AND, which expresses the presence of the simultaneous combination of at least two conditions; [+] represent logical inclusive OR, which indicates that at least one of the two combinations of conditions is present. The arrow symbol [==>] is used to indicate that a combination of conditions is sufficient for the final formula. The double arrow symbol [<==>] is used to indicate that a combination of conditions is necessary for the final formula.
- The third step: simplification, the resulting complex expression can be further reduced with a generalization of Boolean minimization i.e. "*a condition can be considered irrelevant if a number of logical expressions differ in only this condition and produce the same results, and if all possible values of this condition are included in these logical expressions*" (Cronqvist & Berg-Schlosser, 2009, p.74). This suggests that this condition is superfluous and can be removed from the initial expression.
- The fourth step: interpretation of the final simplified formulas with their explanatory conditions.

IV. RESULTS AND DISCISSION

4. RESULTS AND DISCUSSIONS

We present the formulas of the porosity and impermeability of the BtoE of the market and their interpretations, then the discussion of the results and the managerial contributions.

4.1. Parsimonious formulas: impermeability and porosity of theBtoE

The interpretation of the formulas below from the Tosmana 1.61 software, indicates to us that the explanations of the impermeability and porosity of the BtoE of the activity concern the already established clandos as underlined by OECD (2005, p.75) and Shepherd (1988, p.3) who argue that the endogenous causes are the result of strategic actions depending only on the established companies of the market.

4.1.1. Parsimonious formula (F1) of the impermeability of the BtoE:

ALLIANCE{0+ALLIANCE{1}[TRUST{0} + REPUTATION{1}] + ALLIANCE{2}*REPUTATION{0} + CULTURE{1}*REVENUE{0} + [CULTURE{0} + TRUST{1}]*REVENUE{1} ==> BARRIER{1}*

The barrier to entry into the clandos' market is impermeable or impervious:

If clandos are more in cooperation than in competition. (OR), if they are in coopetition (AND): either, they distrust each other, or, they have a good reputation, that is, they do not cheat with the parking rule. (OR) if they are more in competition than in cooperation and they have a bad reputation, that is, they are opportunists. (OR) if they are mainly nationals of Central Africa (except Gabonese clandos) and they have decreasing revenues. (OR) if they have stable revenues (or revenues that are at the same level, that is, their financial performance is not impacted at all) (AND): either, they are nationals (Gabonese), or, they trust each other.

4.1.2. Parsimonious formula (F2) of the porosity of the BtoE:

*ALLIANCE{2}*REPUTATION{1}*[CULTURE{2}+CULTURE{0}*REVENUE{0}+CULTURE{1}*TRUST{0}*REVENUE{1}]+ALLIANCE{1}*CULTURE{2}*TRUST{1}*REVENUE{0} ==> BARRIER{0}*

The barrier to entry to the clandos' market is permeable or porous:

If the clandos already established on the market are more in competition than in cooperation and they have a good reputation, that is to say they do not cheat with the parking rule (AND):

- either, they are from West Africa;
- or, they are nationals (Gabonese) and they paradoxically have decreasing revenues;
- or, they are nationals of Central Africa (except Gabonese clandos) and they are wary of other national clandos and nationals of West Africa.

(OR) If the clandos already established are in coopetition (AND) they are mainly nationals of West Africa (AND) they trust each other (AND) that their financial performances are paradoxically decreasing.

4.1.3. Validation of hypotheses and theorical models

The two formulas obtained (F1) and (F2) allow us to confirm and refute our different research hypotheses.

Table 2 : Décisions sur les hypothèses

Hypothèses	Décisions	Necessary conditions
H1: "coopetition permeabilizes the BtoE of the market"	Validated	if and only if the clandos are from West Africa, are culturally close, trust each other and have a decreasing financial performance.
H2: "trust between actors impermeabilizes the BtoE of the market and distrust, permeabilizes it"	Validated	for trust which impermeabilizes the BtoE, it is if and only if the financial performance of the clandos decreases and for distrust which permeabilizes the BtoE it is if and only if the clandos are culturally close and are from West Africa.
H3: "the cultural proximity of the actors impermeabilizes the BtoE of the market"	Validated	if and only if the financial performance of the clandos from West Africa decreases or if and only if that of the nationals is stable.

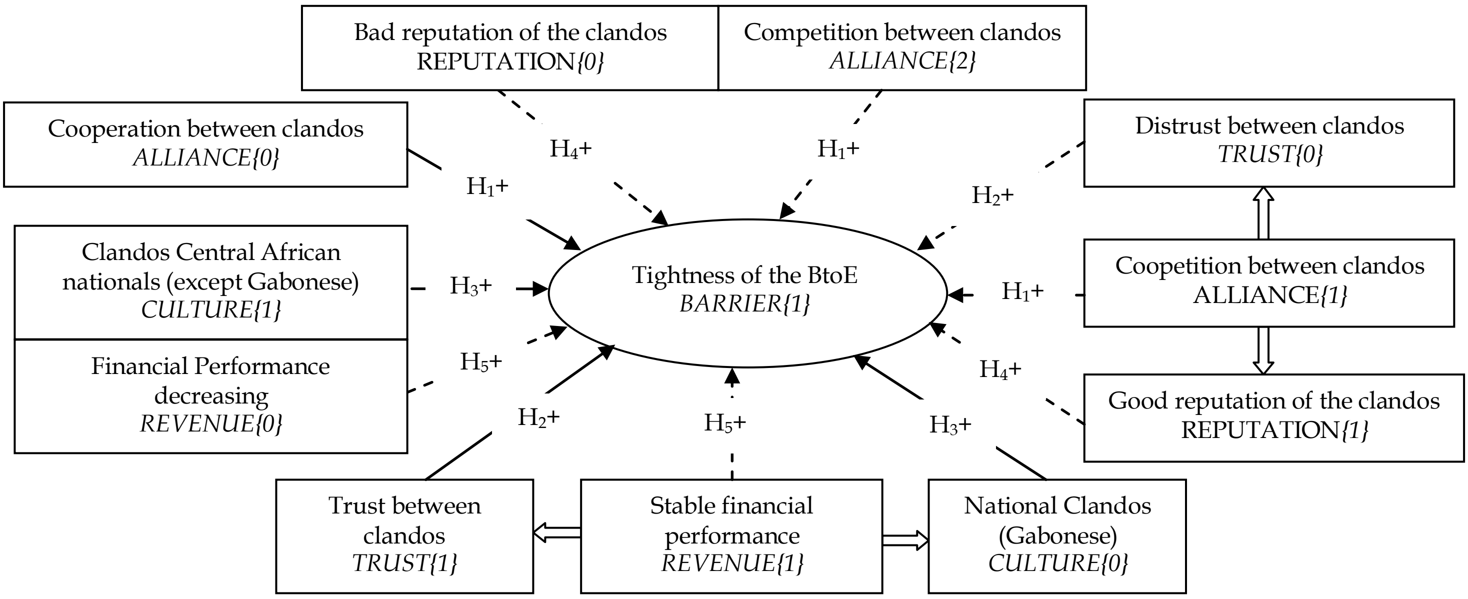
H4: "a good reputation of the actors permeabilizes the BtoE of the market"	Validated	if and only if the clandos are in coopetition with a preponderance of competition over cooperation.
H5: "an increasing financial performance of the actors, permeabilizes the BtoE of the market"	Refuted	because we have rather obtained a counter-intuitive result which is "the decrease in the financial performance of culturally close national clandos, permeabilizes the BtoE of the market.

Source : Author 2024

We obtained two other counter-intuitive results:
- The clandos in coopetition impermeabilize the BtoE if and only if they have a good reputation or if and only if, they distrust each other;
- The clandos in coopetition with a preponderance of competition and having a bad reputation, impermeabilize the BtoE.

Hypotheses H1, H2, H3, H4 and H5 allow us to partially confirm hypothesis H: "the market of the suburban transport sector is contestable." Taking into account all the results of this research allows us to deduce the theorical models of figures 2 and figure 3.

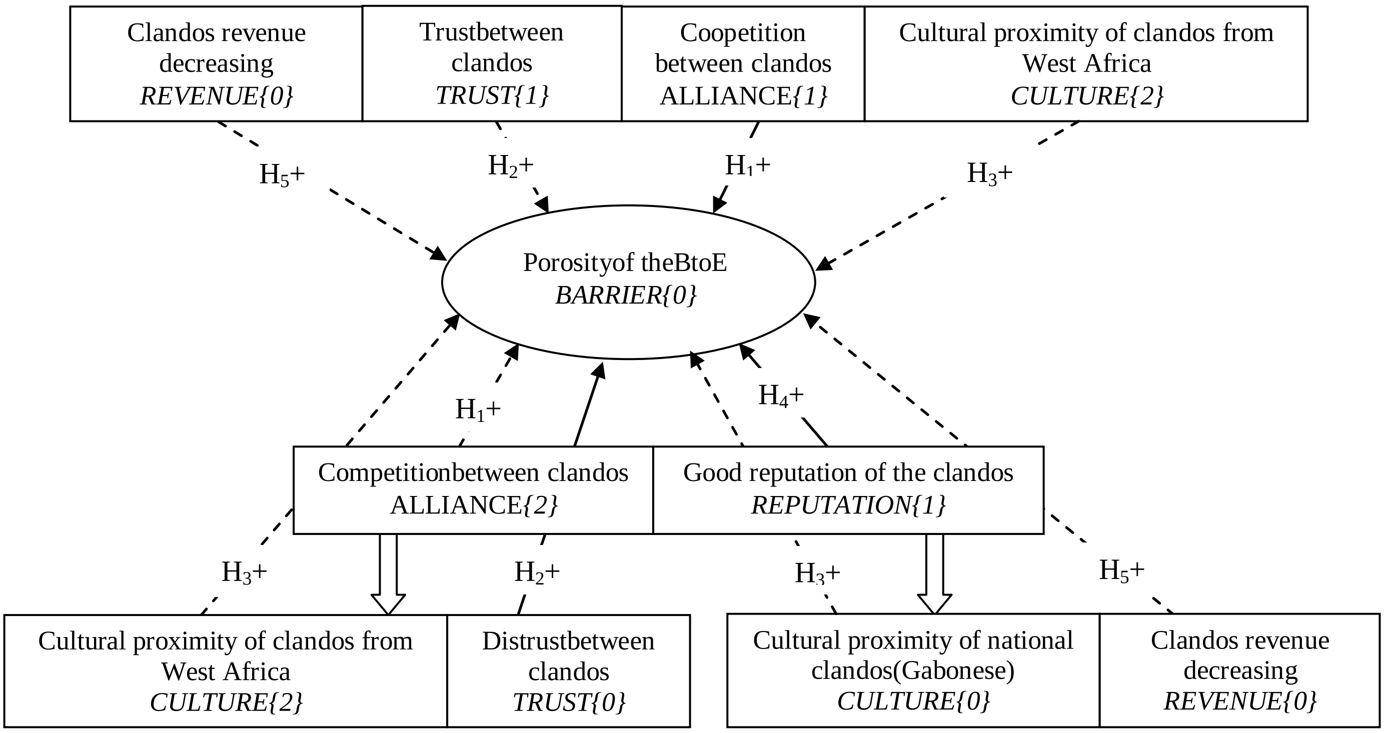
Figure 2: Theorical model of the impermeability of the BtoE from (F1)



Source : Author 2024

We specify for an easier reading of these models that several adjoining rectangles indicate that these conditions are realized simultaneously or they are linked by the coordinating conjunction (AND). The dotted arrows indicate that the hypotheses are refuted and the solid arrows indicate that they are confirmed. The thick arrows show the links with a functor (exclusive OR / either…or) between a main condition and those that derive from it.

Figure 3: Theoretical model of the porosity of the BtoE resulting from (F2)



Source : Author 2024

4.2. Discussions of the results

We discuss the results based on the previous validated or invalidated hypotheses and the literature mobilized, on the tightness and porosity of the BtoE. In addition, we discuss the additional counter-intuitive results of this research.

4.2.1. Tightness or impermeability of the BtoE of the market

-The result carried by the hypothesis validated under the sine qua non conditions obtained, H3: "the cultural proximity of the actors waterproofs the BtoE of the market." which is further specified that it is the nationals of West Africa including the nationals who tend to prevent those of Central Africa (except Gabonese) from penetrating the market. These clandos from West Africa are careful not to prevent the nationals. This can be explained by a collusion strategy using a sense of community, nationalism, regionalism or belonging, with actors mostly sharing the same language and similar mother tongues as noted by Ginsburgh (2016). This result is in agreement with Ahlert &*al.* (2014) and OECD(2005, p.209). It is in contradiction with Blees &*al.* (2003, p.54) who think that cultural distance impermeabilizes the BtoE, with Easton & Araujo(1992), Child &*al.* (2005) and Santos & Baptista (2015, p.11).

-The result supported by the hypothesis validated under the sine qua non conditions obtained, H2: "trust between actors impermeabilizes the BtoE of the market and mistrust, permeabilizes it. » As for the tightness or impermeability of the BtoE due to the trust of the actors, this result is explained by the trust that brings the actors together and allows the coalition and therefore the creation of market power by the actors. In addition, it is clando from West Africa who are waterproofing the BtoE. We rather expected that this posture would be adopted by nationals out of protectionism. Nevertheless, this can be explained by a process of progressive conquest of the market by foreigners by cooperating to enter it, by besieging it, dominating it and now seeking to maintain this position of power on the market, by preventing entry to others. From this result, we obtain direct proof of the expression of power on a market. This result is in disagreement with Appelt (2010), Paelo & Vilakazi (2016), McGee (2014) and Child &*al.* (2005) but in agreement with Blees &*al.* (2003), Bernat (2006), Karnani & Wernerfelt (1985), EoM (2009), Fjeldheim Ek &*al.* (2010), Smith Ring &*al.* (2005) and OECD (2016). The second part of the hypothesis on distrust is discussed below.

4.2.2. Porosity and permeability of the market BtoE

-The result carried by the hypothesis validated under the sine qua non conditions obtained, H1: "coopetition permeabilizes the market BtoE" that is to say that coopetition with a preponderance of cooperation over competition has an ambivalent effect which tends to permeabilize the BtoE as underlined by Kogut &*al.* (1995), Child &*al.* (2005, p.2), Dal-Soto & Monticelli (2017, p.69), Santos & Baptista (2015, p.11), who point out that cooperation reduces the BtoE, on the one hand, and to impermeabilize the BtoE as highlighted by Hannah & Eisenhardt (2017, p.35) who note that coopetition builds and increases the BtoE and cooperation erects the BtoE, on the other hand. Furthermore, our result is in disagreement with Granata (2015), Granata &*al.* (2017) and Cygler &*al.* (2018).

-The result carried by the hypothesis validated under the sine qua non conditions obtained, H2: "trust between actors impermeabilizes the BtoE of the market and mistrust, permeabilizes it" As for the porosity of the BtoE due to the mistrust of the actors, this is explained by the fact that these already established actors who are suspicious, in particular, those of West Africa, will seek trusted allies so they will allow the entry of new candidates to make them accomplices to create market power and dominate it. This result is in agreement with the model of Jeon & Lovo (2011), OECD (2016), Child &*al.* (2005) but in disagreement with Mihajlovich Krasavin & Aleksandrovna Krasavina (2014).

-The result carried by the hypothesis validated under the sine qua non conditions obtained, H4: "a good reputation of the actors permeabilizes the BtoE of the market." Our result can be explained by a feeling of benevolence that potential candidates would feel towards the actors already established on the market, to enter it. It is in disagreement with St-Amant (2008), Wohlgemuth (1999), Maillard (2005), OECD (2005), Jeon & Lovo (2011), Dotterud Leiren & Fearnley (2007), Kreps & Wilson (1982), Milgrom & Roberts (1982), Bucciorossi (2014) with their predatory reputation, who think that a good reputation seals the BtoE. -The result carried by the invalidated hypothesis H5: "an increase in the financial performance of the actors, permeabilizes the BtoE of the market" is in disagreement with Ferguson (1974), Aghion &*al.* (2007), Bain (1956), and OECD(2008) but in agreement with OECD(2008). The counter-intuitive result that we obtained is "the decrease in the financial performance of culturally close national clandos, permeabilizes the BtoE of the market" can be explained because nationals generally have a tendency to protect their market by protectionism. However, we can explain this counterintuitive result by the rule of free competition, Gabonese hospitality built on the principle "when a foreigner brings you his labor force, give him, in return, your friendship and hospitality", by the opening of the market to other investors or by deregulation which lowers the BtoE to ensure diversity (Bilbiie &*al.*, 2019, p.2,19). In our context, this is a new market (clando transport) which is not yet regulated.

4.2.3. Discussions of additional counterintuitive results

-"Clandos in coopetition impermeabilize the BtoE if and only if they have a good reputation or if and only if they distrust each other" This result is in disagreement with the authors who think that coopetition permeabilizes the BtoE such as Dal-Soto & Monticelli (2017) and Granata (2015). It is nevertheless in agreement with Granata &*al.* (2017), Cygler &*al*. (2018) and Luo (2007). It is also in agreement with all the authors who think that a proven reputation impermeabilizes the BtoE including Fombrun &*al.* (2000), Harbord & Hoehn (1994), Wohlgemuth (1999), Maillard (2005) and OECD (2005).

- "The clandos in coopetition with a preponderance of competition and having a bad reputation, impermeabilize the BtoE". This result can be explained by the strong prevalence of competition on cooperation which would dictate its law in particular that of impermeabilizing the BtoE, on the one hand, and by the hesitation of candidates for market entry who would fear being subjected to cheating or opportunism by established clandos, on the other hand. This result is in line with all the authors who believe that more competition even in coopetition, impermeabilizes the BtoE. This result is in agreement with all the authors who think that competition impermeabilizes the BtoE like Khan (2017), Maillard (2005), Sölvell (1987), Appelt (2010), Bernat (2006), Karnani & Wernerfelt (1985), Luo (2007) and Fjeldheim Ek &*al.* (2010) but it is in disagreement with Paelo & Vilakazi (2016). A bad reputation of the clandos already established on the market impermeabilizes the BtoE in particular Fombrun &*al*. (2000), Kreps & Wilson (1982), Milgrom & Roberts (1982, p.281), Bucciorossi (2014). We note that all these agreements and disagreements with the current literature, relaunch the debate on the determinants of the BtoE of a market in general, more particularly between SPs in the suburban transport sector.

4.3. Managerial implications and theoretical contributions

We obtain results that are rich in lessons. Indeed, each group of conditions highlights agreements and disagreements with the literature. This shows that the subject of barriers to entry is not settled and that it still opens perspectives and discussions. We extract from our results, especially the counter-intuitive results, some managerial contributions that could serve as strategies for institutions, managers and practitioners of very small entreprise management, so that they refine their strategic positions on the markets. These managers should seek to permeabilize the barriers to entry of small markets, by practicing coopetition instead of competition or pure and perfect cooperation. The levers on which they must maneuver are: trusting other coopetitors, introducing cooperation in a very competitive environment, which would attenuate the effects of competition, working on the reputation of the company on the market. Institutions should be wary of, watch out for and control coalitions based on communitarianism or nationalism to avoid market power positions that would discriminate against potential candidates for entry. Managers or independent bodies should monitor these coalitions or collusions of market players built on the basis of trust and cultural proximity, to prevent these factors from promoting antitrust practices and completely impermeable or hermetically sealed BtoE. Institutions can propose legislative texts more adapted to the SP and very small entreprises markets, to better regulate the behaviors of the barriers to entry of the markets in which they operate. We recommend that market players understand the porosity or impermeability of entry barriers, to better understand their influence and to develop flexible and effective strategies in order to remain competitive and adapt in a dynamic coopetitive environment. The behavior of the entry barrier, permeable or impermeable, is a challenge for players in their search for market shares.

Concerning our theoretical contributions, we have proposed two models of the impermeability and porosity of a BtoE of a market composed of SPs. This research stands out from the fact that the explanatory factors of the BtoE did not concern the characteristics of the market but the interactions and behaviors of the actors established on the market. In addition, the BtoE was studied in a coopetition strategy, unlike the usual one where the pure competition strategy is used. Finally, we used a rarely used data processing technique, mvQCA, to better understand the complexity of the BtoE phenomenon. It allowed us to model the porosity and tigheness of a BtoE.Finally, we propose to the scientific community to understand the BtoE theory in a dynamic, permeable-impermeable approach and vice versa in a coopetitive market, which is also dynamic.

V. CONCLUSION

This paper focused on the porosity and tightness of the BtoE of the coopetitive market between SPs (clandos) in the suburban transport sector. We tried to answer the question "is the suburban transport sector market free of entry?" We approached this work through a conceptual approach that showed that the notion of BtoE has not yet obtained a consensus. Then, we anchored this research on the theory of contestable markets mainly the aspect of freedom of entry and exit from the market. In addition, the potential contextualized explanatory factors of the BtoE were approached through the prism of the interactions and strategic behaviors of market actors. Adopting a hypothetico-deductive posture, we then inferred six research hypotheses. Our methodological approach being mixed, quali-quanti, we supported it with the technique of qualitative comparative analysis (QCA) in its multivariate version (mvQCA). Our results are rich and robust. Indeed, our approach favored cross-views between stakeholders in the activity of clandos. Our sample consisted of 321 clandos, 321 clients and 14 regulatory intermediaries in several investigation sites, more precisely 14 clandos areas in total were investigated in two neighboring municipalities, Libreville and Owendo. We interviewed all stakeholders in the activity of several nationalities from Central and West African countries, using a questionnaire. The technique (mvQCA) used is multivariate, taking into account a wide range of modalities to better understand the complexity of the phenomenon studied, the barrier to entry. All of the above ensures good triangulation and robustness of the results.

The results obtained inform us that the barrier to entry to the coopetitive market between SPs in the suburban transport sector is porous or permeable. We can consider it as a permeable reactive barrier developed by Mokif & Faisal (2023). This BtoE is conditioned by combinations of factors. These allowed us to validate four hypotheses under certain necessary conditions and to refute one.

-Hypothesis H1 validated: "coopetition permeabilizes the BtoE of the market", if and only if the clandos are West African nationals, are culturally close, trust each other and have a decreasing financial performance.

-Hypothesis H2 validated: "trust between actors impermeabilizes the BtoE of the market and distrust, permeabilizes it", for trust which impermeabilizes the BtoE, it is if and only if the financial performance of the clandos decreases; for distrust which permeabilizes the BtoE, it is if and only if the clandos are West African nationals and culturally close.

-Hypothesis H3 validated: "the cultural proximity of the actors impermeabilizes the BtoE of the market", if and only if the financial performance of clandos who are West African nationals decreases or if and only if that of nationals is stable.

-Hypothesis H4 validated: "a good reputation of the actors permeabilizes the BtoE of the market", if and only if the clandos are in coopetition with a preponderance of competition.

-Hypothesis H5 refuted: "an increasing financial performance of the actors, permeabilizes the BtoE of the market", because we have rather obtained a counter-intuitive result which is "the decrease in the financial performance of culturally close national clandos, permeabilizes the BtoE of the market."

The five previous hypotheses allow us to partially validate hypothesis H: "the suburban transport sector market is contestable." and to answer the research question, the coopetitive market of the suburban transport sector is not theoretically contestable in the strict sense. Because the entry of this market is not completely free because of the barrier to entry that exists and which is porous or watertight depending on the case but the exit of this market is completely free. In addition, the price is not the main element of the barrier to entry in our context but rather, the practice of the rule of first parking of vehicles; the cost of entry into the market is low, 20,000 FCFA deposit and 500 FCFA daily tax; finally, there is no cost of exit from the market, it is completely free. We therefore qualify this market as semi-contestable. We can also qualify the SPs that are in coopetition in this market as Bertrand competitors according to Morton (2002) and Hollis (2005) because they offer an indifferentiable service at the same cost and predict a zero price variation as soon as new entrants compete. All our results discussed with the literature allow us to relaunch the debate on the determinants of BtoE of a market in general and the markets of very small entreprises and SPs in particular.

The main limitations of this work are that we have not quantified the impact of each explanatory condition to gauge the importance of each. The perspectives of this work are: to propose a purely quantitative method with a statistical regression technique in order to measure the impact of each factor (trust, distrust, reputation, financial performance, the culture of the coopetitors and the type of alliance) on the porosity and tightness of the BtoE; to see the influence of the presence of the intermediarycharger of the clandos on the behavior of the BtoE of the activity; to broaden the geographical area of investigation by integrating other countries of the Central African sub-region, for example CEMAC and/or of the West African sub-region, for example UEMOA, which are home to similar alternative transport activities (motorbike taxis, illegal cargo, etc.) in order to strengthen the generalization of the results and the theorization of the concept of barrier to entry.

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