


Generic strategic positioning and organizational configurations in private micro-clinics

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Abstract

By linking concepts and ideas from the private health services (PHS) and Knowledge-Intensive Business Services (KIBS) literature with Porter's generic framework, this paper aims to identify the competitive positioning at a micro-clinic level in the private health services industry and to examine the perceived role of the institutions and intellectual capital associated with each one. A Qualitative Comparative Analysis (QCA) was used.

The results show that organizational configurations are associated with proactivity when competing via differentiation. In contrast, cost leadership is linked to firms that compete with low tariffs and a defensive archetype. Our work can serve as a basis to recommend specific competitive strategies for the high number of firms still following a stuck-in-the-middle positioning strategy.

Keywords: KIBS; micro-clinics; private health services; porter's framework; qualitative comparative analysis.

Posicionamiento estratégico genérico y configuraciones organizacionales en microclínicas privadas

Resumen

Al vincular conceptos e ideas de la literatura sobre servicios sanitarios privados (PHS por sus siglas en inglés) y servicios empresariales intensivos en conocimiento (KIBS por sus siglas en inglés) con el marco genérico de Porter, este artículo pretende identificar el posicionamiento competitivo de las microclínicas en el sector de servicios de salud privados y examinar el papel de las instituciones y el capital intelectual asociado a cada una de ellas. Se utilizó una técnica estadística de Análisis Cualitativo Comparativo (QCA).

Los resultados muestran que las configuraciones organizacionales están asociadas a la proactividad cuando se compite mediante la diferenciación. Por el contrario, el liderazgo en costos está vinculado a empresas que compiten con tarifas bajas y un arquetipo defensivo. Nuestro trabajo puede servir de base para recomendar estrategias competitivas específicas al elevado número de empresas que aún siguen una estrategia de posicionamiento estancada en el medio.

Palabras clave: KIBS; microclínicas; servicios de salud privados; marco de Porter; análisis comparativo cualitativo..

Posicionamento estratégico genérico e configuração organizacional em microclínicas privadas

Resumo

Ao vincular conceitos e ideias da literatura de Serviços Privados de Saúde (PHS) e Knowledge Intensive Business Services (KIBS) à estrutura genérica de Porter, este artigo tem como objetivo identificar o posicionamento competitivo das microclínicas no setor de serviços privados de saúde e examinar o papel das instituições e o capital intelectual associado a cada um deles. Para isso, usou-se a técnica estatística de análise qualitativa comparativa (QCA).

Os resultados mostram que as configurações organizacionais estão associadas à proatividade ao competir por diferenciação. Em vez disso, a liderança de custo está ligada a empresas que competem com taxas baixas e um arquétipo defensivo. Nosso trabalho pode servir de base para recomendar estratégias competitivas específicas para o alto número de empresas que ainda seguem uma estratégia de posicionamento estagnada no meio.

Palavras-chave: KIBS; microclínicas; serviços privados de saúde; modelo de Porter; análise comparativa qualitativa.

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1. Introduction

Knowledge-Intensive Business Services (KIBS) are “those activities based on knowledge and experience from professionals related to a specific technical field or function” (Windrum and Tomlinson, 1999, 392). Some examples are information and communication, education, or financial activities (Chung and Tseng, 2019). In general, researchers focused on KIBS have developed their works on technical services (e.g., Vaillant et al., 2021), thus neglecting the study of other non-technological activities like private health services (PHS), including dental, optometry, or physiotherapy services (Davis and McMaster, 2015).

In many countries, knowledge-intensive PHSs are provided in micro-clinics by professionals who own them. Traditionally, these firms have enjoyed a privileged competitive situation due to specific entry barriers that limited access to new competitors. Nevertheless, in recent years, this sector has undergone significant changes (Brandt and Znotka, 2021; Holopainen et al., 2020). From the supply side, many graduates with qualifications to work in these activities and conglomerates of companies have appeared. These primarily include international franchises (e.g., *Vitaldent*, *Alain Afflelou*, *FisiOn*) as well as large companies that have managed to lower prices and develop a brand image, thus attracting many customers (Llodrá-Calvo and Bourgeois, 2009). From the demand side, there is an increasing level of user request in terms of the quality and the variety of specialties offered, as well as other types of services such as financing and free revisions (Trathen and Gallagher, 2009); in some cases, these complements cannot be offered by micro-clinics.

As a result, micro-clinics in PHSs are currently in a scenario characterized by greater competitive rivalry and a very uncertain future (Brandt and Znotka, 2021; Bartik et al., 2020), with higher stress levels perceived by professionals (Kelliher and Parry, 2015). Faced with this situation, there are recent calls for more research to identify the generic strategic positioning followed by these firms and the organizational configurations linked to them.

In the literature on business management, different typologies and classifications have been used to describe the strategic positioning of companies and explain their performance. One of the most popular is Porter's generic analysis (1980), which identifies firms that compete based on cost leadership or differentiation in the service.

However, the extant literature on knowledge-intensive firms is based on medium and large firms and offers general recommendations, in many cases at corporate-level strategies (R+D, internationalization, alliances, acquisitions) (e.g., Tongur and Engwall, 2014; Abrahamsson, 2019). In terms of PHSs, authors such as Torgovicky et al. (2005), Helmig et al. (2014), or Marlin et al. (2002) have used this classification to explain

differences in performance by studying hospitals and primary care outpatient clinics.

Despite the efforts, only a few studies have focused on smaller firms (micro-clinics) that offer specialized health services in the private sector (e.g., Hampel, 2021). This is crucial because micro-clinics face critical strategic challenges that jeopardize their survival. Given this research gap, it is necessary to identify the strategic positioning followed by these firms and the organizational configurations or archetypes associated with these positions. Trying to cover that gap in the literature, this paper aims to analyze the competitive strategies deployed by micro-clinics and examine how differences in institutions and market attention and intellectual capital's emphasis can explain their positioning and relative performance.

The study of organizational configurations embraces a plethora of theories and perspectives (Ketchen et al., 1997), given that companies must align their resources to their environment to facilitate an effective organization-environment equilibrium (Miles et al., 1978: 547). For instance, in the case of PHSs, the institutional theory fits our study given the extensive legal development in the companies' environment. Besides being KIBS, the Intellectual Capital perspective also fits to analyze companies' resources. Based on these two perspectives, the main theoretical contribution of this study is the analysis of how a substantial cost or differentiation positioning can be achieved with different combinations of intellectual capital and a level of attention to the institutional context and the market.

The simultaneous study of these elements makes it possible to group companies with similar characteristics (or with similar business models) (Zott et al., 2011) and to predict the riskier positioning under certain competitive conditions (Miller, 1996). Moreover, this work can offer recommendations at a functional level strategy (Human resources, cooperation, marketing) to cope with this scenario.

To achieve the purpose of this study, 78 Spanish micro-clinics providing dental, optometry, and physiotherapy services (nine employees or less) were studied. Spain was selected because each country has its unique regulations governing PHSs. An online questionnaire was distributed from June-September 2017. The used statistical technique was qualitative comparative analysis (QCA) (Rihoux and Ragin, 2008; Fiss, 2011) because of the sample size. We assumed that the same strategic posture is a function of several different combinations of factors (equifinality).

This article is structured as follows: The next section presents the theoretical framework. Then, the methodological section presents the sample, variables, and analysis technique. The subsequent two sections are devoted to analyzing and discussing the results. Finally, conclusions, practical implications, and suggestions for future research are made.

2. Theoretical background

2.1 PHSs: definition and characteristics

In addition to medical practices, PHSs include other services such as dentistry, veterinary medicine, optometry, cosmetic surgery, and physiotherapy. PHSs are provided mainly by SMEs and micro-firms (Henry et al., 2016). These activities are essential in societies: their expenditures represent between one and three percent of European countries' GDPs. According to Chung and Tseng (2019), PHSs are among the most representative KIBS activities due to the high level of knowledge required to ensure their functioning and performance and the high investment required in a specific equipment-qualified workforce.

Beyond the small size of PHSs firms, there are two aspects that characterize them. First, they conduct their activities in a traditionally inflexible institutional and legal environment. These professions adapt to the needs detected by their members in the territory within their scope of application. Professional colleges and associations (PAs) are institutions legitimized to organize these professions (Greenwood et al., 2002). However, the deregulation policies in the last years have led to other institutions with greater bargaining power to enter the market. Examples include networks of clinics and insurance firms, which have incorporated a multitude of innovations into the sector (Brandt and Znotak, 2021). Consequently, these actors have also emerged as legitimized referents (DiMaggio and Powell, 1983), as they influence the organization and professional activities carried out by professional clinics and associations. Second, PHSs require a high and continuous investment in education and training to practice their profession with guarantees, "also requiring high qualified employees as the unique way to produce profitable results for clients" (Huggins and Weir, 2012: 93).

All these features represent clear entry barriers. Moreover, as a consequence of the fragmentation of the environment, in recent years, other types of knowledge that are more closely linked to business management—such as the implementation of market research and new strategies for the promotion and management of innovation—have become increasingly important (Trathen and Gallagher, 2009). These changes in leadership and management seek to improve clinics' competitiveness and efficiency. Despite their relevance, they have also introduced a certain level of conflict and stress among professionals, mainly due to the dilemma between focusing on the profession or improving the clinic's performance.

2.2 Institutions in the PHSs: PAs and the market

Following Meyer and Rowan (1977: 340-41), institutionalized organizations are defined as those "systems

that arise to coordinate and control specific activities that are based on technical actions in complex environments and where the limits of the activity are explored (...). The ultimate goal of these institutions is to maintain the ceremonial conformity of the profession in the face of environmental uncertainties." Zucker (1987) distinguishes two types: 1) the environment as an institution, which refers to the agents created by the governments to coordinate the actions of these professions (e.g., PAs); 2) organizations as institutions, which are those companies that, through the market, develop routines or incorporate innovations that are subsequently imitated by others (e.g., the market and leading firms).

In Spain, PAs are among the key institutions that regulate PHSs by establishing the necessary conditions to practice these professions. Some of the benefits of such interventions include the formulation of rules that favor more predictable behaviors, which may thereby increase the survival rate (DiMaggio and Powell, 1983), safeguard quality standards (Trathen and Gallagher, 2009), and/or encourage better performance within the profession (Perron et al., 2014). On the contrary, some researchers criticize the use of these agents because they standardize or homogenize the competitive strategy (e.g., Chadee and Roxas, 2013; Johnston, 2013; Thackeray et al., 2005).

Moreover, the market creates institutions when organizations engaged in the same activity are identified as inefficient (Davis and McMaster, 2015). The most influential institutional referents are the most prominent firms within a particular activity (Lieberman and Asaba, 2006). These firms include those considered when conducting a competitor analysis. PHSs have usually adopted a highly reluctant and critical attitude toward such organizations because they were often bigger and had implemented new business models based on the deregulation of activities regarded as "owned" by the qualified professionals engaged in them (Nash, 1994). Traditional professionals accept the actions of public agents aimed at maintaining control over the profession (centralization), and they reject disruptive strategic innovations that emerged from market failures and deregulation. However, despite the protectionism still in force, some large companies have penetrated powerfully into the PHSs. These companies have become a reference model for some entrepreneurs, while others believe their survival is threatened.

2.3 The Intellectual Capital in the PHSs

Intellectual Capital (IC) is defined as the intellectual assets that can create value, including knowledge, information, intellectual property, and experiences (Stewart, 1997). There is broad agreement in the literature on the close relationship between IC and PHSs (e.g., Cohen and Kaimenaki, 2007), mainly because high levels of investment in knowledge (e.g., training, experience, patient management) represent the most visible barrier to entry for those who wish to pursue this type

of business. Given the competitive environment and similarities in structural capital due to the small size of PHS micro-clinics, it is possible to identify two critical dimensions of the IC of these firms: 1) human capital (HC), and 2) relational capital (RC) (Allameh, 2018).

HC is constituted by the “skills, experiences, attitudes, ideas, values and competencies of the people who are integrated into a company” (Watson and Stanworth 2006: 339). Some indicators related to HC include educational attainment, experience, personal motivations, employee knowledge, innovative capacity, satisfaction, and employee turnover (Tai and Chen, 2009; Zarandi et al., 2012). RC is the knowledge acquired from markets, suppliers, and customers, as well as from governments, representatives of economic activities, and the most relevant associations (Bianchi-Martini et al., 2016). Therefore, this dimension is not merely evaluated from an internal point of view but also from the perspective of customers and suppliers. There are many indicators to measure the RC. For example, Hosseini and Owlia (2016) detected more than 50 variables, such as brand value, licensing agreements, or subsidiary firms, among others.

2.4 Strategic positioning and organizational configurations

Organization configurations are commonly occurring clusters of attributes related to structures, processes, and strategies (Miller, 1996). They are explained because groups of companies have similar organizational characteristics (Meyer et al., 1993). It can also be understood “by identifying distinct, internally consistent sets of firms and their relationships to their environments and performance outcomes over time rather than by seeking to uncover one universal set of relationships that hold across all organizations” (Ketchen et al., 1997: 224).

From an equifinality perspective, it is feasible to predict that different organizational factor (archetypes) combinations are associated with such strategic positioning (Fiss, 2007). Compared to other well-known options (e.g., Miller and Friesen, 1978; Mintzberg, 1979), in line with Helmig et al. (2014), and considering the critical dimensions under study, the typology of Miles and Snow (1978) may provide better guidance.

Summarizing, their four main archetypes can be defined as 1) the prospective posture, which aims to identify new market opportunities and invest intensively in individuals while relying, organizationally, on the decentralization of institutions and improving IC; 2) the defensive posture, which is concerned with maintaining a stable environment (centralization), even if some innovations have to be abandoned while paying moderated attention to RC; 3) the analytical posture, which seeks to identify new opportunities (moderated decentralization), though only by developing upon core skills (HC), while also providing high-quality services; and 4) the reactive posture, which demonstrates inconsistent and unstable behaviors (e.g., sometimes moderated decentralization

and sometimes moderated IC), and does not have a clear competitive strategy.

In short, given the current institutional deregulatory context of PHSs and the unequal IC endowment among these firms, different strategic positions can be envisaged. In line with Torgovicky et al. (2005) or Marlin et al. (2002) and opinions recorded in previous steps of our research, we suggest that, among companies providing PHSs, there would be three main positionings:

- Focused on providing excellent service (i.e., “the quality of the service we provide is much better than that of our competitors”).
- Focused on being a cost leader that offers competitive tariffs (i.e., “the fees of our clinic services are more affordable than that of our competitors,” and
- Revolve around or stuck-in-the-middle of both approaches (i.e., “we try to offer a good price-quality ratio to our clients”).

In summary, we propose that differences in organizational configurations (degree of attention to the institutional environment and the market, as well as the emphasis placed on the development of IC) will influence the strategic response of companies (positioning) and will impact their abilities and potentialities to detect and capture opportunities and threats. That combination of configuration-positioning is evidence of the business model implemented (Zott et al., 2011) and can predict the success or failure of a company under certain competitive conditions (Miller, 1996).

3. Research methodology

3.1 Fieldwork, questionnaire, and sample

A qualitative study was conducted on previous broader research to explore professionals' perceptions and refine the questionnaire to carry out the empirical analysis. It is based on data from companies providing PHSs in dentistry, optometry, and physiotherapy. The current study selected these professional activities because of their representativeness, research opportunity, and methodological reasons. Due to the normative and regulatory characteristics of the PHSs of each country, only companies located in Spain were selected. Given that most of the firms in these sectors are independent micro and small-sized companies, the population of firms analyzed had a maximum of nine employees.

PHS professionals were contacted through their respective business associations. The questionnaire was distributed and collected from June to September 2017 through the Limesurveycomputer platform. It was based on previous studies that examined the strategic positioning of companies (Robinson and Pearce, 1988), the role of institutions (Ang and Cummings, 1997), and the valuation of IC (Sveiby, 1997; Dewhurst and Cegarra-Navarro, 2004).

A total of 78 valid questionnaires were retrieved. The average sample size consisted of five employees. Regarding the distribution, 56% of the companies were engaged in dentistry, 26% in optometry, and 18% in physiotherapy. Given the sample size and the research purpose, the technique used was qualitative comparative analysis - QCA (Lee et al., 2019; Fainshmidt et al., 2019); a data analysis based on theory to examine the relationship of conditions to an outcome.

3.2 Analysis technique: QCA

In this work, we deployed the QCA analysis technique. Although it has been criticized (Fiss, 2007), it has some advantages. According to Miller (2018), QCA makes it possible to identify the configurations of causally relevant characteristics and antecedent conditions most associated with strategic positioning of each company. Following this author, we can assume that QCA has become one of the most used techniques in organizational configurations.

Compared to other techniques, it is advantageous as it is possible to determine the conditions separately or in combination with others to identify the best fit for a given outcome (Rihoux and Ragin, 2008). For example, for those micro-clinics most aligned with a differentiation position, this technique identifies combinations of dimensions of the institutional environment and the organizational context they create.

The fuzzy-set QCA (fsQCA) variant of this technique was employed in our study because it admits dichotomous values typical of Boolean algebra and continuous values typical of Likert scales. This variant is suitable for constructing better causal theories and working with small and medium-sized samples (Fiss, 2011). This QCA modality requires three steps: 1) data calibration, 2) necessity analysis, and 3) sufficiency analysis.

3.3 Operationalization of variables

Considering the objectives of this research, strategic positioning was taken as the dependent variable or outcome. In line with Robinson and Pearce (1988), three items were used to identify it, two of which were aligned with *differentiation*: 'reaction capability' (Murwatiningsihet et al., 2019) and 'quality service perceived' (Hampel, 2021). The service price item (Auzair, 2011; Hilman and Kaliappen, 2014) was related to *cost leadership*. These items were assessed using a seven-point Likert scale. Based on this scale, the respondent evaluated its position compared to its main competitors for each item. For example, for the price of services, respondents were requested to rate their company's performance with respect to its competitors as follows: 1 = "much worse than its competitors"; 4 = "the same"; and 7 = "much better than its competitors."

We specified four *independent variables or antecedent conditions* of our research, two of which are

based on the institutional context, while the other two relate to the organizational context. The institutional conditions include the PAs (professional colleges and associations) and the influence of the market (e.g., competitors, customers, and suppliers). The PA variable is made up of a single item which allowed us to assess how respondents perceived the help provided by these institutions to coordinate and achieve the objectives of their clinics. The market variable is a construct of three items based on Ang and Cummings (1997). They reflect the level of vigilance and attention to consumer trends and the strategies implemented by competitors. The higher values recorded are associated with more favorable perceptions in all cases.

The antecedent conditions based on the organizational context are derived from the relevant IC literature (Sveiby, 1997; Dewhurst and Cegarra-Navarro, 2004). In this article, they are formed by the HC and the RC dimensions. The HC construct captures respondents' perceptions of the professionals' skills and experience required to perform their professional activities. Regarding RC, it measures its loyalty and reputation among its customers.

4. Results

4.1 Results from descriptive data

Table 1 presents the means, standard deviations, and the calibration made. Out of the causal conditions, HC stands out with the highest mean value (5.5), while market attention is the condition with the lowest score (4.5), together with the role of PAs (4.4) and RC (4.8). The differentiation positioning outcome has a mean of 5.4, which indicates that, in general, most clinics have a high perception of following this competitive strategy. The cost positioning shows that the companies are less alienated with this competitive strategy or out of it (4.6).

Table 1. Descriptive data and calibration.

Conditions and outcomes	M	SD	Threshold of non-membership (% of cases)	Crossover point (median)	Threshold of membership (% of cases)
Differentiation	5,4	1,1	4,0 (17)	5,5	6,5 (21)
Cost Leadership	4,6	1,7	3,0 (13)	4,0	6,0 (35)
PA influence	4,4	2,0	2,0 (24)	5,0	7,0 (19)
Marketinfluence	4,5	1,4	2,0 (10)	4,7	6,0 (14)
Human capital	5,5	1,0	3,3 (5)	5,3	6,7 (17)
Relational capital	4,8	1,3	2,5 (9)	5,0	6,5 (11)

Note: **p<0.05.

Source: Own elaboration

In the QCA analysis, the calibration of the data involves the establishment of membership thresholds. In line with Ragin (2006), outcomes were set at 25%, while antecedent conditions were at 10%. For maximum ambiguity, we decided to use the median. We excluded

those combinations from the truth table represented by only a single case (Schneider and Wagemann, 2010). As a result, the membership threshold was established at 6.5 (21% of the cases included) for the differentiation outcome, while the non-membership was at 4.0 (17%). For cost leadership positioning, the thresholds were 6.0 (35%) and 3.0 (13%). The membership thresholds showed that 56% of companies follow a precise positioning strategy based on differentiation or cost leadership. Therefore, the remaining 44% of the cases were classified as companies with a stuck-in-the-middle strategic position, i.e., those without a clear strategic orientation (Torgovicky et al., 2005).

The analysis of necessary conditions is the second step of QCA. Causal conditions will be excluded from the analysis if they show a consistency higher than 0.90 (Glaesser, 2008). Table 2 shows all the results. Given that all causal conditions are not consistently necessary, all of them are included in the sufficiency analysis.

The U Mann-Whitney’s non-parametric test completes our descriptive results (Table 3). Here, we compare those cases included in the membership threshold with other cases not included. In terms of differentiation, it shows the significant and positive relationship between Human and Relational capital. According to the mean rank (48.63 vs. 37.15, and 48.94 vs. 37.06) and the Wilcoxon test (p value <

0.1 in both cases), this could be interpreted as firms with a strategic positioning in differentiation have high perception or are associated with a high value in their intellectual capital. Regarding the cost leadership positioning, no antecedent condition was remarkably different between cases included in the threshold and those excluded.

4.2 FsQCA Results

The analysis of sufficiency is the last of the QCA steps. It was conducted by the algorithm of Quine-McCluskey. This analysis shows those conditions or their combinations or factors associated with each outcome. Authors like Ragin (2006) or Fiss (2011) proposed that the model must have a consistency coefficient greater than 0.80 to be accepted.

Table 4 represents the relation of antecedent conditions with a strategic position in differentiation. Black circles indicate the presence of antecedent conditions, while white circles indicate their negation. The blank cells represent irrelevant conditions. Moreover, large circles indicate core conditions, and small circles refer to peripheral conditions (Fiss, 2011; Wang et al., 2019). The Goodness-of-fit is acceptable, with coverage of 0.58 and consistency of 0.82 (Glaesser, 2008; Rihoux and Ragin, 2008; Greckhamer et al., 2018).

Table 2. Analysis of necessity.

	Differentiation		~Differentiation		Cost Leadership		~CostLeadership	
	1	2	1	2	1	2	1	2
PA influences	0.59	0.67	0.52	0.54	0.52	0.70	0.61	0.50
~PA influences	0.59	0.58	0.68	0.61	0.63	0.73	0.63	0.44
Market influences	0.67	0.67	0.59	0.53	0.61	0.72	0.65	0.46
~Market influences	0.53	0.58	0.64	0.64	0.55	0.72	0.61	0.48
HC	0.76	0.68	0.66	0.53	0.64	0.69	0.80	0.51
~HC	0.48	0.60	0.61	0.70	0.55	0.82	0.51	0.46
RC	0.70	0.70	0.54	0.50	0.61	0.74	0.69	0.51
~RC	0.52	0.55	0.70	0.68	0.60	0.76	0.65	0.50

Note: (1) Consistency; (2) Coverage.

Source: Own elaboration.

Table 3. U Mann-Whitney test.

		Differentiation				Cost leadership			
		N	U	Mean Rank	Sig.	N	U	Mean Rank	Sig.
PA influence	Strong	16	483	40,31	0.87	27	638	41,37	0.59
	Not strong	62		39,29		51		38,51	
Market influences	Strong	16	407	45,06	0.27	27	650	38,09	0.69
	Not strong	62		38,06		51		40,25	
Human capital	Strong	16	350	48,63	0.07*	27	585	35,67	0.27
	Not strong	62		37,15		51		41,53	
Relational capital	Strong	16	345	48,94	0.06*	27	673	38,93	0.87
	Not strong	62		37,06		51		39,80	

Source: Own elaboration.

Paths 1 and 2 are associated with strategic positioning in differentiation. In both, the dimensions associated with IC are fundamental pieces (HC and RC). The divergence between the two paths lies in the attention paid to environmental institutions. The first path pays more attention to the recommendations of the Pas (Coverage = 0.07; Consistency = 0.82). The second path pays greater attention to the trends set by the market (0.13; 0.85).

Table 5 summarizes the antecedent conditions associated with strategic positioning in cost leadership strategy. It describes the existence of four paths. Remarkably, its goodness-of-fit is acceptable, coverage of 0.82, and consistency of 0.71 (Glaesser, 2008; Rihoux and Ragin, 2008; Greckhamer et al., 2018).

Table 4. Analysis of sufficient conditions for differentiation.

Outcome: Strong strategy positioning in differentiation							
Path	PA	Market	HC	RC	Coverage		Consistency
					Raw	Unique	
1	●		●	●	0.45	0.07	0.82
2		●	●	●	0.51	0.13	0.85
Solution coverage: 0.58 Solution consistency: 0.82							
a) Algorithm: Quine-McCluskey							

Source: Own elaboration.

Table 5. Analysis of sufficient conditions for cost leadership strategy orientation.

Outcome: Strong strategy positioning in cost leadership							
Path	PA	Market	HC	RC	Coverage		Consist.
					Raw	Unique	
1		○		○	0.43	0.12	0.76
2	○		●		0.41	0.04	0.78
3			●	●	0.50	0.16	0.78
4	○	●		●	0.32	0.06	0.82
Solution coverage: 0.82 Solution consistency: 0.71							
a) Algorithm: Quine-McCluskey.							

Source: Own elaboration.

The first configuration is characterized by the low influence of market trends and RC (Coverage = 0.12; Consistency = 0.76). The second stands out as it is deeply concerned with improving its HC but shows low attention to PAs in the profession (0.04; 0.78). The third is intensive in its IC; however, it does not pay attention to the environment (0.16; 0.78). The last configuration stands out as it is highly geared towards improving its RC: It studies the market's trends and denies the PAs' active role (0.06; 0.82).

5. Discussion

The analysis allowed us to obtain representative organizational configurations in the PHSs companies studied here. Following Meyer et al. (1993), we can

assume that all companies included in each group share similarities in their strategy and differ from other companies. Therefore, we identified two strategic positionings and their outcomes. The first is associated with offering a service that customers perceive as superior to others (differentiation). In contrast, the second one has to do with competing with low tariffs (four paths).

In the first outcome, both paths share a common attribute in their configurations: the micro-clinics therein attach great importance to their IC (i.e., knowledge, skills, and experience) (Daud and Yusoff, 2010; Murwatiningsihet et al., 2019). However, between the two paths, there are differences in the institutional referents (the PAs or the market, respectively).

From Miles and Snow's (1978) typology, both combinations are reminiscent of strategic configurations based on analytical profiles, although they differ in their environment evaluations. Specifically, an analytical profile with a defensive orientation (includes micro-clinics that are focused on improving the service that they offer (DeSarbo et al., 2005); however, a somewhat defensive orientation is adopted when they consider their PAs as an institutional reference (Kerska, 2016). Besides, there is also an analytical profile with a prospective orientation that is highly influenced by the needs and trends set by the market (Moore, 2005). Henry et al. also found examples of such strategy positioning in German hospitals following Miles and Snow's classification. They were also labeled "prospective" and "defensive analyzers" (2016:373). These cases can be considered "full-scope searchers" (Brunswick and Vanhaverbeke, 2015). Following these authors, they "show a strong interest in external ideas from various innovation sources (...) to get access to new ideas and knowledge. (They also) interact with universities and research organizations (and) use their network of trusted contacts and partners to find new ideas and have not become dependent upon them" (2015: 1251-1253).

The second outcome showed four paths following Miles and Snow's typology. The first comprises analytical companies; these clinics are dedicated mainly to improving their IC, although they do not adequately monitor the environment. Therefore, these companies perceive they offer good prices given the quality of the service provided. They are examples of successful KIBS firms that use their knowledge as a competitive advantage (Huggins and Weir, 2012). Following Brunswick and Vanhaverbeke (2015), these companies can also be included as full-scope searchers.

In the same line, the second path comprises reactive companies. It involves clinics that establish a conservative relationship with their patients. They tend to reject market trends and place little emphasis on loyalty or promoting their services. This behavior is reminiscent of reactive profiles because they do not analyze the environment, nor are they concerned about improving their capabilities with other agents. Although

this strategic archetype is not generally associated with superior performance (Zaefarian et al., 2013), some previous articles identified success cases (e.g., Snow and Hrebiniak, 1980; Brunswicker and Vanhaverbeke, 2015). In this case, firms manage to be competitive by offering a quality service, although it may be much more fundamental than other configurations.

The third path includes prospective firms. These clinics demonstrate highly innovative behavior, as they pay far greater attention to the trends set by the market (competitors) and adopt loyalty and follow-up policies for their patients (RC), which exemplify the latest organizational innovations adopted by PHSs (Trathen and Gallager, 2009). They also reject the regulatory role of PAs and tend to avoid control mechanisms by administrations as much as they can (centralization). Therefore, it is feasible to theorize that their strategic positioning concerning the price of their services is derived from the increased rivalry that PHSs are experiencing (Brandt and Znotka, 2021).

The fourth path in cost leadership is shaped by the leading companies in their market niche. They are keen to expand their professional knowledge but tend to reject the role of PAs (Jacobson et al., 2005). This configuration can respond to leaders in its niche micro-clinic market, who require particular knowledge and skills. Competitive prices can be applied and adjusted according to the specific service provided (Torgovicky et al., 2005).

Finally, although we have some paths, this paper has identified the strategic positions adopted by knowledge-intensive micro-clinics belonging to PHSs and their conditions. In addition, it shows in an original way which organizational archetypes are associated with each of these strategies and, cause-effect, the type of business model implemented and predicts their relative performance (Desouza and Awazu, 2006). These findings led to identify that these activities are in an intense period of change but that this transformation still needs to be completed in many cases.

On the one hand, among the micro-clinics that adopt a differentiation strategy, the same archetype (analytical) has been observed, highlighting the HC and RC as crucial elements, and the investment in knowledge sharing as a critical aspect (Leick and Gretzinger, 2020). Therefore, in that business model, the entrepreneurs and managers of these micro-clinics give great importance to developing knowledge relevant to their practice. They focus on refining their relationship with patients, suppliers, and other professionals, and pay close attention to the actions of leading firms and competitors. Given the close link observed in the PHSs between IC-based business models and performance, this business model will be the one that adapts more effectively to competitive changes.

On the other hand, four different archetypes were observed for those that pursue a cost leadership strategy, thus demonstrating the complexity of competing successfully under this orientation. In addition,

given the limited services offered (in terms of their variety and content) and their employees' lower level of IC, we can conclude that to survive, this business model will need to be redefined and adapted to the new environment they will face. The changes they should make are associated with the new institutional conditions they are immersed in.

6. Conclusions

The objective of this paper was to analyze the competitive strategies followed by PHS micro-clinics and examine how differences in regulations and an emphasis on intellectual capital can explain their uneven strategic positioning and relative performance. To do so, we analyzed 78 Spanish micro-clinics belonging to the PHSs. The main conclusion is that many micro-clinics still follow a stuck-in-the-middle positioning strategy (44%). Moreover, in cases where firms compete via differentiation (21%) or cost leadership (35%), various organizational configurations are identified based on attention to public institutions and intellectual capital development. In other words, these three types of positioning reveal different perceptions about the necessity of deregulation, the role of competitors, and heterogeneous capabilities in HC and RC. Given the dynamics of the environment in which they are involved, these findings contribute to forecasting an uneven performance (being the worst for the big group) and call for further management and marketing training.

This article contributes to KIBS, micro-clinics, and micro-establishments literature, studying other services traditionally neglected by researchers, such as optometry, dentistry, or physiotherapy, and opening a line of research to extend it to other activities also threatened by environmental changes as law, engineering, advertising, or other non-technological KIBS. For these reasons, we make two recommendations, the first is aimed at formal and public institutions, and the second focuses on micro-clinic managers and entrepreneurs.

Public institutions within these sectors (mainly PAs) should play a more active role in raising awareness of the need to implement a clear strategic position and provide and develop knowledge relevant to company management. This form of training should define the business model and improve the clinics' administration and relationship with their environment (e.g., marketing activities, scheduling, management innovation, or cooperation) (Lai et al., 2017). Micro-clinic managers should know the critical link between business models and performance. Although it is still being determined which configuration of strategic positioning has better economic performance (i.e., differentiation or cost leadership), the worst scenario is a lack of strategic definition. Therefore, for micro-clinics that compete based on differentiation and have a clear analytical archetype, it is crucial that they continuously strive to develop technical skills relevant to their profession. On the other hand, those who compete based on cost leadership should adopt a defensive archetype. This redefinition

implies adjusting their offer in those activities that can be performed more efficiently and ensuring a more flexible workforce (Harris and Sun, 2012).

Finally, our research has some limitations that may minimize the generalization of results. First, this study only examined Spanish micro-clinics, subject to a unique legal framework that could differ from other countries. Second, the information analyzed involved a cross-section (2017), and it does not reflect recent regulatory changes implemented due to the COVID-19 pandemic. However, this particular issue represents a direction for future research. It could be interesting to analyze how PHSs face it from the theoretical approach of dynamic capabilities (Teece, 2007). Third, the QCA technique allowed us to identify some conditions or configurations but not the mediating effects of other significant variables related to the performance of the companies, such as the family character of these businesses, the location of the establishment, or the managers' profiles. These factors allow promising new research on issues relevant to micro-clinics, business models, and performance.

Conflict of interest

The authors declare no conflict of interest.

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