

Dynamic capabilities, Marketing Capability and Organizational Performance

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ABSTRACT

The goal of the study is to investigate the influence of dynamic capabilities on organizational performance and the role of marketing capabilities as a mediator in this relationship in the context of private HEIs in Brazil. As a research method we carried out a survey with 316 IES and data analysis was operationalized with the technique of structural equation modeling. The results indicate that the dynamic capabilities have influence on organizational performance only when mediated by marketing ability. The marketing capability has an important role in the survival, growth and renewal on educational services offerings for HEIs in private sector, and consequently in organizational performance. It is also demonstrated that mediated relationship is more intense for HEI with up to 3,000 students and other organizational profile variables such as amount of courses, the constitution, the type of institution and type of education do not significantly alter the results.

Keywords: Dynamic capabilities; Marketing capabilities; Organizational performance; Higher education.

1. INTRODUCTION

Dynamic capabilities is a relatively recent concept, which has provided explanations of how organizations are renewed to respond to environmental changes (TEECE et al. 1997; EISENHARDT; MARTIN, 2000). Derived from the notion of resources and competences, the seminal concept refers to the organization's ability to renew its internal and external competences in response to environmental challenges (TEECE et al. 1997). At the core of this concept is the reconfiguration capability of resources, which process will impact on organizational performance.

Several operational capabilities mediate that relationship and have been researched, such technological capabilities and marketing. Some studies, for example the Protogerou et al. (2011) and Wilden and Gudergan (2015), show that the relationship between dynamic capabilities and performance is mediated by

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Received: 12/03/2015.

Revised: 05/18/2016.

Accepted: 05/18/2016.

Published Online: 12/01/2016

DOI: <http://dx.doi.org/10.15728/bbr.2017.14.5.1>



operational capabilities, showing the theoretical statements empirically. This study aims to investigate the specific relationship of dynamic capabilities and performance by marketing capability in Higher Education Institutions – HEIs. We found few studies that considered dynamic capabilities in HEIs context (GALHARDO; NAVARRO, 2003; FINCH et al. 2016), but no one explained the relationship between this construct and the marketing capabilities and performance in this important field.

The higher education sector has grown significantly in recent years, showing intense competition and significant investments in marketing (TAKAHASHI, 2007). However, in the Brazilian context, this relationship is not fully elucidated, requiring new studies to clarify how the HEIs have grown and expanded their operations (renewal), and the impact on their performance. Thus, the objective of the study is to investigate the influence of dynamic capabilities on organizational performance and the role of marketing capabilities as a mediator in this relationship in the context of private HEIs in Brazil. To reach the goal we carried out a survey with HEIs and data was analyzed by the using of structural equation modeling.

Therefore, this article is structured by this introduction, the conceptual foundation that supports research, a methodology session detailing the design adopted, the description and discussion of the results and, finally, closing remarks.

2. LITERATURE REVIEW

This part of the paper is organized into two subsections. The first turns to studies in the field of dynamic capabilities and marketing capabilities, highlighting the relevant concepts and relationships already evidenced in the literature and also the relationship between marketing capability and organizational performance. In the second part highlights the importance of marketing in the specific context of higher education, here investigated.

2.1. DYNAMIC CAPABILITIES, MARKETING CAPABILITY AND ORGANIZATIONAL PERFORMANCE

Researchers have argued that the dynamic capabilities are fundamental to the company's success in the competition in both domestic and international markets (MURRAY et al. 2011). Dynamic capabilities were initially conceptualized by Teece et al. (1997) as the "firm's ability to integrate, build, and reconfigure internal and external competencies toward environmental changes".

The dynamic capabilities are formed by sub dimensions, or other capabilities. These include the capabilities called sense, which is the ability to monitor and identify opportunities, seize, which involves assessing existing and emerging capabilities, and possible investment and reconfiguration, referring to create, extend and modify the resources when the company grows and the market changes, organizational and administrative proceedings involving different activities and skills, learning, strategic response and integration of new features and assets. (TEECE 1997; ZOLLO; WINTER 2002; HELFAT et al. 2007; TEECE 2009; AMBROSINI; BOWMAN 2009).

It can also conceptualize the dynamic capabilities as strategic processes of higher order that integrate, combine, and generate new technological and marketing resources which in turn shape the organization's performance (TEECE 2009; PROTOGEROU et al. 2011; PAVLOU; SAWY, 2011; WILDEN et al. 2013; GIACOMINI 2013).

Studies on dynamic capabilities in the university context are scarce. Galharo and Navarro (2003) propose a theoretical model for the generation of dynamic capabilities and Finch et al. (2016), through a qualitative study demonstrated that

BBR
14,5

dynamic capabilities are fundamental to improve the processes related to graduate good professionals.

468

Capabilities can be observed at different levels of the organization, many of which cut across different functional areas (EISENHARDT; MARTIN 2000). In this sense, the dynamic capabilities can be considered as a means to enable companies to continuously build and renew operational capabilities (marketing) faster and more affordable way than competitors (PROTOGEROU et al. 2011).

In this study, the operational capability under consideration is thus the marketing capability, defined as specialized processes, architectural, interfunctional and dynamic through which marketing resources are acquired, combined, and transformed into value offers for target market (MORGAN, 2012). Marketing capabilities are developed based on the knowledge that is unique and hard to be copied by competitors (KRASNIKOV; JAYACHANDRAN, 2008). They have an external focus and reflect on the collective knowledge, skills and resources related to the company's needs and its ability to meet certain customers which are necessary for carrying out day-to-day over the competition, such as production certain products to meet the needs of specific customers (PROTOGEROU et al. 2011). Marketing capabilities allow the organizations to better understand the current and future needs of their customers in order to better serve them and also to reach new customers as well as to effectively analyze the competition (FOWLER, 2000). It is considered that the presence of dynamic capabilities favors the development of marketing capabilities (PROTOGEROU et al. 2011), which take place at different levels within the company ranging from the individual to the corporate level.

H1: Dynamic capabilities positively influence the marketing capabilities

The relationship between dynamic capabilities and performance is evident from its origin, despite the existing discussions in the literature about its relevance in environments with varying degrees of environmental dynamism (EISENHARDT; MARTIN, 2002), from the currents that emerged from the seminal work on economic and sociological basis (PETERAF et al. 2013).

DCs (Dynamic Capabilities) represent a potential for higher performance (EISENHARDT; MARTIN 2000). Teece (2007), however, points out that there is need for additional structures to the fact that DCs generate improvements in performance (WILDEN et al. 2013). Thus, the relationship between performance and DCs can be specific, contextual and situational in an organization. A theoretical and empirical study in this regard was made by Protogerou et al. (2011), which considered the operational capabilities of marketing and technology as mediators.

The role of marketing to explain the performance of the companies received significant attention throughout the history of the marketing discipline (MORGAN, 2012). One approach relates to capabilities related to marketing, which are considered to be important drivers of superior performance of organizations (DAY, 1994).

Marketing capabilities has become a clear priority among marketing scholars during the last decade (MORGAN et al., 2009a). According Kotabe et al (2012), marketing capabilities can reflect in the firm's ability to differentiate products and services from competitors and build successful brands when add value to its goods and services. Murray et al (2011) affirm that marketing capabilities mediate the relationship between market orientation and organizational performance. Companies which are oriented to the market develop higher levels of marketing capability (market research, pricing, product development, channels, promotion, and market management) than companies less oriented to the market and thus significantly outperform the competition in terms of organizational performance (VORHIES et al. 1999). Marketing capabilities reflects the organizational ability to connect and

serve certain customer groups. Such capabilities allow companies to create profitable relationships with customers and maintain the customer base already achieved, which in turn impacts on organizational performance (WILDEN; GUDERGAN 2015). Marketing capabilities affect financial performance by creating satisfaction and loyalty and superior market performance (HOOLEY et al. 2005).

The relationship between marketing capabilities and financial performance has become a priority for many researchers and marketing professionals. They argue that the marketing capabilities are positively related to firm performance (WILDEN; GUDERGAN, 2015) and organizational financial performance (RAMASWAMI et al. 2009). More specifically, they have direct effects on revenue growth rates and profit margins and direct impact on investment return (MORGAN et al. 2009). Some research has enhanced the knowledge regarding the link between marketing capabilities and firm performance (MORGAN, 2005; MORGAN et al., 2009a; MORGAN et al. 2009b; VORHIES et al., 2009; VORHIES; ; VORHIES et al., 2011), because significant resources are expended by firms in order to build, maintain and leverage marketing capabilities,

Some authors show relevance results about marketing capabilities and performance (VORHIES et al. 2009; THEODOSIOU et al., 2012), like a positive relationship between customer-focused marketing capabilities and financial performance (VORHIES et al., 2011), the direct impact of marketing capabilities on ROA and firm performance (MORGAN et al., 2009b), the association of marketing capabilities and superior business performance (VORHIES; MORGAN, 2005), the direct and complementary effects of marketing capabilities on both revenue and margin growth rates (MORGAN et al., 2009a) and the positive influence of marketing capabilities on market share dominance and superior financial performance (WEERAWARDENA, 2003).

The relationship between dynamic capabilities and firm performance is mediated by operational capabilities (marketing), i.e., dynamic capabilities do not have a direct impact on the company's performance, and marketing is relevant to the achievement of higher performance (PROTOGEROU et al. 2011).

H2: Dynamic capabilities do not directly influence organizational performance

H3: Dynamic capabilities positively influence organizational performance only when mediated by marketing capabilities.

2.2. MARKETING IMPORTANCE IN HIGHER EDUCATION

The importance of marketing for HEIs is not new (IVY, 2008). For over 30 years it was said that higher education has been involved in the development of services and promotion of all activities in organizations are called "marketing". HEIs have changed and developed to become more attractive to a variety of publics. New vocabulary at this time have gained prominence in academia, whose terms were appropriated from the marketing field and spread quickly through the education system. Academic directors make references to "market research", "market penetration", "positioning" and "market audits" (LITTEN, 1980).

Kotler and Fox (1985) state that the institutions began to become aware of the importance of marketing when its markets began to undergo changes due to new competitors or new consumer needs.

In recent years, major changes in policy, governance, structure and higher education constitution have been held around the world. Environmental changes, such as privatization, diversification, decentralization, internationalization and increased competition in higher education are common to most countries. These changes have

BBR
14,5

an effect on how the HEI operate nowadays and they are seen as the driving forces for the commercialization of higher education (NICOLESCU, 2009).

470

In Brazil, with the enactment of the Law of Guidelines and Bases (1996) in the educational context, emerged a favorable environment for the growth of the number of institutions working in the higher education sector in Brazil. The education market is increasingly dynamic and complex. The competition between universities is increasing. In this context, universities are looking for new ways to improve its presence in the market: the marketing approach, new information can be collected and decisions can be improved. In higher education, the marketing proves to be able to provide a framework for understanding, analyzing and changing market forces that are present in this environment (ENACHE, 2011).

One of the solutions to address market changes and challenges for higher education institutions is the implementation of the marketing concept in order to create greater sensitivity to the market becoming more competitive institution and getting satisfied customers (ŠIMIĆ; ČARAPIĆ, 2008). Thus, educational institutions are increasingly converging their management strategies with marketing (BINSARDI; EKWULUGO, 2003).

Although many educational institutions also recognize that not need to deal with the market, a substantial literature about the transfer of practices and marketing concepts from other sectors to higher education has appeared (GIBBS, 2002). Many authors have acknowledged the increasingly important role that marketing has on the achievement of students (IVY, 2008), given the legal changes, regulatory and market sector. Theories and marketing concepts, which have been effective in the business world, are now applied by many universities in order to gain competitive advantage (HEMSLEY-BROWN; OPLATKA, 2006). Higher education is a service, so all the peculiarities for the marketing of services apply to higher education (NICOLESCU, 2009), although it has its specific features that characterize it.

One of the most known concepts is the marketing mix or 4Ps, which is defined with a set of controllable marketing tools that an institution uses to produce the response which wants from their several target markets. It consists of everything that the university can do to influence the demand for the services it offers. Tangible products traditionally have worn a 4Ps model, the service sector, on the other hand uses the 7Ps approach in order to meet customer service provider needs: product, price, place, promotion, people, physical facilities and processes (IVY, 2008).

The next session, based on the literature consulted and adopted concepts, details the methodological procedures chosen.

3. METHOD

The perspective of this research is quantitative and was used the survey to achieve the purpose of this study. The application context was to private HEIs in Brazil. The research was applied to the leaders of each institution (vice-chancellor, vice-president, director, manager) due to strategic knowledge that they possess related to their organizations. The choice by the private sector is due to be highly competitive, as this sector has established academic and administrative standard procedures, and has used its resources to innovate, renew their strategies and develop their capabilities to expand and survive in its market. This study is promising to understand and explain how the HEIs have used their resources to grow and renew themselves (dynamic capabilities) in a highly dynamic environment and achieve superior performance through its market-oriented capabilities (marketing capability).

To evaluate the model proposed in this study were discussed and adopted the issues surrounding the dimensions of dynamic capabilities, appropriate to the education sector, based on authors such as Teece (2009), Protogerou et al. (2011), Pavlou and Sawy (2011) and Wilden et al. (2013): environmental monitoring, identifying opportunities for educational programs and services, use of own processes for identifying the target market, aligning service offerings with market demand, dedication of HEI to improve existing services, implementation of new administrative methods, renewal of business processes, effective internal communication, effective implementation of the required changes, integration of the decisions of HEI, resource allocation, process standardization, formal control, training, and creation of new management and academics knowledge.

The marketing capability issues were used based on the authors Protogerou et al. (2011) and Giacomini (2013), which included the development of market research, sales force, structured marketing department, effective in disseminating courses and attract new students. The organizational performance construct was facing the perception of respondents regarding course offerings and services such as questions about the growth of students in the last three years, growth in the number of courses and services, and the degree of investment in sales mechanism. All constructs had language adaptation for the education sector, as were also conducted pre-tests with managers to ensure understanding of the issues and meet the requirements of sector.

The scale used by the collection instrument was Likert 5 points, with parameters of “strongly disagree” to “strongly agree”, applied through the Software Qualtrics, considering one questionnaire per institution. A total of 1,932 HEIs were invited to participate in the survey (92 universities, 136 universities center, 1,704 colleges), and were obtained 316 valid questionnaires, which corresponds to a return of about 16,36%.

The sample obtained favored in the descriptive analysis of this study. It began with the Confirmatory Factor Analysis (CFA), and then led the analysis by means of Structural Equation Model (SEM) using the software AMOS.

4. RESULTS

Initially, it presents a profile of 316 HEIs in this study: 60% are under 25 years of foundation; 34,8% work at the regional level and 25,9% at the national level; 82,3% have private equity; 60% are non-profit institutions; 57,3% are classified as college and the other as a university or university center; 34,2% have graduate programs; 62% work only in classroom teaching; 50,6% have up to 15 higher education courses and 53.8% have up to 3,000 students.

Following are presented descriptive data of the scales (mean and standard deviation) as well as the results of the reliability test (Cronbach's alpha) and confirmatory factor analysis.

The Table 1 shows that the dimensions and constructs had acceptable results in relation to Cronbach's alpha parameters (> 0.70), Reliability Composite (> 0.70) and AVE-Average Variance Extracted (> 0.50), demonstrating that the scales are reliable and valid and can be used to achieve the purpose of this study.

In complementarity to ensure the validity of the discriminant model, Table 2 shows the values of the correlations and squares of the correlations. In the lower are the diagonal of the correlation results and upper diagonal are the squares of correlations.

The correlation between the variables must be less than 0,95 and the square of the correlation of the variables must be less than the AVE parameters (HAIR et al. 2006). Considering these criteria it can be observed that all constructs obey this limit, so it appears

Table 1. Scales

Variable	Item	Mean	SD	α	AVE	CC
Sense	We often monitor changes in economic, legal and educational sector in our environment	4,28	0,80	0,76	0,54	0,76
	We often use the information that we monitor to identify new opportunities for educational courses and services	4,22	0,81			
	We use established processes to identify the target market, the changes in consumer needs and possible innovations to offer services	3,99	0,85			
Seize	We often review our efforts in developing programs and services to ensure they are aligned with what the market wants	4,31	0,77	0,81	0,52	0,81
	We dedicate enough time to implement ideas for new services and improve our existing services	4,09	0,89			
	We seek to implement new administrative methods constantly	3,94	0,93			
	We renew our business processes (administrative and academic management practices) significantly according to market demands to achieve our objectives and goals	3,85	0,88			
Reconfiguration	We have a fast and effective communication between departments and sectors to facilitate changes in processes and services	3,48	0,99	0,80	0,51	0,80
	We formulate long-term strategies	3,80	1,02			
	We can modify at headquarters and units the administrative systems and procedures (recruitment and selection, shopping, reward system, performance evaluation, academic system) if the changes are implemented	4,01	0,79			
Integration	We are affordable and effective in communicating our new administrative decisions for the whole group	3,84	0,90	0,76	0,51	0,76
	We have a global understanding of the tasks and responsibilities of each of the administrative area	3,94	0,86			
	In case of change, we can relate very well our actions with other administrative employees	3,83	0,88			
Coordination	The HEI can appropriately allocate resources for each of their services offered	3,78	0,96	0,80	0,51	0,80
	The organization has been fully successful in implementing new educational services	3,87	0,88			
	The organization has processes and standardized management techniques.	3,74	0,98			
	There are strong formal control most of the administrative activities, by sophisticated means of control and information system.	3,49	1,00			
Learning	We offer new knowledge to technicians to develop new skills and abilities	3,84	0,91	0,77	0,54	0,78
	We are efficient in finding and creating new administrative and academic knowledge in the education sector	3,70	0,91			
	We are efficient in making the new academic and administrative knowledge is used in teaching and administrative practices	3,73	0,90			
Marketing Capability	We conducted several surveys in the market relating to our marketing plans of courses and services	3,50	1,03	0,86	0,57	0,87
	We invest heavily to have high visibility in the market	3,57	1,10			
	We can easily market new programs and services, with emphasis on sales force	3,34	1,04			
	We have a marketing department or group and/or well-structured sales	3,41	1,14			
	When we offer a new course or service, we can quickly disseminate them and capture new students	3,46	1,02			
Performance	Leader's perception in relation to growth of student numbers over the past three years	3,75	1,10	0,82	0,55	0,83
	Leader's perception in relation to growth the number of courses and services	3,69	1,00			
	Leader's perception regarding sales of courses and services	3,61	1,01			
	Leader's perception in relation to the degree of investment in sales mechanisms	3,34	1,09			

Note. < 0,01; Likert Scale: 1 = strongly disagree to 5 = strongly agree.

Table 2. Discriminant validity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Sense	1	0,53	0,32	0,27	0,39	0,34	0,22	0,11
(2) Seize	0,73**	1	0,32	0,28	0,43	0,49	0,26	0,19
(3) Reconfiguration	0,57**	0,57**	1	0,50	0,48	0,48	0,47	0,30
(4) Integration	0,52**	0,53**	0,71**	1	0,47	0,44	0,26	0,11
(5) Coordination	0,62**	0,66**	0,69**	0,69**	1	0,48	0,47	0,33
(6) Learning	0,58**	0,7**	0,69**	0,67**	0,70**	1	0,39	0,17
(7) Marketing Capability	0,47*	0,51**	0,69**	0,51**	0,69**	0,62**	1	0,43
(8) Performance	0,33*	0,40*	0,54**	0,33*	0,58**	0,41*	0,65**	1

Note. * Significant to 0,01; ** Significant to a 0,05.

that there is discriminant validity between dimensions/ constructs of the model. The following are the test results of the hypothetical model by means of structural equation modeling (Figure 1).

The model adjustment indices are acceptable according to the guidelines established by Hair et al. (2006). According to the results of modeling, it can be said that there is no direct influence of dynamic capabilities on organizational performance (H2) as there are full mediation model, demonstrating that dynamic capabilities have influence on organizational performance only through the marketing capability ($\beta = 0.555$, Sig <0.01), confirming H3.

As a further analysis, we sought to understand under what conditions the mediating effect of marketing capability can be more intense. Thus, we tested the moderating effect of some characteristic variables of multigroups organizations from the structural equation technique. The multigroups analysis followed the recommendations suggested by Byrne (2001), under which compare the two groups with a model in which all roads are free and another in which the paths are fixed, and there has been a difference of χ^2 which indicates the presence of differences in comparisons tested (Table 3).

According to the obtained coefficients and the premise of the chi-square difference, it can be inferred that there is significant moderation only for the size of the institution when taken into account the number of students enrolled ($\Delta c^2 = 22.385$; $\Delta df = 12$; Sig <0.05), i. e., the effect of marketing capability mediation is more intense when the organization has up to 3,000 students ($\beta = 0.685$, Sig <0.01) and softer when it has over 3,000 students ($\beta = 0.429$; Sig <0.01). Other conditions such as the number of courses, the constitution, the type and mode of education had no impact on the model.

5. DISCUSSION

These results demonstrated that the impact of dynamic capabilities does not occur directly on organizational performance (H2), but that is mediated by marketing capability (H3). This mediation is most relevant to the HEI having up to 3,000 students, although is not insignificant for other HEI over 3,000 students. This means that educational institutions have been faced with a competitive environment that, in turn, requires them to develop specific capabilities, such as the marketing capability, here investigated.

The dynamic capabilities literature brings the core of its concept the ability of renew resources through the capabilities to monitor the environment, seize opportunities and reconfigure resources through environmental challenges (TEECE et al. 1997; TEECE, 2009). We evaluated the dynamic capabilities through the subdimensions, sense, seize and reconfiguration (TEECE et al.. 1997; TEECE, 2007; TEECE, 2009), but also

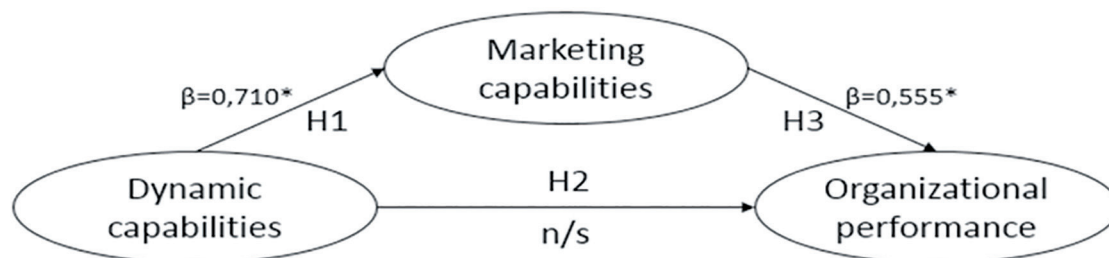


Figure 1. Test of hypothetical model. Note 1: *Sig<0,01; Note 2: CMIN/DF: 2,804; NFI: 0,904; RFI: 0,884; IFI: 0,936; TLI: 0,922; CFI: 0,936; RMSEA: 0,076

Table 3. Model moderations

Model	$\Delta \chi^2$	Δdf	NFI	IFI	TLI	CFI	RMSEA	β
Unconstrained (Up to 15 courses/ More than 15 courses)	14,479	12	0,863	0,923	0,906	0,922	0,059	0,631*/0,495*
Constrained (Up to 15 courses/ More than 15 courses)			0,857	0,922	0,911	0,921	0,058	0,604*/0,501*
Unconstrained (Up to 3,000 students/ More than 3,000 students)	22,385	12	0,864	0,925	0,908	0,924	0,058	0,685*/0,429*
Constrained (Up to 3,000 students/ More than 3,000 students)			0,856	0,92	0,909	0,919	0,058	0,670*/0,436*
Unconstrained (For profit/ Non-profit)	11,433	12	0,868	0,929	0,913	0,928	0,057	0,467*/0,470*
Constrained (For profit/ Non-profit)			0,863	0,929	0,919	0,928	0,055	0,601*/0,598*
Unconstrained (Univ-Centre/ College)	13,351	12	0,866	0,926	0,91	0,925	0,058	0,452*/0,613*
Constrained (Univ-Centre/ College)			0,861	0,925	0,915	0,924	0,056	0,481*/0,597*
Unconstrained (Classroom course/ Classroom course/ and distance learning)	12,498	12	0,873	0,935	0,921	0,935	0,054	0,545*/0,564*
Constrained (Classroom course/ Classroom course/ and distance learning)			0,869	0,935	0,926	0,934	0,052	0,533*/0,600*

*Sig<0.01

integration, coordination and learning (ZOLLO; WINTER 2002; HELFAT et al. 2007; AMBROSINI; BOWMAN 2009). It was found that these subdimensions are applied to the context of higher education. That is, by competition, organizations of this sector also need to: monitor changes in the education sector, using information to identify new opportunities to offer educational services, using processes to meet the target market, know the audience that attends and innovations that arise in the environment, to review efforts to develop new programs and services, implement new educational and administrative methods, renew business processes, promote fast and efficient communication, formulate long-term strategies to promote changes integrating activities and tasks, allocate resources, standardize processes and technical, control administrative activities, develop new skills, acquire and explore new educational and technical knowledge.

The marketing capability was investigated through traditional issues to the area, adapted to the language sector, and revealed that the IES managers have been concerned to conduct market research on the courses and offered educational services, to invest significantly to generate high visibility in the market, to market their services based on the sales force, to implement a marketing department or group and/or structured sales, and to disseminate and raise students. Thus, it is apparent that the legal changes, regulatory and market impact practices of HEI and its mode of operation, such as points Nicolescu (2009), acting as forces for

the commercialization of higher education. The opportunities that arose after the LDB (Guidelines Law and Base) in 1996 made the educational market increasingly dynamic and complex, increasing competition and exerting pressure on institutions to improve their presence and activities in the market. Adopting these practices, it is found that the marketing capability has been increasingly developed to structure decisions and actions (BINSARDI; EKWULUGO, 2003; SIMIC; ČARAPIĆ, 2008; IVY, 2008; ENACHE, 2011). As attested Nicolescu (2009), the peculiarities of marketing services also apply to educational services.

The performance of the HEIs was analyzed with questions related to the growth in student numbers over the past three years, growth in the number of courses and services, sales of programs and services, and the degree of investment in sales mechanisms. Thus, the observed relationships attest to the mediation of marketing capabilities on performance as an important driver (DAY, 1994; WILDEN; GUDERGAN, 2015; RAMASWAMI et al. 2009; MURRAY et al. 2011).

In short, it can be said that for Brazilian private higher education institutions, the relationship between the dynamic capabilities and performance is mediated by marketing capabilities, this being relevant to the search for a superior performance (PROTOGEROU et al. 2011).

5.1. PRACTICAL IMPLICATIONS FOR MARKETING PROFESSIONALS AND MANAGERS IN HEI

Once the marketing capability has become relevant for private HEIs in Brazil, especially for those with up to 3,000 students, it is necessary that managers are aware of the competitive environment in which they are located and how this capability can help them. The literature has shown that the importance of marketing for HEIs is not new (IVY, 2008), and that for more than 30 years higher education has been involved in activities called “marketing” (LITTEN, 1980). However, the evidence was not clear to the Brazilian context, neither to the relationship with the dynamic capabilities, which highlights the ability of organizations to renew themselves by means of a turbulent environment (TEECE et al. 1997).

The marketing capability has an important role in the survival, growth and renewal on educational services offerings for HEIs in private sector, and consequently in organizational performance. If a new or opportunity is identified, and a HEI intends to absorb it into its range of services offered, it will have to invest in marketing efforts to disseminate and capture students. Without discussing the quality of educational services, since it evaluated here only as a marketing capability mediates the relationship between dynamic capabilities and performance, this research has shown that the dynamics of competition between HEIs have occurred through mechanisms already widely adopted in other sectors of the economy, such as in the industries. The private higher education sector within the Brazilian context, has participated in a competitive environment that has taken place now on a different level, professionalized, which requires professional knowledge and marketing practices. This is a relatively recent phenomenon in Brazil, where a few decades were not verified many changes and there was little diversification and competition.

It is important to note that this quantitative study aimed to portray a national context and shows the marketing capability as mediator. Further studies will be needed, in depth, to understand how this capability has been developed and how it has mediated the relationship between the reconfiguration of resources and the performance of both sales and finance. Anyway, this study demonstrated that HEIs depend on individuals who have skills related to the marketing capability.

6. CONCLUSION

The results of this study confirm the evidence already presented by other authors that the dynamic capabilities have influence on organizational performance when mediated by marketing capability. Progress occurs in the model application context, i. e., shows up such relationship in Brazilian HEI. In addition, this study demonstrated that mediated relationship is more intense for HEIs with up to 3,000 students and other organizational profile variables such as amount of courses, the constitution, the type and mode of education do not significantly alter the results. Thus, it can be inferred that the tested relationship can be considered stable and applicable to HEIs with different profiles.

The study showed the importance of marketing for a HEI. Managers and marketing professionals of these institutions should turn their attention and investments for the marketing capabilities, as proven in the results of this study, they bring positive results in relation to organizational performance, especially among smaller institutions (less than 3,000 students) which must overcome several competitive barriers for survival in the market.

As the limitation of this research we have the sample size. Only 316 of the HEIs (16,4% of the 1,932 institutions) participated in the survey which reduces the generalizability of the findings.

Future studies may adopt a cross-cultural pattern of research to compare between different countries results, thus increasing the external validity of the findings. In this sense, it can be evidenced contrasting particular situations of each country that might influence the results, such as legislation, economic and social contexts. Future research may also check more specificity as different options segmentation and market positioning, as well as different marketing policies for pricing, products, communication and delivery of educational services can change the findings.

7. REFERENCES

- AMBROSINI, V.; BOWMAN, C.; COLLIER, N. Dynamic capabilities: an exploration of how firms renew their resource base. *British Journal of Management*, v. 20, n. s1, p. S9-S24, 2009.
- BINSARDI, A.; EKWULUGO, F. International marketing of British education: research on the students' perception and the UK market penetration. *Marketing Intelligence & Planning*, v. 21, n. 5, p. 318-327, 2003.
- DAY, G. S. The capabilities of market-driven organizations. *Journal of Marketing*, p. 37-52, 1994.
- EISENHARDT, K. M.; MARTIN, J. A. Dynamic capabilities: what are they? *Strategic Management Journal*, v. 21, n. 10-11, p. 1105-1121, 2000.
- ENACHE, I. Marketing higher education using the 7 Ps framework. *Bulletin of the Transilvania University of Braşov*. v. 4, n. 53, 2011.
- FINCH, D. J., Peacock, M., Levallet, N., Foster, W. A dynamic capabilities view of employability: Exploring the drivers of competitive advantage for university graduates. *Education+ Training*, v. 58, n. 1, 2016.
- FOWLER, S. W., KING, A. W., MARSH, S. J., & VICTOR, B. Beyond products: new strategic imperatives for developing competencies in dynamic environments. *Journal of Engineering and Technology Management*, v. 17, n. 3, p. 357-377, 2000.
- GIACOMINI, M. M. Dynamic Capabilities and their influences on firm performance (Dissertation). Pontifical Catholic University of Parana, Curitiba, PR, Brazil. 2013
- GIBBS, P. From the invisible hand to the invisible handshake: marketing higher education. *Research in Post-Compulsory Education*, v. 7, n. 3, p. 325-338, 2002.

- HAIR, J. F., BLACK, W. C., BABIN, B. J., ANDERSON, R. E., & TATHAM, R. L. *Multivariate data analysis*. Upper Saddle River, NJ: Pearson Prentice Hall, 2006.
- HELFAT, C. E., FINKELSTEIN, S., MITCHELL, W., PETERAF, M., SINGH, H., TEECE, D., & WINTER, S. G. *Dynamic capabilities: Understanding strategic change in organizations*. John Wiley & Sons, 2009.
- HEMSLEY-BROWN, J.; OPLATKA, I. Universities in a competitive global marketplace: A systematic review of the literature on higher education marketing. *International Journal of Public Sector Management*, v. 19, n. 4, p. 316-338, 2006.
- HOOLEY, G. J.; GREENLEY, G. E.; CADOGAN, J.W.; FAHY, J. The performance impact of marketing resources. *Journal of Business Research*, v. 58, n. 1, p. 18-27, 2005.
- KOTLER P.; FOX, K.F. *Strategic marketing for educational institutions*. Prentice-Hall, 1985.
- KRASNIKOV, A.; JAYACHANDRAN, S. The relative impact of marketing, research-and-development, and operations capabilities on firm performance. *Journal of Marketing*, v. 72, n. 4, p. 1-11, 2008.
- IVY, J. A new higher education marketing mix: the 7Ps for MBA marketing. *International Journal of Educational Management*, v. 22, n. 4, p. 288-299, 2008.
- KOTABE, M.; SRINIVASAN, S. S.; AULAKH, P. S. Multinationality and firm performance: The moderating role of R&D and marketing capabilities. *Journal of international business studies*, p. 79-97, 2002.
- LITTEN, L. H. Marketing higher education: Benefits and risks for the American academic system. *The Journal of Higher Education*, p. 40-59, 1980.
- MORGAN, N. A.; SLOTEGRAAF, R. J.; VORHIES, D. W. Linking marketing capabilities with profit growth. *International Journal of Research in Marketing*, v. 26, n. 4, p. 284-293, 2009.
- MORGAN, N. A.; VORHIES, D. W.; MASON, C. H. Market orientation, marketing capabilities, and firm performance. *Strategic Management Journal*, v. 30, n. 8, p. 909-920, 2009.
- MORGAN, N. A. Marketing and business performance. *Journal of the Academy of Marketing Science*, v. 40, n. 1, p. 102-119, 2012.
- MURRAY, J. Y.; GAO, G. Y.; KOTABE, M. Market orientation and performance of export ventures: the process through marketing e multigrupos em equações estruturais apabilities and competitive advantages. *Journal of the Academy of Marketing Science*, v. 39, n. 2, p. 252-269, 2011.
- NAVARRO, J. R.; GALLARDO, F. O. A model of strategic change: Universities and dynamic capabilities. *Higher education policy*, v. 16, n. 2, p. 199-212, 2003.
- NICOLESCU, L. Applying marketing to higher education: Scope and limits. *Management & Marketing*, v. 4, n. 2, p. 35-44, 2009.
- PAVLOU, P. A.; EL SAWY, O. A. Understanding the elusive black box of dynamic capabilities. *Decision Sciences*, v. 42, n. 1, p. 239-273, 2011.
- PETERAF, M.; DI STEFANO, G.; VERONA, G. The elephant in the room of dynamic capabilities: Bringing two diverging conversations together. *Strategic Management Journal*, v. 34, n. 12, p. 1389-1410, 2013.
- PROTOGEROU, A.; CALOGHIROU, Y.; LIOUKAS, S. Dynamic capabilities and their indirect impact on firm performance. *Industrial and Corporate Change*, v. 21, n. 3, p. 615-647, 2012.
- RAMASWAMI, S. N.; SRIVASTAVA, R. K.; BHARGAVA, M. Market-based capabilities and financial performance of firms: insights into marketing's contribution to firm value. *Journal of the Academy of Marketing Science*, v. 37, n. 2, p. 97-116, 2009.
- ŠIMIĆ, M. L.; ČARAPIĆ, H. Education service quality of a business school: former and current students' evaluation. *International Review on Public and Nonprofit Marketing*, v. 5, n. 2, p. 181-191, 2008.
- TAKAHASHI, A. R. W. Revealing the processes of organizational learning in skills development in educational institutions (Doctoral Thesis). University of São Paulo – USP, 2007
- TEECE, D. J. Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, v. 28, n. 13, p. 1319-1350, 2007.
- TEECE, D. J. *Dynamic capabilities and strategic management: organizing for innovation and growth*. Oxford University Press, 2009.
- TEECE, D. J.; PISANO, G.; SHUEN, A. Dynamic capabilities and strategic management. *Strategic Management Journal*, v. 18, n. 7, p. 509-533, 1997.
- THEODOSIOU, M.; KEHAGIAS, J.; KATSIKEA, E. Strategic orientations, marketing capabilities and firm performance: An empirical investigation in the context of frontline managers in service organizations. *Industrial Marketing Management*, v. 41, n. 7, p. 1058-1070, 2012.

-
- VORHIES, D. W.; HARKER, M.; RAO, C. P. The capabilities and performance advantages of market-driven firms. *European Journal of Marketing*, v. 33, n. 11/12, p. 1171-1202, 1999.
- VORHIES, D. W.; MORGAN, N. A. Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of marketing*, v. 69, n. 1, p. 80-94, 2005.
- VORHIES, D. W.; MORGAN, R. E.; AUTRY, C. W. Product-market strategy and the marketing capabilities of the firm: impact on market effectiveness and cash flow performance. *Strategic Management Journal*, v. 30, n. 12, p. 1310-1334, 2009.
- VORHIES, D. W.; ORR, L. M.; BUSH, V. D. Improving customer-focused marketing capabilities and firm financial performance via marketing exploration and exploitation. *Journal of the Academy of Marketing Science*, v. 39, n. 5, p. 736-756, 2011.
- WEERAWARDENA, J. The role of marketing capability in innovation-based competitive strategy. *Journal of strategic marketing*, v. 11, n. 1, p. 15-35, 2003.
- WILDEN, R.; GUDERGAN, S. P.; NIELSEN, B. B.; LINGS, I. Dynamic capabilities and performance: strategy, structure and environment. *Long Range Planning*, v. 46, n. 1, p. 72-96, 2013.
- WILDEN, R.; GUDERGAN, S. P. The impact of dynamic capabilities on operational marketing and technological capabilities: investigating the role of environmental turbulence. *Journal of the Academy of Marketing Science*, v. 43, n. 2, p. 181-199, 2014.
- ZOLLO, M.; WINTER, S. G. Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, v. 13, n. 3, p. 339-351, 2002.

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