The follow-up of alumni as a strategic action in Brazilian universities

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Abstract

In Brazilian universities, considered as complex organization because of its multiple objectives, high specialization and low degree of coordination, the follow-up of alumni presents itself as a strategic action. The purpose of following-up alumni consists in obtaining information that enables evaluating the impact of graduate programs on professional and academic practice of alumni, as well as enhance the qualification of regular students. Taking these aspects into consideration, in this theoretical work we discuss aspects related to Brazilian universities and the follow-up of alumni as a strategic action in this context.

Keywords: Brazilian universities. Alumni. Theory of Complexity.

INTRODUCTION

The social environment in which Brazilian universities are inserted are constantly changing, which may lead them to a scenario of constant challenges (Meyer Junior, Pascucci, & Mangolin, 2012; Moritz, Moritz, & Melo, 2011). Brazilian universities face many difficulties in the materialization of their strategies, which can be explained by the fact that these organizations are considered as complex organizations (Moritz, Moritz, Melo, & Silva, 2012). Organization structure and processes present a high level of complexity, besides having multiple goals that underpin strategic actions in these higher education institutions (Souza, 2009).

In this scenario, having a strategy is an indispensable tool that encourages and enables self-organization. It also helps to reduce levels of uncertainty when individuals who are part of this system are performing their tasks (Serva, 1992). Nevertheless, this assignment is not an easy task, especially when the complex nature of Brazilian universities is taken into consideration.

In this context, we present a theoretical work that intends to discuss aspects regarding Brazilian universities as complex organizations and the influence CAPES evaluation system has over graduate programs as well. Based on this influence, we will also present a strategic action that would help universities to improve themselves, which is the follow-up of alumni from graduate programs.

2   THE THEORY OF COMPLEXITY

Complexity tends to lead people to a certain resistance, because of the difficulty in explaining what is considered complex, since "complexity is unsimplifiable" (Morin, 2005, p. 273). Despite this difficulty,

comprehending complexity can be achieved by taking into consideration simple principles and also a set of other simple elements (Morin, 2005).

About the Theory of Complexity, Serva (1992) points out that, despite having its origins in academic fields not related to Applied Social Sciences, it enables the arise of an *organization logic* that intends to answer questions regarding the autonomy of the individual. To this author, the behavior of autonomous and responsible individuals, when aggregated, aims to promote a self-organization.

As Morin highlighted, the crucial aspect of autonomy is precisely the paradox in which a system is as autonomous as it is dependent of its external environment. In 1992, Serva had already discussed this:

> "The concept of autonomy comes from the idea of organization and system and is elaborated by a paradoxical logic, by which autonomy and dependence are not seen as excluding conditions, since the system depends in part on the environment; autonomy can never be absolute, the thought that intends to give account of the complex absorb them simultaneously, assuming the paradox." (Serva, 1992, p.29).

Furthermore, Agostinho (2003) argues that the main idea regarding the Theory of Complexity is the concept of interaction between autonomous individuals or between parts of this system in which these individuals participate. Morin (2005) defines this interaction as combined relations, actions and retroactions that are combined in a system. These elements combined in different ways and means results in complexity.

As a result of the interaction of these elements, phenomena are created. The main characteristics of these phenomena are their emergent qualities, which are the result of the interaction between these autonomous individuals. It is worth reminding that these interactions are based on simple principles and local rules, which influence reaches only the action context of a specific individual. On the other hand, they can also be permeated by regularities and oscillations (Agostinho, 2003; Serva, 1992).

Consequently, if acting in a single manner through interaction, autonomous and distinct elements can emerge from a chaotic situation and change to a state of order. As a result of a coherent pattern of interaction, these elements can develop a new aggregate and emerging identity (Agostinho, 2003).

Serva (1992) points out that acting in a coherent manner, which shows a capacity of self-organization, is the main characteristic of complexity itself. Therefore, the more complex a system is, bigger its capacity to operate in chaos. Naveira (1998) adds that it is more likely and acceptable to let a system organize itself naturally than to try to control it under unstable conditions.

According to Morin (2005), from the combination of these interactions, the idea of organization logic arises. Parallel to this, the organization provides a constructive coherence to interactions:

> "The organization creates order (creating its own systemic determinism), but also disorder: in one hand, systemic determinism can be flexible, to maintain their zones of randomness, of game, of liberties; on the other side, organizing work, as we have said, produces disorder (increase in of entropy). In organizations, the presence and permanent production of disorder (degradation, degeneration) are inseparable from the organization. The paradigm of organization is considered, in this sense, a reform of thought; henceforth, the explanation does not exclude disorder, there is no hiding the organization, but you should always frame the complexity of the relationship organization - disorder - order."(Morin, 2005, p. 267).

In addition to the analysis of these interactions, the Theory of Complexity also allows to understand innovation and renovation processes, through investigating changes. Agostinho (2003) clarifies that this theory points out that complex systems can adapt to the environment from the moment they acquire information and interact from and with it. In this context, adaptation means "changing the structure (or the strategy) based on previous experience from the system" (Agostinho, 2003, p. 06).

However, a complex system that is able to adapt overcomes the barrier of simple adaptation, once it now covers the concept of apprenticeship. This happens once this system is able to identify some patterns, interpret them as a pattern to be followed and also reproduce them in a real context, which is only possible because of the interaction between with the environment where the system is inserted (Agostinho, 2003). This apprenticeship is enable by the fact that these systems are made of individuals with some degree of liberty to put into action their abilities of learning and adaptation (Agostinho, 2003). As a matter of fact, it is possible to say that complex and adaptive systems are systems that can learn.

Agostinho (2003) points out that these complex and adaptive systems express a certain level of coherence regarding the changes they need to react to, but they also have leverage points, once small input changes can result in great and targeted changes. Additionally, small changes in a complex system can result in amplified consequences, as a consequence of changing behaviors from the elements of the system.

Complex and adaptive systems can be typified by four main concepts: autonomy, cooperation, aggregation and self-organization. Autonomy consists in the action of an individual based on its own judgement. Cooperation is the adjustment between individuals behavior to possible adaptations. Aggregation defines the limits of autonomous actions, authoritatively or as a result of the posture of the individuals who aggregate. Self-organization, in order to happen, it is necessary that the system perceives the flow of information, knowledge, material, reliability, among others. Based on that, the system can control these flows and direct them in a more adequate way. These concepts are related to one another as follows:

> "Autonomous individuals are capable of learning and adapting, and also cooperate adaptive advantages. Such behavior tends to be selected and reproduced, reaching the point where these co-operative individuals come together to form an aggregate that also becomes behave as an individual and so on. It is said that the the resulting system is self-organized, global performance whose performance is also evaluated by selection pressures present in the environment (external and internal)." (AGOSTINHO, 2003, p.08)

Universities are amid complex organizations (Moritz et al, 2012). Universities are specialized organizations, which have centers of power divided by areas of competence and are orientated to produce and to transmit knowledge (Borges & Araújo, 2001; Andriguetto Junior, Meyer Junior, Pascucci, & Santos, 2011).

2.1 Universities as complex organizations

Taking into consideration their certain singularities, but also their plurality of activities areas, universities are conceptualized as complex organizations. Amongst these singularities, it is possible to name: tasks that are executed by individuals with a high degree of professionalism; professionals who

demand autonomy and liberty of action; decentralized decisions, which allow unequal development between individuals; multiplicity of distinct conceptions; low level of tasks coordination; unclear and dispersed power and objectives, which difficult the achievement of something in common in the context of the organization (Borges & Araújo, 2001).

Teixeira (2015) corroborate the idea of universities as complex organizations, but from another perspective. To the author, these organizations, besides requiring a high level of specialization, they also require a strategic management based on constant decision making processes. The plurality of possibilities of action also characterize universities as complex organizations.

Universities are understood as organized anarchies by Andriguetto Junior et al (2011). Morin (2005) says that the autonomy of a system is directly related to the development of its complexity. From this perspective, it is possible to assume that it is precisely the complexity of universities that stimulate all the more this anarchy, once the individuals become more autonomous in a complex environment.

The Theory of Complexity can be applied to the context of universities, once distinct elements act uniquely in a scenario that looks like chaos. According to Andriguetto Junior et al (2011):

> "(..) the behavior of the agents is not driven by rules and regulations, by standardized models, delimitation areas of competence and attributions, or by hierarchical structures. University organizations tend to be more fluid, with articulations between different groups and centers of power." (Andriguetto Junior et al, 2011, p. 129)

This scenario is better understood if the idea of human autonomy is taken into account. Morin (2005) indicates that the notion of autonomy is a complex concept, once it is related to cultural and social conditions of an individual. This individual is exposed to a wide range of ideas, concepts and cultures that compose a spectrum of ideas from which he can choose autonomously. Consequently, when individuals with this autonomy are gathered in order to achieve organizational goals, they act with low degree of control, resulting in a chaotic scenario.

2.1.1   Strategy in universities

Even with this possibility of chaos, the universities may be able to take measures in order to reduce the uncertainty, keep their autonomy and cooperation and also self-organize themselves. In order to do so, the universities have to match their singularities to their strategy (Andriguetto Junior et al, 2011).

Due to their complexity, universities can have difficulties regarding their strategic plan:

> "In the seek to fulfill its multiple roles and to optimize the process of management, the university adopts models for formulating strategies, but most of the time, it uses the same concepts and instruments adopted by organizations of an entrepreneurial nature, without considering peculiarities, which can ultimately lead to failure." (Teixeira, 2015, p. 34)

According to Meyer Junior, Pascucci and Mangolin (2012), Brazilian universities make use of strategies based exclusively on rational paradigms, inspired and guided by business models. These models do not bring efficient results, because universities are based on a management process that takes into consideration aspects related to not only rationality, but also political and symbolic aspects. This

multiplicity of aspects that guide the management process of universities exists because of their multiple objectives (Meyer Junior et al, 2012).

Moreover, the university strategy is not a result of a centralized management process, but a result of a complex relation among the top management and its administrative units (Teixeira, 2015). In this aspect, the Theory of Complexity can be observed in universities in the following perspective:

> "As the same as that the Theory of Complexity says that it is no use in insisting on in controlling a complex system from above, it beckons with the possibility of learning ways to promote conditions that allow the emergence of better solutions." (Agostinho, 2003, p. 03)

The Theory of Complexity assumes that the hierarchical organization of a system cannot be imposed by the top management. On the other hand, the conditions that enable the self-organization of this system can be fostered by this top management. In the context of universities, it is possible to say, based on this perspective, that its top management can help its administrative units to organize themselves to achieve their own goals. Teixeira (2015) complements the idea by saying that these administrative units can develop their own management strategic processes, which can be detached from the main strategic process of the university.

From that, it is possible to notice another sign of the relation between the Theory of Complexity and universities. Various elements act in a seemingly chaotic way, based on local rules and principles that affect only some specific units. Eventually, these elements achieve a state of order, so they can execute their goals. This state of order is reached because these elements learn and adapt to their own reality (Agostinho, 2003). Therefore, these autonomous individuals – the administrative unities – compose a complex system that acts as a bigger and singular individual – the university.

Universities, as mentioned before, are formed by distinct elements that can be considered autonomous. In a way, in the course of their action, these elements cooperate among them, each and every one in their own scope of work. This way, they achieve their own small objectives in order to help the organization to achieve the bigger and main objective. This way, these small objectives congregate themselves and act as one, through the concepts of autonomy, congregation and aggregation of the individuals that self-organized themselves. According to Tôrres:

> "In all fields, and particularly in the educational and organizational areas, we must let the emergent and potential properties of the whole, of the parts and relationships between the parts and the whole speak up for themselves" (Tôrres, 2005, p. 06).

Andreguetto Junior et al (2011) affirm that individuals define their behavior based on their own choices of actions. Consequently, they self-organize themselves based on emergent patterns that will be reflected on the whole system. In this context, strategic management is an organizational attempt of realize a process of self-organization. As a result of this attempt, the organization intends to provide the necessary conditions so that emergent performance is aligned to the intended performance (Agostinho, 2003).

From the Theory of Complexity is expected not only the study of this organizational chaos, but also to provide the means to anticipate fluctuations of the environment. From this point, it is possible to give rise to a strategic planning, what Serva (1992) calls a sophisticated way of predict and establish some regularities, reducing the organization levels of uncertainty. Although, aligning the actions of individuals

with the organizational strategic planning can be considered as a challenge, especially in the context of Brazilian universities. As Borges and Araújo (2001) pointed out, strategic planning in complex organizations is not an easy task. For that, considering the type and nature of the organization is essential, since the characteristics of universities and its own processes certainly define institutional arrangements, with direct consequences to planning and executing strategy (Borges & Araújo, 2001).

Strategic management in universities can be ambiguous and conflicting, due to the diverging objectives and preferences, which are caused by the plurality of the organization itself. In order to reduce problems with strategic management, universities must take as a strategic objective is contributing to production, application and dissemination of knowledge. As a consequence, the social context in which universities are inserted will be benefited, and it is precisely this society that validate universities performance.

3   THE FOLLOW-UP OF ALUMNI

A specific strategy that must be extensively discussed is the follow-up of alumni, specifically in this case graduate alumni. Brazilian graduation consists in a system conducted by academic and scientific needs and intends to enable regular students to widen and deepen their own knowledge, leading them to a high standard of scientific and professional competence (Capes, 2017a). Besides that, academic research produced in graduation programs can contribute to the development of a nation (Teixeira, 2015).

The follow-up of alumni is understood as a possibility to evaluate the university impact in the professional practice of its alumni that graduated from a *stricto sensu* graduate program (Teixeira, 2015). Bearing that in mind, an higher education institution that uses the follow-up of alumni as a strategic action can have information regarding their impact in the social context where they act, as well as strengthen the education to be given to regular students.

> "Assuming that alumni from a graduate program have their practical actions affected by the experiences of the course and that the quality of the program is determined by their operating conditions, it is important to contextualize the program and to understand the contributions that the course has brought to the trajectory of students' personal, professional and academic lives." (Maccari & Teixeira, 2014, p. 102)

From the relation created between the alumni and the institution from where they graduated, it is possible to have a process of feedback e development of knowledge based on their experience. Furthermore, the alumni can also dispose of a space in which they can promote new researches, exchange of experience and do networking. Considering the perspective brought by Teixeira (2015) that considers strategy not only as a plan for the future, but also learning from past actions, it reinforces the importance of maintaining a relation with the alumni. Learning from their experience helps the university to prospect new opportunities.

As Dantas (2004) says:

> "From the educational perspective, the engagement of graduate students in research lines with possible consequences for national development, guided by professors committed to society, can stimulate new ideas and facilitate the emergence of new leaderships, academic and political; therefore it is important to follow the career of alumni. It teaches a better listening of community needs and the possibility of providing adequate responses, leading to popular satisfaction and

socioeconomic growth. It can lead to a dynamic organizational learning environment and new research opportunities, refreshing lines of research and invigorating programs through healthy competition." (Dantas, 2004, p. 168).

Maccari and Teixeira (2014) consider alumni as the most valuable asset for a higher education institution, based on the contribution that alumni may provide for the society. This contribution, as the authors remembers, is the reflex of their own experience during their graduation course. In this sense, alumni are a part of the university inserted in society.

3.1 CAPES' influence in follow-up of alumni

Brazilian universities are led to perform the strategic action of following-up alumni once they are submitted to the influence and regimentation of the Coordination for the Improvement of Higher Education Personnel (CAPES), a Brazilian public agency that reports to the Ministry of Education (MEC). Among CAPES attributions, it is worth highlighting: evaluation and recognition of *stricto sensu* graduate programs, access and dissemination of scientific production, investment in human resources, promotion of international scientific cooperation and also induction and fostering of teacher training (Capes, 2017a).

CAPES is responsible for defining guidelines, strategies and objectives that work as a strategic plan for graduate programs to follow (Capes, 2017b). Moreover, CAPES is responsible for the promotion of the development of Brazilian graduation courses and for the promotion of research with a high level of scientific rigour, which will lead to the development of the country as a nation. It is possible to affirm that there is a positive relation between education and development and this is the reason that reinforce CAPES importance (Dantas, 2004; Mancebo, Vale, & Martins, 2015).

There are five aspects considered in CAPES evaluation of graduate programs, which are: proposal of the graduate program; academic staff; student body, theses and dissertations; intellectual production; and social insertion. Among these aspects, Teixeira (2015) indicates that social insertion is directly related to alumni, once it is necessary that graduate programs identify how these alumni affect society, based on their professional and academic activities after graduation.

This social impact can be verified based on intellectual production and its impact. As Versesi, Hogan, Chambouleyron & Martinez (2002) suggest:

> "(...) an institution is valued for the products it produces and for the functions it performs in society. From the university, it is expected that it will form well-prepared professionals and researchers with solid ethical and citizenship values and who generate knowledge - science, technology, humanities and arts - in order to solve relevant problems to humanity and society that are financing them.". (Vercesi et al, 2002, p.03)

Considering the presented perspectives, it is possible to reassure that the follow-up of alumni is a strategic action of high importance in the context of Brazilian universities. Its importance is based not only by the immediate benefits the graduate programs can have directly, but also from the perspective of CAPES evaluation system. According to Teixeira (2015):

"Thus, an effective follow-up of the alumni is for the university a competitive advantage, both to improve the grade in the evaluating assessment system (CAPES) and to provide subsidies that allow the course to enhance the training of its students." (Teixeira, 2015, p. 19).

Nevertheless, there are many critics regarding CAPES evaluation system. It is clear that this evaluation system has a direct effect in graduate programs actions, in researchers and in higher education institutions in general. This happens because a good result in this evaluation system is directly related to allocation of financial resources, which are commonly used to stimulate new and future researches. In this sense, CAPES evaluation system makes a link between performance and success (Moritz et al, 2011; Mancebo, Vale, & Martins, 2015)

As a result, this influence is considered as an invasion of a business model in universities, which Alcadipani (2011) considers as a negative aspect. The urgent need of social impact, that is achieved by extensive intellectual production, tend to lead researches to be more concerned about quantity than quality. Based on this necessity attending CAPES evaluation system, specially regarding social impact, graduate programs are supposedly led to produce research in a Fordist mode of production (Alcadipani, 2011; Bertero, Alcadipani, Cabral, & Rossoni, 2013). Considering that universities are responsible for production and dissemination of knowledge, it becomes unacceptable for them to do their activities based on this business paradigm similar to the Fordism mode of production (Borges & Araújo, 2001).

Despite the critics regarding this evaluation system, it is not possible for graduate programs to act based on the criteria regulated by CAPES. This institution and its evaluation system are taken as a guideline by graduate programs. The pursuit for attending all the requirements is considered as an efficient main strategic guideline (Maccari, Almeida, Nishimura, & Rodrigues, 2009; Teixeira, 2015). It must be brought to light that CAPES is constantly working to improve this evaluation system, so that this agency can work as a driving force that leads Brazilian education to a level of excellency (Martins, Maccari, Stropoli, Almeida, & Riccio, 2012).

3.2 Difficulties related to follow-up of alumni

In order to achieve the benefits promoted from the strategic action of following-up alumni, some difficulties may be faced by graduate programs:

"The importance of evaluating the impact on the social and economic development of graduate's products (especially the results of the research that guided the dissertation or thesis) is, however, inversely proportional to the technical difficulty of operationalization and the definition of adequate parameters, and also, valid and reliable indicators." (Dantas, 2004, p. 168)

Teixeira (2015) says that it is not clear what is exactly expected from graduate programs. In this sense, the follow-up of alumni can bring light to aspects related to their impact in labour market and the influence of their academic studies in their professional practice. With this feedback, graduate programs may be able to reflect upon their own organization and characteristics, which gives them an opportunity to a continuous improvement action.

However, this strategic action is not easily put into practice, because maintaining a relationship between the Brazilian universities and alumni is difficult. It is noticed that alumni, in general, do not want

to maintain a link with the university. This lack of interest is noticed on not updated basic information, such as contact details and address. Consequently, the university cannot contact these alumni and request for feedback or information regarding their professional and academic work (Teixeira, 2015).

Aside from that, graduate programs also face difficulties related to operationalization of data. Some parallel actions that are meant to fill this gap are not successful, such as the research in Plataforma Lattes Curriculum of alumni. Teixeira (2015) states that these informations are not updated as well, as another result of the lack of interest of alumni.

It seems likely that alumni does not know the importance of updating their Lattes Curriculum as well, since it is from this platform that graduate programs extract information regarding academic researches that alumni may do. There is an absence of culture regarding a possible approximation between alumni and Brazilian universities that can also be noticed by the fact that alumni are unlikely to answer questionnaires sent by graduate programs with the purpose of gathering information related to professional practice and feedback about the program (Paiva; 2006; Teixeira, 2015).

Additionally, besides the fact that Brazilian universities and graduate programs are concerned with CAPES evaluation system and with their own performance, it is also noticed a lack of interest by alumni in this aspect. Teixeira (2015) suggest that this is a consequence of alumni not knowing the real impact this evaluation system has in higher education institutions in general. Moreover, the author also says that alumni does not understand how the approximation between them and their institution can contribute to actions for improvement.

> "In practical terms, it is from the importance recognition of sharing the actions and the updated data the only way to record the effective contribution of the graduate program to the society that the students collaborate with the increase of the grade of the course, which directly impacts on his own professional appreciation, since the curriculum published in the Lattes Platform shows the note of the program in which the graduate obtained his degree." (TEIXEIRA, 2015, p. 25)

In an effort to relate the Theory of Complexity with this alumni context, this theory discusses about leverage points, in which small action can result in large and effects. In this sense, actions like a continuous request for alumni updated information by the graduate program is an operational task that would enable these programs to have important information regarding their alumni in a second phase. From the moment that the follow-up of alumni becomes a strategic action in the context of Brazilian universities, by designing and implementing data operationalization, a new opportunity for improvement arises in graduate programs. It is for the university to organize itself in a way that it can develop administrative systems that can organize and process alumni information, which will lead Brazilian universities to a new level of professionalism regarding follow-up of alumni (Teixeira, 2015).

This data operationalization must be defined in the scope of each university, regarding their unique characteristics and the complexity of the organizational system. Also, it is important to understand that alumni from different universities may have different social impact and, for that, different academic and professional needs (Ortigoza, Poltroniéri, & Machado, 2012).

Therefore, it is clear that not only data operationalization is needed to alumni follow-up, but also to the increase of alumni awareness regarding the importance of feedback to graduate programs.

4 CONCLUSIONS

Based on what had already been discussed in this paper, it is possible to conclude that Brazilian universities are complex organizations, for having specific singularities and also a plurality of objectives to achieve (Borges & Araújo, 2011). Despite the difficulties this type of organization may encounter, as a result of the feeling of constant chaos and complexity, conduct a strategic action that is compatible with these characteristics is indispensable for Brazilian universities.

The follow-up of alumni becomes a strategic action in Brazilian universities based considering the benefits this action can provide for graduate programs. Data that enable the analysis of the impact of graduate programs in alumni professional work, to potentiate regular students learning and facilitate networking are examples of these benefits that can derive from following-up of alumni.

It cannot be disregarded the influence that CAPES evaluation system has over Brazilian universities and graduate programs in general, but also related to the follow-up of alumni. This complex organization has an interest in this strategic action because, once the follow-up of alumni provide positive results, there is an increase on the possibility of the allocation of financial results. As a consequence, CAPES evaluation system tends to lead Brazilian universities in a search for excellence.

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