RESEARCH PAPER

SYSTEMS *and* BEHAVIORAL
RESEARCH SCIENCE

WILEY

Role of knowledge management in developing higher education partnerships: Towards a conceptual framework

Enis Elezi

Teesside University Business School, Teesside University, Middlesbrough, UK

Correspondence
Enis Elezi, Teesside University Business School, Teesside University, Middlesbrough TS1 3BZ, UK.
Email: e.elezi@tees.ac.uk

Abstract

This research study discusses the role of knowledge management (KM) in facilitating the composition and development of higher education (HE) partnerships. The paper identifies and discusses the KM behavioural constructs, in other words, the fundamental elements that indicate the behaviour of higher education institutions (HEIs) and that impact the development of a partnership. Furthermore, this work explores institutional and partnership factors that affect the development of partnerships and compiles a list of KM activities deemed necessary to assist HEIs in exchanging knowledge in a partnership setting. The proposed conceptual framework can serve as a diagnostic instrument, assisting HE executives, managers, practitioners and researchers in being able to assess institutional capabilities for collaborative undertakings. The work presented in this paper aims to encourage further academic discussions as to how KM concepts can be used to assist HEIs in working together and overcoming challenges for sustainable development in the digital era.

KEYWORDS

collaborations, conceptual framework, higher education, knowledge management, partnership development

1 | INTRODUCTION

Higher education (HE) sector is increasingly becoming more competitive, and higher education institutions (HEIs) have continuously been seeking alternatives to increase and consolidate market share. The market competitiveness experienced has encouraged HEIs to become more entrepreneurial in their institutional activities and explore ways of adding value to their educational products and services offered at departmental and institutional levels. The diversity of HEIs noticed in respect to institutional strategy, capabilities, infrastructure, resources, programmes and specialisms, to mention a few (Al-Youbi et al., 2020; Bhayani, 2015; Gold et al., 2001; Hauptman Komotar, 2019), presents a range of challenges to overcome as well as opportunities to capitalize on for the involved educational establishments. The entrepreneurial approach of universities has encouraged the development of partnerships among HEIs as a tactic that helps institutions to add value to their university products and services, become more competitive and attractive for their interested stakeholders and eventually lead to an increase of market share. However, it is vital to highlight the importance of the knowledge element in assisting two or more HEIs in working collaboratively. The amount of information and knowledge available across institutions may be excessive, very diverse, not always relevant to the parties involved and, at times,

particularly confidential. Institutional differences noted in respect to culture and leadership style, the confidentiality of information, lack of clarity and vision lead to numerous issues related to knowledge isolation, trust, communication and ability to transfer and absorb knowledge across institutions. Bratianu and Bejinaru (2020, 2019), Hislop et al. (2018), Bratianu (2011) and Alavi and Leidner (2001) define knowledge as an abstract and dynamic concept that experiences changes, and therefore, managing knowledge becomes a fundamental task towards being able to work effectively in a partnership setting. Thus, it is important to understand how knowledge management (KM) can help HEIs to manage individual, departmental and institutional knowledge when working collaboratively.

Although there are numerous studies investigating elements of KM in HEIs or in the context of HE collaborative initiatives (see Table 1), the existing body of literature appears to limit its discussion on issues related to operationalization of managerial activities within or between HEIs. This paper acknowledges the complexity of HEIs and the landscape they operate in and argues

TABLE 1 Studies investigating concepts present in developing higher education partnerships

Concepts Articles	Partnerships	HE landscape	KM activities	KM behavioural constructs	Institutional and partnership factors
Cameron & Quinn, 2005; Chen et al., 2010; Universities UK, 2016		x			x
Alavi & Leidner, 2001; Aliasghar et al., 2019; Ardichvili, 2008; Bratianu, 2011; Bratianu & Bejinaru, 2019, 2020; Dalkir, 2013; Davenport & Prusak, 2000; Hansen, 2002; Hislop et al., 2018; Husted & Michailova, 2002; Rhee & Choi, 2017; Srivastava et al., 2006; Tiwana, 2002; Wiig, 2012			x	x	
Hauptman Komotar, 2019; Jiang et al., 2015; Khvatova et al., 2016; Kim & Rehg, 2018; Lilles & Rõigas, 2017; Uslu et al., 2019		x		x	
Barnes & Phillips, 2000; Bennell, 2019; Bhayani, 2015; Gray, 2016; Gregory, 2008; Kirby & Floyd, 2016; Osborne, 2006; Woolcott et al., 2020	x	x			x
Lee, 2018; Lioukas & Reuer, 2015; Nasim et al., 2020; Natek & Zwilling, 2014; Zhang et al., 2019		x	x	x	x
Gold et al., 2001; Goodman & Schieman, 2010; Gast et al., 2019; Grotenhuis & Weggeman, 2002; Kongpichayanond, 2009; Reid et al., 2001; Van Tulder & Keen, 2018	x		x	x	x
Bamber & Elezi, 2020; Elezi, 2019; Elezi & Bamber, 2018; Elrehail et al., 2018; Fullwood et al., 2019; Fullwood & Rowley, 2017; Lee et al., 2010; Li et al., 2014; Pinto, 2014; Razi & Habibullah, 2017; Tan, 2016; Veer-Ramjeawon & Rowley, 2020	x	x	x	x	x

that successful partnerships between HEIs require an effective application of KM activities in full synergy with institutional capabilities while synchronizing joined actions and activities with other organizational behaviour elements and factors found at inter-institutional and intra-institutional levels. Hence, this work seeks to offer a conceptualization of KM in the context of HEI partnerships with the purpose of exploring the role of KM at a strategic level in developing long-term and sustainable partnerships that allow HEIs to capitalize on the available resources and enhance their socio-economic impact. Therefore, the key contribution of this study is the development of a conceptual framework that identifies the interconnectivity of KM constructs and activities with institutional and partnership factors in the context of HE partnerships, necessary to undertake collaborative work between institutions that have traditionally considered each other competitors. The justification of this conceptual framework is explained as follows:

- The existing literature lacks a holistic approach to KM in the context of HE partnerships. It touches on aspects of KM mainly on the ability to share, transfer and apply knowledge from an individual and institutional perspective rather than in a partnership context.
- The conceptual framework can play a diagnostic purpose for HE executives and managers who will be able to understand their institutional capabilities and the potential of the partnership, identify areas of responsibilities and be able to design inter-institutional plans accordingly. Being able to design realistic and effective plans at the very early start of the partnership tackles issues related to lack of vision, trust, communication, allocation of resources and ability to exchange knowledge across partners, thus developing a constructive partnership environment.
- Acknowledging the complexity of the business landscape, the bureaucracy of HEIs and the pressure to develop sustainable institutional strategies in the digital era, this framework illustrates the necessary KM activities required to support the exchange of knowledge at inter-institutional levels from the individual and departmental perspectives including HE executives, managers and practitioners. Doing so helps HEIs tackle knowledge isolation and develop an inclusive work environment, which is essential in making effective use of KM activities, particularly in partnership context characterized by a higher degree of complexity.
- To offer researchers the opportunity to assess, measure or quantify the impact of the identified constructs, activities and factors in the context of HEI collaborative undertakings. Researchers may focus on an individual or combination of constructs, activities and

factors at different stages of the partnership (i.e. pre-formulation, development or at a more consolidated stage).

This study adopts an integrative literature review approach integrating literature from KM area as well as HE sector and collaborative work between HEIs. To illustrate the interconnectivity between the integration of literature related to KM and collaborative work between HEIs, this study uses a tree analogy to present and discuss the conceptual framework and the development of partnerships between HEIs. The tree analogy was used to resemble the interconnectedness of KM behavioural constructs with HE institutional and partnership factors and KM activities necessary to facilitate collaborative efforts in responding to external factors for which HEIs have very limited or no control over and be able to establish fruitful collaborations. With this in mind, the paper starts by clarifying the methodological aspects and explains the steps undertaken to identify and synthesize relevant literature elaborating on inclusion and exclusion criteria as well. Afterwards, this paper discusses the HE landscape and in the subsequent section explores the nature of KM in HE partnerships. Thereafter, this research study continues to discuss KM behavioural constructs, institutional and partnership factors and KM activities in the context of HE partnerships. Having explored the relevant literature, the paper then presents the discussion and implications section followed by the conclusions and limitations.

2 | RESEARCH METHODOLOGY

This research study uses an integrative literature review method in order to synthesize and understand the role that KM plays in facilitating partnership development between HEIs. Snyder (2019) argues that integrative literature is usually not systematic, may be narrow or broad and focuses on analysing and synthesizing existing literature qualitatively in order to generate a taxonomy or classification that is presented through a theoretical or conceptual framework or model. Torraco (2005, 2016) explains that there are different ways of conducting integrative literature, and for the purpose of this research study, a concept centric approach promoted by Webster and Watson (2002) was embraced. A concept-centric approach (see Table 1) allowed this research study to embrace an interpretivistic stance and explore and synthesize knowledge from literature domains of HE, partnerships and KM. Table 1 groups together articles that address concepts related with the role of KM in HE partnerships and specifies what concepts the grouped articles

have focused on in order to help with the traceability of the discussion presented in this work.

Using such approach, concept centric, the researcher was able to review articles that were relevant to the objectives of this study and avoid articles that although had the search threads in article's title and/or abstract were not deemed relevant to the objectives of this research study. The integrative review made use of peer-reviewed articles accessed from Google Scholar and directly from renowned academic databases such as Sage, Wiley Online Library, Emerald Insight, JSTOR, Springer, Elsevier and Taylor and Francis. The keywords and phrases used to search for scholarly articles included 'knowledge management', 'higher education', 'knowledge management in higher education', 'knowledge management factors', 'higher education institutional collaborations', 'higher education partnerships', 'long-term and sustainable higher education partnerships', 'knowledge management strategies in higher education institutions' and 'knowledge management and higher education mergers or joint ventures'. The results from the online search engine and the above publishing academic outlets that have a particular focus on social science literature generated 241 articles, following the guidance provided by Pentland et al. (2011) and Hutton et al. (2016), an initial screening phase started by checking the abstract section of each paper for relevance. As suggested by Pentland et al. (2011), articles were grouped into three categories, consisting of 'for review', 'not for review' and 'duplicates'. The second phase of screening included the application of exclusion and inclusion criteria on articles placed in the 'for review' category and that led to a more detailed abstract review of 89 scholarly articles, of which 58 were used for complete review.

As the main focus of this work is to understand the role that KM can play in facilitating the development of partnerships between HEIs, articles that explored KM and KM activities in HE partnerships or landscape were selected. Furthermore, articles that elaborated on institutional dynamics, culture, leadership, trust, absorptive capacities and communication were examined. In terms of inclusion and exclusion criteria, the integrative literature included studies that focused on KM activities in the context of collaborative initiatives within the HE sector and that were published in the English language. Studies that focused on comparing HEI strategies and market penetration or competitiveness across countries were excluded. This research study also excluded articles that examined the external environment factors affecting the development of HE partnerships such as political and legal challenges, social influences, market and demographic changes and student mobility and flexibility. The reason these articles were excluded is that HEIs have little or no control over these factors, and this work explores the role of KM once HE executives have decided to enter into a collaborative arrangement and have full control and authority over their institutional capabilities and infrastructures. This integrative literature excluded studies that were not published in the English language and studies that used HEIs as a context to elaborate on marketing related concepts. Webster and Watson (2002) explain that a literature review should not be limited to geographic region, research methodologies or set of journals. Therefore, this integrative literature review included book chapters and theoretical and empirical studies conducted through qualitative, quantitative or mixed methodologies. Moreover, the integrative literature has made use of studies that have been carried out in different parts of the world including Europe, the United States, China and the Middle East, thus exploring a range of perspectives related to HE partnerships and KM practices needed to assist collaborative undertakings.

3 | HE LANDSCAPE

Technological developments and socio-demographic changes experienced at global level together with changes in legislation around student visa immigration and regulations related to students' recruitment have triggered new challenges for sustainable development of HEIs in the digital era. Success for HEIs relies very much on the ability to evolve, change and promote new ways of thinking. This becomes particularly important when considering the civic role of HEIs in supporting the development of societies and economies, upskilling or reskilling the workforce and preparing individuals for future challenges. As knowledge-based institutions, HEIs' fundamental competitive advantage relates to the ability of institutions to manage knowledge, which is a very dynamic process, and has proven to be a challenging task, nevertheless beneficial to the stakeholders involved. In response to a competitive and dynamic HE landscape, universities attempt to develop their competitive advantage by channelling their efforts on three fronts, including teaching and learning, research and business enterprise activities. Unarguably, teaching and learning play an important role in not only delivering the fundamental functions of a university but also counting for the majority of institutions' income (Universities UK, 2016). Research and business enterprise activities are very important in informing good academic and business practices and, although may not contribute equally the same to the institutional income levels, are of paramount importance in promoting innovation and assisting businesses and societies.

The competitiveness among HEIs in attracting students, developing new courses and programmes, satisfying quality controls and exploring research funding schemes places a significant amount of financial pressure on institutions. Notably, the competition becomes even more challenging due to the availability of resources and infrastructure needed to support an institution's strategy and vision. In addition to financial pressure and lack of resources, another two essential elements that continue to attract a significant amount of interest particularly in the literature of internationalization of HE include market accessibility and institutional know-how (Al-Youbi et al., 2020; Hauptman Komotar, 2019; Osborne, 2006). Whereas some HEIs are praised for being at the forefront of the sector due to their innovative practices or undertakings, other HEIs base their competitiveness on aspects of market accessibility. In the attempt of strengthening market competitiveness and overcoming challenges related to financial tensions, allocation of resources, know-how and market accessibility, developing partnerships between HEIs appears to be a strategic move. Development of partnerships provides opportunities for HEIs to increase the accessibility of intellectual capacities, continue to add value to their academic curricula and develop a more sustainable approach in addressing challenges experienced within the HE sector.

Barnes and Phillips (2000) argue that by partnering with each other, HEIs have the opportunity to 'unlock value retained within single organisations' and highlight the importance of partnership success factors and the role that senior executives can play in facilitating such institutional arrangements. For example, when discussing the development of partnerships between knowledge-based enterprises, Reid et al. (2001) argue that success factors can be identified by categorizing the development of partnership into three stages: (i) pre-formation, (ii) formation and (iii) evaluation. The pre-formation stage focuses on establishing the motivation to collaborate, and formation stage aims to address factors related to partner characteristics, operating structure and norms and structural choice of the partnership. The evaluation stage focuses on factors related to assessing the performance delivered as a result of the partnership between partners with a particular focus on knowledge creation. Partnerships between HEIs should ensure that all the three stages discussed by Reid et al. (2001) are examined carefully in order to identify their success factors and develop realistic institutional and partnership plans that allow HEIs to operate sustainably. Although the success factors may differ depending on the individual characteristics of an institution, work undertaken by Reid et al. (2001) provides academics and practitioners with the opportunity to identify success factors according to their institutional capabilities and partnership objectives. It is worth highlighting that development of strategic partnerships is a very complex process (Woolcott et al., 2020) and revolves around the management of knowledge with the purpose of adding value to the current or future educational products and services of an HEI. From this perspective, it becomes particularly important to explore the role that KM can play in assisting the development of collaborative undertakings between HEIs with the purpose of operating sustainably, increasing market share and promoting innovative practices.

4 | PARTNERSHIP KM ACTIVITIES

Collaborative relationships between HEIs may range from merely establishing formal communication channels between executives to a signed memorandum of understanding and contractual agreements between institutions in exploring new opportunities (Bamber & Elezi, 2020; Elezi & Bamber, 2018; Pinto, 2014; Veer-Ramjeawon & Rowley, 2020). The forms of collaborations will determine the intensity, depth and quality of knowledge exchange between partners involved. Referring to Polanyi's distinction between explicit and tacit knowledge, Reid et al. (2001) argue that transferring explicit to explicit or explicit to tacit knowledge does not contribute to developing or strengthening a competitive advantage as knowledge can be transacted across other institutions in the industry. Reid et al. (2001) highlight that it is the tacit to tacit inter-institutional knowledge exchange that contributes to developing sources of competitive advantage. Hence, the competitive advantage of HEIs is developed when institutions manage to combine the tacit knowledge assets successfully. Sharing and transferring knowledge between partners is an institutional endeavour. However, several studies (Kirby & Floyd, 2016; Lee et al., 2010; Natek & Zwilling, 2014; Srivastava et al., 2006) have highlighted the impact of institutional culture and discussed the role of leadership and management in developing and promoting an institutional culture that supports knowledge sharing in collaborative undertakings. Elrehail et al. (2018) explain that an institutional culture that empowers leadership has a positive impact on team climate and significantly influences individuals in their knowledge sharing behaviour. The leadership's ability to understand the vision of the institution and be able to communicate that effectively at individual and departmental levels is essential in developing an institutional culture that supports collaborative undertakings and understands the value of exchanging tacit knowledge in building a competitive advantage (Reid et al., 2001).

Li et al. (2014) explained that knowledge dynamics vary in HE partnerships, highlighting the differences between knowledge accessibility and knowledge acquisition. Partnerships motivated from knowledge accessibility focus on making use of a partner's institutional knowledge and are able to collectively develop a new stock of knowledge that partners would not be able to achieve individually. On the other hand, Li et al. (2014) argue that in a partnership driven by knowledge acquisition, partners are seeking opportunities to learn by acquiring new knowledge. Learning through the acquisition of new knowledge enforces the inter-institutional exchange of tacit knowledge, which, as discussed by Reid et al. (2001), is essential in developing and consolidating a competitive advantage in partnership settings. Furthermore, understanding the value of embracing tacit knowledge leads to more substantial levels of partnership commitments and deployment of resources needed to support the knowledge exchange between partners. The extent of institutional commitment to an HE partnership is essential in supporting the exchange of tacit knowledge. It will have an impact on the behaviour of HE partners regarding activities related to knowledge creation, accessibility, storage, distribution and application across partners involved. Understanding the types of knowledge HE partners are interested in acquiring or developing and the processes by which HEIs are governed are two important elements that affect the choice of activities used to manage knowledge. The nature of KM activities may change as partners merge strategic and operational plans. For instance, activities related to complying with quality assurance regulations in HEIs are characterized by procedural knowledge (Wiig, 2012), which encourages parties to undertake activities related to knowledge absorption and knowledge storage. However, KM activities do not work in isolation and may involve synchronization of activities related to knowledge sharing, integration and application. Considering the complexity of HE partnerships and the evolving nature of knowledge, the literature lacks to present a clear identification of KM activities that HEIs should be considering prior to entering into a partnership. In doing so, HEIs will establish the grounds for effective collaborative work that is aligned to institutional capabilities and partnership expectations.

As an asset that resides within human cognitive system, knowledge is a product that evolves as a result of stimulus and the relationship of humans with the outside world, thus indicating a change in behaviour (Alavi & Leidner, 2001; Razi & Habibullah, 2017; Rhee & Choi, 2017; Tiwana, 2002). Rhee and Choi (2017) and Comunidad Los Horcones (2005) argue that in order to understand behavioural changes, it is important to comprehend the different types of relationships between two events such as the case of partnerships between two or more HEIs and individuals involved. The behaviour of individuals towards KM activities may change depending on the type of relationships created between events taking place across HEIs and within the partnership itself. In assessing the relationship between stimuli, HE partnership and the response of individuals' participation and contribution, Comunidad Los Horcones (2005) suggests using relationships criteria that assess how events relate, the direction in which they relate, how relationships are modified and duration of the relationships. Therefore, in this context, partnerships between HEIs are relationships of reciprocal and bidirectional nature, meaning that HEIs move forward and backward as activities related to KM change with the needs and aims of the partnership. Additionally, in terms of modification, Comunidad Los Horcones (2005) argues that relationships can be totally or partially modified and in an HE partnership and knowledge sharing context; Tan (2016), Fullwood and Rowley (2017) and Fullwood et al. (2019) highlight that HEIs are in the same business and therefore are prone to experiencing only partial modifications. In respect to the fourth criteria, duration of the relationship, it is worth highlighting that HE partnerships are of a continuous nature, meaning that the events taking place between HEIs are always relating in order to satisfy pedagogical and commercial expectations of the interested stakeholders.

Aiming to understand how the relationship between stimuli and response affects behaviour and the ability of institutions and individuals to contribute to knowledge creation, sharing, application and other related KM activities, the following section seeks to identify and discuss the behavioural constructs that impact KM in an HE partnership context.

5 | KM BEHAVIOURAL CONSTRUCTS

5.1 | The importance of institutional culture in supporting collaborative initiatives

The impact of culture in KM practices is crucial in merging the activities of two or more different HEIs. Identifying an institution's culture provides a better understanding of the other HE partner(s) involved. It helps in shaping a sustainable collaborative strategy that is established on common grounds and helps HEIs to operate effectively in a digital environment that continues to change as a result of technological

advancements. The Competing Values Framework (CVF) presented by Cameron and Quinn (2005) has a particular focus on identifying the type of culture that an institution may embrace. Cameron and Quinn (2005) argue that an institution may demonstrate characteristics of clan, adhocracy, hierarchy or market culture and such assessment is made on the basis of institutional characteristics related to focus, flexibility and stability. Partnerships may involve HEIs with different types of institutional cultures and subcultures, which are prone to causing misunderstanding and possible clashes, which affect the behaviour towards sharing knowledge and indeed the overall lifespan of the partnership itself. For instance, an HEI characterized by an adhocracy culture with an external focus seeks to differentiate its HE products and services, reflecting high levels of creativity adaptability, agility (Cameron & Quinn, 2005; Chen et al., 2010) and a desire to innovate, and is more prepared to undertake risks. Another HEI reflecting a hierarchical culture that has an internal focus and seeks stability and control through processes and institutional instruments may require more time to process decisions and market response to threats or opportunities.

Consequently, understanding the partner's institutional culture is fundamental in comprehending institutional behaviour and working together with partners to design the most appropriate steps that support a knowledge exchanging culture in a partnership context. Bhayani (2015) explains that culture is seen as a process that although evolves, it leads the partners towards the embracement of similar if not the same social values, beliefs and attributes. Considering the bureaucracy of HEIs and the complexity of the HE landscape, cross-institutional cultural unification between partners becomes very important. Such cultural unification is expected to facilitate the integration of partners and have a positive impact on KM practices necessary to support collaborative undertakings.

5.2 | The role of trust in the development of collaborative projects

Trust is among the elements that have received significant importance in KM studies as a vital requirement for the functionality of a partnership. However, taking into account the market competitiveness and uncertainty within the business environment, HEIs tend to vacillate the distribution of information and knowledge found within their institutional systems. The element of trust requires attention at an inter-institutional level before considering it on a partnership level. Individuals are predisposed to feel uncomfortable in sharing what they

know because of job risks, lack of acknowledgement, promotion or other personal reasons (Ardichvili, 2008; Hansen, 2002; Husted & Michailova, 2002; Khvatova et al., 2016; Tiwana, 2002). Therefore, it is of a particular prominence that leadership and management of the institution establish such institutional systems that not only encourage and promote knowledge sharing and knowledge transferring within the institution and consistently build up the trust of employees but also acknowledge the contributors and developers of knowledge. According to studies undertaken by Jiang et al. (2015), Lioukas and Reuer's (2015) acknowledgement does not have to be financial and is counted among the most effective practices of management in establishing and developing trust at intra-institutional and inter-institutional levels.

With respect to trust at inter-institutional levels, Gast et al. (2019) argue that contractual agreements between institutions are used as instruments to develop trust, which undoubtedly plays an important role in supporting knowledge exchange between partners. Although contractual agreements establish an expectation of trust between partners, Gast et al. (2019) and Lioukas and Reuer (2015) argue that trust is developed by delivering the agreed outcomes and meeting performance criteria. The level of trust developed between partners may lead HE executives to consider opportunities that surpass the initial contractual agreement. A consolidated level of trust between executives is then reflected among HE managers and practitioners who, as a result, have less protective behaviour towards knowledge and knowledge exchange practices at inter-institutional levels. The level of trust developed across partners establishes the foundations for exchanging tacit knowledge at a greater extent and therefore contributes to a stronger competitive advantage created as a consequence of the collaboration between partners.

5.3 | Establishment of absorptive capacities for partnership progression

Dedicating efforts to the creation and maintenance of partnership absorptive capacities is very important as it has a direct impact on knowledge embedment and application and contributes to the development of partnership's knowledge repositories. Zhang et al. (2019) and Aliasghar et al. (2019) discussed that institutional benefit from well-established knowledge repositories is becoming more resilient in a very competitive market. The creation and implementation of absorptive capacities are challenging processes, due to the differences noted in terms of institutional culture and size, infrastructure, resources and the overall objectives of the collaboration. However, according

to a study undertaken by Zhang et al. (2019), there are three competencies that, in combination, will manage the process of knowledge absorption. Firstly, HEIs involved in a partnership should create systems that encourage the integration of explicit knowledge. Secondly, HEIs should allocate staff based on abilities and responsibilities and clarify the communication flows between partners in order to communicate the necessary information and knowledge to the appropriate HE practitioners, managers and executives with the purpose of tackling knowledge isolation and encourage knowledge dispersion. Thirdly, HEIs should continue to enhance their absorptive capacity, particularly in capturing and storing tacit knowledge through social relations developed within the partnership across different managerial and executive levels.

Furthermore, HEIs should seek to assess the effectiveness of the absorptive capacities created within the partnership. Institutions would benefit by compiling a list of criteria that may seek to understand the impact of collaborative work on institutional and departmental performance, HE product and service enhancements, innovation and overall institutional infrastructure developments. Literature highlights (Aliasghar et al., 2019; Elezi, 2019; Gold et al., 2001; Lilles & Rõigas, 2017; Tiwana, 2002; Zhang et al., 2019) that assessing the absorptive capacities developed across partners allows HE executives to observe tangible results, build confidence and encourage a more supportive behaviour towards KM activities as partners can identify and experience the impact of collaborative developments.

5.4 | Communication channels within partnerships

The last root of the partnership tree consists of communication, which is essential in exchanging data, information and knowledge of any institutional form. Due to different institutional cultures and structures, institutions have established different intra-communication channels. However, the existing communication channels of an institution require adjustments in order to cope with the complexity of partnerships. Due to the complex nature of collaborative undertakings, ambiguous or weak communication channels will have a negative impact on the overall partnership's performance. At some extent, elements of chaos and complexity are very common and present at the early stages of partnership formation (Stacey et al., 2001; Van Tulder & Keen, 2018) where individuals across partner institutions are attempting to communicate the vision of the partnership, form relationships and develop an understanding on strategic and operational issues.

With reference to communication in complex and challenging circumstances as it is the case in partnership settings, the complex responsive processes (CRP) theory highlights the importance of understanding the interdependence of individuals, processes and systems. Stacey et al. (2001) explain that CRP aims to challenge the view that complexity of ideas is merely attributed to human interaction and views the discourse between parties not only as a two-way communication flow but rather as a process of creating mutual meaning. This is essential for HEIs attempting to formulate partnerships as lacking to create a mutual meaning will not allow space for developing effective communication channels in a complex and challenging partnership setting. CRP theory emphasizes that due to their social nature, humans are interdependent, thus challenging the view of humans being autonomous, and seeks to understand how processes at local levels merge to develop patterns of behaviour. This is very important when HEIs seek to establish and communicate a clear shared vision that leads to the development of realistic and coherent strategic and operational strategies. In order to overcome the complexity of the communications in a partnership setting, it is therefore essential for HEI partners to understand 'local processes' in order to develop a 'pattern of behaviour' across the partnership that mirrors the shared vision and strategic and operational strategies. Understanding the complexity and interdependency between individuals, processes, and systems facilitates the development of merged communication patterns, which are vitally important to support the knowledge exchange flows.

6 | INSTITUTIONAL AND PARTNERSHIP FACTORS

One of the fundamental challenges of formulating an HE partnership is associated with the ability of institutions to design plans that help partners to combine and arrange institutional actions and processes based on the understanding of the partnership's context. Therefore, it is very important to comprehend the partnership and institutional factors that affect partnership development between HEIs.

As a partnership may be defined and understood differently by each member, it is necessary to draw a common understanding of the partnership where each member is clear on the expectations, contribution and support required (Bamber & Elezi, 2020; Bennell, 2019; Elezi & Bamber, 2018; Gray, 2016). The business life-cycle, financial performance, legal restrictions and accessibility of physical resources and human capital are few

of the factors that encourage institutions to be part of collaborative undertakings. However, at the initial stages of partnerships, it is crucial to discuss and establish a clear understanding of the aim of partnership and analyse the need for such a strategic decision. It is of paramount importance to consider the factors involved in assisting the development of a partnership in order to facilitate the process of partnership composition. Establishment of a common shared vision and a clear aim allows parties involved to define the partnership on the basis of their institutional capabilities and strategic intentions. Doing so helps to develop a sense of clarity distinguishing between the ambition of institutions and reality as to what partners could deliver under the current budget allocations and institutional infrastructure and capabilities. Consequently, this leads to the development of a clear set of expectations which forms the path towards accountability at inter-institutional and intra-institutional levels. Having established a clear and realistic set of partnership expectations and agreed accountability at individual and institutional levels is fundamental in supporting the exchange of knowledge through 'know-how' and 'know-what' related institutional activities.

An institution needs to understand and assess its internal capabilities prior to establishing collaborations. Sharing similar values and beliefs with the rest of partners is not sufficient, as it also requires members to possess and demonstrate the required skills and resources that would assist institutions in collaborative practices. Bennell (2019) and Elezi and Bamber (2018) argue that the effectiveness of the partnerships will be determined by the ability of the institutions to be resilient and respond to market changes. The HE landscape is very dynamic where socio-demographic developments continue to evolve, and the impact of external factors may include changes in legal and quality-related frameworks. However, although HEIs have limited or no control over the external factors, their efforts could be channelled on identifying, understanding and nurturing institutional factors that HE executives believe are an integral part of an institution and will be the main factors to assist the development of collaborative strategies. Findings from literature (Elezi, 2019; Fullwood et al., 2019; Tan, 2016) suggest that there is a general consensus that when asked individually, HE practitioners are in favour of knowledge sharing practices although acknowledge the challenges associated in doing so. Nevertheless, numerous studies (Al-Youbi et al., 2020; Kim & Rehg, 2018; Nasim et al., 2020; Uslu et al., 2019) have highlighted the challenges that HE executives and managers experience in deploying effective KM practices within HEIs and realise the complexity of doing so within partnership settings.

Long-term partnerships between HEIs focus on developing and delivering new joint academic programmes and display a consolidation of collaborative practices as a result of strong and integrative KM factors. For instance, work undertaken by Kongpichayanond (2009) and Grotenhuis and Weggeman (2002) within the scope of long-term partnerships, mergers and acquisitions highlights the importance of KM factors in supporting partnerships with knowledge exchange practices. Grotenhuis and Weggeman (2002) argue that KM is a fragile process and in order for partners to be effective in inter-institutional knowledge exchange practices it is important to nurture KM factors associated with members' mindset and their relationships, communication flows and frequency, instituional and departmental structures as well as human resources.

It could be said that challenges experienced between HE practitioners willing to participate in knowledge sharing practices and HE executives and managers facing difficulties in putting knowledge exchange activities into practice may be rooted within institutional policies, processes and procedures. Additionally, HE executives and managers will need to take into account their human capital capabilities and reassess the suitability of training and development needs and programmes necessary to support institutions strategy intentions. When aiming to work collaboratively and form a common pattern in complex systems, as discussed by Stacey et al. (2001), it is important to ensure that institutions merge their human and physical infrastructure. Doing so may require HEIs to reconsider the role and design for some strategic and operational roles that play an instrumental part in the partnership development process.

7 | DISCUSSION AND IMPLICATIONS

Waguespack (2010) argues that using metaphors helps authors to link a concept that may be challenging to comprehend with something that is easier to apprehend due to previous experiences of individuals. Bates (2019) explains that a metaphor is a very useful instrument in making a psychological impact that allows individuals to understand the different concepts and ideas. Considering the broad scope of KM studies undertaken across different industries and contexts, the author of this study believes that using a tree metaphor will help the reader understand the role of KM in assisting institutional endeavours in developing HE partnerships (see Figure 1) in complex, uncertain and interdependent dynamic environments.
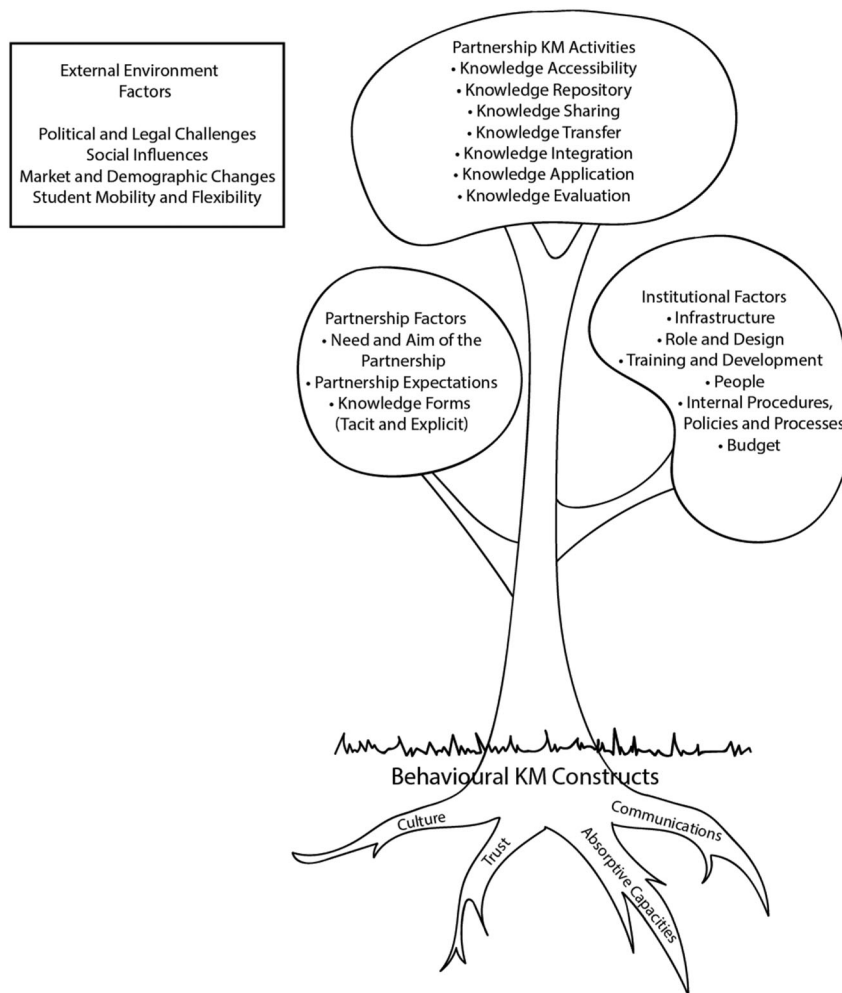
With knowledge being known as the fundamental source to the development of competitive advantage, it is understandable to observe challenges in exchanging knowledge across HEI partners. Acknowledging the importance of knowledge and the complexity of HEIs the proposed conceptual framework suggests that in order to establish effective means of exchanging different forms of knowledge within and across institutions, partners should seek to nurture the KM behavioural constructs. In this study, behavioural constructs include institutional culture, trust and ability to absorb new knowledge and establish effective communication channels. These constructs are presented as the *roots* of the 'Knowledge Management Partnership Tree' framework, indicating that if two or more HEIs decide to work collaboratively, they need to focus on these four crucial behavioural constructs.

Literature (Al-Youbi et al., 2020; Elezi & Bamber, 2018; Gray, 2016; Gregory, 2008; Uslu et al., 2019) highlights that developing HEI partnerships is a challenging process; however, the vast majority of challenges are attributed to institutional culture, which is

developed and influenced by the leadership and management approaches, found within an institution. Therefore, making use of literature related to institutional culture (Fullwood et al., 2019; Lee, 2018) is very important to understand the characteristics of a partner and be able to develop a behavioural paradigm that is aligned with the institutional culture of partners. Similar to institutional culture, trust, absorptive capacities and communication channels are constructs that are essential in allowing KM practices and activities to facilitate the exchange of knowledge in collaborative undertakings.

Furthermore, the conceptual framework, first branch on the right-hand side, identifies and presents a list of institutional factors that affect the application of KM in partnership development. Numerous studies (Al-Youbi et al., 2020; Fullwood et al., 2019; Zhang et al., 2019) have highlighted that institutional policies and procedures may set artificial barriers or slow down the process of exchanging necessary knowledge related to HE metrics. For example, the institutional policies may not be very encouraging in supporting the exchange of knowledge related to marketing and recruitment or quality

performance of students, thus having implications on student recruitment strategies and planning the appropriate infrastructure for student services. Entering into a form of partnership indicates strategic and operational changes (Bennell, 2019; Elezi & Bamber, 2018; Gray, 2016). Therefore, HEIs must focus internally first to identify the appropriate human capital, training and development needs and budget needed to support collaborative initiatives. Lacking to fully understand and clarify the impact of the aforementioned factors in preparing an institution to enter in a partnership operation may cause confusion and disintegration of actions among HE executives and practitioners and consequently weakening unified efforts for constructive contribution in exchanging knowledge with a clear purpose that mirrors partnership vision.

The second branch of the tree, on the left-hand side, lists factors that HEIs need to discuss at a partnership level. It is fundamentally important to understand and communicate the need and aim of the partnership across institutional partners with clarity; hence, a robust assessment of the institutional factors discussed above is necessary for doing so. Moreover, HEI partners need to identify and agree on a set of expectations as that will help with the accountability and timeframes individuals and departments have to follow. Formulating partnership expectations provides parties involved with the opportunity to structure KM activities and demonstrate effectiveness in acquiring and accessing knowledge (Li et al., 2014). Reid et al. (2001) argue that collaborations among knowledge-based institutions increase their competitive advantage when successfully managed to combine tacit knowledge, which is not as easily transacted as it is the case with explicit knowledge. Agreeing on a set of expectations allows HEIs to be proactive in discussing the most suitable KM activities to support the exchange and application of tacit knowledge. It is important to assess the suitability of institutional procedures expressed in the form of explicit knowledge and needed to support the operationalization of the partnership. Furthermore, HE managers and executives should focus on understanding and communicating to the intersted stakeholders how integrating tacit knowledge adds value to the partnership in order to address any issues associated with staff involvment and engagement.

In their efforts of exchanging different forms of knowledge, tacit and explicit, HE partners need to consider the KM activities presented in the middle branch of the conceptual framework. The seven types of KM activities suggested in this conceptual framework aim to amass and present concisely the range of activities discussed within the KM area (Bratianu, 2011; Bratianu & Bejinaru, 2019, 2020; Dalkir, 2013; Davenport & Prusak, 2000; Elezi & Bamber, 2018; Wiig, 2012). The listing of activities does not indicate any sense of importance or priority, as the above activities may take place simultaneously, but rather stages that are necessary for institutional and partnership knowledge to progress through in order to apply effective and efficient KM practices in HE partnership settings.

The last category that this framework considers, although not in detail, consists of external factors that impact the performance of HEIs and partnerships. It considers the implications deriving from political and legal systems and socio-economic developments, which are present in any business environment. The reason this framework is not examining the implications of external factors in detail is because the focus relies on using the KM principles to provide an effective collaborative environment that leads towards successful completion of collaborative business undertakings. Furthermore, KM elements shown in Figure 1, including behavioural constructs, factors and activities, are what members of an HE partnership know and have control over. Subsequently, making use of their collaborative knowledge, expertise, resources and infrastructure allows members to respond to market changes and opportunities in the attempt of establishing sustainable strategic partnerships.

This study has significant theoretical and practical implications that extend to academia as well as practitioners. From an academic perspective, this conceptual framework critically reviewed and synthesized representative literature on topics of KM and HE, highlighting the relevant concepts and constructs. It contributes to the literature of KM and HE partnership development, which, to the best of author's knowledge, no academic work has been conducted with the purpose of discussing the interdependency of KM behavioural constructs, institutional and partnership factors and KM activities to assist HE partnerships at the developmental stage. It provides opportunities to conduct further research of an exploratory and explanatory nature, which may consider examining components identified in different branches and assess if there is any level of changes in knowledge exchange behaviour as partnership consolidates and be able to understand the impact on partnership performance. Using the tree analogy, future research may also consider identifying the *fruits* of the KM Partnership Tree where researchers identify the type of outcomes that an HEI may attain in collaborative initiatives. Future work may also consider a case study research strategy with a focus on assessing the extent to which the identified constructs, factors and activities are present in an HE partnership and investigate their implications in order to identify possible bottleneck areas that HE executives, managers and practitioners are most likely to experience when working collaboratively.

From a practitioner perspective, the contribution of this study consists in using the conceptual framework as an assessment tool to assess and align institutional capabilities when exploring partnership opportunities. Following a systematic approach where all the components presented in the framework are explored in detail prior to entering into a partnership, appropriate plans are put in place to nurture and support those components as the HE partners enter into collaborative arrangements. Using this conceptual model, HE executives and managers will be able to assess the institutional infrastructure needed to support collaborative undertakings by focusing on issues related to teaching and research quality standards, budgeting and financial stability of the HE partners as well as training and developmental needs for HE staff and other involved stakeholders. Practitioners would be able to take a 'hands-on' approach and help HE executives understand what can be expected of them given their institutional capabilities and help HE partners identify the types and forms of knowledge necessary to attain partnership objectives. In doing so, practitioners will be able to synchronize institutional resources and capabilities with the purpose of designing the most adequate KM activities needed to support and facilitate the development of an HE partnership. Focusing on knowledge accessibility, knowledge sharing, knowledge integration or any other KM activities illustrated in the middle branch of the KM Partnership Tree, HE executives will be able to overcome challenges related to cultural alignment and have the ability to absorb and implement new industry and institutional policies and procedures as well as develop honesty and trust between HE partners. Importantly, using the conceptual framework as a diagnostic instrument provides HE executives, managers and practitioners with the opportunity to develop a realistic and sustainable strategy that helps institutions strengthen their competitive advantage in the digital era. The KM Partnership Tree can be used as a template that HE executives, managers and practitioners may employ to allow HEIs to overcome market challenges by capitalizing on each other's strengths and make a significant societal impact while seeking to address issues related to quality, affordability and accessibility of education.

8 | CONCLUSIONS AND LIMITATIONS

This conceptual framework demonstrates the important role of KM in facilitating the composition and development of strategic partnerships in the HE sector. The conceptual framework is composed of five different categories, demonstrating the linkage between KM elements and practices that are important at a developing stage of the partnership and allow HEIs to explore alternatives of consolidating knowledge, the main competitive resource and be able to develop sustainable partnerships that best respond to market challenges in the digital era.

The first category consists of behavioural KM constructs, is present and active throughout the entire stages of the partnership and includes culture, trust, absorptive capacities and communication. The second category seeks to classify the institutional factors from an individual institutional point of view that would enable an HEI to join the partnership and perform at an adequate level. The third category looks at partnership factors and aims to pinpoint aspects that need to be considered at a strategic level and shape the collaboration of partners. Importantly, the fourth category seeks to identify a set of KM activities required to facilitate the transferability of knowledge across partners in adding value to their HE products and services and strengthening market competitiveness, which is the fundamental reason HEIs seek to work collaboratively. The fifth category of this framework titled external factors identifies possible influences deriving from the political conditions, socio-economic circumstances and any possible changes within legal frameworks of a country or industry.

Although this study seeks to provide a thought-provoking conceptual framework by bridging existing understanding across disciplines of KM and HE, it is important to acknowledge the limitations it poses. The study does not draw any differences between publicly or privately funded HEIs, and neither distinguishes between HEIs operating in developing and developed countries. Furthermore, the conceptual framework seeks to particularly focus on the developmental stage of a partnership and the nature of challenges experienced by partners, and the proposed interrelationships between identified constructs, factors and activities may differ in more consolidated stages. Additionally, this research study acknowledges the presence of external factors on the development of HE partnerships but develops the discourse at the micro rather than macro grounds, thus focusing only at an institutional level.

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