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Empirical Analysis of Knowledge Exchange in Higher Education Partnerships: Using Knowledge Elicitation Methods and Techniques

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Abstract. *This research identified knowledge management challenges that academics experience when exchanging both forms of knowledge, tacit and explicit, in collaborative projects. The research was conducted qualitatively through the use of consecutive data collection strategies of the large-scale survey; expert panel review; and semi-structured interviews with elite participants in order to gather a deep understanding of the type of challenges academics, working across different disciplines and institutional levels, experience when exchanging tacit and explicit knowledge. Furthermore, the research elicited experts' knowledge indicating that depending on the expertise and size of the institutions and the timeframe of the partnership, academics can encounter challenges of a strategic, tactical and operational nature. While the institutional leadership and shared vision were seen as a challenge of a strategic nature, the misalignment of expertise and abilities was presented as a tactical challenge. Additionally, the findings show that arrangement of staff, logistics, and facilities required to support the delivery of academic products and services is another challenge which needs addressing in order to support the exchange of knowledge. The crux of this research is the novel use of a tri-part, consecutive data gathering technique, which has been shown to be very useful in providing an effective knowledge elicitation methodology. Notwithstanding that fact, of which purposeful knowledge has been elicited using such techniques, this paper also highlighted that the adopted methodology used should not be seen as a panacea for all qualitative research but, moreover, be adopted as a useful technique in the qualitative researchers' armory.*

Keywords: *higher education partnerships; knowledge exchange; institutional leadership and shared vision; misalignment of expertise and abilities; arrangement of staff; logistics and facilities; knowledge elicitation.*

Introduction

The management of knowledge has always been essential for the betterment of society and has attracted attention from individuals and organizations in how to improve the efficacy of exchanging knowledge. Higher Education Institutions (HEIs) are regarded as knowledge centers that have a direct impact in the development of societies by educating and preparing the workforce of the future (Ali, Gohneim, & Roubaie, 2014; Butcher, Bezzina, & Moran, 2011). Nevertheless, due to legal and socio-economical changes, not all HEIs are capable of coping with the market uncertainties and challenges that business environment presents, thus considering developing partnerships as an alternative of surviving or growing (Butcher et al. 2011). The development of partnerships between HEIs presents opportunities to make a better use of institutions' physical and intellectual resources thus allowing HEIs' to widen the institutional intellectual capacities (Olssen & Peters, 2005) and therefore strengthen their competitiveness. As HEIs have realized the importance of working collaboratively to add value to their products and services and minimize operational costs by using partner's existing knowledge and expertise more educational institutions are now promoting collaborative work. Although in principle working collaboratively to enhance the quality and quantity of partnership outcomes appeals an interesting concept the exchange of knowledge is not always an easy task (Butcher et al. 2011; Fullwood & Rowley, 2017). Due to the differences noticed between HEIs' in terms of culture, experience, strategy, size, market accessibility and reputation the exchange of knowledge between partners may experience various challenges. Butcher et al. (2011) argue that if the executive management does not address the identified challenges adequately partnership might be in danger of continuation. Butcher et al. (2011) and Sohail and Daud (2009) explain that partnerships are encouraged and finalized as a result of the involvement and support of senior managers. However, the functionality depends on the exchange of knowledge and its integration within institutions where academics play a vital role. Although, studies presented by Fullwood and Rowley (2017), Howell and Annansingh (2013) and Tippins (2003) address barriers experienced by academics in knowledge sharing in HE there is a lack of literature in Knowledge Exchange between academics when working in UK HEI partnerships. Therefore, researchers of this study present the research context followed by a review of the literature in Knowledge Exchange in UK HEI partnerships. Afterward, the research elaborates on the research methodology applied in gathering the primary data. Themes that emerged from the interviews are then discussed and analyzed in the context of research and the final section consists of conclusions.

Research context

Partnerships between academic institutions differ from partnerships established between an academic institution and commercial businesses. Although, there are costs and financial concerns associated with the formulation of partnerships between educational institutions the fundamental purpose revolves around the development of skills and knowledge required to support the existing and future workforce. On the other hand, commercial partnerships between an HEI and industry may focus particularly on the development of a prototype or drug for instance where the financial

benefit is the driving element. Therefore, the challenges of exchanging knowledge within the academic community and between academics and business-oriented individuals differ.

The development of partnerships within the UK HE sector is receiving an increased interest in response to legal and market changes (Lister & Waddington, 2014). Knowledge is classified as the fundamental resource that aids HEIs towards establishing and maintaining their market profiles while attempting to grow. The negotiation and decision to enter into a partnership is usually an exclusivity of senior executives of an HEI whose actions are expected to be in line with institution's vision and mission and support the overall institutional strategy. Once the strategic decision of forming a partnership has been made, most of the work requires the involvement of the academic staff, which may include heads of departments, curricula managers, lecturers, and researchers to exchange knowledge in order to facilitate the accomplishments of the partnership expectations. The exchange of knowledge at different institutional and departmental levels is a pre-requisite for formulating successful partnerships. Therefore, this research aims to identify the challenges that academics working for UK HEIs' face when exchanging knowledge in collaborative projects. More specifically the objective of this research is to understand the nature of the challenges that academics experience when participating in HEI partnerships.

This research focuses on partnerships between HEIs with the intention of introducing or improving existing educational products and services. Although, the financial implications and sensitiveness of partnership development are unavoidable this work aims to address the challenges of Knowledge Exchange purely from the impact that HEIs have in the society which Elezi & Bamber (2018a) refer to as the social capital. The insights generated from this research may be considered for further use by exploring and designing departmental and institutional strategies that enhance the effectiveness of Knowledge Exchange activities applied between academics in HEI partnerships.

The context of this research paper is the HE sector while the construct is HE partnerships in the UK. Extensive literature review covering the context and the construct have been carried out by Elezi (2017) and Elezi and Bamber (2018a, 2018b, 2018c), Bratianu (2018) and Lefter, Bratianu, Agapie, Agoston, and Orzea (2011). That broader literature review presented in the aforementioned sources has been presented below providing a focus on Knowledge Exchange within the context and construct of HE partnerships in the UK.

Knowledge management in higher education partnerships

An educational partnership is a partnership of two or more institutions that have come together to fulfill a defined strategy that adds value to their current service portfolio of educational offers. The partnering of educational institutions provides an opportunity to absorb new skills, knowledge, and expertise which will foster market exploration and market development through the shared risk of investment and resources (Bratianu, 2018; Elezi, 2017; Elezi & Bamber, 2018b, 2018c; Ramayah, Yeap, & Ignatius, 2014). Effective education partnerships are therefore mutually beneficial

relationships that extend beyond what educational establishments can accomplish in isolation. Thus, partnering provides opportunities to improve teaching and learning practices, enhance student engagement, wellbeing and development and contribute to the successful progression and employment opportunities. The formulation of knowledge-based strategy creates a work environment that promotes and develops effective communication channels, strengthens the information flows, nourishes the learning and sharing at an individual, departmental and institutional level. However, all the benefits deriving from working in partnerships are challenging to achieve and according to Serenko and Bontis (2016), there are several cases where distinguishing ideas have not performed as expected due to lack of marketing, operations, financial support or technical expertise. Therefore, the understanding and adaptation of institutional processes, procedures and knowledge capacities possessed by all partners involved in the partnership are vital for the progress of the collaboration. Knowledge Exchange encourages dialogue and consultation sessions where individuals involved have the opportunity to share and transfer ideas, information, knowledge, and expertise. The contribution of KM allows institutions to make use of their intellectual capacities to improve learning and expand knowledge repositories which are important in minimizing external risks due to the novelty of the project.

It has been suggested by Butcher et al. (2011) that most of the partnerships focus on know-how which in some cases appears to be the main incentive of the collaboration. However, some partnerships fail to succeed or progress at the desired speed due to lack of “show-how” which accelerates the adequate functioning of the partnership. The “show-how” becomes very important as the partnership transits the formation stage and members are seeking to attain results through an operational oriented approach. Furthermore, Elezi (2017), Altbach and Knight (2007), Ramayah et al. (2014) and Serenko and Bontis (2016) listed trust, learning, knowledge repositories, social capital and technology as KM factors that affect the exchange of knowledge between partners and consequently the partnership’s performance. These KM factors appear to be quite influential at the stage where members of the partnership have become aware of each other’s KM assets and characteristics from a technical point of view. Additional studies have identified KM factors that affect knowledge exchange at an individual level elaborating on the importance of accountability, training and development programs and employee engagement (Altbach & Knight, 2007; Bratianu, 2016; Lefter et al. 2011; Ramayah et al. 2014; Serenko & Bontis, 2016).

Knowledge exchange in higher education partnerships

The fundamental resource and asset of any institution thriving towards ensuring the existence and establishing a competitive profile consist of knowledge which literature (Al-Kurdi, El-Haddadeh, & Eldabi, 2018; Altbach & Knight, 2007) divides into tacit and explicit knowledge. Altbach and Knight (2007) explain that tacit knowledge is embedded in individuals’ experiences and requires particular efforts to extract and make it available to other parties while explicit knowledge is codified and disseminated with a clear through the text of schematic representation is easier to understand. Baumfield and Butterworth (2007) highlight the significance of exchanging tacit knowledge at a greater extent, particularly between academics who

are the main promoters of knowledge dissemination. However, as discussed by Loebbecke, van Fenema, and Powell (2016) and Fullwood, Rowley, and Delbridge (2013) the sharing of tacit knowledge can be a challenging process due to the difficulty of codifying and lack of face to face communication between individuals and departments. Fullwood et al. (2013) explain that for the Knowledge Exchange to be effective it is essential that senior management of an HEI persuades the academic staff of the benefits of sharing and transferring knowledge while working in collaborative projects. However, the persuasion of the academic staff may depend on various factors related to trust, institutional culture and structure, leadership and communication.

In addition, Fullwood, Rowley, and McLean (2018) elaborate on the individual factors which involve beliefs, values, and attitudes that academics have in regards to exchanging knowledge. Some challenges rely on the grounds of economic incentives, partner's integrity, and copyright issues which if not addressed adequately may cause knowledge preservation. Furthermore, Fullwood et al. (2018) and Fullwood and Rowley (2017) discussed the role of institutional structure and that operating under a functional structure can hinder the exchange of knowledge while applying a less centralized structure manifest a higher level of knowledge exchange. Fullwood and Rowley (2017) argue that is very important to establish a synergy amongst different departments internally as well as across partners in order to allow the exchange of tacit knowledge between the academics. The diffusion of knowledge supports individuals' education, professional development and upgrading of skills thus providing opportunities to create and apply new knowledge. According to Fidalgo-Blanco, Sein-Echaluce, and García-Peñalvo (2015), the Knowledge Exchange is strongly related to the effectiveness of innovative institutional systems established and promoted by universities and research centers. In a knowledge-based economy, HEIs endeavor to enhance their management systems in order to expand and diversify knowledge stocks, demonstrate business and scientific initiatives through creativity and strengthen problem-solving skills which are essential in building sustainable strategies.

Research methodology

For the purpose of this research, a semi-structured Elite Interview (EI) approach was embraced as according to Saunders and Lewis (2012) allows the researcher to probe the interviewers in more detail and further explore on the themes that arise during the answers gathered. According to Harvey (2011) EIs' are considered as an effective technique in gathering insights from individuals that have a particular knowledge and a high level of influence and involvement on the subject being investigated. The EIs who participated in this research had an extensive experience in the UK HE sector and academic partnerships developed between HEIs with a particular focus on the betterment of teaching and learning practices. Table 1 adapted from Elezi and Bamber (2018c) illustrates the profile of the EIs and briefly explains the responsibilities held at the time of the interviews. As shown in table 1 the nine EIs provide a combined number of HE experience in excess of 160 years mostly in partnership projects at senior level. This group of EIs represents income in the UK HE sector of approximately £130 million. The income each EI has generated indicates the amount of money rose

only as a result of HEI partnerships they have been involved in. The approximate financial figures presented in figure 1 were gathered from EIs during the individual interviews. The main type of collaborative projects that EI referred to when stating the amount of income generated included joint ventures, franchising and apprenticeship programs. It should be noted that predominantly the EI were able to increase the amount of income generated from different HEI partnerships with the years of experience in the sector.

The experiences of the group in HE not only spans over a century but have been at all levels of hierarchy with final roles at the executive and senior levels with significant responsibility. That responsibility for all EIs has increased partnership development from idea to collaborate to disbanding of the partnership then including all stages of partnership development as shown by Elezi and Bamber (2018a), and Reid, Bussiere, and Greenaway (2001). Hence stages of development of collaborative projects have provided the EI participants the vast experience of tacit and explicit knowledge within an HE context.

Table 1. Elite interviewees' professional profile (Elezi & Bamber, 2018c)

Elite Interviewee (EI) No.	Position held within the HE institution	Current responsibilities	Years of experience in HE institution(s)	Amount of income generated
EI 1	Assistant Director for Development and Innovation	Seek opportunities for partnership development and generate income streams	20	Circa £25 million
EI 2	Vice Principal	Guide and support the HE teams in compliance with regulations and quality standards	27	Circa £7 million (in the last 7 years)
EI 3	Corporate Development Director	Head of curricula development Developing strategic partnerships	18	Circa £15 million
EI 4	Finance and Operations Director	Managing finances and operations People and resource management	10	Circa £10 million
EI 5	Director of Academic Affairs and director of Research Institute	Managed academic teams and researchers in designing, delivering and evaluating teaching and research courses	28	Not less than £ 9 million
EI 6	Pro Vice-Chancellor	Led and managed the development of academic partnerships within the UK and internationally Strategic Planning Committee	15	Circa £6 million

EI 7	Executive Dean of Research Graduate School	Led and managed teams and assured that HE partners complied with the quality standards	26	Circa £48 million
EI 8	Dean of Academic Affairs	Managing the academic responsibilities in a partnership	22	Circa £14 million
EI 9	Executive Vice Principal Curriculum Planning and Quality	Overseeing curricula and quality side	20	Circa £8 million

The sample selected was of a purposive nature which according to Saunders and Lewis (2012) is a technique used in qualitative research that allows the identification and selection of individuals that are knowledgeable on addressing a particular phenomenon. Therefore, the sample of this research consisted of nine EIs' that have been involved in initiating, developing and managing UK HEI partnerships at executive and operational levels. Interviews lasted 15 minutes on average and were voice recorded and later transcribed to proceed with the analysis of the results. The results gathered were analyzed through thematic analysis were researchers investigated themes and issues raised, discussed and addressed by the interviewees. Researchers made use of the saturation approach which according to Saunders and Lewis (2012) is applied in qualitative research where answers given by participants become repetitive and offer no new insights or patterns.

Knowledge elicitation techniques

According to Shadbolt and Smart (2015), the purpose of using knowledge elicitation techniques for the development of semi-structured questions is to acquire knowledge from the interviewee through a less imposing approach which is the opposite of conducting structured interviews. As discussed by LaFrance (1987) the knowledge gathered may include examples from layouts and forms with questions types known as grand tour and cross-checking. According to LaFrance (1987), cross-checking is defined as a technique that distinguishes domain boundaries and the general approach to the organization of goals while cross-checking requires the interviewer to validate the obtained knowledge by being devil's advocate. An additional technique presented by Johnson and Johnson (1987) as teachback technique advises the elicitor to reproduce and explain back what the interviewee initially explained, so the interviewee can then check the knowledge gathered by elicitor and amend if necessary. Therefore, in order to elicit purposeful knowledge from EIs, the researchers created a tri-part, consecutive, research methodology as shown in figure 1.

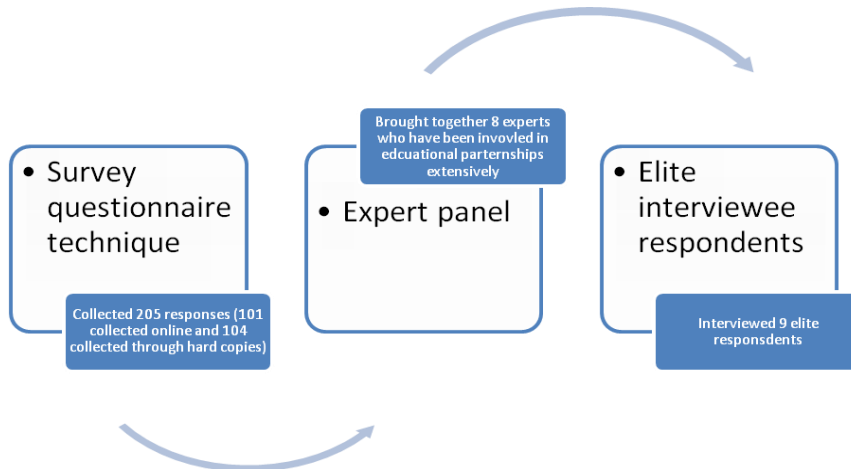


Figure 1. The knowledge elicitation data collection process

Firstly, starting with a broad-based questionnaire survey administered with 205 respondents including academics and administrators working for UK HEIs involved in partnerships at the time of the data collection. The questionnaire surveys were delivered via SurveyMonkey software as well as physical copies. Doing so, allowed the researchers to identify common patterns gathered amongst HE academics and administrators regarding the role of KM within HEIs operating in partnerships and would be interesting to investigate further through qualitative methods. This understanding was used to design an expert panel data collection method where the researchers focused on eliciting knowledge from expert panelists. The EIs were a different group from the expert panelists for the purpose of gathering academic and practical knowledge from different perspectives and experiences. Importantly, the understanding accumulated as a result of the questionnaire survey and expert panelists was carefully used to develop the interview questions used for the purpose of this research study.

The created questions were developed from the initial literature review that created the survey questions but were further directed from the analysis of results from the Expert Panelists. Those questions were delivered to all the EIs two weeks in advance accompanied by a brief description of the research nature and background. Researchers of this study made use of cross-checking and teachback techniques presented by LaFrance (1987) and Johnson and Johnson (1987) respectively. This research process has led to the focused selection of a set of semi-structured questions that probed the EIs and encouraged deep knowledge elicitation. To ensure purposeful elicitation at the interview stage these knowledge elicitation protocols were adopted:

- 1) In order to set the scene and encourage open and comfortable communication, prior to the interviews a conducive environment for free-flowing intellectual discourse was arranged.
- 2) Allowing openness and showing empathy with EIs.

3) Cross-checking technique and a probing approach used (e.g. Can you please give an example ...?; What do you mean by that ...?; Can you please elaborate a little more on aspects of ...?)

4) Tecahback technique (e.g. So if I understood this correctly ...? Let me rephrase this ...? Are you saying that ...?)

Developing a theoretical construct through a comprehensive literature review in the context of the Higher Education (HE) sector provides the internal research validity and is the framework for knowledge elicitation. Furthermore, the adoption of the three methods of data gathering as shown in figure 1, each method leading to further enhancement of knowledge, has provided a robust, reliable gathering of data. While, in support of purposeful knowledge elicitation from EIs, the adoption of the guiding interview protocols has provided the development of deep understanding of the challenges facing collaborating partners in the HE sector.

Elicited knowledge from interviews: the results

One of the challenges in exchanging tacit and explicit knowledge between HE partners consisted of misalignment of expertise and abilities amongst partners as shown in figure 2, particularly lacking a robust understanding of the sector and quality systems required was highlighted by EI7. Additionally, EI7 also explained that other challenges of tacit and explicit knowledge exchange relate to the availability of staff, logistics, and facilities presented in figure 2, possessed by the HE partner. Therefore, logistics and facilities are shown as a theme in figure 2.

EI5 and EI3 elaborated that challenges faced in enhancing tacit knowledge are mainly related to trust and honesty which may lead to issues in exchanging explicit knowledge, where partners experience knowledge resistance and knowledge rejection. It was a common understanding noticed amongst respondents that individuals and HEIs appear to be protective to the knowledge they possess for two reasons; firstly, because of competition and; secondly, not enough guidance and clarifications on the type of knowledge that needs to be shared and with whom. EI5 appropriately summarized when commenting that the major challenge of exchanging any type of knowledge relies on the institutional system values (see figure 2) where he stated that:

"Sometimes it is down to the system values of an institution that individuals struggle in sharing and transferring any form of knowledge. If asked individually they might all be positive and say yes, we need to encourage knowledge sharing and knowledge transfer but the systems which they operate on do not encourage that... and that might need attention from university executives".

In the same line with EI5, the response gathered from EI1 was at an institutional level and highlighted that leadership of the HE institutions should establish a clear vision which is comprehensible from the staff. EI1 explained that leadership should provide the required support and guidance to accommodate the changes and challenges of working in a partnership setting. EI1 added that leadership should not reflect personal

egos either demonstrate any level of dominance or supremacy as that sets a major challenge for any form of knowledge exchange. Hence leadership and shared vision is considered as a theme associated with the challenges experienced amongst academics in Knowledge Exchange processes and is presented in figure 2. For instance, EI 6 summarized this aspect when saying that:

"The role of leadership is essential in creating a positive work atmosphere. In the current HE institution, I see that leadership is more enthusiastic, encourages and promotes different initiatives and allows employees to be creative and take initiative particularly when it comes to development and management of partnerships".

Furthermore, EI2 and EI9 sought to address the challenges of Knowledge Exchange from a communication point of view where both participants raised issues of clarity of knowledge being exchanged. Respondents', EI2 and EI9, explained that the formation of designated teams to organize and facilitate the exchange and management of knowledge across the partners are of a paramount importance. Importantly, EI9 noted that HE institutions should protect commercial knowledge through a hierarchical institutional structure thus avoiding the transformation of knowledge into gossip. A specific comment related to this was expressed by EI 8 when she said that:

"Is very important to for institutions participating in a partnership to identify the role and responsibilities to formulate effective communication channels and accountability for the exchange of information and knowledge required by partners so it is delivered in a structured manner rather than everyone pretending to know a little bit from everything but not a full picture as that may mislead people involved in the project."

EI2 explained the HEI institutions can establish effective communication channels by formulating common vision and interest. Additionally, EI2 pointed out that it is important to consider the development of rewarding schemes to encourage Knowledge Exchange through academics and therefore this is reflected in figure 2. Moreover, there was a common understanding from EI2, EI4, EI5, and EI9 that at times, executive managers are too concerned with the organization and implementation of collaborative plans and less with the opinions, feelings and perceptions of actors, particularly academics, involved in collaborative subjects. Common amongst EIs is the sentiment elicited from EI3 case example:

"While the focus of senior management team during the institutional restructuring was necessary for implementing strategic intent it was clear that collaborative partnerships were being ignored. I noticed during this period that many partnership activities started to show levels of strain because individuals within those partnerships were worried about their roles. This to me was a loss of focus on opinions, feelings, and perceptions of those involved in partnership activities."

Similarly, the strategic thinking of executive managers may not fully take into consideration the challenges that academics experience in sharing and transferring tacit and explicit knowledge and therefore the KM systems established by the HEI

institutions may not be as effective as expected. Another common theme was firstly presented by EI 1 where he suggested that personal egos “*got in the way*” of partnership development, see figure 2.

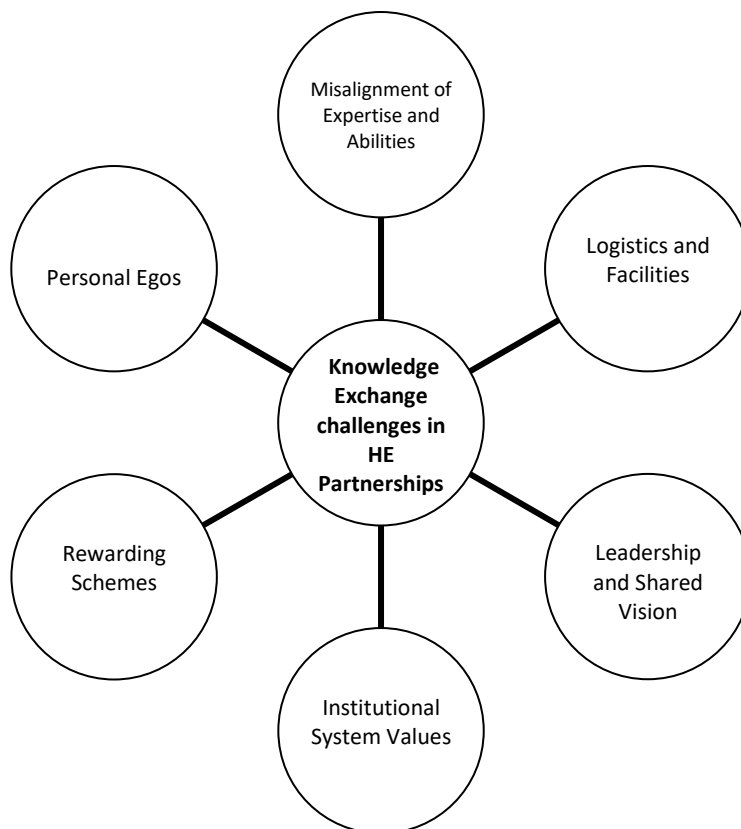


Figure 2. Themes associated with challenges experienced amongst academics in Knowledge Exchange processes

Likewise, EI 5 pointed out that often partnership activities were sabotaged and sidetracked because of personal preferences of certain actors within all stages of collaborative projects. Furthermore, EI8 presented a situation where a senior member of the partnership team insisted that all decisions, correspondence, action plans, and quality checks were directed by him. EI8 confirmed when probed that this personal controlling approach was a barrier towards employee engagement and initiative. Figure 2 presents the main themes identified and extracted from the semi-structured interviews conducted with the EIs'. The above themes are discussed and analyzed below with the purpose of understanding the type of challenges that academics come across when working in partnerships.

Analysis and discussion

The results gathered indicate that the challenges that academics face when working in HE partnerships may be comprehended as of a strategic, tactical and operational nature. As discussed by Altbach and Knight (2007) and Fullwood and Rowley (2017) it is important to understand the nature of the challenges in order to be able to address and overcome the difficulties academics experience in collaborative projects. Understanding the nature of challenges academic staff face in exchanging of knowledge at a partnership level may help HEIs to enhance planning and operational effectiveness, communication channels and assistance with budget and resource allocation. The discussion is based on the key themes identified in figure 2 and is structured at strategic, tactical and operational levels of an institution in order to address the types of challenges that academics HEI experience.

Strategic nature - institutional leadership and shared vision

HE partnerships are developed and finalized at executive levels with significant involvement of institutional leadership. Nevertheless, as discussed in the KM literature (Fidalgo-Blanco et al. 2015; Fullwood et al. 2013) and confirmed through this study, composing a shared vision firstly within an HEI and secondly across partners is vital. Due to the nature of strategic positions, high executives focus more on market exploration, product development, and legalities and at times not fully address issues related to the management and operations activities. The development of a partnership is very much related to the culture of the institution which is influenced by its leadership. However, establishing an institutional culture that encourages and/or promotes the development of partnership is not sufficient enough. This research shows that leadership should ensure that the institution has implemented a robust system of values that actually foster the exchange of any type of knowledge and is able to highlight its outcomes. Results in section 4.0 infer that although academics may be willing to exchange knowledge across institutions, at times the institutional value systems do not encourage it. Thus requiring the intervention of the leadership in establishing institutional value systems that are based on a shared vision and distributed across the institution involving heads of departments, course leaders, quality assurance officers and researchers who will be directly involved in the exchange of knowledge. In doing so, the leadership encourages the employee engagement and empowerment which according to Fullwood et al. (2018) promotes the decentralization of managerial activities and consequently tackles issues related to knowledge isolation and encourages institutional knowledge flows.

Tactical nature - misalignment of expertise and abilities

The responses gathered through EIs' acknowledge the importance of sharing and transferring tacit and explicit knowledge as of a paramount importance. The current study found that misalignment of expertise and abilities amongst partners is one of the fundamental challenges that HEIs' should seek to overcome in regards to tacit knowledge. As argued by Butcher et al. (2011) HE partnerships may involve institutions of different backgrounds and expertise and parties are expected to notice some differences in terms of institutional culture and operations. However, it is

important individuals demonstrate a good understanding of the HE sector and willingness to embrace new ways of “doing things”. This is particularly related to the understanding and satisfying of requirements and expectations of accrediting and HE regulatory bodies. The misalignment of expertise and abilities brings a range of issues related to quality standards which might then have negative implications on the brand and reputation of the institutions’ profile. If one of the partners does not feel confident in the abilities and more importantly in the willingness to embrace a new approach of operations from the other partner, then the exchange of “know-how” is in danger because of lack of trust. As discussed by Sohail and Daud (2009) and Loebbecke et al. (2016) trust is amongst the most crucial factors that influence the development of the partnership, however, failing to exchange the tacit knowledge successfully may set barriers in terms of absorbing and embedding the required knowledge at the desirable level. Another problem that lack of transferring tacit knowledge could bring relates to the levels of superiority and inferiority between knowledge transferor and knowledge receiver which may lead towards isolation of knowledge.

Operational nature - arrangement of staff, logistics and facilities

This research shows that challenges of Knowledge Exchange in a partnership context are also experienced at an operational level referring to the arrangements of staff, logistics, and facilities required to design, organize and/or validate new courses, academic programs, departments and/or schools. As discussed by Ali et al. (2014) recruiting academic staff for business and management related courses may not be as difficult as it may be for courses related to Engineering, IT, Media, Art and Design subjects. Therefore, the identification and selection of expertise may set challenges in regards to applying collaborative projects. As the development of learning materials has to be in line with the expectations of the HE partner delays of recruiting the appropriate caliber of expertise or ensuring the required availability of staff and their qualifications may set challenges in transferring the explicit knowledge across partners. Such explicit knowledge is mainly related to the production of teaching and learning materials as well as with the institutional regulations and policies in administrating a new course or program. Other challenges that academics face are related to the logistics and facilities a partner requires to deliver an academic or professional course. Lacking in logistics and facilities compromises the quality of exchanging the explicit knowledge as the partner receiving the knowledge will not be able to perform and meet the quality standards expected by the partner.

As shown in figure 3, the challenges of exchanging knowledge may be grouped as of a strategic, tactical and operational nature. At a strategic level, challenges are related to the leadership and the establishment of a shared vision. The misalignment of expertise and abilities noticed amongst HE partners is treated more like a challenge of a tactical nature, which is related to the exchange of tacit knowledge. Nonaka and Takeuchi (1995) discuss the fundamentals of knowledge creation in the socialization, externalization, combination, and internalization (SECI) model with a particular emphasis on continuous exchange and the combination of both forms tacit and explicit knowledge. Similarly, Bratianu and Orzea (2010, 2014) examine knowledge dynamics and flows and highlights that knowledge should be discussed in its complexity, meaning both forms of it rather than in isolation.

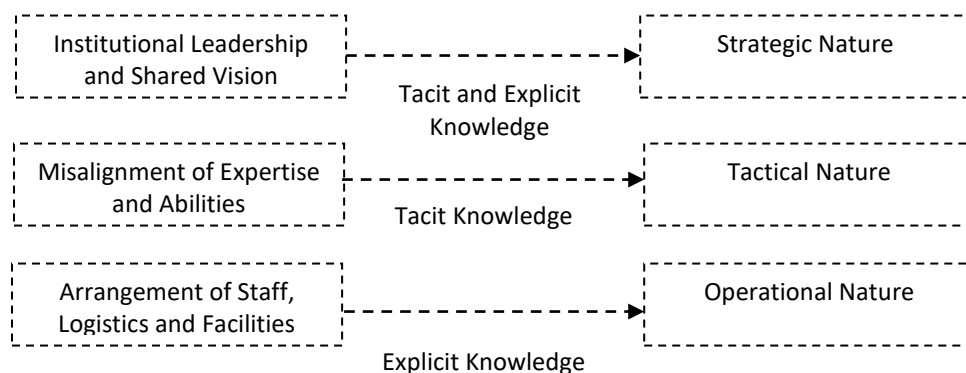


Figure 3. Typology of challenges in respect to Knowledge Exchange forms experienced (Elezi & Bamber, 2018c)

In the context of this research, the authors argue that both forms of knowledge are present and will be used simultaneously while working collaboratively. However, at a tactical level, it is the tacit knowledge residing in senior managers' cognitive systems that will be exchanged extensively prior to making decisions which will then be used to design inter and intra institutional systems required to deliver stakeholders' expectations. For instance, this may be reflected through the production of departmental guidelines and institutional policies, procedures and handbooks demonstrating explicitly the documentation of tacit knowledge experienced at a tactical level.

Furthermore, at an operational level, academics experience difficulties with exchanging explicit knowledge related to the arrangements of staff, logistics, and facilities. Figure 3 has not explicitly taken into consideration themes of "institutional system values" and "personal egos" presented in figure 2, as the researchers believe that these two themes come under the Institutional Leadership and Shared vision. Although it is amongst ultimate challenges of leadership to formulate a system of values and deal with personal egos, the establishment of a shared vision is believed to minimize clashes of personalities and encourage a system of values that promote knowledge exchange. Importantly, figure 3, does not include the "rewarding schemes" as such theme is presented more as an incentive and could be seen as an opportunity to actually encourage and enhance the exchange of knowledge within an HEI as well as across partners.

Research implications

The knowledge elicitation techniques have highlighted several challenges that HE partnerships encounter. The implication of those challenges presented in this paper suggest that senior management teams responsible for partnership success should ensure that due cognizance is given to the six themes of; personal egos; misalignment

of expertise and abilities; logistics and facilities; leadership and shared vision; institutional system values and; reward schemes. Accordingly, this paper has shown that inclusivity is important to ensure that individuals are adequately acknowledged in some way for their contribution to partnership activities. In a similar way, this research suggests that accountability for partnership working is clearly defined and that personal egos do not hinder partner growth or partnership success.

This research has shown that there is a wealth of knowledge that can be elicited from personnel that has had experience within stages of partnership development. It is therefore not too big a leap to suggest that partnership evaluation could be a contributory factor to the success of collaborative projects. Therefore, this paper strongly encourages evaluators of partnership projects to look beyond the normal criteria of performance measurement and elicit purposeful knowledge from individuals' working in those partnerships.

Conclusions

This empirical research has demonstrated the use of a tri-part, consecutive, knowledge elicitation methodology which has provided a deep understanding of Higher Education partnerships. The use of these three methods of data gathering; questionnaire survey; expert panel facilitation and elite interviews has proved to have construct validity and furthermore shown to be robust, reliable and demonstrates data gathering integrity and data interpretation integrity.

The findings of the research have indicated that from an administrative point of view, although academics are found at the end of the partnership chain which starts with the executives at the top, it is essential to understand challenges they face in order to enhance the decision making of an HEI in a partnership context. This research infers that challenges of exchanging tacit and explicit knowledge amongst academics could vary depending on the type of the partnership, institutional expertise, market characteristics, and timeline. Understanding the nature of the challenges related to Knowledge Exchange aids the development of realistic and effective institutional and departmental Knowledge Exchange strategies. Knowledge Exchange strategies should include discussions at strategic, tactical and operational levels as this research shows that challenges are present across different institutional levels. The identification of challenges contributes to the development of effective KM strategies, robust internal KM systems, and effective KM activities required to protect the type of knowledge that gives an HEI its competitive edge but equally importantly allows HE partners to effectively exchange the knowledge needed to operate successfully.

The crux of this research has been the use of a tri-part, consecutive data gathering technique, which has been shown to be very useful in providing an effective knowledge elicitation methodology. Hence, purposeful knowledge has been elicited from nine individual Elite Interviewees using clearly defined knowledge elicitation protocols. This paper concludes that the adopted methodology used during this research should not be seen as a panacea for all qualitative research but, moreover, be adopted as a useful technique in the qualitative researchers' armory.

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