International Forum
Vol. 24, No. 1
June 2021
pp. 49-66

FEATURE

Initiating Industry-University Collaborations Through theUniversity-Appointed Office of Relationship Manager/s: A Conceptual Model

Anup Dominic

Abstract. *This conceptual paper applies Lewin's (1951) forcefield approach of change management to emphasize the importance of a key driver to change in the literature regarding Industry-University Collaborations (IUCs) that are replete with barriers and drivers to establishing successful relationships. It draws insights offered by Darabi and Clark's (2012) model of initiating collaborations using the Vangen and Huxham's (2003) 'trust-building loop', Rybnicek and Königsgruber's (2018) conceptual model, and Nakagawa et al.'s (2017) 'trading zone framework' for an IUC, to establish the most common enabler in most studies, identified as the element of relationship management, as a vital driving force to overcome much of the barriers to successful IUCs, or what Lewin calls the restraining factors. Then, a new IUC conceptual model is proposed with the role of relationship manager/s emphasized in bridging between the two sectors to overcome barriers and strengthen the driving forces to establish successful IUCs.*

Keywords: industry university collaborations, IUCs, business school research, business practice, relationship management, knowledge sharing partnership, knowledge transfer

Introduction

Change is inevitable and it either takes over unexpectedly or can be purposeful and is planned. This paper is in support of both incremental and revolutionary change that must take place within organizations to bridge the gap between external and internal realities or define new external realities. However, even incremental change is not as predictable as it once used to be, as we live in a volatile, uncertain, complex, and ambiguous world. Focusing on the world of graduate school education and research, specifically that of business schools, and the world of actual business practice, I intend to conceptualize the benefits of bridging the two worlds to better meet incremental or create revolutionary change within organizations to keep up with or define external realities, whether reactively or proactively.

Dostaler and Tomberlin (2013) discuss “the great divide between business school research and business practice” (p. 118) and how some key historic factors led to this divide, including the departure of research bureaus within universities that primarily researched to solve local business challenges. Similarly, fewer top managerial personnel today recognize the value of academic research to benefit their businesses. Hitt and Greer (2012) highlight several of these concerns showing that academic research has little practical value in contemporary business practice, before they prescribe the need to evaluate research for its quality and practicality. The problem of relevance may seem to be a hindrance in bridging the two worlds together–business school research often finds no practical value in the real world.

Though Schoemaker (2008) and Khurana (as cited in Dostaler & Tomberlin, 2013) critique the present business school paradigm that finds its American roots in the Ford/ Carnegie Reports of the 1950s, evaluating that it is least qualified to manage the pace of today’s change, several recent academic articles have theorized the need for industry-university collaborations (IUCs) implying the significance for such associations for both entities. Such collaborations will facilitate knowledge-based economic developments, enable knowledge transfer relationships, and create new revenue sources (Darabi & Clark, 2012). These become increasingly necessary in the world of increased global competition, the fast pace of innovation, and cuts in government subsidies towards universities. Rybnicek and Königsgruber (2018) include the need to “commercialize academic knowledge . . . [,] gain access to technology . . . [, and to generate] licensing or patenting income” (p. 222). Other studies highlight the benefits attained specifically by students and practitioners–students gain practical insights and practitioners can appreciate theories, the scope of research, and modeling (Nakagawa et al., 2017).

In my search through these studies, I came across the many proposed elements, conceptualized by the researchers towards a working relationship between universities and business entities. While several critical elements are underscored, I did not find a study that emphatically discussed the office and role of a university-appointed relationship manager to initiate IUCs. The purpose of this paper is to consolidate the various views on initiating IUCs and propose the need for the office of a university-appointed relationship manager specifically to initiate mutually profitable business relationships with local businesses and illustrate a conceptual model of the role’s modus operandi.

Research Methodology

This study undertakes a systematic review of literature for the purpose of examining and comparing between competing theoretical models related to IUCs to isolate a key variable in a set of relationships. In the sections that follow, I intend to summarize my review of related literature that strengthens the case for the gap that I have found, and then propose a theory-based conceptual model for the office of a university-appointed relationship manager who may initiate collaborative relationships between local businesses and the university, by strengthening the drivers for such collaborations while weakening its barriers. The list of barriers and drivers to IUCs identified through the literature search will serve as a basis to build the scope of activities that a relationship manager will undertake in his or her role.

Review of Literature

As noted briefly, "IUCs are increasingly important and it is in the interests of governments, policymakers, researchers and practitioners that such collaborations are successfully implemented" (Rybnicek & Königsgruber, 2018, p. 239). Santoro and Chakrabarti (2002) summarize much of the views of the 90s in this regard. They highlight that with increased globalization, technological development, and aggressive competition, it becomes increasingly important to find R&D partnerships than relying purely on in-house abilities. In their words, "industry-university (I/U) alliances represent an evolving trend for advancing knowledge and new technologies" (p. 1163).

Benefits and Drivers of Industry-University Collaborations

The benefits of IUCs have been emphasized by several scholarly articles, though not all aspects of such relationships are clearly understood. The United Nations Global Compact Office in 2015 released an electronic document *Partner with Business Schools to Advance Sustainability: Ideas to Inspire Action* that enumerated six benefits of business-business school partnerships and collaborations for sustainability projects, as listed below:

1. Image building. "Raise awareness about brand and activities in the space of sustainability [and] . . . introduce your brand and sustainability approach to a new generation of leaders and managers."
2. Depth of understanding. "Innovative ideas [and] . . . yield unique perspectives [on] challenges and opportunities."
3. Recruiting. "Opportunities to recruit the best minds [by] engaging students [which] . . . can act as an extended job interview [while] . . . introducing [them] . . . to your work environments."
4. "Better prepared staff." By equipping them with necessary training, knowledge, and skills, to prepare them for any eventualities.

5. "Employee engagement." through "opportunities to learn and share their knowledge."
6. "Stakeholder engagement[.] . . . a neutral, solution-oriented environment to bring together a range of relevant stakeholders and like-minded organizations to share information" and work together on common interests. (p. 4)

These benefits to IUCs should serve as its drivers to establishment. The drivers of IUCs highlighted by scholarly articles include elements such as interpersonal relationships, prior social interactive or networked relationships that can be capitalized upon, skilled leaders with previous HEI qualifications or working relationships, free consultancy services by universities to business enterprises, and clear objectives set by the collaborators (Darabi & Clark, 2012). Rybnicek and Königsgruber (2018) discovered that the "prospect of a 'scientific touch' might be seductive to some companies" (p. 235) to enter into IUCs. There also exists opportunities for both entities to innovate and engage in "two-way interactions and learning" (Nakagawa et al., 2017, p. 38).

Barriers to Industry-University Collaborations

Nevertheless, several research studies have also highlighted the barriers associated with such collaborative relationships. Darabi and Clark (2012) examines some of these hurdles posed by both sectors, academic and business practice. The obstacles they point out include those that hinder the initiation of a successful IUC relationship and those that occur from the inception of a collaborative relationship and are sustained throughout. Barriers within universities include the bureaucratic challenges of large entities or the cultural transformation that may be required before a successful collaborative relationship. Similarly, cultural changes need to also take place within businesses to permit IUCs. Other business barriers include research applicability being limited to certain industries only or shifting to a long-term view rather than a short-term view of the business. Several challenges occur at both fronts, such as time constraints that prevent relationship-building for the long-term benefit, the need to multi-task, among others.

Rybnicek and Königsgruber (2018) highlight other barriers to IUCs that are preconditions that must be met for the relationship to work, else the possibility of failure. A primary precondition emphasized is the alignment of objectives of the collaborating parties. They also point to a variety of elements that are critical during the tenure of the relationship, including institutional factors, relationship factors, output factors, and framework factors. For instance, institutional factors include flexible governance on both sides to manage each other's instabilities and inconsistencies among others. Relationally, they uphold the virtue of honesty for the relationships to work. Regarding output factors, they advocate clarity in setting objectives and knowledge/technology sharing and transfer. From a framework perspective they recommend that both sectors must maintain awareness of the environment, IP rights and contracts. These are also barriers to successful IUCs that must be managed. Other studies evidence the need for precautions to be taken, associated with research quality and geographic distance between collaborators (D’Este & Iammarino, 2010).

Rybnicek and Königsgruber (2018) also give significance to four potential moderators in their model that may impact collaborative relationships—different phases, different scales, different organizational levels, and different disciplines. In simple words, these can be understood in the following statements. Some challenges arise specifically at different phases of a relationship. Some challenges occur when a large entity contracts with a smaller entity. Other challenges arise out of a planned format of communicating. Who communicates with whom, and at which level of the organization? Objectives aligned to meet the needs of both parties must find consensus, be pre-set in a written plan and well-communicated over the inception of an IUC. Then there are different disciplines involved, and the interests may vary widely from one relationship to another. These factors may equally pose as barriers to successful relationships as the others highlighted earlier and their impact must also be understood before initiating relationships from both fronts.

Comparing Industry-University Collaboration Models

The review of literature found three models that attempt to explain IUC relationships—Darabi and Clark (2012), Nakagawa et al. (2017), and Rybnicek and Königsgruber (2018). Examining each of these models and comparing them were of unique value to this study, as each of them recognizes the importance of relationship management between universities and local businesses. Each of these models, their concepts and interrelationships are explained below.

Darabi and Clark’s (2012) model of initiating collaborations. Darabi and Clark (2012) proposed a model for initiating trust-based relationships and collaborations based on Vangen and Huxham’s (2003) ‘trust-building loop,’ as illustrated in Figure 1. They propose that essentially relationship management is required to overcome the barriers to collaboration. Secondly, trust is a critical element in IUC relationships especially considering the nature of knowledge-sharing relationships (Darabi & Clark, 2012). It is through trust and relationship management that barriers and drivers to such collaborations can be rightly managed with awareness and understanding.

Small and medium enterprises (SMEs) and other organizations are vulnerable if critical business-specific information leaks to competitors. However, even under such circumstances, IUCs can work within the context of a trusted interpersonal relationship represented by legally binding agreements. Other interesting elements emphasized by Darabi and Clark (2012) in their study include the need for collaborations to be customizable, as the working relationship of a university with various types of business are likely to be very different.

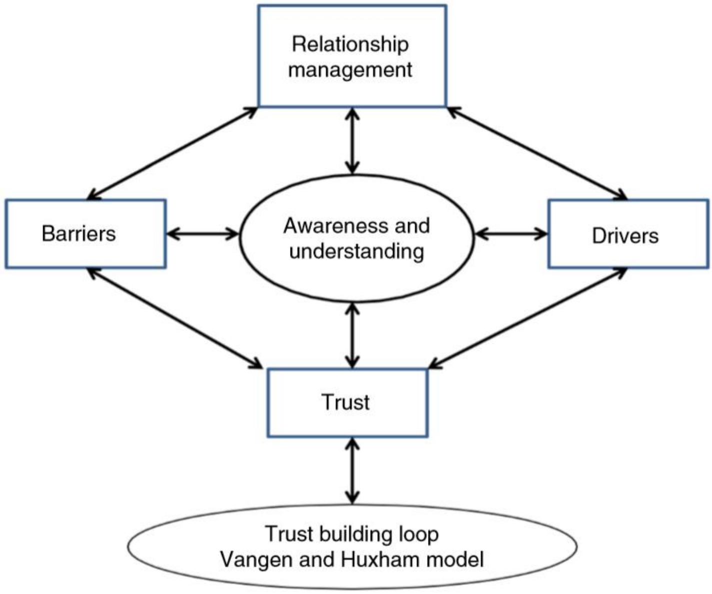

Figure 1. Model of initiating collaboration. From "Developing business school/SMEs collaboration: The role of trust" by F. Darabi and M. Clark, 2012, *International Journal of Entrepreneurial Behavior & Research, 18*(4), p. 489.

The model is put to the test by conducting in-depth interviews and several themes and sub-themes emerge related to barriers and drivers to IUCs and strategies to overcome barriers by building on drivers. The barriers identified included: (a) bureaucracy at university-end, (b) time, money, and effort from both ends, (c) legal institutions and administrative processes, (d) cultural barriers, (e) bounded rationality and lack of awareness, and (f) lack of trust. On the other hand, the drivers for potential IUCs included: (a) access to experts from both worlds–business and academics, (b) networking and building relationships, (c) knowledge sharing advantages and opportunities for growth in expert knowledge, and (d) innovation, and other deliverables as an outcome of collaborating.

Nakagawa et al. (2017) trading zone framework. The study by Nakagawa et al. (2017) speaks specifically into the Japanese context and relays the researched impact of an already established IUC and offers their illustrative view of a conceptual model that portrays how successful collaborations work, as shown below in Figure 2 what they call the trading zone framework. The study encourages the interaction between academics, specifically, students of the entrepreneurship program with practitioners, as they can mutually benefit from each other. The framework they propose derives its name from a metaphor that shows how "under the extraordinary and temporary conditions . . . the heterogeneity among participants . . . [become] the basis for knowledge exchange" (p. 46).

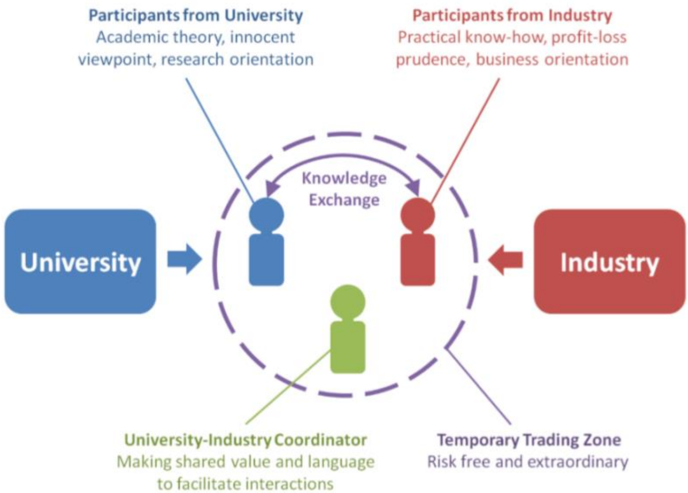

Figure 2. Trading zone framework for an IUC. From "A university-industry collaborative entrepreneurship education program as a trading zone: The case of Osaka university" by K. Nakagawa, M. Takata, K. Kato, T. Matsuyuki, and T. Matsuhashi, 2017, *Technology Innovation Management Review*, *7*(6), p. 47.

Rybnicek and Königsgruber's (2018) conceptual model. Rybnicek and Königsgruber (2018) reveal what may seem like an objection to this idea in their study, that most IUCs are operationalized at the level of individual academic departments rather than the level of a school or the entire university . . . [which] necessitates the existence of individual 'champions' who help bridge the gap between different organizational levels within the university and between the university and its industrial partner. (pp. 237-238)

Ironically, this piece of information is classified by Rybnicek and Königsgruber (2018) in their article within the section on moderators that are not validated by literature titled, "different organizational levels" (p. 237). This argument may not be well justified as it seems to say that it is not considered unprofessional to reach out to an organization in a decentralized manner without any customer relationship management systems in place. However, even within this view, the need of several university disciplines to attain IUCs is recognized. And it is differentiated from the support services offered when school administrative officers communicate with business staff regularly over the tenure of the collaboration, as part of carrying out activities decided upon by key people from both types of organizations. A centralized approach may be preferred, as it leverages upon every positive element, though a decentralized relationship management approach is just as valid.

Their study centers on the idea that successful realization and implementation of IUCs are established through various factors–institutional, relational, output, and framework. There are also moderators within their model that they classify as less known and yet to be fully researched and understood–scale, phase, level, and discipline. The authors also recommend flexibility for the institutional factors, honesty for the relationship factors, clarity for the output factors, and awareness for the framework factors. The illustrated view of their conceptual model is shown below in Figure 3.

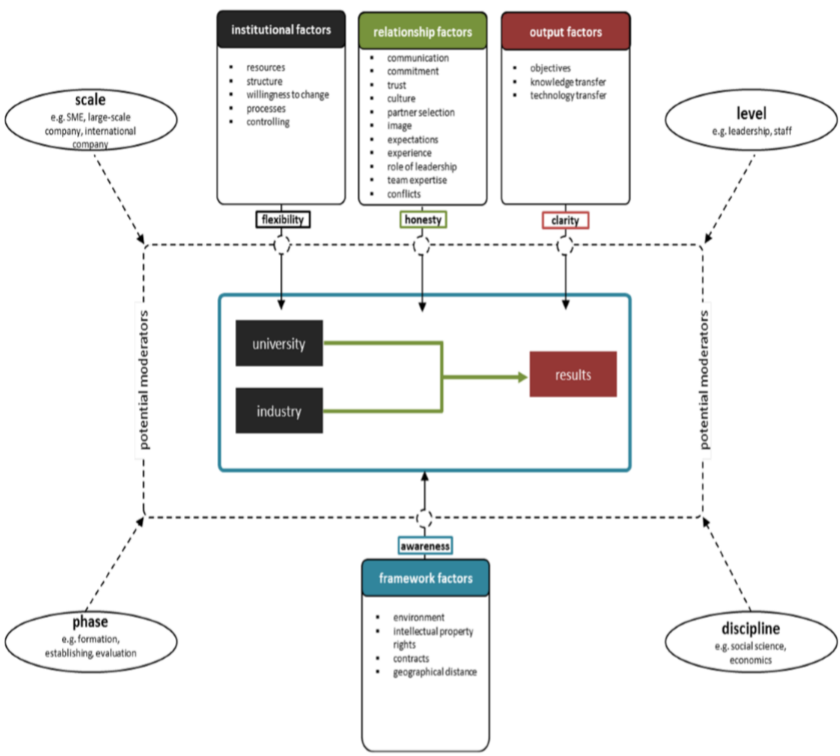

Figure 3. Rybnicek & Königsgruber's (2018) conceptual model. From "What makes industry-university collaboration succeed? A systematic review of the literature" by R. Rybnicek, and R. Königsgruber, 2018, *Journal of Business Economics, 89*, p. 229.

Relationship Management

Darabi and Clark (2012) recognize the need to market collaborative services and hint at the need to appoint an individual or task a group of individuals within universities, specifically to the purpose of relationship management. They also point to the role of an 'interpreter' who is an academic and yet has had some extensive experience within corporate entities to lead the process of relationship-building. Alternatively, their recommendations also include freeing up faculty time and efforts from research, teaching, and administrative works to build these collaborative relationships.

Darabi and Clark (2012) suggest the need to define the operational status of such relationship management units giving it some decision-making autonomy at universities. They are indeed discussing overcoming barriers and building on drivers of collaborations by managing the expectations, or by customizing services according to the industry or other factors. Though the study does not explicitly mention the need for and search for relationship manager/s who can help overcome the barriers by strengthening the drivers to successful IUCs, they hint the active role of such manager/s.

Quite interestingly, in their model, Nakagawa et al. (2017) have outlined the need for a university-industry coordinator. The function of this coordinator is to create shared value and shared language to inspire interactions. The trading zone model, however, assumes that only a temporary coordinator is required. Since the model applies to students undergoing a program and to practitioners who can temporarily help them, it does not recommend the need for a permanent coordinator. Nakagawa et al. (2017) point out this reality:

> To enact a trading zone does not require equivalence of interests or interpretations. Furthermore, even the permanence of relationships is not needed to work in a trading zone. Participants from different organizations coordinate their behaviors temporarily and locally, navigating their different norms and interests as needed. (p. 46)

However, this difference in their framework does not mitigate the reality that there is a need for relationship management, and it needs to be achieved through a coordinator. And even a temporary coordinator must exercise relationship management skills to coordinate between the parties.

Even a cursory glimpse at Rybnicek and Königsgruber's (2018) model signifies the relevance of relationship management which is among their other significant factors in enabling successful IUCs. The authors have also proposed what each of the factors in the model entail. The institutional factors bring flexibility, while the output factors bring clarity to IUCs. However, it is the relationship factors that bring honesty.

Each of these studies are conceptually connected to each other. Darabi and Clark (2012) hinges IUC relationship success on 'trust', and Rybnicek and Königsgruber

(2018) holds honesty as one among their four critical factors. Nakagawa et al. (2017) identifies the role of a coordinator who must coordinate between the two sectors and implicitly upholds the importance of employing good relationship management skills. The studies by Darabi and Clark (2012) and Rybnicek and Königsgruber's (2018) give support for university-initiated relationships rather than industry-initiated relationships. Nakagawa et al. (2017) portrays the coordinator as an industry personnel but limits his or her role as only serving temporarily through the life of the project.

Gap in Literature

Summatively, I have highlighted key insights from Darabi and Clark's (2012) model of initiating collaboration using the Vangen and Huxham's (2003) 'trust-building loop' as shown in Figure 1; Nakagawa et al. (2017) trading zone framework for an IUC, as shown in Figure 2; and Rybnicek and Königsgruber's (2018) conceptual model as shown in Figure 3. By examining and comparing the three models, a key enabler in establishing IUC relationships is identified–relationship management. My objective in highlighting these insights from these three models is to make apparent that while several studies have considered how to make successful IUC relationships work, there exists a gap in literature that does not explicitly spell out how or which office takes the initiatives in building these collaborations from the university perspective.

As pointed out in these studies, there is an apparent flaw in assuming that faculty can successfully build IUCs. University faculty and administrators have other important activities that require their full attention. Now, within the articles highlighted and the models compared, there is a hint for the need for personnel responsible for the role of initiating, marketing, and being the go-between to establish effective business relationships, collaborative knowledge sharing partnerships, and other mutually beneficial relationships, while overcoming the barriers that have been listed as hurdles to successful relationships. There simply needs to be a university-appointed office for a relationship manager or several managers, to manage relationships with the industry. This course of action will be a significant driving force in overcoming existing barriers.

Theoretical Framework

In this paper, I discuss the significance of overcoming the barriers listed above by giving strength to the drivers for IUCs also highlighted in various studies. Here I apply Lewin's (1951) logic of the forcefield approach, as illustrated below in Figure 4. The barriers listed earlier are the restraining forces towards more collaborative relationships. Without such relationships, both sectors, academic and business practitioners are in a worse-off scenario. With collaborations in place, both sectors are in a more favorable scenario. Lewin (1951) recommended giving strength to the few drivers of change to overcome most of the barriers to change. And this framework is perfectly applicable here.

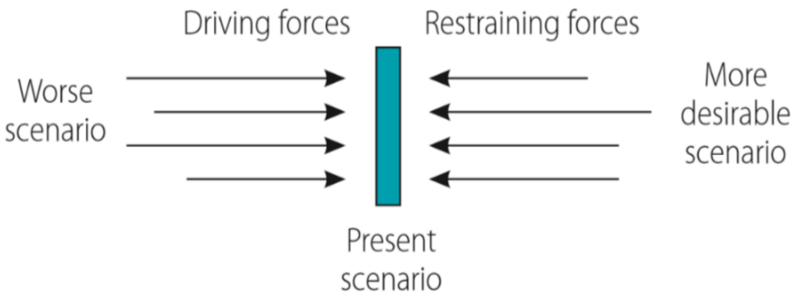

Figure 4. Lewin's (1951) forcefield analysis. Adapted from *The theory and practice of change management* (4th ed.). by J. Hayes, 2014, New York, NY: Palgrave Macmillan.

This paper utilizes Lewin's (1951) forcefield approach of change management to emphasize that literature regarding IUCs are replete with barriers and drivers to establishing successful relationships. Yet, the most common enabler in most studies, the element of relationship management, is a vital driving force to overcome much of the barriers to successful IUCs, or what Lewin (1951) calls the restraining factors. In the process of highlighting the dominant force to overcome barriers, the study has also gauged the insights offered by Darabi and Clark's (2012) model of initiating collaboration using the Vangen and Huxham's (2003) 'trust-building loop' as shown in Figure 1, Nakagawa et al. (2017) trading zone framework for an IUC as shown in Figure 2, and Rybnicek and Königsgruber's (2018) conceptual model as shown in Figure 3. Applying Lewin's (1951) forcefield approach and having identified relationship management as a critical enabler pointed out by the three models, this study finds the need for a university-appointed office of relationship manager or several managers, to manage relationships between the key players (university and the industry). This course of action will enable the relationship manager/s to capitalize on the driving forces and overcome existing barriers in establishing successful IUCs. As a result, both the academic and business sectors will stand to gain from each other.

A New IUC Conceptual Model

As I align all the models that I have derived insights from, namely, Darabi and Clark's (2012) model of initiating collaboration using the Vangen and Huxham's (2003) 'trust-building loop' as shown in Figure 1, Nakagawa et al. (2017) trading zone framework for an IUC as shown in Figure 2, and Rybnicek and Königsgruber's (2018) conceptual model as shown in Figure 3, I find room to bridge the missing gap in literature through a new IUC conceptual model that can be implemented by creating the office for university-appointed relationship manager/s within their entities. While I have not studied out all the key responsibilities of this office, I am confident enough to say based on the evidence from literature that a relationship manager ought to establish new IUC relationships. This involves primarily the role of reconciling between barriers that exist between universities and that of individual businesses while capitalizing on all the drivers in both sectors.

The role of the university-appointed relationship manager/s in carrying out this bridging activity is illustrated in Figure 5 below. This personnel carries out a boundary spanning role in accommodating the needs of both sectors, reconciling the challenges to the collaboration through dialogue, winning the confidence of the other party, creating mutually agreeable associations, that benefits in terms of knowledge sharing/transferring, funding, or other beneficial arrangements. Further as the illustration of Figure 5 highlights, Lewin's (1951) forcefield analysis is at play within this role of the university-appointed relationship manager/s. Lewin (1951) demonstrates that change can take place with the dual effect of

1. steps to increase the effect of driving forces identified to take place within an organization, and
2. steps to reduce the effect of restraining forces identified to take place within the same organization.

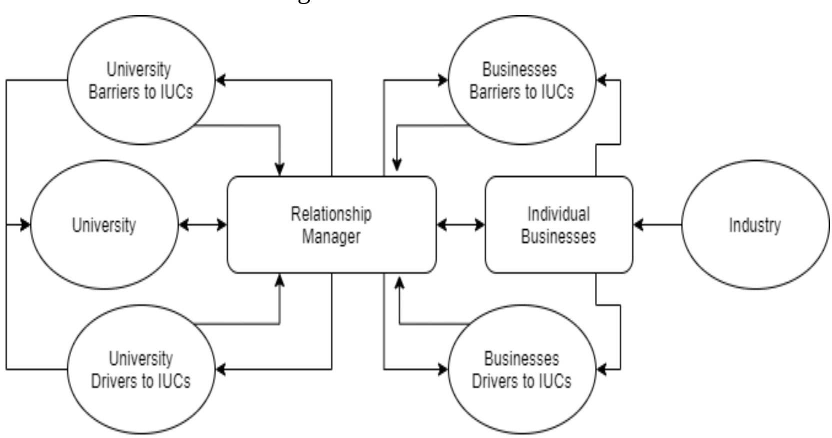

Figure 5. A new IUC conceptual model.

University-appointed relationship manager or managers (who represent diverse sectors/ industries) will manage the key drivers to successful collaborations, capitalize on them to overcome barriers that stand in the way. These organizational representatives will invest time and effort to discover and understand university barriers to IUCs, as well as business barriers to the same. Similarly, they will invest time and effort to acquire knowledge on all potential university drivers for IUCs, as well as business drivers for the same.

This cannot be a faculty-led endeavor. Research points out the need for such an office. Edmondson et al. (as cited by Awasthy et al., 2020) underscored the need for individuals that understood both worlds (the academe, as well as the industry) to manage these collaborations. Awasthy et al. (2020) suggested that "universities must involve people with networking and managerial skills to attract industry partners" (p. 51). Several other studies in the context of establishing and sustaining IUCs, discuss the role of an intermediary, a coordinator, boundary agents (Calder, 2007), or boundary spanners (Thune, 2007), who work and bridge relationships between the two sectors.

Darabi and Clark (2012) emphasized the role of trust in such relationships. Awasthy et al. (2020) point to other characteristics of the coordinator:

> Young researchers are typically more suitable for identifying the characteristics of the economic environment. Involving and engaging people who cross boundaries have a positive impact on the relationships. The industry should select capable managers for effective project management. Appointing the right people is the key to the success of a collaboration. Sometimes these may be intermediary agents such as technology transfer offices or boundary-spanning managers/agents. Sector representatives must be introduced to each other for a better understanding of the collaboration objectives, processes and expected outcomes. (p. 56)

In addition to these factors, Awasthy et al. (2020) also recommend that "a new system of incentives should be created in universities to recognize the efforts of academics participating in partnerships with industry" (p. 58). In short, the study also endorses that the office of a university-appointed relationship manager should be salaried and incentivized for the purpose.

Results and Findings

Though this study does not conclude with a comprehensive job description of a university-appointed relationship manager, it recognizes the need for the position and its basic purpose. It argues against the rationale of simply empowering existing faculty or administrators for the establishment and sustenance of IUCs but recommends the imperative that it must be a specific appointment. The personnel that will be considered to serve such a position must qualify for both vast industry and sufficient academic experience. He or she must be a networker, a marketer with "entrepreneurial characteristics whose goal is to make things happen" (Awasthy et al., 2020, p. 54), and a negotiator of mutually beneficial relationships. The ideal candidate must also know how to tap into the expertise of university faculty members and engage them with business practitioners. Appointing the position of relationship manager/s should be an endeavor of the university's human resource department utilizing effective recruitment and selection methods.

And most critically, applying Lewin's (1951) logic of the forcefield approach, the relationship manager should be capable of comprehending all the hesitancies for successful industry-university partnerships from both ends and yet voice persuasively the opportunities that exist for both participants in such collaborations. Lewin (1951) depicted that by strengthening the driving forces towards a profitable end and weakening its barriers, the restraining force that prevents change could be overcome. Edmondson et al. (as cited by Awasthy et al., 2020) highlighted that “individuals with an understanding of both academic and business worlds are considered the driving force behind successful partnerships” (p. 51). Hence, I propose that by employing relationship managers to create and maintain IUCs, they may gain the opportunity to overcome barriers by strengthening the drivers.

The review of literature section summarized the barriers and drivers identified to potentially successful IUCs. The barriers included university bureaucracy, challenges associated with lack of trust, lack of time, lack of budgeted resources, lack of awareness, lack of knowledge to initiate dialogues, lack of desire to initiate dialogues, lack of sufficient IP protection, lack of legal and administrative institutions, and cultural/language barriers. On the other hand, the drivers identified for IUCs included positives such as superior rationality and capability to tap on expert resources from both sectors, opportunities to network, share knowledge, grow expert knowledge, and build long-term mutually beneficial relationships, which can result in innovation, or other deliverables as an outcome of collaborating. Figure 6 below displays how this works within the context of industry-university relationships. It highlights how action steps that must be taken recommend the role of a relationship manager who may manage between both sectors.

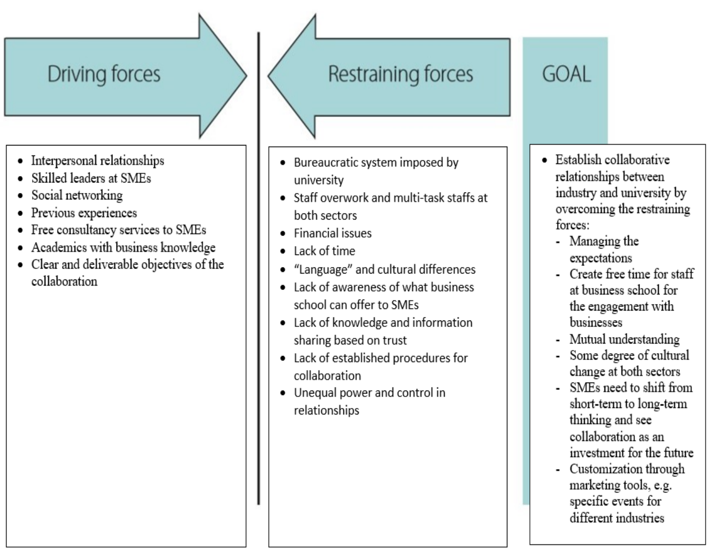

Figure 6. Applying Lewin’s (1951) forcefield analysis to the new IUC conceptual model.

Conclusion

In conclusion, I must say that collaborative relationships are risky. These are not simply overcome without a planned effort. For all the reasons outlined earlier that display that IUCs are mutually beneficial for both parties, it is important that at least one party to the potential relationship is making efforts towards initiating successful partnerships. Since businesses are often carried away in their world of profit-making, often with a short-term outlook, it is perhaps, more vital for universities to step up to the challenge of initiating mutually beneficial alliances with local community businesses.

This study carried out a systematic review of literature for the purpose of examining and comparing between competing theoretical models related to IUCs to isolate a key variable in a set of relationships. Aligning all the models that I have derived insights from, namely, Darabi and Clark's (2012) model of initiating collaboration using the Vangen and Huxham's (2003) 'trust-building loop' as shown in Figure 1, Nakagawa et al. (2017) trading zone framework for an IUC as shown in Figure 2, and Rybnicek and Königsgruber's (2018) conceptual model as shown in Figure 3, I have identified relationship management as a key enabler in initiating successful IUCs. Further, this study has proposed the need for university-appointed relationship manager/s to be boundary spanners and initiators of collaborative relationships rather than expecting the industry to take steps into building such relationships.

The new IUC conceptual model is a model that derives its strength from Lewin's (1951) logic of the forcefield approach. Applying Lewin's (1951) logic, I propose that universities should consider the office of a university-appointed relationship manager who may initiate collaborative relationships between local businesses and the university, by strengthening the drivers for such collaborations while weakening its barriers. Thus, the list of barriers and drivers to IUCs will serve as a basis to build the scope of activities that a relationship manager will undertake in his or her role. The scope of activities identified can be an initial working design for the job description of such a role, that a human resource agent representing the university can build upon.

Implications of the study

Without the efforts and activities of qualified personnel to manage such relationship-building activities, the university plans to conceive effective business relationships are likely to fail. Hence, this study has contributed to existing literature such that it makes explicit what is previously implicit in other studies. It recommends that universities of all sizes should appoint for themselves university-appointed relationship manager/s specifically tasked to carry out IUCs. The personnel must then organize himself or herself and become a bridge to overcome university-specific challenges as well as industry-specific challenges until collaborations at all levels take place. Thus, this study has gathered sufficient data that emphasize the barriers and the drivers to create a successful relationship and recommends the role of a relationship manager to dialogue with both sides, to undertake boundary-spanning activities in the process of reconciling and bridging the two sectors. From an academic perspective, further research should be initiated using a case study methodology of an actual university that has employed ‘business relationship manager/s’ to connect with the industry and the resultant one-year and three-year impact on university networks, funding, collaborated projects, and other measurable parameters for relationships.

Limitations of the study

There are significant limitations to this study. While we have recognized the absent language in literature for university-appointed relationship manager/s, we have not considered the budgetary factors to make viable this new position within the institution. This addition is critical to decide towards appointing relationship manager/s to establish industry relationships. The study also does not outline the job description for such a role. This should be the product of human resource research and analysis. I have also largely ignored the effect of the triple-helix model whereby the university-industry-government collaborative forces (Dooley & Kirk, 2007) are supported through a new revenue stream of government funding.

References

Awasthy, R., Flint, S., Sankarnarayana, R., & Jones, R. L. (2020). A framework to improve university-industry collaboration. *Journal of Industry-University Collaboration, 2*(1), 49-62. doi: 10.1108/JIUC-09-2019-0016

Calder, E. S. (2007). *Best practices for university-industry collaboration*. Dissertation, Massachusetts Institute of Technology, Cambridge, Massachusetts, United States of America.

Darabi, F., & Clark, M. (2012). Developing business school/SMEs collaboration: The role of trust. *International Journal of Entrepreneurial Behavior & Research, 18*(4), 477-493. doi: 10.1108/13552551211239500

D'Este, P., & Iammarino, S. (2010). The spatial profile of university-business research partnerships. *Papers in Regional Science*, *89*(2), 335-350.

Dooley, L., & Kirk, D. (2007). University-industry collaboration: Grafting the entrepreneurial paradigm onto academic structures. *European Journal of Innovation Management, 10*(3), 316-332.

Dostaler, I., & Tomberlin, T. J. (2013). The great divide between business school research and business practice. *Canadian Journal of Higher Education, 43*(1), 115-128.

Hayes, J. (2014). *The theory and practice of change management* (4th ed.). New York, NY: Palgrave Macmillan.

Hitt, M. A., & Greer, C. R. (2012). The value of research and its evaluation in business schools: Killing the goose that laid the golden egg? *Journal of Management Inquiry, 21*(2), 236-240.

Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. New York, NY: Harpers.

Nakagawa, K., Takata, M., Kato, K., Matsuyuki, T., & Matsuhashi, T. (2017). A university-industry collaborative entrepreneurship education program as a trading zone: The case of Osaka university. *Technology Innovation Management Review, 7*(6), 38-49.

Rybnicek, R., & Königsgruber, R. (2018). What makes industry-university collaboration succeed? A systematic review of the literature. *Journal of Business Economics, 89*, 221-250.

Santoro, M. D., & Chakrabarti, A. K. (2002). Firm size and technology centrality in industry-university interactions. *Research Policy, 31*, 1163-1180.

Schoemaker, P. J. H. (2008). The future challenges of business: Rethinking management education and research. *California Management Review, 50*(3), 119-139.

Thune, T. (2007). University-industry collaboration: The network embeddedness approach. *Science and Public Policy, 34*(3), 158-168. doi: 10.3152 /030234207X206902

United Nations Global Compact Office. (2015). *Partner with business schools to advance sustainability: Ideas to inspire action*. New York, NY: Office of the United Nations High Commissioner for Human Rights.

Anup Dominic, PhD Student
Business Department
Adventist International Institute of Advanced Studies
Silang, Cavite, Philippines. 4118
adominic@aiias.edu