Empowering Research Entrepreneurial Leadership for the Development of Entrepreneurial Universities

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In this conceptual paper, the characteristics of research entrepreneurial leadership (REL) are identified in the context of entrepreneurial higher education institutions (HEIs). It is argued that researchers are primary actors in the entrepreneurial university (Entre-U), and are thus crucial in the development of entrepreneurial HEIs. Drawing on existing literature on EL and Entre-U, the paper scrutinises the general determinant factors that influence researchers' role toward the socio-economic development of the country. These were identified as internal and external characteristics as presented in the literature. These factors characterised the researchers and their activity at the individual, departmental, university and institutional levels. Through the examination of the reality of REL, this paper aims to contribute to the new fields of EL and Entre-U with the hope to encourage researchers to participate more in entrepreneurial activity such as spin-off activity and creation of new firms as well as seeing the uniqueness in research as a career rather than as alternative choices for unemployment and become research leaders. The article does not only target the researchers, it also aimed at signalling to the wider academic community and HEI policy makers, pointing out how to support, instil and steer researchers toward entrepreneurial activity. Finally, the paper suggests and addresses how future research can develop further the conceptualisation and characterisation of REL to advance the theoretical depth and empirical investigation and to support the legitimacy of these characteristics.

Keywords: Researchers, Entrepreneurial University, Leadership, European Guiding Framework, Incentives

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Introduction

Entre-U research is attracting a great deal of interest from both educational planners and scholars around the world, yet there is the concern about students changing role as customers, clients or stakeholders (Coaldrake, 2001). Though the role of students in European academic entrepreneurship is not new (Etzkowitz, 2004), yet it is often noted that the students of leading academic researchers are not just agents of innovation but also primary factors that contribute to the primary role of university in the society (Boissin, Castagnos, & Deschamps, 2006; Ferreira, Raposo, & Leitão, 2006; Fogelberg & Lundqvist, 2013; Guerrero & Urbano, 2013; Halilem, 2010; Röpke, 2000; Vilalta, Pifarré, & Betts, 2011; Walker, 2012; Wood, 2011). Furthermore, it has been noted that internal actors such as managers and academics (Bronstein & Reihlen, 2014, p. 24), faculty, administration and students (Guerrero, David, James, & Damien, 2014) are primary actors that are crucial in accomplishing entrepreneurial mission. In this regard; researchers are recognised as key actors in the advancement of Entre-U.

Though evidence suggests that the characteristics of individual researchers are important when offering insights into the successful cases of transfer, yet studies focusing on individual researchers as unit of examination remain scarce (Villanueva-Felez, Bekkers, & Molas-Gallart, 2010). Despite the significant contribution of researchers' role in the economy, more focus is placed on the helices in the university-industry-government relations than the researchers. This is of interest in order to simulate and increase the participation of researchers as well as other academics in entrepreneurial activity. Mostly important, the paper seeks to illuminate the complementarities between research, teaching, entrepreneurial, internal and external activities as key aspects of the university that contribute to entrepreneurial outcome. According to the EC and OECD (2012, p. 6), all parts of the university have to work together. Therefore, inspiring researchers and staff to increase their participation in all these areas is crucial. In this regard, this paper explores the core elements of researchers' role in entrepreneurial HEIs by providing insights into the following questions:

1. What characterise researcher entrepreneurs as represented in literature?
2. How can we make our universities more entrepreneurial?

This paper attempts to look at both internal and external characteristics that would increase the participation of REL. While this conceptualisation is underexplored, this paper serves to highlight critical elements to focus on when working toward a goal of increased entrepreneurial activities, which remains a significant aspect to be addressed. This is supported by the views of Morris et al. (2013), highlighting that:

> *Yet a significant gap remains. […] The numbers of full-time faculty dedicated exclusively to entrepreneurship remains relatively small, and a very small proportion of these lecturers have PhDs in entrepreneurship (Morris, Kuratko, & Cornwall, 2013, p. xi).*

Subsequently, the remaining section of the paper is structure as follows: The next section outlines the method then the succeeding part offers the definitions of some key constructs via the role of REL in socio-economic advancement of the nation. The following part explains the REL characteristics. Finally, the paper concludes with a short summary of the overall paper.

Method

The research endorses the review of existing literature from both Entre-U and EL disciplines with target on papers that either focus on role of researchers or factors impacting on their roles or both. This is aimed at clearly demonstrating the understanding of REL from both subject areas. Taking advantage of the Organisational Capacity, People and Incentives theme of the European Framework, the study explores Finn and Mette's (2008) empirical study and Halilem's (2010) conceptual work to offer innovative insights into the roles of and determinant characters influencing REL. The 'entrepreneurial leadership' theme is at the forefront of HEIs studies, especially Entre-U research but when combined with the prefix - 'research' as a construct remains under researched. As a result there is a need to highlight areas for improvements to prompt researchers' interests in entrepreneurial engagement. This could also encourage scholarship in this area.

The Role of REL to Socio-Economic Development and some Definitions

Before proceeding to the characteristics of REL, it is essential to provide definitions of some key concepts. Therefore, this section highlights some key definitions.

EL is seen as leadership capable to sustain innovation and adapt to uncertain environments (Yang, 2008, p. 235), with focus on developing vision and creating the future (D'Intino, Boyles, Neck, & Hall, 2008, p. 52). On the premise of this working definition, REL defines research managers, research teams and researchers themselves. This sets of people are considered as researcher-entrepreneurs either by having formal research or administrative management roles (Finn & Mette, 2008, p. 657). At the individual level of analysis in an academic group of a research community, the potential academic entrepreneurs are the researchers who develop their own daily activities to provide themselves with an adequate environment and resources to support the generation, transformation and commercialisation of knowledge and technology (Urbano & Guerrero, 2013). As mentioned earlier, pertinent to the REL are four major activities: (i) research (ii) teaching (iii) entrepreneurial and (iv) internal and external activities as identified by Halilem (2010).

Research is the development of tacit knowledge (researchers' experience) and explicit knowledge (codified in different mechanisms) (Halilem, 2010) for dissemination purpose through scientific publication or manuscript, conference presentation or book (Landry, Amara, & Rherrad, 2006, p. 1599) in order to generate commercial values by patenting or licensing (Menzies, 2000). Not only that researcher engages in the research activity but also undertakes teaching and entrepreneurial roles. Take for instance, despites a number of doctoral policies such as the Communiqué that envisaged support for postgraduates, the number of organisations including awarding bodies supporting researchers in this capacity is limited. Even with the few available, there is minimum capacity for example, the charitable 'Gregor McClelland Doctoral Dissertation Award' can only promote innovative PhD research in management and organisational studies and target only those who have completed their doctoral dissertation. This suggests the need for more measures and/or resources to support researchers. *Teaching* constitutes series of tasks that describe university staff and researchers' roles (Hemlin, 2006) which occur in various forms such as preparation of lecture, paper grading, and others (Halilem, 2010, p. 33). In complement to the teaching and research roles

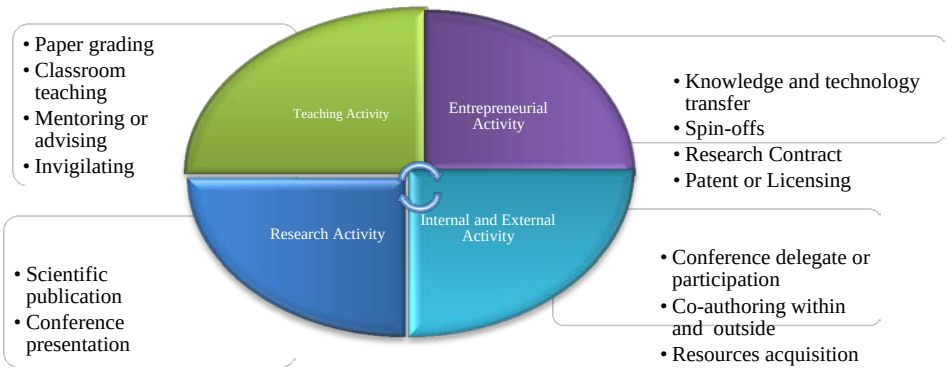
of the REL is the entrepreneurial role. *Entrepreneurialism* is the capitalisation of knowledge to convert research outputs into revenues of research (Dill, 1995). It is the transformation of the researchers to become knowledge entrepreneurs by focusing on the economic mission of the researchers (Fisher & Atkinson-Grosjean, 2002). It is considered as a formal way by which departmental members generate revenue for personal gain or institutional benefits (Degroof & Roberts, 2004), meaning that it constitutes the commercialisation of knowledge through multiple channels (Landry et al., 2006). Fundamentally, it is about innovation and risk-taking in the anticipation of subsequent benefits (Williams, 2009). Furthermore, *entrepreneurial activity* takes place in three dimensions: (i) spin-off (ii) knowledge and technology transfer and (iii) research contract as mentioned by Halilem (2010, p. 34). While the internal activity of the REL include winning resources to cover costs such as travel and conference cost, the external activity consists of building networks and collaborations with other researchers and non-researchers both regionally and internationally among others. Despite the significant roles of the researchers in the academia and wider society, majority are ignorant of or not inspired to undertake the third and fourth roles.

Having appropriate incentive system in place for researchers would also aid collaboration with business organisations. Drawing on the Organisational Capacity, People and Incentive theme identified in the European Framework as one of the seven factors underpinning the development of Entre-U (European Commission & OECD, 2012), it suggests the significant of empowering researcher. In addition, previous study found that entrepreneurial activity can co-exist, or may reinforce productive publication behaviour and as a result the authors concluded that researchers' entrepreneurial activities enhance rather diminish their publication records (Van Looy, Callaert, & Debackere, 2006, p. 596). Therefore, if contribution to socio-economic development is a priority for Entre-U, there is a need for adequate provision of incentives and support mechanisms for researchers. The European Framework also supports this view, stating that:

> *…universities should have mechanisms in place for exploiting internal knowledge and resources through, for examples, shared facilities across faculties, student-staff structures, interdisciplinary structures, cross faculty teaching and research groups (EC&OECD, 2012, p. 6).*

However, understanding these roles provide basics for deriving meaning into the characteristics of the REL as depicted in Figure 1 below.

Figure 1: The Four Key Roles of Research Entrepreneurial Leadership



Besides, one could see that while there is an extensive work done in the area of academic entrepreneurship, yet research identifying the factors that characterise the key players of Entre-U remains fragmented. And even with the few studies that conduct research in this area there is contrasting views (see Coyle, Gibb, & Haskins, 2013; Walker, 2012; Wood, 2011). For example, while Wood (2011) identifies the institutional spheres: university-industry-government in the triple helix model as primary players, Walker considers that businesses and government are secondary players by playing support roles whereas university maintains the primary function in Entre-U. Coyle et al. (2013) argue that the role of university is to support technological innovation, meaning it is a secondary player from the triple helix perspective. Though they all based their research on models that can pay attention to the interaction among a system of interdependent components, these competing perspectives may be due to the fact that Entre-U research requires a distinct theory that should be sparing and capable of providing the greatest explanatory power, as mentioned by Phillip (2004). Moreover, the reason is unconnected to the fact that the concept is in its embryonic phase. In this regard, it is important to account for the characteristics of the REL so as to enhance the understanding of the concept of Entre-U.

Research Entrepreneurial Leadership (REL) Characteristics

Further insights can be derived by looking at the characteristics of REL. Over the past two decades while the research content remains the same there has been a drastic change to the research conditions: how is organised, initiated and financed as noted by Finn & Mette (2008). This connotes that research activity can be constrained and facilitated by both internal and external factors. Though various studies (for examples, Guerrero et al., 2014; Kirby, Guerrero, & Urbano, 2011) have been conducted on institutional or conditioning factors related to Entre-U, yet there is limited literature tailored to the determinants of REL. Therefore, by focusing on a key theme 'Organisational Capacity, People and Incentives' derived in the analysis of the European Guiding Framework (EC&OECD, 2012), the endo/exogenous attributes that characterised REL are consequently considered in the next sections.

Internal Characteristics

These range from individual ability such as attitudes, knowledge, skills, experience and expertise, meaning that the foundation need to be strong, departmental to university level variables such as resources of different kind for example, competing research funds and entrepreneurial initiatives as means of financial resources can either facilitate or hinder the activities of the research entrepreneurial leaders subject to availability and adequate allocation. Various empirical studies (For example, Powers & McDougall, 2005) have evidently confirmed that financial ability of the researcher is a key determinant to accomplish innovative research of significant impact. Consistently, Etzkowitz (2003, p. 111) explicitly indicates that "…research group operate as firm-like entities, lacking only a direct profit motive to make them a company". Cultural and structural elements of the university are not left out such as leadership, management and governance hierarchical or flat structure which can potentially facilitate and hinder the ability of the researchers to create spin-offs or new business. University policy concerning intellectual property to promote technology transfer is another major characteristic. This view is well summed up in the joint study by the European

Commission and Organisation for Economic Co-operation and Development (OECD), stating that:

> *Universities can be constrained by their own organisational structures and approaches, making it more difficult to carry out the types of entrepreneurial activities which support their strategic objectives. […] This includes the financial strategy, attracting and retaining the right people and incentivising entrepreneurial behaviour in individuals. […] All staff and students are important stakeholders supporting the entrepreneurial agenda (EC&OECD, 2012, p. 6).*

External Characteristics

At the institutional and societal level this attributes encompasses wider PESTLE factors: political, economic, social, technological, legal and environmental elements that can obstruct or enable the activity of research entrepreneurial leader. Furthermore, building external relations is a critical factor for research entrepreneurial leaders to establish legitimacy with manifold communities. This connotes that institutional and regional capacity of an entrepreneurial institution may obscure or provide smooth bases for research candidates to be active in the entrepreneurial process. Mentioned to Hannon (2013, p. 13), the positioning of institutional structure internally or externally and the related flows of income are not excluded from the factors influencing researchers' engagement in entrepreneurial activity.

Though the Organisational Capacity, People and Incentive theme set out in the European Framework emphasis internal incentives, this paper contributes the external incentives to the framework.

Conclusion and Recommendations

The aim of this study is to present the determinant characteristics that can either facilitate or serve as obstruction to the roles of REL. By pointing to their significant role in the socio-economic development of the country, possibly this could pave way for increase engagement in more entrepreneurial actions and practices. Therefore, by making reference to the various researches cited above, it is explicitly clear that the role of REL in socio-economic development is affected by both internal and external preconditions.

This paper contributes to entrepreneurial leadership and Entre-U literature by analysing the roles and characteristics of researchers' engagement in entrepreneurial activity. It found that both internal and external factors can either facilitate or hinder the involvement, participation and engagement of researchers in entrepreneurial activity. It appears likely that the more attractive and supportive the universities, industry and government are in creating a promising environment the more researchers are to be involved in more entrepreneurial activity. One of the ways to harness researchers' participation could be by increasing number of supporting organisations. Another area of recommendation could possibly be the idea of using the awarding organisation as instruments or agents. This could take the format of 'Entrepreneurial Researchers Award' (ERA) or 'Entrepreneurial Innovation Award' (EIA) to be inclusive of PhDs at any stage of their research in any subject. Possibly, this could enable them to have foresights of their research outcome in terms of impacts and more confidence in entrepreneurial activity knowing that the support is there. The reason for placing emphasis on

PhDs is because it is considered as an entry to research career. Hardly could we see a professional researcher without having completed his/her PhDs.

It could also be suggested that research should be encouraged to be taken as the university kind of property rather than seen as that of those undertaken it. This is to increase the universities' stake in research activity which could possibly lead to less stringent policy and procedures for researchers. Also to be signalled is the removal of any barriers to financial aid to increase participation in national and international conferences as well as other workshops and events. Inability to secure funding can deter researchers from attending or presenting their research results at international conferences and this could have implications not only on their own academic ability but also on the university management capability. Finally, researchers should be enthused to be precious about their roles. These suggestions are based on the assumption that research activity is an entry to spin-off and firm formation. If truly, policy makers are concerned with the appropriateness of their investments in HEIs and researchers possess the creative skills, ideas, knowledge, expertise and experiences required to produce exceptional results (Lamidi & Williams, 2014), then there is the need to give more attention to the primary actors involved in the progression of entrepreneurial higher education.

Having examined the key characteristics of REL to advance our understanding of the phenomenon of Entre-U and the entrepreneurial leadership concept, it is controvertibly self-evident to claim that this study contributes to the pool of knowledge in the field of Entrepreneurship, specifically entrepreneurial research. Future research should consider empirical investigation to further legitimise both the internal organisational and external environmental characteristics. For the data collection, future research should consider the use of multi method this is because a mono approach will be limited to capturing the actual reality of these characteristics at various levels. And finally to consider analysing the qualitative part of the data using grounded theory analysis and make sure that whichever strand (straussian or Glaserian) of the approach is adopted, the procedure is thoroughly followed. However, where this analytical technique seems inconvenience (if there is limited understanding), consider the use of simple approach such as content analysis.

References

Boissin, J.-P., Castagnos, J.-C., & Deschamps, B. (2006). Motivations and drawbacks concerning entrepreneurial action: a study of French PhD students. *Fayolle Alain and Klandt Heinz 2006 "International Entrepreneurship Education Issues and Newness", Ed. Edward Elgar*, 263–276.

Bronstein, J., & Reihlen, M. (2014). Entrepreneurial university archetypes: A meta-synthesis of case study literature. *Industry and Higher Education*, *28*(4), 245–262. http://doi.org/10.5367/ihe.2014.0210

Coaldrake, P. (2001). Responding to Changing Student Expectations. *Higher Education Management, Education & Skills*, *13*(2), 75–92.

Coyle, P., Gibb, A., & Haskins, G. (2013). The Entrepreneurial University: From Concept to Action. *National Centre for Entrepreneurship in Education (NCEE)*, 2–58.

Degroof, J.-J., & Roberts, E. B. (2004). Overcoming Weak Entrepreneurial Infrastructures for Academic Spin-Off Ventures. *The Journal of Technology Transfer*, *29*(3-4), 327–352. http://doi.org/10.1023/B:JOTT.0000034126.23592.23

Dill, D. D. (1995). University-industry entrepreneurship: The organization and management of American university technology transfer units. *Higher Education*, *29*(4), 369–384. http://doi.org/10.1007/BF01383958

D'Intino, R. S., Boyles, T., Neck, C. P., & Hall, J. R. (2008). Visionary entrepreneurial leadership in the aircraft industry. *Journal of Management History*, *14*(1), 39 – 54. http://doi.org/10.1108/17511340810845471

Etzkowitz, H. (2003). Research groups as "quasi-firms": the invention of the entrepreneurial university. *Research Policy*, *32*(1), 109–121.

Etzkowitz, H. (2004). The Evolution of the Entrepreneurial University. *International Journal of Technology and Globalisation*, *1*(1), 64–77.

European Commission, & OECD. (2012). *A Guiding Framework for Entrepreneurial Universities* (pp. 1–54). European Commission and OECD.

Ferreira, J. M., Raposo, M. L. B., & Leitão, J. (2006). The role of Entrepreneurial Universities in interfacing Competitive Advantages: The Case of Beira Interior region (Portugal). *Munich Personal RePEc Archive (MPRA) Paper*, *Paper No. 486*, 1–29.

Finn, H., & Mette, M. (2008). Research Leadership as Entrepreneurial Organizing for Research. *Higher Education*, *55*(6), 651 – 670.

Fisher, D., & Atkinson-Grosjean, J. (2002). Brokers on the boundary: Academy-industry liaison in Canadian universities. *Higher Education*, *44*(3-4), 449–467. http://doi.org/10.1023/A:1019842322513

Fogelberg, H., & Lundqvist, M., A. (2013). Integration of academic and entrepreneurial roles: The case of nanotechnology research at Chalmers University of Technology. *Science and Public Policy*, *40*(1), 127–139.

Guerrero, M., David, U., James, C., & Damien, O. (2014). Entrepreneurial Universities in two European Regions: a case study comparison. *The Journal of Technology Transfer*, *39*(3), 415–434.

Guerrero, M., & Urbano, D. (2013). Entrepreneurial Universities: Determinants, Impacts and Challenges. *Triple Helix Association*, *2*(6).

Halilem, N. (2010). Inside the Triple Helix : An Integrative Conceptual Framework of the Academic Researcher's Activities , a Systematic Review. *Journal of Research Administration*, *XLI*(3).

Hannon, P. D. (2013). Letter from Academia Why is the Entrepreneurial University Important? *Journal of Innovation Management*, *1*, 10–17.

Hemlin, S. (2006). Managing creativity in academic research. Could creative action and management be reconciled in research? In *Science Studies* (Vol. 19:1, s. 83–92). Science Studies. Retrieved from http://gup.ub.gu.se/publication/90479-managing-creativity-in-academic-research-could-creative-action-and-management-be-reconciled-in-resea

Kirby, D. A., Guerrero, M., & Urbano, D. (2011). Making Universities More Entrepreneurial: Development of a Model. *Canadian Journal of Administrative Sciences*, *28*(3), 302–316. http://doi.org/10.1002/cjas.220

Lamidi, K., & Williams, D. (2014). Leading Transformational Change in HEIs: Discussion of Literature and Conceptual Framework. In *Academic Proceedings 2014 University-Industry Interaction Conference: Challenges and Solutions for Fostering Entrepreneurial Universities and Collaborative Innovation* (pp. 46–99). Barcelona, Spain: University Industry Innovation Network.

Landry, R., Amara, N., & Rherrad, I. (2006). Why are some university researchers more likely to create spin-offs than others? Evidence from Canadian universities. *Research Policy*, *35*(10), 1599–1615.

Menzies, T. V. (2000). An Exploratory Study of University Entrepreneurship Centres in Canada: A First Step in Model Buildings. *Journal of Small Business & Entrepreneurship*, *15*(3), 15–38. http://doi.org/10.1080/08276331.2000.10593287

Morris, M. H., Kuratko, D. F., & Cornwall, J. R. (2013). *Entrepreneurship Programs and the Modern University*. UK: Edward Elgar Publishing.

Phillip, H. P. (2004). Entrepreneurship theory: possibilities and future directions. *Journal of Business Venturing*, *19*, 617–620.

Powers, J., & McDougall, P. (2005). University Start-up formation and Technology licensing with firms that go public: A resource-based View of Academic Entrepreneurship. *Journal of Business Venturing*, *20*(3), 291–311.

Röpke, J. (2000). The Entrepreneurial University Innovation, academic knowledge creation and regional development in a globalized economy. *Working Paper, Philipps-Universität Marburg, German*, 1–19.

Urbano, D., & Guerrero, M. (2013). Entrepreneurial Universities Socioeconomic Impacts of Academic Entrepreneurship in a European Region. *Economic Development Quarterly*, *27*(1), 40–55. http://doi.org/10.1177/0891242412471973

Van Looy, B., Callaert, J., & Debackere, K. (2006). Publication and patent behavior of academic researchers: Conflicting, reinforcing or merely co-existing? *Research Policy*, *35*, 596–608.

Vilalta, J., Pifarré, H., & Betts, A. (2011). *A New Approach on Higher Education Quality: Analysing the Impact of Universities of Catalonia on Society and Economy.* (pp. 1–7). Catalonia, Spain: Catalan Association of Public Universities (ACUP). Retrieved from http://www.acup.cat/en/impact-university-catalonia-society

Villanueva-Felez, A., Bekkers, R., & Molas-Gallart, J. (2010). University–industry relationships and the role of the individual Network ties and the diversity of knowledge transfer. *Industry and Higher Education*, *24*(3), 203–210. http://doi.org/10.5367/000000010791657446

Walker, K. (2012). The Technopreneurship Process: Academic Entrepreneur University Spin-offs. *RIThink*, *2*, 11–22.

Williams, G. L. (2009). Finance and Entrepreneurial Activity in Higher Education in a Knowledge Society. In *Entrepreneurialism in Universities and the Knowledge Economy* (Michael Shattock, pp. 9–32). UK: The Society for Research into Higher Education and Open University Press.

Wood, M. S. (2011). A process model of academic entrepreneurship. *Business Horizons*, *54*, 153– 161.

Yang, C.-W. (2008). The Relationships Among Leadership Styles, Entrepreneurial Orientation, and Business Performance, *6*(3), 257–275.