

Recognizing the concept of innovation and the characteristics of an innovative university in contrast to an entrepreneurial university based on the meta-synthesis method

Masoumeh. Cham Asemani^{1*}, Maghsoud. Farasatkah², Seyed Mohammad. Mirkamali³

¹ Researcher of National Scientific Policy Research Center, Iran

² Professor, Institute for Research and Planning in Higher Education, Iran

³ Professor, Department of Educational Management and Planning, University of Tehran, Iran

* Corresponding author email address: mchamasemani62@gmail.com

Article Info

Article type:

Original Research

How to cite this article:

Cham Asemani, M., Farasatkah, M., & Mirkamali, S. M. (2023). Recognizing the concept of innovation and the characteristics of an innovative university in contrast to an entrepreneurial university based on the meta-synthesis method. *Quarterly Journal of Research and Planning in Higher Education*, 29(3), 37-52.



© 2023 the authors. Published by Institute for Research and Planning in Higher Education (IRPHE), Tehran, Iran. This is an open access article under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) License.

ABSTRACT

The concept of innovation is one of the concepts that has been misunderstood in various areas, or confused with concepts such as entrepreneurship, creativity, or change, and has been used synonymously as an adjective for individuals and institutions, especially for the academic institutions. The present study has been conducted with the aim of investigating this concept versus entrepreneurship and also extracting the specific characteristics of the innovative university in the existing literature by a qualitative method. In this regard, the meta-synthesis method has been used as a method to create a new idea or new interpretation of the findings of previous research (26 international scientific articles and 7 domestic articles among 352 papers over a period of fifty years). Consequently, depending on the model deriving from the research, it was identified that one of the key features of an innovative university is multiple interactions, especially with civil society, and also fulfilling the social needs. Therefore, the innovative university is more reminiscent of the concept of an "adaptive university" with an emphasis on adapting to the social needs of a changing environment, rather than merely achieving financial benefits.

Keywords: Innovative University, Innovation, Entrepreneurship, Adaptive University, Meta-Synthesis Method

Introduction

In knowledge-based societies, individuals from different statuses are faced with an influx of concepts. The evidence shows that until today, "endeavors have been focused more on the recognition of ideas than concepts" (Derakhshah & Taghizadeh, 2013:2). This is further corroborated by Farastkhah's assertion that "every field of human knowledge across varying disciplines and interdisciplines is composed of concepts and theories which the foundation of them are abstract words that we call concepts (Bazargan & Farasatkah, 2019). One of the concepts that has been misunderstood or neglected in the scientific sources of various fields is the concept of innovation which is always confused with concepts such as entrepreneurship, creativity, or change, and used as an adjective for individuals and institutions. The university is one of the institutions that some students, professionals, and policymakers have always tried to describe its characteristics by using adjectives such as innovative, entrepreneurial, or creative. In this context, the researchers of the present study endeavor to identify and clarify the distinctions between innovation and entrepreneurship. Supporting this idea is a theoretical basis that has been established by some researchers in regard to differences between these two concepts (Fadaee & Abd Olzahrh, 2014; Turay, 2016; Tierney & Lanford, 2016; Yamani, 2019). Turay acknowledges that "innovation and entrepreneurship are two closely related words used in today's global village. Some may think that both words mean the same thing, but it is a big mistake to use them interchangeably. Although they are based on the same ideas, it is important to recognize their differences" (Turay, 2016:2). Although many studies were conducted in order to identify characteristics of current universities and the typology of existing universities, this research is not intended to determine only characteristics of innovative universities in terms of conceptual models, but also to present novel ideas or interpretations of the results presented in previous research as the aim of the method of meta-synthesis. Therefore, the main questions of this study are: What categories, components, and factors make up the conceptual model of an innovative university? In the existing literature, are there any differences between an innovative university and an entrepreneurial one?

Methodology

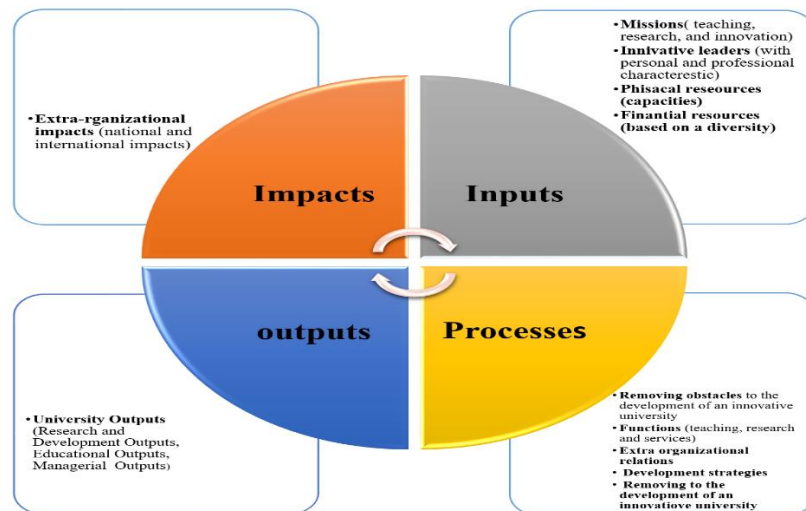
As a qualitative study, a meta-synthesis approach was applied. Due to the importance of using the findings of previous studies as a foundation for extracting characteristics of innovative universities, 7 national and 26 international research studies relevant to the main issue among 352 papers were selected and analyzed, which were published in refereed journals including Taylor & Francis, Google Scholar, Science Direct, JSTOR, Springer and Humanities Portal, SID, Noormag, and Magiran (in Persian) during year 1970 to 2020. The main keywords employed to recognize characteristics and components of the model were innovative university, innovative academia, innovative higher education, academic innovation, innovation and university, innovation and higher education. Then, in order to identify indicators the content of these papers were analyzed based on the open coding method. Consequently, 4 cluster categories, 12 main categories, and 25 components was extracted. In the present study, the triangulation method was employed to validate the qualitative data. Also to ensure the descriptive validity of the work, it was possible for another researcher to code and analyze the data based on the ID of the research.

Findings

According to the review of the available articles on the subject of innovative universities, certain characteristics and indicators of innovative universities were identified and extracted in the form of categories, components, and sub-components. The comprehensive conceptual model depicting an innovative universities was presented (Figure 1). Moreover, the findings indicate that the innovative university should always prioritize its innovative human capital as its primary asset. The leadership and governance are two key and critical elements in the growth of cutting-edge higher education institutions, which are widely discussed in the literature (McClure, 2016; Elrehaila et al., 2018; Musavi et al., 2017; Javanmardi et al., 2018). Some researchers (Khayati & Salim, 2019; Resnik, 2012) have discussed the interaction between the innovative university and civil society, effectively creating a four-faceted 'spiral' rather than referring to the distinction between an entrepreneurial and an innovative institution.

Figure 1

Conceptual model of innovative university based on systemic approach



In relation to the question of how the difference between the two concepts has been considered in past researches, the findings indicate that some researchers have defined an innovative university by considering the interactions of the innovative university with the civil society and in fact adding the community spiral to the common triple helix (TH) without directly referring to the difference between the innovative university and the entrepreneur (Khayati and Salim, 2019; Resnik, 2012). Researchers such as Lasakova (2012), consider adaptation to changes in the surrounding environment as the most important feature of an innovative university. Others (such as McClure et al., 2016; Etzkowitz, 2003; Schmits et al., 2014, and Faridi, 2017) have used the combination of the two words (innovative and entrepreneurial university) as synonyms interchangeably throughout their work.

Conclusion

According to the purposes of the research, it was concluded that although entrepreneurship is founded on the market and essentially relates to acquiring wealth through existing or new ideas; but innovation encompasses a range of process-oriented and product-oriented activities aimed at social and cultural impact while also eventually yielding financial gain. Indeed, innovation carries a value for the intended society that is not merely represented in commercialization and profit-making like entrepreneurship does. In the model resulting from research conducted with a systemic approach, it was found that the innovative university deals with knowledge preservation and transmission, interaction between education and research, and fostering of innovation; it has also sought to embrace change in its environment. Moreover, examining the definitions of innovation shows that, on the one hand, in almost the majority of cases, innovation is not only the creation or creation of a new idea, process, product or technology, but it is the modification of what is in order to perform better, cheaper or on a larger scale; On the other hand, innovation leads to the creation of value not only in the sense of commercial and economic value, but also in the sense of creating more efficiency and effectiveness in line with the goals of the organization or society. Therefore, the innovative university draws more closely to the concept of an adaptive university by emphasizing its attempts to respond to changing societal needs. As a result, although many of the components of the innovative university model can be seen in the mission statements of universities, it seems that the existing gap is how to implement them. Therefore it is necessary for the authorities to create the necessary support structures at the operational level, and more importantly, supervisory structures and evaluation of how policies are implemented.



References

- Ab Hamid, M. R., Abdullah, M., Mustafa, Z., Nur-Balqishanis, B., Zainal, A., & Ahmad, H. (2015). Conceptual framework of innovation excellence model for higher education institutions. *Procedia-Social and Behavioral Sciences*, 174, 2846-2848. <https://doi.org/10.1016/j.sbspro.2015.01.977>
- Barzegar, N., Ghorchian, N., & Taghipur Zahir, A. (2019). Pathology of Innovation Capabilities creation in Iranian University Management (Case: Islamic Azad University). *Journal of New Approaches in Educational Administration*, 10(37), 291-310. https://jedu.marvdasht.iau.ir/article_3471.html
- Bazargan, A., & Farasatkah, M. (2019). *Monitoring and evaluation in higher education*. Samt. <https://samt.ac.ir/fa/book/39/>
- Berestova, T. (2009). From innovative projects to an innovative university. *Scientific and Technical Information Processing*, 36(3), 180-185. <https://doi.org/10.3103/S0147688209030095>
- Casas Armengol, M., & Stojanovic, L. (2013). Innovation in Ibero-American Universities. *International Journal of Educational Technology in Higher Education*, 10(1), 240-253. <http://dx.doi.org/10.7238/rusc.v10i1.1345>
- Clark, B. R. (1995). Leadership and innovation in universities from theory to practice. *Tertiary Education & Management*, 1(1), 7-11. <https://doi.org/10.1080/13583883.1995.9966849>
- Clark, B. R. (1996). Case studies of innovative universities: A progress report. *Tertiary Education and Management*, 2(1), 52-61. <https://doi.org/10.1080/13583883.1996.9966885>
- Dorakhshah, J., & Taghizade, A. (2013). Methodology of Conceptualization: From Conceptual Reduction to Phenomenological Reduction (A case study of the Concept of Politics in Muslim Thought). *Interdisciplinary Studies in Humanities*, 5(1), 1-16. <https://doi.org/10.7508/isih.2014.17.001>
- Elrehail, H., Emeagwali, O. L., Alsaad, A., & Alzghoul, A. (2018). The impact of transformational and authentic leadership on innovation in higher education: The contingent role of knowledge sharing. *Telematics and Informatics*, 35(1), 55-67. <https://doi.org/10.1016/j.tele.2017.09.018>
- Etzkowitz, H. (2003). Innovation in innovation: The triple helix of university-industry-government relations. *Social science information*, 42(3), 293-337. <https://doi.org/10.1177/05390184030423002>
- Fadaee, A., & Abd Alzahrh, H. O. (2014). Explaining the relationship between creativity, innovation and entrepreneurship. *International Journal of Economy, Management and Social Sciences*, 3(12), 1-4.
- Farasatkah, M. (2017). Occasions of university in Iran (new and critical discussions on university of science and higher education studies). *Agah Publication*.
- Faridi, R., Abbaszadeh, M., Hassani, M., Galavandi, H., & Sobhaninejad, M. (2017). Designing a model for readiness assessment of higher education institutions to become a third generation university. *Training and Learning Reseach*, 15(1), 23-41. <https://www.sid.ir/paper/519845/fa>
- Gertner, J. (2020). Review of how innovation works and why innovation flourishes in freedom book by Matt Redley. <https://www.washingtonpost.com/outlook/an-exploration-of-how-innovation-worksworks>
- Haddawy, P. Igel. B. (2006). Fostering innovation in higher education, Asian Institute of Technology, Pathumthani.
- Hasanefendic, S., Birkholz, J. M., Horta, H., & van der Sijde, P. (2017). Individuals in action: Bringing about innovation in higher education. *European Journal of Higher Education*, 7(2), 101-119. <https://doi.org/10.1080/21568235.2017.1296367>
- Herber, O. R., & Barroso, J. (2020). Lessons learned from applying Sandelowski and Barroso's approach for synthesising qualitative research. *Qualitative research*, 20(4), 414-431. <https://doi.org/10.1177/1468794119862440>
- Huang, M. (2017). How can academic innovation performance in university-industry collaboration be improved? *Technological Forecasting & Social Change*, 123, 210-215.
- Javanmardi, S., Abaspoor, A., Khorsandi taskooh, A., & Ghiyasi nodoshan, S. (2018). Designing an innovative university model in the framework of the innovation ecosystem in Iran. *Iranian Higher Education*, 10(4), 137-170. http://ihej.ir/browse.php?a_id=1186&sid=1&slc_lang=en
- Khanian, E., Hoseini, M., & Jamali, A. (2019). Designing an innovative university Model in Islamic Azad University. *Social Science*.
- Khayati, A., & Selim, M. (2019). The status of innovation in Saudi Universities. *Cogent Education*, 6(1), 1653635. <https://doi.org/10.1080/2331186X.2019.1653635>
- Khoddam Abbasi, N., Shahryaripour, R., & Aminbeidokhti, A. (2017). Presentation Model of Innovation at the University, Based on Culture of Learning and Knowledge Management. *Higher Education Letter*, 10(37), 33-60. https://journal.sanjesh.org/m/article_26652_30a1a73cc964dee49be297ef2b4b9285.pdf
- Konjkav, M. & Ardakani .S. (2014). An Analysis of the status of knowledge management in higher education institutes and its relation with innovation. *Journal of New Approaches in Educational Administration*, 5(17), 103-120. (In Persian).
- Kheirgoo, M. & Beadollah Khani, F. (2019). Designing the pattern of innovation in defense organizations qualitative research based on grounded theory. *Innovation Management in Defense Organizations*, 2(4), 115-134. doi: 10.22034/qjimdo.2019.93812.
- Kuntu, L. (2017). Educational involvement in innovative-university –collaboration, *Technology Innovation Management Review*, 17 (12).
- Lašáková, A., Bajžíková, L., & Dedze, I. (2017). Barriers and drivers of innovation in higher education: Case study-based evidence across ten European universities. *International Journal of Educational Development*, 55, 69-79. <https://doi.org/10.1016/j.ijedudev.2017.06.002>
- Mahbubi, T. & Ture.N. (2008). Pathology of creativity and innovation in university, Islamic Azad University, 12(1) (In Persian).
- Maier, R. H., & Weidner, E. W. (1975). Creating and encouraging an innovative academic environment in higher education. *Higher Education*, 69-76. <https://doi.org/10.1007/BF01569103>
- McClure, K. R. (2016). Building the innovative and entrepreneurial university: An institutional case study of administrative academic capitalism. *The Journal of Higher Education*, 87(4), 516-543. <https://doi.org/10.1080/00221546.2016.11777412>

- Miyata, Y. (2000). An empirical analysis of innovative activity of universities in the United States. *Technovation*, 20(8), 413-425. [https://doi.org/10.1016/S0166-4972\(00\)00024-9](https://doi.org/10.1016/S0166-4972(00)00024-9)
- Moona, H., Mariadossb, J. Babu, J. Jean, L. (2019). Collaboration with higher education institutions for successful firm innovation, *Journal of Business Research*, 99, 534–541.
- Mousavi, S. H., Salehi Omran, I., Farasatkah, M., & Towfighi, J. (2018). Providing a model for development of entrepreneurial university in Iran. *Engineering Education*, 19(76), 1-58. <https://doi.org/10.22047/ijee.2018.98838.1481>
- Pogodaeva, T., Zhaparova, D., & Irina, E. (2015). Changing role of the university in innovation development: new challenges for Russian regions, *Social and Behavioral Sciences*, 2014 (2015), 359-367,
- Resnick, D. P. (2012). Innovative universities: When, why and how. *Journal of Educational Planning and Administration*, 26(2), 331-341. https://www.cmu.edu/innovativeuniversity/Innovative-Univs_When-Why-How_2012.pdf
- Rooij, A. van. (2014). University knowledge production and innovation: getting a grip, *Minerva*, 52(2), 263-272.
- Sandelowski, M., & Barroso, J. (2007). *Handbook for synthesizing qualitative research*. springer publishing company. <https://cir.nii.ac.jp/crid/1130282271118861312>
- Schmitz, A., Dandolini, G. A., & Souza, J. A. (2014). Innovation and Entrepreneurship in the Academic Setting from the Perspective of Quantitative Empirical Research. https://www.academia.edu/30697844/Innovation_and_Entrepreneurship_in_the_Academic_Setting_from_the_Perspective_of_Quantitative_Empirical_Research
- Sporn, B. (1999). Towards more adaptive universities: Trends of institutional reform in Europe. *Higher Education in Europe*, 24(1), 23-33. <https://doi.org/10.1080/0379772990240103>
- Styron, R. A. (2015). Fostering innovation in higher education through entrepreneurial leadership systematic, *Cybernetics and Informatics*. 13(6), 57-61.
- Tierney, W. G., & Lanford, M. (2016). Conceptualizing innovation in higher education. *Higher education: Handbook of theory and research*, 1-40. https://link.springer.com/chapter/10.1007/978-3-319-26829-3_1
- Tijssen, R.J, W. & Winnink, Jos J. (2018). Capturing R&D excellence: indicators, international Statistics and innovative universities, *Scientometrics*, 114, 687–699.
- Tseng, F.-C., Huang, M.-H., & Chen, D.-Z. (2020). Factors of university–industry collaboration affecting university innovation performance. *The Journal of Technology Transfer*, 45, 560-577. <https://doi.org/10.1007/s10961-018-9656-6>
- Turay, S. (2017). Innovation and entrepreneurship relationship. Available at SSRN 3009870. <https://dx.doi.org/10.2139/ssrn.3009870>
- Van Vught, F. A. (1989). Creating innovations in higher education. *European Journal of Education*, 24(3), 249-270. <https://doi.org/10.2307/1502744>
- Vught, F. (1999). Innovative universities, *Tertiary Education and Management*, 5(4), 347–355.
- Walsh, D., & Downe, S. (2005). Meta-synthesis method for qualitative research: a literature review. *Journal of advanced nursing*, 50(2), 204-211. <https://doi.org/10.1111/j.1365-2648.2005.03380.x>
- Yamani Douzi Sorkhabi, M. (2018). Higher Education Development Planning, Reductionist Approach, complex situation. In: Tehran: Samt Publications.[in Persian].
- Zimmer, L. (2006). Qualitative meta-synthesis: a question of dialoguing with texts. *Journal of advanced nursing*, 53(3), 311-318. <https://doi.org/10.1111/j.1365-2648.2006.03721.x>