

Exploring Socio-Cultural Network, Open Innovation, and Entrepreneurial Orientation: A Theoretical Integration

**¹Mohd Amar Aziz, ²Noor Hadzlida Ayob,
³Badariah Haji Din & ⁴Mohd Fo'ad Sakdan**

*¹Faculty of Administrative Science and Policy Studies
UiTM, Pahang*

*²Ghazali Shafie Graduate School of Government,
Universiti Utara Malaysia*

*³School of Government,
Universiti Utara Malaysia*

*⁴Student Affairs & Alumni Department,
Kampus Alam, Universiti Malaysia Perlis*

*Corresponding author: amaraziz@uitm.edu.my

ABSTRACT

The socio-cultural network has provided an important theoretical contribution toward the understanding of the concept of actors and cultural elements to be nodes together, and consequently affect the entrepreneurial activity. However, the socio-cultural network theory seems to be less concern and remain understudied in the respect of the innovation perspectives. Therefore, the aim of this paper is to integrate, from a theoretical perspective, the socio-cultural network and open innovation altogether for explaining the entrepreneurial orientation. In this sense, this paper points out that the open innovation approach could be apt in the socio-cultural network framework to develop future research in analysing the decisions of entrepreneurial orientation.

Keywords: *Socio-cultural Network, Open Innovation, Entrepreneurial Orientation*

Received: February 2019

Accepted: May 2019

Published: July 2019

INTRODUCTION

Entrepreneurial orientation (EO) currently has become the most established construct in entrepreneur literature (Covin & Lumpkin, 2011; Wales, 2016). Although the huge development of the EO, however, some have regarded that EO as an ‘annoying construct’. This is due to the popularity within the scholarly community and consequently make some of them may simply wish that the discussion of EO will exit in academic conversation (Covin & Lumpkin, 2011). This is because, most of EO research in many situations have provided evidence that EO is a strong predictor to the organization performance, thus, to talk about the similar phenomenon will just bring reluctant for discussion on that matter (Covin & Lumpkin, 2011; Wales, 2016).

Therefore, to attract back the enthusiastic discussion on EO, the focus of EO should be tracking back on the theoretical based. The grounded aspects such as the linkages of antecedents of EO should be more promoted. To date, our current research on EO often poorly explained the development of EO using the ‘off-the-shelf’ theories (Covin & Lumpkin, 2011; Wales, 2016). Thus, it needs more work on the theoretical matter. As had noted by Hambrick (2007) a work on pre-theoretical concept somehow could allow the subject of theory to emerge and develop as the breakthrough theory.

In regard to that matter, Wales (2016) have suggested several kinds of theories to be linked and integrated with EO, such as the theory of organizational change, organizational ecology, institutional theory, network theory, contingency theory, agency theory, and entrepreneurship learning theory. All these theories are considered as a promising theoretical area that related to EO. However, in this paper, we, on the other hand, attempted to suggest a different theoretical area. We believed that the socio-cultural network and open innovation theory also could perform a promising theoretical area that could change the EO strategy. Through the breakthrough on the socio-cultural network theory with the open innovation, at the end of this paper, its will provide with an insightful explanation on how the EO could be enhanced.

Before going for the details in the process of integration of the theories, first, this paper starts with the explanation in regard to the type of theory. This part is considered as the very essential aspect to understand the linkages between theory. In order to do so, we applied the Baur (2009) type of theory in the process to determine the types of theory that are used and how the linkages

between the theories could perform. Next, we briefly explained about the concept of each theory, and at the end of the paper, we provided with the new theoretical lenses that could extend the socio-cultural network based on the open innovation and EO which latter provided for the path of the theoretical integration.

TYPE OF THEORY

Baur (2009) stated that “theorists usually talk about theories, methodologists talk about data. As data are the main source for building and testing theories, and as it is impossible to select and interpret data without theoretical concept” (p. 8). Hence, from the statement, it could be understood that the theoretical concept is the essential element in the process of research. Thus, in order to build a theoretical concept that has the integration of theories, the most important thing beforehand is to understand the type of theory. In regard to that matter, Baur (2009) have proposed three types of theory (social theories, middle-range theories, and theories of society), and the explanation on how all these types of theory could be linked together.

1. *Social theories* – this type of theory contains a general concept that is central to analysis. It was about the nature of reality and the assumptions are made to grasp with reality. In other words, it was the theory that is specific, applicable, and clearly measurable. In this context, the concept of EO could be considered as the type of social theory. This is because the general concept of EO is at the central to analysis. Through the dimensionality of EO which are proactive, risk-taking and innovative it was near to real phenomenon and make the latent construct of EO is measurable.
2. *Middle-range theories* – is the theory that concentrates on the specific thematic field. In the context of this study, the specific thematic field is the concept of open innovation. This theory could be linked or stitch between both of the social theory and the theory of society. For instance, by applying the concept of open innovation with the EO, it will make the concept of EO taking the different perspective. The current concept of EO is view in the close paradigm perspective, however, by applying the open innovation, the concept of EO should be view in the open innovation paradigm perspective. Through applying with the open innovation paradigm, this theory later could be related to the third type of theory which is the theory of society.

3. *Theories of societies* – is the abstract theory that tries to characterize complete societies by integrating various study and theories in a large picture. In the context of this study, the socio-cultural network is regarded as the theory of society. This theory combined the socio impact, culture and network of the society in the large picture. However, this study it attempted to integrate and extend this type of theory with the middle-range and the social theory, in order to provide with the holistic view of entrepreneurial activities.

By understanding on the three types of theory that proposed by Baur (2009) and understood that which theory is in what type of theory, next, we briefly explained about the concept of each theory. Due to this paper is about the theoretical conception, thus, to explain the concept of each theory is considered essential before proceeding toward the process of integration.

THE CONCEPT OF THE THEORIES

This part will briefly explain the concept of the theories applied in this study and how it could influence the entrepreneurial activities. The sequence starts with the EO as the social theory, open innovation as the middle-range theory and the socio-cultural network as the theory of society. Through the conception of the theories, we then focus on the gap of the theories and provided with the cutting edge to work on for the integration of the theories.

The Concept of Entrepreneurial Orientation

Entrepreneurial orientation in this study is regarded as the type of social theory because its concept is at the central of analysis (Baur, 2009). To begin with, the concept of EO starts in 1983 by the work of Danny Miller (1983) who study on the typology of the firm. It should be noted that, the term ‘entrepreneurial orientation’ however is not coined out by Miller, but it was based on the findings in regards to one of his variables which is ‘entrepreneurship’ firm – that depicted three dimensions of ‘innovation’, ‘proactive’ and ‘risk-taking’ (Miller, 1983). From the work of Miller (1983) it then spurring for more research on the entrepreneurship firm then later this type of firm is called the entrepreneurship orientation. Hitherto the work on EO has exponentially growth (Covin & Lumpkin, 2011).

To begin with, the most common and the general definition of EO is often regarded as “the processes, practices and decision-making activities that lead

to new entry” (Lumpkin & Dess, 1996, p. 136). The word ‘lead to new entry’ is considered as the essential act of entrepreneurship. In accordance to George and Marino (2011), focused on the ‘new entry’ is the act of entrepreneurship firm, where we could distinguish between the entrepreneurship and non-entrepreneurship firm based on that particular act. The specific acts toward the new entry are the acts of proactiveness, innovativeness, and risk-taking. If the firm having these three kinds of elements, it will be considered as the firm that has the entrepreneurial orientation (George & Marino, 2011).

However, the growth of the EO literature later has been subject for a great debate in term of its theoretical conception and the process of operationalization of the construct. The dimensionality of EO is often being the subject of argument whether to apply the three core dimensions of EO that combined of ‘proactiveness’, ‘innovativeness’ and ‘risk-taking’ (Covin & Selvin, 1989; Miller, 1983) or using the five dimensions view of EO with the addition of ‘competitive aggressiveness’ and ‘autonomy’ (Lumpkin & Dess, 1996). Later, the recent theorizing suggested that both ‘three’ and ‘five’ dimensions of EO can co-exist and each approach could providing the insightful and unique findings based on the context of analysis (Covin & Lumpkin, 2011; Covin & Wales, 2012; Miller, 2011; Wales, 2016).

Besides taking the view on the dimensionality of the construct, Covin and Miller (2014) highlighted about the important to note on the differences between the “nominal or theoretical meaning of the construct with the empirical or operational meaning of the construct, and recognize how these meanings relate to one another” (p. 15). Knowing the differences will make the interpretation of analysis concern on that matter and later could come up with a more appropriate conclusion. As had been asserted by Covin and Miller (2014) “confirmatory factor analysis cannot be used to define theoretically what EO *is* or how many dimensions the construct *has*. These are theoretical matters, not empirical matters” (p. 15).

This is because scholars often attempted to compare between two conceptions of EO in order to identify which one is more theoretically defensible, and later tend to advise for only one conception of EO is acceptable. Judging only based on their empirical findings will not enough to deny the other theoretical concept of EO – because the concept fundamentally has a different definition and measurement model (Covin & Lumpkin, 2011; Covin & Miller, 2014). Hence, advising for using only one theoretical concept of EO after testing the theory is considered as inappropriate interpretation.

Currently, the concept of EO has been extended beyond the national boundary when the concept emerged in the domain of international entrepreneurship (IE). When it had been discussed beyond the national border, the concept of EO is evolved as the international entrepreneurship orientation (IEO) (Covin & Lumpkin, 2011; Covin & Miller, 2014). Albeit it is evolving as IEO, however, research on IEO seem to apply the same dimensions and construct of EO, which illustrated the phenomenon of ‘concept travelling’ (Covin & Miller, 2014; George & Marino, 2011). The concept travelling means “the concept moves to higher levels of abstraction, it becomes more general and is characterized by fewer attributes such that it fits more cases precisely” (George & Marino, 2011, p. 994). Hence, when the concept was brought into a more broad context through the concept travelling, it will increase the extension of the concept and decrease its intention, where the concept will become more abstract.

Thus, in the context of this study, we attempted to explain the EO phenomenon by doing the integration of EO with the other related theories. By doing so, it will increase the level of abstraction of the theory, however, the explanation will not changing the internal content of the concept of EO. As had been stated by Covin and Lumpkin (2011) “EO research sometimes lacks strong grounding in an academically sanctioned theory or theoretical perspective” (p. 860). So that, this study attempted to contribute on this part. The recent EO concept seems to be lack on some potential values, thus it needs for supportive theories to explain the phenomenon. For example in the part of how the entrepreneurial firms could innovating innovation through the concept of open innovation; how the collaboration or outsourcing through open innovation will explain the elements of proactiveness and risk-taking. Apart from that, how the broad context of the entrepreneurial firm could explain regarding the aspects of social, network and culture. All the questions seem could be explained through the integration of EO with the open innovation and socio-cultural network at section 4 of this paper.

The Concept of Open Innovation

The concept of open innovation (OI) in this study is regarded as the middle-range theory, because it concentrates on the specific thematic field (Baur, 2009). OI is defined as “a distributed innovation process based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization’s business model” (Chesbrough, Vanhaverbeke, & West, 2014, p. 17). In other words, it was about how the firm managed the external idea as well as the internal

idea (knowledge flows) to expand their business toward performance and sustainability.

In order to understand the concept of OI, it would be clearer if it was explained by the opposite concept of OI which is the closed innovation (CI). These two paradigms are distinguished between each other and Chesbrough (2006) have systematically provided the contrast principles of these two paradigms.

Table 1

Contrasting Principles of Closed and Open Innovation

Closed Innovation Principles	Open Innovation Principles
The smart people in our field work for us	Not all the smart people work for us. We need to work with smart people inside and outside our company.
To profit from R&D, we must discover it, develop it, and ship it ourselves.	External R&D can create significant value; internal R&D is needed to claim some portion of that value.
If we discover it ourselves, we will get it to market first.	We don't have to originate the research to profit from it.
The company that gets an innovation to market first will win.	Building a better business model is better than getting to market first.
If we create the most and the best ideas in the industry, we will win.	If we make the best use of internal and external ideas, we will win.
We should control our IP, so that our competitors don't profit from our ideas.	We should profit from others' use of our IP, and we should buy others' IP whenever it advances our own business model.

Source: (Chesbrough, 2006, p. xxvi)

Table 1 indicates the differences between closed and open innovation. The CI tend to control and secure their intellectual property (IP), technology or R&D within their firms, but for OI, it used the internal and external knowledge to produce the significant value (Chesbrough, 2006). Currently, the research on OI is not only focused on the firm that using the internal and external knowledge, however, it also discussed on how the innovation is created within

the firm and developed outside of the firm. This direction of innovation is called outbound (inside-out) OI, while for using the external ideas is called inbound (outside-in) OI (Busarovs, 2013). Furthermore, Busarovs (2013) extend the outbound and inbound open innovation based on the definition of OI, that related to pecuniary and non-pecuniary mechanism. He produced the open innovation matrix to understand the different components of OI.

Table 2

Open Innovation Matrix

	Inbound OI	Outbound OI
Pecuniary	Acquiring	Selling
Non-Pecuniary	Sourcing	Revealing

Source: (Busarovs, 2013, p. 108)

Based on Table 2, there are two types of inbound and outbound OI, which are pecuniary and non-pecuniary. For pecuniary inbound OI, it was when the firm acquiring IP through buying the IP from others'. As had been stated in Table 1, "we should buy others' IP whenever it advances our own business model" (Busarovs, 2013; Chesbrough, 2006). For non-pecuniary inbound OI, is "when companies use freely available external knowledge, as a source for the internal innovation" (Busarovs, 2013, p. 110). For example, before starting the internal R&D, the company use available external information and ideas and using for internal needs. From that, we understood that both inbound OI is about taking the external knowledge for the benefit of internal innovation (outside-in) – where the difference only when one is through buying (pecuniary), and another is freely use (non-pecuniary).

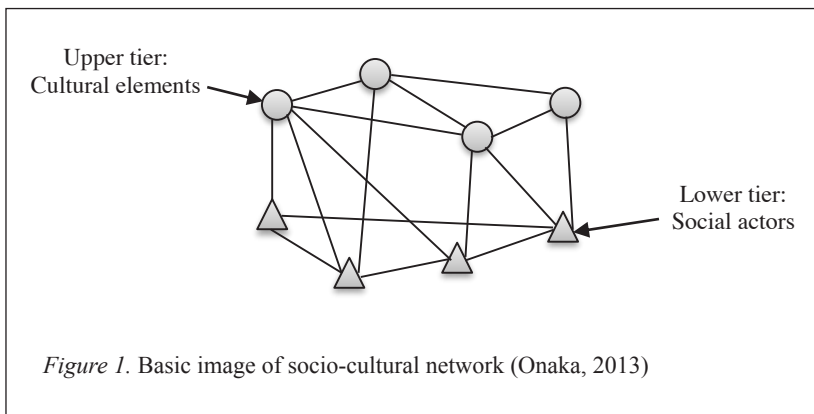
For the outbound OI, the pecuniary type is when the firm selling their IP or licensing others to use the IP, and gain profit from it. While, for non-pecuniary, is when companies reveal or share their internal resources with others. The strategy through revealing own technology to others is lie in the pace of technological development. It will accelerate development among competitors and manifested as a new business model (Busarovs, 2013). This is where the concept of OI related with EO, when the firm taking risk by revealing their technology and licensing to others.

From the concept of OI, we could feel that the concept of OI and EO having a relation in a natural setting of entrepreneurial firms. The elements of

proactiveness, innovativeness and risk-taking seem to be in line with the concept of OI, where it can strengthen the dimensions of EO. Through OI, it could explain how the entrepreneurial firm could be more proactive and be a risk-taker and at the same time innovating innovation for a value creation. However, as the EO, the concept of OI also lack in explaining the aspects of socio-culture. As had been stated by Busarovs (2013) “the culture aspect should also be taken in consideration, since many open innovation activities on an international level, but the issues of cultural differences in realm of open innovation have been poorly examined” (p. 112). Hence, taking the suggestion into consideration, we attempted to integrate the concept of EO with OI and socio-cultural network in order to provide with a holistic view on entrepreneurial activities.

The Concept of Socio-Cultural Network

The socio-cultural network in this study is treated as the theory of society. This is because this theory has a high level of abstraction, it tries to characterize the aspect of social, culture and network at the large picture (Baur, 2009). In the context of this study, the socio-cultural network is the main theory that will integrate the concept of EO and OI altogether in one theoretical framework. Before going for the process of the integration of the theories, first, we should understand the concept of socio-cultural network.



To begin with, socio-cultural and network is often being separated subject of discussion. However, in the process of integration of the theories, the concept of socio-cultural and network are linked together and is terms as a socio-cultural network. The socio-cultural network explained that “the network

consists of person with ties to each other, the social aspect of network, and nodes representing moral communities and evaluated acts, the culture aspect of the network” (Fararo & Skvoretz, 1997, p. 369). However, for Onaka (2013) nodes represent of social actors and cultural elements that are linked together in the structural system of network. He points out that the socio-cultural network must be two-tiered (the upper tier and the lower tier). The upper tier is the cultural elements and the lower tier is the social actor (see Figure 1).

As in Figure 1, the upper tier represents the cultural elements. It is regarded as a cultural symbol that including meanings, values and norms. While for the lower tier represent the social actors as subject that linked with the other social actor and cultural elements and later developed as the structure of socio-cultural network. In the socio-cultural network the subject (social actors) and the object (cultural elements) are nodes that linked together as a structure of network (Onaka, 2013, 2015). From the structure of socio-cultural network, it means that social actor and the cultural element could not be separated. It represented the norms of the communities and somehow relating each other in the natural setting.

In the entrepreneurship study, the social actor represents as the human capital or the social capital. More networks mean a person or the social actor have more social capital that can produce valuable resources in entrepreneurial activities (Thornton, Ribeiro-Soriano, & Urbano, 2011). Furthermore, more networks also mean that social actors who are in differences environment have their own cultural elements such as norms, values or tradition that are linked with them. Understanding the cultural elements of the other social actors may produce innovative output or could create for a new business model (Thornton et al., 2011). Such as Hayton, George and Zahra (2002) have revealed that the cultural elements could lead to new-venture creation and innovation.

Hence, from the concept of socio-cultural network, it can be understood that the interaction of social actors created a network between them, and every social actor has their own cultural elements. The values and the cultural elements that have in the social actors making each of them are unique, and through having more network with other social actors mean having generated more on the social capital (including the cultural elements that have in them). All these networks between the social actors and cultural elements creating the network structure as in Figure 1. Then through learning from other

culture, the firm might be able to produce new venture, innovation or new business model through the process in entrepreneurial activities (Hayton et al., 2002; Thornton et al., 2011).

Closely related to this point, Baumol (1993) have early asserted that in every region have entrepreneurial talents, and these talents are developed through culture within and around them. Hence, the culture in the specific regions that could give benefit to the economic development is regarded as the entrepreneurial culture. Later, the work of Beugelsdijk (2010) and Stuetzer et al. (2017) have provided with the empirical evidence that the entrepreneurial culture has played a key role toward the economic development in their entrepreneurial activities. Innovation, new ideas and knowledge creation are developed in the space that having the entrepreneurial culture.

Although the concept of socio-cultural network has provided with the explanation about how the structure between social actors and cultural elements could be developed and extended through the entrepreneurial activities. However, it seems to lack in explaining in the detail on how the process of interaction and network with other may profit or produce benefits to the firm. This deficiency seems in the process of knowledge flows within and outside of the firm, either on the technological engineering or on the entrepreneurial culture elements. In order to extend the concept of socio-cultural network, integration with OI seems could support on the deficiency. Hence, in the latter section, it discussed the integration of socio-cultural network, open innovation and entrepreneurial orientation.

THE INTEGRATION OF SOCIO-CULTURAL NETWORK, OPEN INNOVATION AND ENTREPRENEURIAL ORIENTATION

This section provided with the integration of socio-cultural network, open innovation and entrepreneurial orientation. From the brief discussion about the theories, it safe to say that each theory is unique. However, each of it seems to have an edge that related and complementary between each other. Through the integration of the theory, it will extend these theories into a holistic view. The type of theory as explained in section 2 have distinguished each theory based on its type. Although having different types of theory, however, all the theories could be linked and integrated altogether in order to explain the complex social phenomenon. One single theory somehow in some context, may not sufficient to explain about the complex society

(Baur, 2009). To be noted, that in this context it was about the entrepreneurial activities. Hence, through the integration of the theories, it may explain in more holistic view about the entrepreneurial activities.

Through the single concept of EO, it only explained on a small sphere scope of the firm. However, when EO is evolved to IEO, it lacks on the grounding theoretical conception to explain the phenomenon (Covin & Miller, 2014). Hence, without the supportive theoretical concept it would seem that the concept of EO is applying with the old or closed innovation paradigm and was lack on the network's structure.

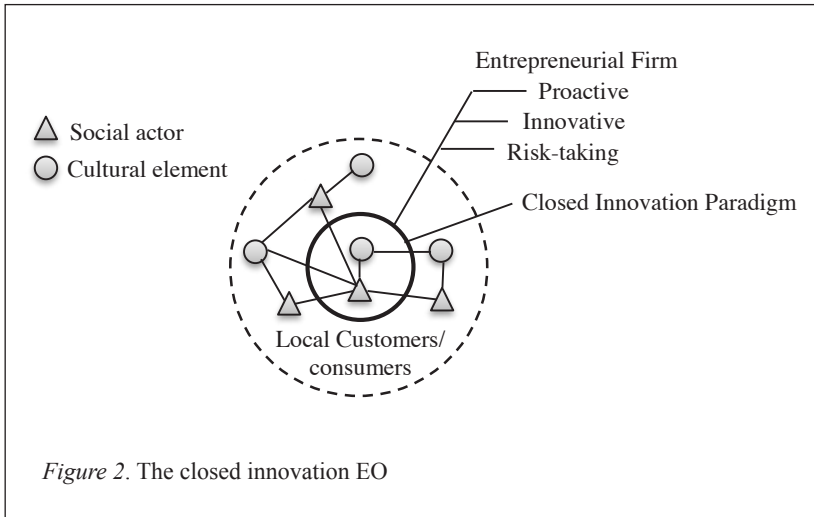
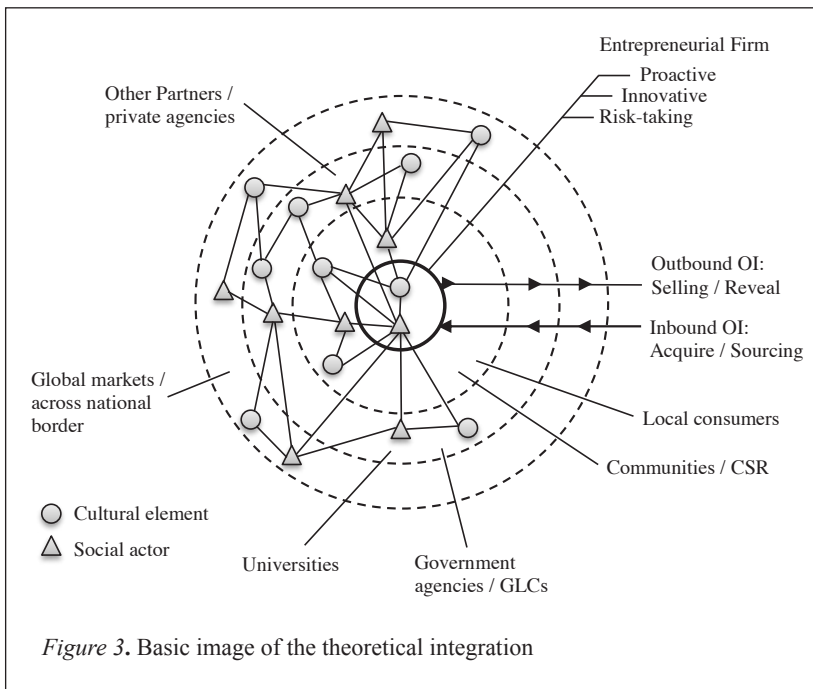


Figure 2 illustrated the current concept of EO with the closed innovation paradigm. It only focused on the concept of entrepreneurial only within the firm and based on customer oriented. It might be performed as a proactive and risk-taker firm, but in the limited sphere, and innovation was only developed through internal R&D. The reason for this is that the EO is lacking on the grounding theoretical conception that able to support in explaining how the process of entrepreneurial activities could be extended. Hence, by the integration of the concept of open innovation, it will expand the structure of the socio-cultural network in more holistic view, as well as strengthen the elements of proactive, innovative and risk-taking of the EO. Figure 3 illustrated the basic image of the theoretical integration from the three types of theory.

Based on the Figure 3, it indicates that the entrepreneurial firm is more proactive in developing its networks from the different fields and context, more innovative through the OI paradigm, and even more a risk-taker through learning from others culture, technologies, where it could lead for creating a new business model (Busarovs, 2013; Chesbrough et al., 2014). In promoting their entrepreneurial activities, the firm is not only performed as an innovative firm, but it goes beyond the old innovation paradigm through innovating innovation. From the concept of OI, it makes the knowledge flows inbound and outbound of the firm – via acquiring and sourcing (outside-in OI), and via selling and revealing (inside-out OI) (Busarovs, 2013).



The structure of networks also expanded across the national border. Through the networks, it increases the social capital and opens the firm for the opportunities to learning from other entrepreneurial culture. The networks from the consumers, communities, universities, government agencies, private sectors and the interaction with the global markets showing that the firm is more proactive. This indirectly strengthens the concept of EO and expanding the explanation regarding the socio-cultural network through the OI paradigm.

Hence, from this holistic view as in Figure 3, it shows that how the integration of the theories could explain more about the process and its linkages regarding the entrepreneurial activities. In some extent, it has related how cultural elements taking place in the entrepreneurial activities through networks, collaboration and OI, thus indirectly provide for future research to study on the niche area based on the part of the theoretical conception or to link the data with the developed theoretical conception.

CONCLUSIONS AND FUTURE DIRECTIONS

Literature on socio-cultural networks has stressed the importance of socio-culture and network in creating the entrepreneurial culture within the entrepreneurial activities. However, the theory seems to be less concerned and understudied in the respect of innovation perspectives. In contrast, the concept of innovation, on the other hand, seems was lacking in the elements of culture – where many scholars have suggested to integrate the cultural elements with the concept EO and OI (Busarovs, 2013; Covin & Miller, 2014). Hence, this study attempted to take the suggestion into consideration by integrating the three theories with the intention to explain in a holistic view of the entrepreneurial activities. Thus, the EO firm could take a holistic perspective in guiding for their strategic entrepreneurial decision.

From the developed theoretical conception through integrating the socio-cultural networks, OI and EO, this study then proposed on some significant aspects that might be gained the interest of scholars in conducting future research. Through the holistic view of the developed theoretical conception, one may interest to study in the niche areas of the concept which could be linked with socio-cultural network, OI, and EO. For examples in the roles of universities in permeating the entrepreneurial culture or technologies, or to study in term of the regional innovation development. Another aspect is to links the data with the developed theoretical conception. The methodologists might interest to develop a suitable method, then gathering the data for testing, support or critics the theory. These processes might trigger debate and accelerate development of the theory. Hence, we hope this theoretical integration will contribute to progress by encouraging scholars to explore in these interesting complex issues.

REFERENCES

- Baumol, W. J. (1993). *Entrepreneurship, management, and the structure of payoffs*. Cambridge: MIT Press.

- Baur, N. (2009). Problems of Linking Theory and Data in Historical Sociology and Longitudinal Research. *Historical Social Research*, 34(1), 7–21. <https://doi.org/10.12759/hsr.34.2009.1.7-21>
- Beugelsdijk, S. (2010). Entrepreneurial Culture, Regional Innovativeness and Economic Growth. In A. Freytag & A. R. Thurik (Eds.), *Entrepreneurship and Culture*. Berlin, Heidelberg: Springer. <https://doi.org/10.1007/s00191-006-0048-y>
- Busarovs, A. (2013). Open Innovation: Current Trends and Future Perspectives. *Humanities and Social Sciences: Latvia*, 21(2), 103–119.
- Chesbrough, H. W. (2006). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Boston: Harvard Business School Press.
- Chesbrough, H. W., Vanhaverbeke, W., & West, J. (2014). *New Frontiers in Open Innovation*. United Kingdom: Oxford University Press.
- Covin, J. G., & Lumpkin, G. T. (2011). Entrepreneurial orientation theory and research: Reflections on a needed construct. *Entrepreneurship: Theory and Practice*, 35(5), 855–872. <https://doi.org/10.1111/j.1540-6520.2011.00482.x>
- Covin, J. G., & Miller, D. (2014). International Entrepreneurial Orientation: Conceptual Considerations, Research Themes, Measurement Issues, and Future Research Directions. *Entrepreneurship: Theory and Practice*, 38(1), 11–44. <https://doi.org/10.1111/etap.12027>
- Covin, J. G., & Selvin, D. P. (1989). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal*, 10(1), 75–87. <https://doi.org/10.1002/smj.4250100107>
- Covin, J. G., & Wales, W. J. (2012). The Measurement of Entrepreneurial Orientation. *Entrepreneurship: Theory and Practice*, 36(4), 677–702. <https://doi.org/10.1111/j.1540-6520.2010.00432.x>
- Fararo, T. J., & Skvoretz, J. (1997). Synthesizing Theories of Deviance and Control: With Steps toward a Dynamic Sociocultural Network Model. In J. Szmataka, J. Skvoretz, & J. Berger (Eds.), *Status, Network, and Structure: Theory Development in Group Processes*. California: Stanford University Press.
- George, B. A., & Marino, L. (2011). The epistemology of entrepreneurial orientation: Conceptual formation, modeling, and operationalization. *Entrepreneurship: Theory and Practice*, 35(5), 989–1024. <https://doi.org/10.1111/j.1540-6520.2011.00455.x>
- Hambrick, D. C. (2007). The Field of Management's Devotion to Theory: Too Much of a Good Thing? *Academy of Management Journal*, 50(6), 1346–1352. <https://doi.org/10.5465/AMJ.2007.28166119>

- Hayton, J. C., George, G., & Zahra, S. A. (2002). National Culture and Entrepreneurship: A Review of Behavioral Research. *Entrepreneurship Theory and Practice*, 26(4), 33–52. <https://doi.org/10.1177/104225870202600403>
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It To Performance. *The Academy of Management Review*, 21(1), 135–172. <https://doi.org/10.2307/258632>
- Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, 29(7), 770–791. <https://doi.org/10.1287/mnsc.29.7.770>
- Miller, D. (2011). Miller (1983) revisited: A reflection on EO research and some suggestions for the future. *Entrepreneurship: Theory and Practice*, 35(5), 873–894. <https://doi.org/10.1111/j.1540-6520.2011.00457.x>
- Onaka, F. (2013). Relating Socio-cultural Network Concepts to Process-oriented Methodology. *Historical Social Research*, 38(2), 236–251. <https://doi.org/10.12759/hsr.38.2013.2.236-251>
- Onaka, F. (2015). Comparative Sociology of 11 to 18 Examinations in Thailand, England, and Japan. *Comparative Sociology*, 14(1), 4–52. <https://doi.org/10.1163/15691330-12341337>
- Stuetzer, M., Audretsch, D. B., Obschonka, M., Gosling, S. D., Rentfrow, P. J., & Potter, J. (2017). Entrepreneurship culture, knowledge spillovers and the growth of regions. *Regional Studies*, 52(5), 608–618. <https://doi.org/10.1080/00343404.2017.1294251>
- Thornton, P. H., Ribeiro-Soriano, D., & Urbano, D. (2011). Socio-cultural factors and entrepreneurial activity: An overview. *International Small Business Journal*, 29(2), 105–118. <https://doi.org/10.1177/0266242610391930>
- Wales, W. J. (2016). Entrepreneurial orientation: A review and synthesis of promising research directions. *International Small Business Journal: Researching Entrepreneurship*, 34(1), 3–15. <https://doi.org/10.1177/0266242615613840>