

ORGANIZATIONAL ENTREPRENEURIAL ALERTNESS FRAMEWORK IN OPPORTUNITY DISCOVERY

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ABSTRACT

Entrepreneurship and business development are very important for policy makers, executives and entrepreneurs to develop economies. Entrepreneurial alertness in opportunity recognition and discovery of opportunities can help to recognize why some of people and companies discover opportunities and others not. The purpose of this article is to change the level of entrepreneurial alertness from individual to group and from the group to the organizational level. A literature review, interview, meth-synthesis and focal group are used for final research modelling. The way of theorizing for changing levels of entrepreneurial alertness is multi-level method. We used organizational learning process for final conceptual framework. A new framework for Organizational Entrepreneurial Alertness in opportunity discovery of individual, group and organizational levels was developed. By using the final framework, entrepreneurs and organizations will be able to discover new opportunities and teachers will be able to educate organizational entrepreneurial alertness process and opportunity discovery process in individual, group and organizational levels. The researcher will be able to use this framework for extending opportunity discovery and entrepreneurial alertness theories in individual, group and organizational levels and also they can extend this framework to international entrepreneurship.

Keywords: Organizational Entrepreneurial Alertness, Opportunity Discovery, Organizational Learning.

INTRODUCTION

Entrepreneurs play a critically important role in the economy. By spotting opportunities and taking action to exploit them, they drive the process of market production and the fulfilment of social and economic needs (Valliere, 2013). According to Toli and Tengeh (2017), the ability to identify entrepreneurial opportunities is generally considered to be a core attribute of entrepreneurship (Shane & Venkataraman, 2000). Before they are able to act upon opportunities, aspiring entrepreneur's first need to be able to identify those (Shane & Venkataraman, 2000). According to Cox (2016), there has been contention and disagreement concerning the fundamental nature of entrepreneurial opportunities and whether they are or can be, recognized (or identified), discovered or created (e.g. Alvarez & Barney, 2007 & 2010; Baker & Nelson, 2005; Klein, 2008; Sarasvathy, Dew, Velamuri & Venkataraman, 2010; Shane, 2012). These definitional and epistemological debates have resulted in considerable challenges and confusion regarding the empirical operationalization of opportunity identification (Cox, 2016).

We currently lack a deep understanding of why some individuals are able to spot the opportunities that most people cannot see. We attribute the difference to a loosely defined quality

that Kirzner called “entrepreneurial alertness” (Valliere, 2013). Valliere (2013) have argued that differences in entrepreneurial alertness can be attributed to differences in the schemata used for sense-making in response to stimuli (whether external or internal). These differences may be in the richness of the schemata that are activated (especially in the degree to which the schemata include attributes for value creation), the strength of association of such schemata with the particular stimulus and the degree to which the individual entrepreneur has intentionally primed the schema for activation (Valliere, 2013). Tang, Kacmar & Busenitz (2012), take a much broader view of alertness. In their view, alertness comprises three distinct elements: Scanning and search for new information, association and connection of that information with existing knowledge and evaluation and judgment (Tang, Kacmar & Busenitz, 2012). Baron (2006) makes the case that this alertness to new opportunities is based on pattern recognition. He argues that what makes an entrepreneur alert is some cognitive capacity to support the recognition that one situation is similar to another in a meaningful way (Baron 2006). Research on entrepreneurial alertness was initially developed by Kirzner (1973 & 1979), who characterized individuals who were more alert as having an “antenna” that permits recognition of gaps with limited clues. Building on Kirzner's work, Kaish and Gilad (1991) saw alert individuals as having a “unique preparedness” in consistently scanning the environment ready to discover opportunities. Later Kirzner argued that alertness includes creative and imaginative action and may “impact the type of transactions that will be entered into future market periods” (Tang, Kacmar & Busenitz, 2012).

According to Klein, Tosi & Cannella (1999), the benefits of multilevel theories have been extolled in a number of recent commentaries (e.g. House, Rousseau & Thomas-Hunt, 1995; Klein, Dansereau & Hall, 1994; Tosi, 1992). Multilevel theories span the levels of organizational behaviour and performance, typically describing some combination of individuals, dyads, teams, businesses, corporations and industries. Multilevel theories, thus, begin to bridge the micro-macro divide, integrating the micro domain's focus on individuals and groups with the macro domain's focus on organizations, environment and strategy. The result is a deeper, richer portrait of organizational life-one that acknowledges the influence of the organizational context on individuals' actions and perceptions and the influence of individuals' actions and perceptions on the organizational context (Klein, Tosi & Cannella, 1999). The entrepreneurial alertness was investigated in individual level. The changing level of entrepreneurial alertness from individual level to group and from the group to organizational level extends organizational theories and entrepreneurship. The main contribution of this paper is proposing a framework for “Organizational Entrepreneurial Alertness”. Research achievements of this study for academic staff and researchers include development of opportunity discovery and entrepreneurial alertness theories and also promote the level of entrepreneurial alertness from the individual level to the group level and from the group level to the organizational level. Research method from analysis perspective is qualitative and from objective view is developmental and practical. The way of theorizing for changing levels of entrepreneurial alertness is multi-level method. Research review, interview, meth-synthesis and focal group are used for final research modelling.

Following this introduction, we review main entrepreneurial alertness theories and summarize in a table, next we explain research methodology and then we develop organizational entrepreneurial alertness framework. Finally, we discuss about research framework and conclude this study.

LITERATURE REVIEW

In this section we will review the main contributions about entrepreneurial alertness. According to Gaglio and Katz (2001), entrepreneurial alertness includes a distinctive set of perceptual and information-processing skills, has been advanced as the cognitive engine driving the opportunity identification process (Gaglio and Katz, 2001). In order to understand how the market environment is represented in the mind of the entrepreneur and whether such representations differ from non-entrepreneurs, schema content and dynamics must be investigated. Schema is dynamic, evolving mental models that represent an individual's knowledge and beliefs about how physical and social worlds work. These mental models help direct attention and guide information processing and reasoning for any specific event, real or imagined. If Kirzner is correct, alert individuals have more accurate mental models (Gaglio & Katz, 2001). Like all schema, alertness directs attention (in this case towards the novel, unusual or contrary) and guides information processing (towards the integration of the unusual event even if it means rethinking the existing means-ends framework or the way things are done) (Gaglio and Katz, 2001). Alertness, too, can be understood within the context of pattern recognition. Alertness refers to the capacity to recognize opportunities when they exist-when they have emerged from changes in technology, markets, government policies, competition and so on. In turn, this capacity may rest, as models of pattern recognition suggest, on possessing the appropriate cognitive structures-prototypes or exemplars. These structures help specific persons to perceive connections between divergent events and trends and these connections, in turn, suggest new business opportunities to them. In other words, "connecting the dots" depends on having appropriate cognitive frameworks that facilitate this task (Baron, 2006). Tang (2007) (With used human information-processing approach and combined three schools of entrepreneurial alertness) proposes that entrepreneurial alertness maps well to the opportunity discovery process. As demonstrated in Figure 1, he suggests that each step of the opportunity discovery phase is based on a different dimension of alertness. Specifically, the ability to accumulate information is useful in the preparation stage; the ability to transform information allows one to successfully perform in the incubation stage; and the ability to intuitively select the information leading to potential business opportunities enhances the insight moment (Tang, 2007).

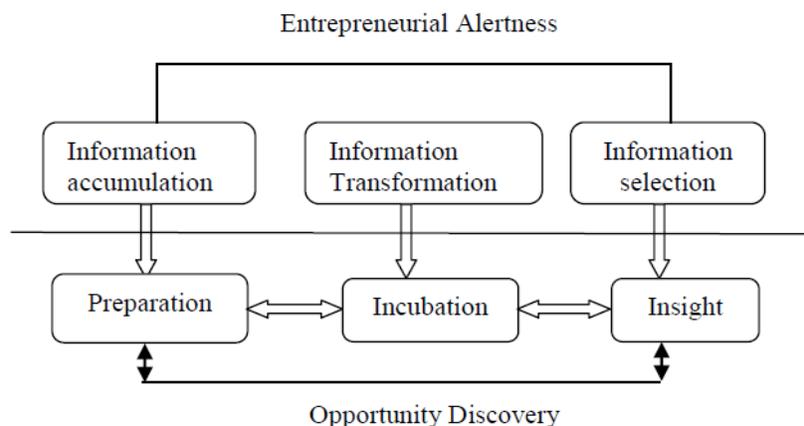


FIGURE 1
ILLUSTRATING THE THREE DIMENSIONS OF ALERTNESS IN THE
OPPORTUNITY DISCOVERY PROCESS

Specifically, Tang, Kacmar & Busenitz (2012) present alertness as comprising three dimensions: (1) Systematically or non-systematically scan the environment and search information; (2) associate or piece together previously unconnected information; and (3) make evaluations and judgments about the commercializability of the idea. These dimensions complement each other and give the individual a foundation on which to identify new business ideas (Tang, Kacmar & Busenitz, 2012) (Figure 2).

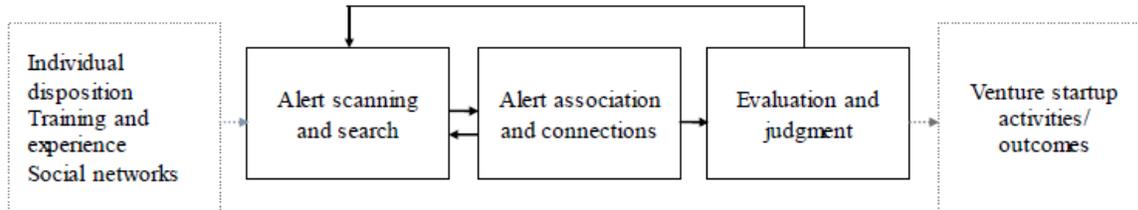


FIGURE 2
MODEL OF ENTREPRENEURIAL ALERTNESS

According to Lee (2016), less attention has been devoted to the sources of variation in entrepreneurial alertness, although prior researchers have highlighted the role of entrepreneurial learning (e.g. Corbett, 2007). He scrutinizes how organizational learning can enhance TMTs’ entrepreneurial alertness. His study results show that breadth and depth of learning positively influence TMTs’ entrepreneurial alertness, while speed of learning has a negative effect. Breadth and depth of learning can help TMTs improve the schema for better interpreting the information about the environmental changes and drawing inferences from it. Hence, TMTs across organizations can heterogeneously realize the changes (Lee, 2016).

We summarize the main theories of entrepreneurial alertness in Table 1. This table includes the authors, research focus, philosophical foundations, basic theory and key findings of each theory.

Table 1 THE MAIN THEORIES OF ENTREPRENEURIAL ALERTNESS					
Row	Author(s)	Research Focus	Philosophical foundations/ Paradigm	The basic theory	Key findings
1	Brockman (2014)	Entrepreneurial alertness in opportunity, identification and opportunity development	Opportunity identification and development	Tang, Kacmar & Busenitz (2012): Entrepreneurial alertness in the pursuit of new opportunities and Valliere (2013): Towards a schematic theory of entrepreneurial alertness	Entrepreneurial alertness is defined as a cognitive capability that positively influences both opportunity identification and opportunity development that includes perception, pattern recognition and evaluation.
2	Valliere (2013)	Towards a schematic theory of entrepreneurial alertness	The mental frameworks (schemata)	The decision theory and schema theory	The differences in entrepreneurial alertness can be attributed to differences in the schemata used for sense-making in response to stimuli (whether external or internal). These

					differences may be in the richness of the schemata that are activated (especially in the degree to which the schemata include attributes for value creation), the strength of association of such schemata with the particular stimulus and the degree to which the individual entrepreneur has intentionally primed the schema for activation.
3	Li (2013)	The Construct of Entrepreneurial Alertness	The perceptual and cognitive processes by which individuals break and/or construct means-ends framework	Combining the previous theories	The entrepreneurial alertness contains four related processes of juxtaposing, unlearning, prospecting and embellishing that occur at the individual level.
4	Tang, Kacmar & Busenitz (2012)	Entrepreneurial alertness in the pursuit of new opportunities	Austrian Economic, Entrepreneurial Behavioural and Entrepreneurial Cognition Schools of thought	The Kirzner's later work on alertness (1999) and McMullen and Shepherd's (2006)	Tang, Kacmar & Busenitz present alertness as comprising three dimensions: (1) Systematically or non-systematically scan the environment and search information; (2) Associate or piece together previously unconnected information; and (3) Make evaluations and judgments about the commercializability of the idea. These dimensions complement each other and give the individual a foundation on which to identify new business ideas. The social cognition theory confirms that the inference process can be improved with formal training or constant.
5	Puhakka (2011)	Developing a Creative-Cognitive Model of Entrepreneurial Alertness to Business Opportunities	The entrepreneur's creative cognitive process, internal creative qualities, environmental conditions and interaction of these elements		Entrepreneurial alertness to business opportunity is the creativity of an individual, consisting of creativity base, creative process and creative product.
6	Tang (2007a)	Entrepreneurial alertness: A review, reconceptualization, and extension	Extraordinary sense of "smelling" disequilibrium situations, Information-seeking Behaviour and Cognitive	Austrian Economic, Entrepreneurial Behavioural and Entrepreneurial Cognition Schools of thought	The opportunity discovery is the ongoing process of accumulating, transforming and selecting information that leads to potential business opportunities. Each step of the opportunity discovery phase is based on a different dimension of alertness. Specifically, the ability to accumulate information is useful in

			schema		the preparation stage; the ability to transform information allows one to successfully perform in the incubation stage; and the ability to intuitively select the information leading to potential business opportunities enhances the insight moment.
7	Tang (2007b)	A exploring the antecedents of entrepreneurial alertness: Interactions between individual and environmental characteristics	The opportunity exists. People have different stocks of information.	The conceptual framework for entrepreneurship (Shane & Venkataraman, 2000; Shane, 2003; Eckhardt & Shane, 2003)	The individual characteristics that lead to alertness include human capital, social competence and social capital. However, the relationships between individual characteristics and alertness are contingent upon the entrepreneurial environment in which opportunities are discovered and the personal turbulence experienced by entrepreneurs.
8	Gaglio & Kat (2001)	The Psychological Basis of Opportunity Identification: Entrepreneurial Alertness	A distinctive set of perceptual and information-processing skills	The schema theory	The theory of alertness proposed that unlike most market actors, who accept information as given, alert individuals may simply have a habit of being contrary and/or looking for change. Counterfactual thinking and mental simulations facilitate the reassessment process and may (but not always) indicate that it is necessary to radically alter the contents or the relational dynamics of schema and the existing means-ends framework.

RESEARCH METHODOLOGY

Analysing learning as a process highlights three main aspects (Figure 3). First, knowledge and, more specifically, its acquisition or creation, along with its dissemination and integration within the organization, become a key strategic resource. This gives rise to the idea that organizational learning has a collective nature that goes beyond the individual learning of persons. Second, this creation and dissemination of new knowledge imply the existence of constant internal changes that can occur at a cognitive or behavioural level. Third, these internal changes lead to a process of constant improvement that allows the firm's actions to be maintained or bettered or even to achieve a competitive advantage based on firms' different learning capabilities (Jerez-Gomez, Cespedes-Lorente & Valle-Cabrea, 2005). The aforementioned aspects enable us to conceptualize organizational learning as the capability of an organization to process knowledge-in other words, to create, acquire, transfer and integrate knowledge and to modify its behaviour to reflect the new cognitive situation, with a view to improving its performance (Jerez-Gomez, Cespedes-Lorente & Valle-Cabrea, 2005). Figure 3 demonstrate and compare the organizational learning process in three levels (individual, group and organizational) and three learning stages (acquisition, transfer and integration). Organizational learning process model was used for the changing levels of entrepreneurial alertness from individual to group and from the group to organization.

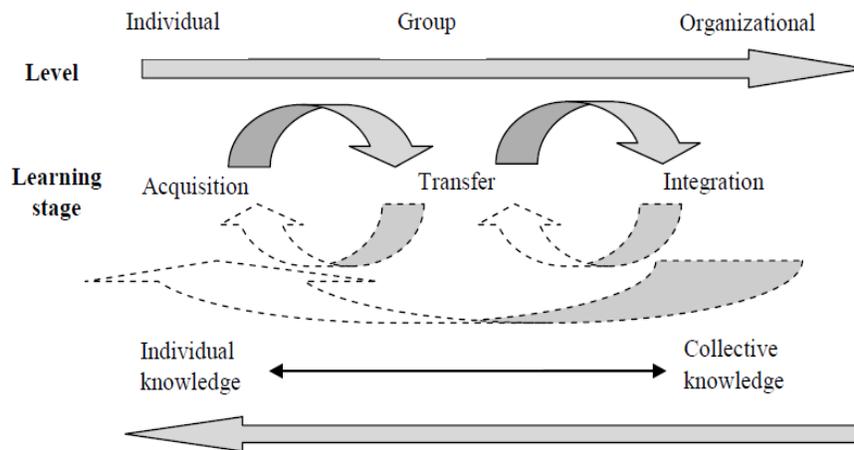


FIGURE 3
ORGANIZATIONAL LEARNING PROCESS

Organizations are multilevel systems. The system is sliced into organization, group and individual levels, each level the province of different disciplines, theories and approaches. Over the last two decades, of multilevel frameworks that have well-developed conceptual foundations and associated analytic methodologies. Organizational science is moving toward the development of a paradigm that can bridge the micro-macro gap in theory and research. (Kozlowski and Klein, 2000). Theorizing method for the changing level of entrepreneurial alertness from individual to group and from the group to organization was multilevel method. The primary goal of the multilevel perspective in organizational science is to identify principles that enable a more integrated understanding of phenomena that unfold across levels in organizations. Fundamental to the levels perspective is the recognition that micro phenomena are embedded in macro contexts and that macro phenomena often emerge through the interaction and dynamics of lower-level elements (Kozlowski and Klein, 2000). Multi-level theorizing process (that used in this research) includes (Rezaian and Ganjali, 2010):

- 1) Determination of the phenomenon under study.
- 2) Determine the nature of the phenomenon under study.
- 3) Identify constructs of the phenomenon under study.
- 4) Determine the level of theoretical constructs of the phenomenon under study.
- 5) Providing micro theory (goal theory) from phenomenon.
- 6) Determine the type of constructs of the phenomenon under study.
- 7) Determine the measurement level based on the type of constructs of the phenomenon under study.
- 8) Determine the validity of constructs of the phenomenon under study.
- 9) Determine the source of the data based on the type of constructs of the phenomenon under study.
- 10) Establish relationships between structures in the form of multilevel models.

For designing the initial research model, we used research review and meth-synthesis of previous researches related to the entrepreneurial alertness. Systematic qualitative research (Open and axial coding) (Glaser & Strauss, 1967) method has been used for meth-synthesis of previous researches and also the interview used to reduce the entrepreneurial alertness components. Statistical population of this research was food industry companies. Sampling

method was intentional and non-probabilistic (snowball). Qualified individuals (Entrepreneurs, marketing managers and CEOs) were selected for interviews. Until theoretical saturation (sufficient data), interview was used. Measuring instruments was semi-structured interview. Interviews were conducted with 30 persons from 30 companies. Reliability of this research was confirmed by helping research assistant, experts (University Professors), structural confirmation and revision in the time of coding. After each interview, the collected data with the help of research assistant has been classified and analysed. After the next interview, previous results were confirmed or rejected by the interviewees. We also used the focal group for final research modelling and final conclusions.

ORGANIZATIONAL ENTREPRENEURIAL ALERTNESS FRAMEWORK DEVELOPMENT

After research review, interview and meth-synthesis of previous researches related to the entrepreneurial alertness, we suggest three prepositions.

Preposition 1

Organizational Entrepreneurial alertness construct include three sub constructs: Alert scanning and search or Acquisition, Alert association and connections or Transformation, Evaluation and judgment or Integration.

According to previous studies, Entrepreneurial alertness construct include 1) Perception, Pattern recognition and Evaluation (Brockman, 2014); 2) Richness of Value-creating Schemata, Association of Value-creating and Priming of Value-creating Schemata (Valliere, 2013); 3) Juxtaposing, Unlearning, Prospecting and Embellishing (Li, 2013); 4) Alert scanning and search, Alert association and connections, Evaluation and judgment (Tang, Kacmar & Busenitz, 2012) and 5) Creativity base, Creative process and Creative product (Puhakka, 2011). After meth-synthesis, open and axial coding, interview and focal group, the preposition 1 was proved. Also after 10 steps of multi-level theorizing process, the preposition 1 was approved. We also used the model of entrepreneurial alertness (Tang, Kacmar & Busenitz, 2012) (Figure 2) for this preposition.

Preposition 2

Organizational Entrepreneurial alertness antecedents include Individual disposition, Training and experience and Social networks.

According to Ardichvili, Cardozo & Ray (2003), the antecedents of entrepreneurial alertness includes personality traits, social networks and prior knowledge (Ardichvili, Cardozo & Ray, 2003). Valliere (2013) showed in his model that the antecedents of entrepreneurial alertness include entrepreneurial expertise, entrepreneurial practice and entrepreneurial intention (Valliere, 2013). According to Tang, Kacmar & Busenitz (2012) the antecedents of entrepreneurial alertness include individual disposition, training and experience and social networks. After meth-synthesis, interview and focal group, the preposition 2 was proved. We also used the model of entrepreneurial alertness (Tang, Kacmar & Busenitz, 2012) (Figure 2) for this purpose.

Proposition 3

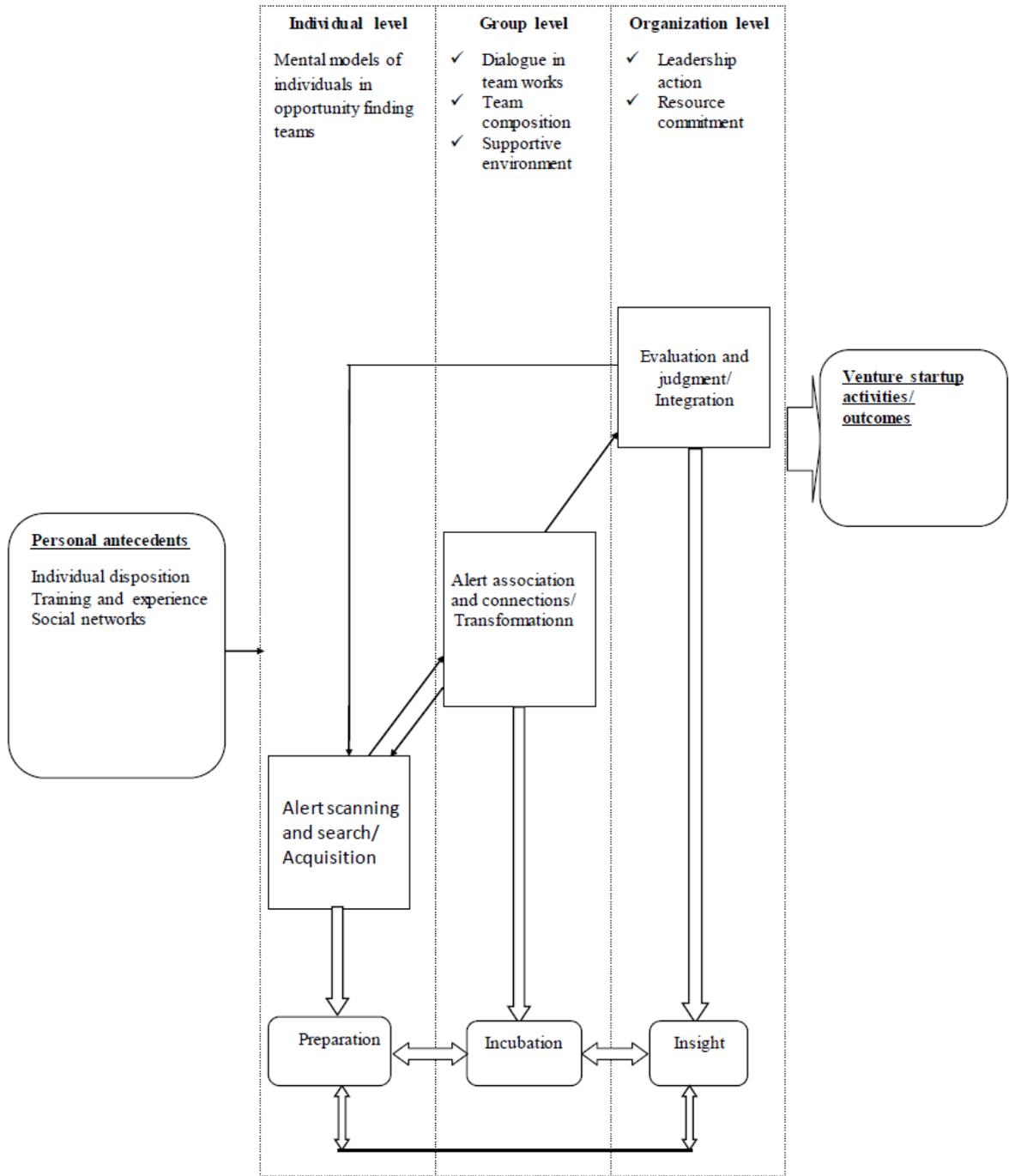
The accelerators of Organizational Entrepreneurial Alertness include ‘Mental models of individuals in opportunity finding teams’ in individual level, Dialogue in team works in the group level and Team composition and Supportive environment in organizational level.

We used the relationship between absorptive capacity and organizational learning (Sun and Anderson, 2010) for the accelerators. The accelerator in individual level includes ‘Mental models of individuals in opportunity finding teams’. This section happens individually. The accelerators in the group level include Dialogue in team works, Team composition and Supportive environment. This section happens between the individuals and between the groups. The accelerators in organizational level include Leadership action, Resource commitment. This section happens between the top levels of managers, entrepreneurs and organization’ executives. The interview results and the focal group approved these accelerators.

DISCUSSION AND CONCLUSION

After research review, interview and meth-synthesis of previous researches and using multi-level theorizing method, in a focal group of researchers, we developed a framework for organizational entrepreneurial alertness (Figure 4). The final research framework includes three main parts, antecedents, main process and consequences. Personal antecedents used for the entrepreneurial alertness at the individual level. The main process includes three segments in three levels, Accelerators, Entrepreneurial alertness and opportunity discovery in the individual, group and the organizational levels. We used the organizational learning process (Jerez-Gomez, Cespedes-Lorente & Valle-Cabrea, 2005) (Figure 3) for the main process part. Entrepreneurial alertness includes alert scanning and search/Acquisition in individual level, Alert association and connections/Transformation in group level and Evaluation and judgment/Integration in organizational level. Opportunity discovery includes Preparation in the individual level, Incubation in the group level and Insight in the organizational level. We used three dimensions of alertness in the opportunity discovery process (Tang, 2007) (Figure 1) for opportunity discovery. The final model also has a consequence, Venture start-up activities/outcomes.

According to the final model, the organizational entrepreneurial alertness process includes three steps. The case study of this research was about food industries. We also used Tang, Kacmar & Busenitz (2012) questionnaire for entrepreneurial alertness. In the first step, Alert scanning and search/Acquisition or preparation of information, the entrepreneur is looking for new information, for example, in the international food industry companies, the entrepreneur is looking for new information of a new product or new market, new customers or new entry mode to market. For this purpose, the entrepreneur interacts to others for acquiring new information or keeps an eye out for new business ideas, read news, magazines or trade publications or browse the internet and always actively looking for new information. The mental model of an entrepreneur or mental models of individuals in opportunity finding team creates a new vision of potential opportunities. This section can take place in marketing, research and development or international department of an organization. So the process happens individually or at the individual level.



**FIGURE 4
FINAL RESEARCH FRAMEWORK**

At second stages, alert association and connection/transformation or incubation of information, connecting the dots can happen and links between seemingly unrelated pieces of

information can be seen. The section can be happening in group sessions in an organization and in dialogs between the team works. Supportive environment can accelerate this process.

At the last stage, Evaluation and judgment/Integration or insight of opportunity, can happen in the top level of organization (the top level managers and the executive teams). They can distinguish between profitable opportunities and not-so-profitable opportunities. They are able to select the good ones of opportunity. Leadership action and resource commitment needs to start exploitation of these opportunities.

The paper begins with an overview of previous researches in this area and then moves on to combine them with use of meth-synthesis to create a new framework and we changed the levels of entrepreneurial alertness from individual to group and from the group to the organizational level with multi-level theorizing method. Research achievements for academic staff and researchers include development of opportunity discovery and entrepreneurial alertness theories and also promote the level of entrepreneurial alertness from the individual level to the group level and from the group level to the organizational level. Research achievements for policy makers, executives and related industries include shifting the entrepreneurship toward opportunity centric theories. The researcher will be able to use this framework for extending opportunity discovery and entrepreneurial alertness theories in individual, group and organizational levels and also they can extend this framework to international entrepreneurship. By using the final framework, entrepreneurs and organizations will be able to discover new opportunities and teachers will be able to educate organizational entrepreneurial alertness and opportunity discovery in individual, group and organizational levels.

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