

The Impact of Entrepreneurial Leadership on Exploratory Innovation and Exploitative Innovation of New Ventures

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Abstract

The purpose of this paper is to investigate the relationship between entrepreneurial leadership, exploratory innovation and exploitative innovation. A questionnaire which is designed as a self-reported survey that was distributed to individuals working in teams of corporations that are based in Syria, with a collected sample size of 303 respondents from 17 new ventures. Results show that entrepreneurial leadership has a direct positive effect on exploratory innovation and exploitative innovation. Entrepreneurial leadership is more impactful on exploitative innovation, compared to exploratory innovation. The main contribution of this study is highlighting the role of entrepreneurial leadership as an independent variable and the outcome of organizational innovation as a dependent variable which is measured by exploration and exploitation activities.

Keywords: Entrepreneurial Leadership, Exploratory innovation, Exploitative innovation.

Introduction

In the Syrian business environment, many new ventures have emerged, which in many cases have faced failures. Many of the literature in the context of new ventures have indicated that there are many reasons why the new ventures may fail. The most important reason for the failure of these new ventures is the lack of leaders able to direct the resources of the new ventures properly. The success of any new ventures requires focusing on both short-term and long-term perspective. Focusing only on short-term objectives (exploitative activities) is not sufficient in the contexts of new ventures, as this may lead in future loss of competitive advantage due to the absence of (exploratory activities) that can provide continuity in the

future. In our research, we will point out the importance of focusing leaders in new ventures exploit of resource (exploitative innovation) and exploration of resources (exploratory innovation) in order to ensure that new ventures do not fail. Therefore, in this study, we will focus on entrepreneurial leadership practices based on (exploitation and exploration), which is one of the most appropriate leadership styles for the nature of new ventures.

Leadership is becoming increasingly important as a capability that encourages teams to engage in collective creativity towards the best possible outcome. Moreover, leadership plays an even more crucial role when the competitive landscape in the global business environment changes with increasing risks, decreasing ability to forecast, disappearing industry boundaries and emerging new business arenas across industries (Hit, 1995) (Hitt and Reed, 2000). Such conditions require organizations to continuously explore and exploit opportunities to sustain their competitive advantage in order to ensure their wealth creation through organization learning, creativity, and innovation (Ireland, 2003) (Torokoff., 2010). Organizations must embrace entrepreneurial behaviors and attitudes that foster adaptation and innovation (Renko M. T., 2013). Mintzberg and Waters (1982) characterized entrepreneurial strategy by its degree of deliberateness and clear vision with flexibility to allow such vision to change. (Tidd, 2014) indicated that there is a strong linkage between entrepreneurship and innovation. Innovation is defined as the socially and economically successful introduction of a new technology or a new combination of existing technologies in converting or transforming input into output such that it creates a drastic or significant change in the use value and monetary value (price) relationship based on the perception of consumers and/or users (Fontana, 2009-2010-2011). Stevenson and Jarillo (1990) defined entrepreneurship as a process by which individuals or teams in the organization pursue opportunities without regard to the resources they currently control to create wealth (Stevenson, 1990). Entrepreneurship is a context dependent social process through which individuals and teams create wealth by bringing together unique packages of resources to exploit marketplace opportunities under the direction of leadership (Ireland, 2003).

Cogliser and Brigham (2004), further indicated that there are intersections between entrepreneurship and leadership (Cogliser, 2004). Vecchio (2003) viewed that entrepreneurship as a type of leadership that occurs in a specific setting with the emphasis on opportunities seeking to create wealth (Vecchio, 2003). Entrepreneurial leadership thus is a unique leadership style that focuses on making heterogeneous talents work in an organization more creatively and innovatively in collective processes in order to respond to an uncertain business environment (innovation process) and to create coherent strategies and novel outcomes (innovation performance).

This study aims to validate the entrepreneurial leadership measurement based on the conceptual entrepreneurial leadership dimensions which are adapted from Gupta, MacMillan and Surie (2004). Next, the study assesses the potential effects of entrepreneurial leadership on both types of innovation (exploratory and exploitative). Figure 1a shows the research's conceptual model on entrepreneurial leadership, exploratory innovation, and exploitative innovation.

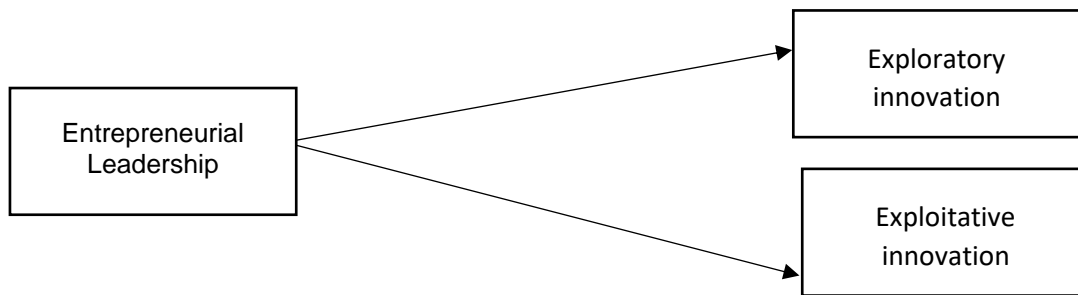


Figure 1a: Research Model on Entrepreneurial Leadership -Exploratory innovation-and Exploitative innovation

Literature Review and Hypothesis Development

Entrepreneurial Leadership

Entrepreneurial Leadership could be defined as the process of influencing organizations through leading and direct involvement in creating value for stakeholders by bringing together a unique innovation and package of resources to respond to a recognized opportunity. Entrepreneurial Leadership involves breaking new ground beyond the unknown to create the future by transforming its current transaction sets into entrepreneurial actions. (Gupta, 2004) indicated that Entrepreneurial Leadership creates visionary scenarios to assemble and mobilize a supporting cast of participants who become committed by the vision of the discovery and exploitation of strategic value creation. Further, the study of (Kuratko, 1996) indicates that Entrepreneurial Leadership must be able to make strategic plans for the future to maintain organizations' goal achievement.

A dominant framework of entrepreneurial leadership is the typology of Gupta, MacMillan and Surie (2004), which focuses on the five roles of entrepreneurial leadership, namely, framing the challenge, absorbing uncertainty, underwriting, building commitment and defining gravity (Gupta, 2004). The characteristics and descriptions of the five roles are listed in Table 1.

Table 1.

The Five Roles of Entrepreneurial Leadership

| Roles | Characteristics | Descriptions |
|-----------------------|---|---|
| Framing the challenge | Performance orientation Ambitious Informed Intuitive | Sets high standards of performance. Works hard and sets high goals. Knowledge of the situation. Guided by his or her additional insight. |
| Absorbing uncertainty | Visionary Has foresight Builds confidence | Forges a vision and imagination of the future. Anticipates possible future events. Instils confidence in others by showing confidence in them. |
| Underwriting | Diplomatic Negotiator Convincing Encouraging | Skilled at interpersonal relations. Transacts with others on favourable terms. Persuades others to accept his or her Viewpoint. Reassures and advises others to give them courage or hope. |
| Building commitment | Enthusiastic Inspirational Team builder | Displays and imparts strong positive emotions for work. Inspires emotions, beliefs, values and behaviours of others to work hard. |

| | | |
|------------------|--|---|
| | Improvement oriented | Appeals to group members to work together. Seeks to improve performance continuously. |
| Defining gravity | Integrator Positive Intellectually stimulating Decisive | Integrates people or things into cohesiveness. Generally displays optimistic and confidence when faced with obstacles. Encourages others to think. Makes decisions firmly and quickly. |

Source: Adapted from Gupta, MacMillan and Surie (2004).

Exploratory / Exploitative Innovation

An organization's innovation has a broad content: developing new products, new services, and new technologies, creating new managerial systems, new plans, and new procedures (Damanpour., 1996). According to the innovation degree and knowledge base, exploratory innovation and exploitative innovation have been classified.

Exploratory innovations are radical innovations and are designed to pursue the emerging probability (March., 1991). A firm's exploratory innovations offer new designs, create new market segments, develop new channels of distribution, and supply the services for emerging customers (Benner M. a., 2003) (Danneels., 2002) (Volberda., 2006). Exploratory innovations tend to gain and create completely new knowledge and to depart from existing ledge (Tushman., 2002) (Levinthal D. a., 1993)

Exploitative innovations are incremental innovations and are designed to improve the existing situation (March., 1991). A firm's exploitative innovations improve established designs, broaden existing knowledge and skills, extend and enhance the available product lines, increase the efficiency of existing distribution channels, and supply better services for existing customers (Tushman. B. a., 2003) Exploitative innovations build on existing knowledge and tend to refine, integrate, reinforce, and improve it (Tushman., 2002) (Levinthal D. a., 1993) (Lewin, 1999).

Exploratory innovations and exploitative innovations improve firm performance in different aspects. Exploitative innovations increase efficiency in the short-term, and add to current income, while exploratory innovations increase competitive power in the long run, and add to future income (March., 1991). There are close relations between short- and long-term performance, efficiency and effectiveness of firms, which are reciprocal transformations. Hence, both exploratory innovations and exploitative innovations have positive effects on a firm's holistic performance.

Entrepreneurial Leadership, Exploratory and Exploitative Innovation

According to what previous literature referred to, entrepreneurial leaders in new projects always seek to create a state of stability, which improves the financial state of the new project, in which an entrepreneurial leader seeks to achieve such stability by using exploitative activities and practices that are based on improving current products and services and focusing on current customers, in other words, the entrepreneurial leader uses behaviors and practices based solely on investing in current knowledge, whereas everything previously mentioned would improve the new project's state over the short term. A lot of previous literature pointed out that an entrepreneurial leader of a new project often seeks to guarantee the continuity of that project over the long term, therefore he adopts exploratory activities and practices that are mainly based on producing completely new products and

services and establishing new emerging markets in order to achieve that goal, meaning that an entrepreneurial leader utilizes behaviors and practices based on quitting current knowledge and orients himself towards new knowledge (Huang., 2014).

Hypothesis

Hypothesis 1: Entrepreneurial leadership is positively related to exploratory innovation.

Hypothesis 2: Entrepreneurial leadership is positively related to exploitative innovation.

Research Methodology

Data Collection and Sample

Data for this study were collected from both primary and secondary sources.

Secondary data were collected through comprehensive literature review. The primary data were collected from new ventures in Damascus, Syria. A total sample of 303 respondents was selected from new ventures in Damascus. A questionnaire related to the study's variables was the main tool of this study.

Measurement

The questionnaire included three sections: Entrepreneurial leadership (Framing the challenge, absorbing uncertainty, Underwriting, Building commitment and Defining gravity) Exploitative innovation, Exploratory innovation and basic demographic information. Apart from basic demographic information, a 5-point Likert scale format was used, the scores on the scale ranged from 1=Strongly Disagree to 5= Strongly Agree.

4.1. Entrepreneurial leadership: entrepreneurial leadership is measured using 25 items, 5 item for each dimension which is taken from study by (Gupta, 2004).The scale reported reliability 0.807.

4.2 Exploratory innovation and Exploitative innovation: exploitative and exploratory innovation are measured using 10 items, 5 item for each one which is taken from study by (Jansen J. V., 2009). The scale reported reliability 0.849 for exploratory innovation and 0.818 for exploitative innovation.

Findings

This study examines the impact of Entrepreneurial leadership on exploratory innovation and exploitative innovation. Table (3) shows the results of the regression analysis regarding the effect of Entrepreneurial leadership on the dependent variable (exploratory innovation). As presented in table (2), model is significant at 5% level ($R^2 = .137$).

Table (5) shows the results of regression analysis regarding the impact of Entrepreneurial leadership on dependent variable (exploitative innovation). As presented in table (4), model is significant at 5% level ($R^2 = .169$).

Coefficient of Entrepreneurial leadership is significant and positive for exploratory innovation ($P < 0.05$).thus H1 is supported and Coefficient of Entrepreneurial leadership is significant and positive for exploitative innovation ($P < 0.05$), thus H2 is supported.

Table (2)

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1 | .370a | .137 | .134 | .59604 |

a. Predictors: (Constant), Entrepreneurial leadership

Table (3)
Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig |
|----------------------------|-----------------------------|------|---------------------------|-------|------|
| | B | Beta | Beta | | |
| (Constant) | .983 | .157 | | 6.278 | .000 |
| Entrepreneurial leadership | .549 | .080 | .370 | 6.887 | .000 |

a. Dependent Variable: exploratory Innovation

Table (4)
Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1 | .411a | .169 | .166 | .53374 |

a. Predictors: (Constant), Entrepreneurial leadership

Table (5) Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig |
|----------------------------|-----------------------------|------|---------------------------|-------|------|
| | B | Beta | Beta | | |
| (Constant) | .939 | .140 | | 6.693 | .000 |
| Entrepreneurial leadership | .557 | .071 | .411 | 7.805 | .000 |

a. Dependent Variable: exploitative innovation

Conclusion

Based on the results mentioned above, we have found that entrepreneurial leadership had a strong and positive significant effect on exploratory innovation ($B=0.37$) at a level of significance ($Sig \leq 0.001$), which emphasizes the importance of entrepreneurial management practices within new projects and the size of its effect on exploratory innovation, perhaps the reasonable explanation for that is that an entrepreneurial leader attempts to increase the new project's market share by utilizing activities that depend on prospecting, searching, exploring and risk taking, through inserting radically new products and services, where we can say that an entrepreneurial leader strives to insert new services and products and establish new emerging markets is essentially based on quitting current knowledge that lays within the new project and orient himself towards new knowledge that would be the corner stone for long term strategic planning that results in the continuity of the new project over long periods of time. Also, by examining the previous results, we have found that entrepreneurial leadership had a positive and strong significant effect on exploitative innovation ($B=0.41$) at a significance level of ($Sig \leq 0.001$), which emphasizes the importance of entrepreneurial management practices within the new project and the size of its effect on exploitative innovation, perhaps the logical interpretation of that is that an entrepreneurial leader

attempts to guarantee that stability of the project and guarantee the availability of financial resources over the short term by using activities that depend on investing in current knowledge, through inserting gradual modifications and improvements on current products and services and focusing on current markets, therefore it's fair to say that an entrepreneurial leader's focus on practices and activities that are essentially based on current knowledge is one of the most important factors that contribute to the stability of the new project over the short term. Through focusing more on the results of this research, we have found that the effect of entrepreneurial leadership on exploitative innovation was ($B=0.41$) which is greater than the effect of entrepreneurial leadership on exploratory innovation ($B=0.37$), which could be logically explained because an entrepreneurial leader -especially in new projects- resorts to activities that do not contain experimenting, prospecting and risk taking, due to concern of losing financial resources that could cause a fiscal deficit which could result in the inability of continuation for the project, therefore he attempts to focus on the activities of exploitative innovation more than the activities of exploratory innovation.

Theoretical Implications

This study has several theoretical implications. First, past research has devoted little attention to the performance mechanism of entrepreneurial leadership (Wang C. T., 2012). The current study broadens the focus of entrepreneurial leadership research and presents a more complex scheme on how entrepreneurial leadership influences new venture innovation (Huang., 2014). This paper addresses not only the call for more leadership paradigms to be considered in the leadership–innovation relationship, but also the call for more empirical research that highlights the importance of leadership in the entrepreneurial context. Second, we have revealed the influence of entrepreneurial leadership on new venture exploratory and exploitative innovations. Moreover, our results provide evidence for notion that the survival and success of an organization depend on the ability to emphasize both exploitation to ensure the organization's current viability, and exploration to ensure future viability. Finally, this paper enriches existing leadership studies on firm innovation by identifying entrepreneurial leadership as a salient antecedent of exploratory and exploitative innovations (Lin, 2011).

Practical Implications

Our findings also have several practical implications. First, our results indicate the importance of entrepreneurial leadership for the two types of innovation in new venture, outcomes of great interest for managers. Thus, new ventures may find it useful to emphasize leader selection and development so that entrepreneurial leadership behaviours are exhibited by leaders (Huang., 2014). The literature has suggested that through leadership training programmes, leaders can learn to be more effective to display entrepreneurial leadership (Vecchio R., 2003). For example, entrepreneurial leaders should concentrate their efforts on developing a vision, actively communicating the vision to their followers, and inspiring followers to pursue the shared vision. Moreover, entrepreneurial leaders should pay attention to team building, such as appealing to the higher needs of followers, instilling loyalty among them, and promoting their entrepreneurial self-efficacy (Huang., 2014). Second, the results suggest that leaders of new ventures should not only learn about entrepreneurial leadership competencies, but also assist other groups of people such as aspiring entrepreneurs, venture capitalists and teachers of entrepreneurial education (Huang., 2014).

Directions for Future Research

This study shows that there is direct relationship between entrepreneurial leadership and innovations (Exploratory , Exploitative) Without examining the effects of environmental factors on this relationship, therefore We suggest that researchers examine how environmental variables can influence on entrepreneurial leadership behaviors in relation to exploratory and exploitative activities under these environmental factors.

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