

ROLE OF ENTREPRENEURIAL LEADERSHIP AND COMMERCIALIZATION OF UNIVERSITY RESEARCH: A REVIEW

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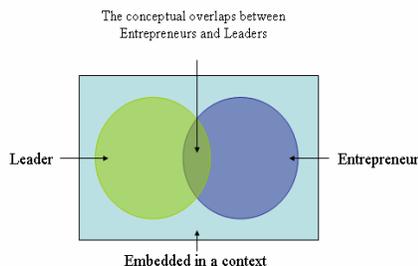
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Graphical abstract



Abstract

Recently, universities are playing active role in economic development of the country, besides their traditional role of teaching and research. Research has shown that the increasing global trend of entrepreneurial activities emerging in major academic institutions have left universities with no choice but to re-invent their operational activities and engage themselves in entrepreneurial activities to remain competitive globally. However this transformation required entrepreneurial leadership that can lead universities to enhance the commercialization of their research. Thus, in this regard, entrepreneurial leadership is inevitable for universities. Current study provided the review of literature which argues the need for entrepreneurial leadership in the context of commercialization of university research.

Keywords: Entrepreneurial leadership; transformation; commercialization

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1.0 INTRODUCTION

Recent research has shown that the increasing global trend of entrepreneurial activities emerging in major academic institutions have left universities with no choice but to re-invent their operational activities and engage themselves in entrepreneurial activities to remain competitive globally [1]. [2] View that the traditional academic viewpoint dictates universities to have sole focus of teaching, learning and research and not involve in commercial activities. This traditional academic thinking has continued for centuries mainly due to protection of the government [3]. In the public protected environment there was no pressing need for universities to change their previous academic philosophies; hence there was reluctance on their part to enter into the marketplace [4]. The competitive higher education environment, where public and private sector

universities strive for funding from both public and private sectors, as well as the government emphasis on universities to engage into research and development for knowledge and technology development has compelled these universities to venture into entrepreneurial activities [5].

[6] While discussing academic spin-off activity has developed a framework which is based on researchers' abilities as well as including organisational and external factors to spin-off creation from university platform. Similar characterisation has been employed by [7] in which the authors take into account individual attributes of the researchers to involve in commercialisation activities. Researchers have highlighted that individual attributes focuses on the individual actions based on individual personalities, traits, and ability to conduct entrepreneurial activity [3].

2.0 LITERATURE REVIEW

2.1 Entrepreneurial Leadership

The concept of entrepreneurial leadership is fairly a new and researchers have tried to combine the two concepts in entrepreneurial leadership to explore both leadership and entrepreneurship behaviour [8]. Since leadership plays a key role in the success of an organization [9, 10]. Therefore, entrepreneurial leadership model has been used to show both entrepreneurship and leadership behaviour [8]. According to [11] entrepreneurial leadership encompasses characteristics of an entrepreneur such as proactiveness, opportunity identifier, creative, innovative, risk taker and competitive.

The need for an entrepreneurial leader is direly felt in the changing complex, dynamic and uncertain environment [12]. To manage such a complex and dynamic environment, specific personality traits, behaviours and competencies are required [13]. Thus, understanding entrepreneurial leadership is important for theoretical and practical reasons because entrepreneurial leaders are the individuals that will need to lead organisation in today's dynamic market environment and identifying personality traits and competencies would help to evaluate organisation and new venture success [13].

To be an entrepreneurial leader an individual should be a leader as well as an entrepreneur [14] and should be considerate towards others [15]. The Figure 1 shows the context and its impact on Leadership/Entrepreneurship. It is clearly seen that there is an overlapping of leadership and entrepreneur. An entrepreneur is a leader in his/her context.

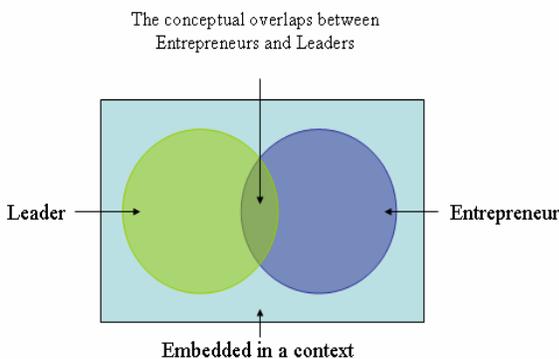


Figure 1 Contexts and its Impact on Leadership/Entrepreneurship [14]

2.2 Characteristics of Entrepreneurial Leadership

The characteristics of successful entrepreneurial leaders has been outlined as optimism, need to achieve, self-esteem, locus of control, goal orientation, courage, screening for opportunity, tolerance for ambiguity, and strong internal

motivation [16]. According to him, firstly, an entrepreneurial leader's self esteem is a valuable trait to take on tough challenges. This self-esteem gives them a sense of their own self-worth. Secondly, entrepreneurial leaders need to have a sense for achievement. Leaders high on this need to achieve are not only open to feedback but are also goal oriented and strive for accomplishment based on their own efforts. Thirdly, entrepreneurial leaders should possess the intelligence to separate useful information from useless information. Knowledge of environment and experience helps entrepreneurs to make strategic choices that would have a direct bearing on the success or failure of his/her venture [17]. This characteristic helps them to exploit opportunities that others have missed. Fourthly, researchers have highlighted that successful entrepreneurial leaders have a high internal locus of control and are more successful than those who have high external locus of control [17]. Individuals high on the internal locus of control view success as their own personal efforts and also accept failure as their own. Fifth, the characteristic of goal orientation is evident when entrepreneurial leaders have relentless drive to accomplish goals. They understand what the priorities are and continue to work toward their goals daily.

Underlying successful entrepreneurial leadership is a boundless optimism that helps them to view a challenge as a new direction. Their positive view serves as the foundation for dealing with the many setbacks they will encounter as they attempt to grow their businesses. Entrepreneurial leaders are also very high on tolerance for ambiguity. As majority of entrepreneurial ventures start up in uncertain environment therefore, this characteristics gives entrepreneurial leaders resilience to many problems and challenges that they face. Lastly, entrepreneurial leaders are driven by strong internal motivation to achieve.

Researchers are of the opinion that for an individual to be entrepreneurial leader skills like financial management, communication, motivating others, vision/direction, self-motivation are necessary ingredients [14]. In essence, these characteristics focus on results that are derived from the psychological characteristic school of entrepreneurship, based on a belief that the entrepreneur's behaviour is a result of attempts to satisfy inner needs [18]. Entrepreneurial leaders must be self-confident and able to show that they are, so that their employees and investors will feel confident with the venture [8]. Another term that may be associated with confidence is self-efficacy. [19] Contributed work on self-efficacy and asserted that it was the belief that one factor which made it possible for an individual to contribute are personal resources, competencies, and skills needed to reach achievement. Additionally, scholars have shown that individuals who have high self-efficacy "will exert more effort for a greater length of time, persist through setbacks, set and accept higher goals, and

develop better plans and strategies for the task" [18]. Also, a person with high self-efficacy is more willing to accept negative feedback and use that feedback to improve upon his processes that would lead to higher success ratio which may be tangible or intangible in form [17-19].

Entrepreneurial leaders are persistent, and this is consistent with previous study which indicated on the importance of entrepreneurs setting goals and working consistently toward the goals until they are achieved [20]. In order to be successful, entrepreneurs must meet head-on many difficult barriers. Entrepreneurs take calculated risks and know failure is an option. If they fail, they simply get back up, revise the plan or find another opportunity, and begin the cycle again. Entrepreneurial leaders are able to take advantage of their knowledge base, their self-confidence and pro-activeness, their innovativeness, and their communicative skills, which allow them the opportunity to be persistent so they can achieve their goals [8].

Communication is an essential element that Entrepreneurial leaders should adopt to build a coalition of supporters. One of the first steps an entrepreneur undertakes in building his coalition is to communicate the vision. Research has shown that the entrepreneur's vision may be communicated by his actions and by motivational presentations [8]. Vision communication was reported to have an important relationship with an employee development. Entrepreneurial leaders establish and communicate their vision in a manner that explains the established goals and inspires stakeholders to have confidence in a vague future [9, 10].

[21] Have highlighted specific areas that are essential in entrepreneurial perspectives. They recommend entrepreneurial leadership styles that they believe are most effective because they are critically reflective, socially interactive, and experiential. These styles pertain to the most widely used leadership styles of transformational leadership and transactional leadership. These styles correspond to the leadership styles provided by [22]. The proceeding section highlights the three major leadership styles that have been adapted for the present study.

2.3 Commercialisation of University Research

The roles of universities have evolved over a period of time from traditional teaching and research and development towards commercialisation of research in the 21st century. Traditionally, universities were considered to be haven of learning and research and were not supposed to venture into market [2]. This notion continued for over two decades, where higher education institutions were protected from competition by public funds [3]. Over the last two decades, however, many changes have affected the higher education institutions worldwide such as reduction in government funding and increased competitions with the entry of private corporations

into the business of higher education [16]. As a result, for many institutions, monetary concerns have become of importance and the commercialisation of research has become of one of the avenues for generating resources.

The university by its very nature is not a for-profit business. Its primary purpose encompasses education and research. Researchers have highlighted that the university mission is different from corporate mission; where corporate mission is to maximize profits and the university mission is to create and disseminate knowledge for public good [23]. With the decreased funding from the central governments universities are taking up entrepreneurial roles to replenish the financial resources to continue their research activities for societal benefits [24].

Modern complex and competitive environment has rendered many educational institutions to seek and generate resources for their operations apart from getting resources from their traditional sources such as government. To survive and thrive in competitive times, an educational institution may be required to make substantial changes in the way they do their business, thus requiring to restructure their mission and activities [23]. For this purpose, universities try to be entrepreneurial in nature through commercialisation of their research activities. [24] Are of the opinion that these entrepreneurial activities that are followed by the educational institutions are not for seeking profits making but for the continued economic health of an institution. Entrepreneurial activities such as commercialisation of research would provide universities an avenue to sustain and survive in the current competitive atmosphere [25].

3.0 CONCLUSION

Innovation has become the basis of competitive advantage [20]. They further reported that Entrepreneurial leaders understand that innovation is not just technical, but a process that includes creativity to help improve a product or service. Innovation is a change agent that is derived from the knowledge base of the entrepreneurial leader. In a study conducted by [26], they determined that if the entrepreneur has a great degree of new resource skill, then the venture is likely to have greater venture growth. Baum and Locke defined new resource skills the ability to acquire and systematize the operating resources needed to start and grow an organisation [12] Entrepreneurial leaders have to find innovative ways to acquire the various resources they need for their employees. Furthermore, entrepreneurial leaders are innovative in creating opportunities in their ventures that allow their employees to be empowered [8]; hence, this can be viewed as a proactive stance to keep the best and brightest employees. In an academic setting, academic leadership strives to be innovative through commercialisation of research. This is achieved by

helping the inventors and researchers to be more innovative in their approach and by providing incentives to them to commercialise.

Technology commercialisation begins with leadership and it ends with leadership to [27]. The leadership support is critical but that leadership needs to support the range of activities that encourage technology commercialisation [2]. The best conductors within entrepreneurial setting are proactive academic entrepreneurs [28]. Similarly, a program requires genuine experts at all key leverage points such as training, whether students or staff. The US experience shows that ambitious programs see this as a golden opportunity to recruit top entrepreneurship scholars and educators who also have entrepreneurial expertise [29]. Whilst the technology commercialisation professionals must embrace the uncertainty, they must also embrace the need of other stakeholders for legal compliance and maintaining the integrity of the process.

One thing that always characterises an effective entrepreneurial organisation or an effective entrepreneurial community is that leaders make a visible effort to demonstrate their support for entrepreneurial activities. Leadership is more critical than generally recognised; what they say, however, and how they say it matters too. Leaders need to show that they understand what they are advocating [25]. Leadership can serve the process well simply by clarifying what is, and what is not expected. Some university administrators perceive a mandate to avoid commercialisation [2]. However, even if this is not the real mandate, it is perceived as such by key actors in the technology commercialisation ecosystem. Authors argued that successful organisations need a clear strategic intent to guide the activities of the organisation and its members [30]. While, [19] posits that leadership is a key ingredient that cannot be readily quantified.

3.1 Future Recommendations

Overall, the present study argues that entrepreneurial leadership can play an important role in the commercialisation. However, the knowledge on the entrepreneurial leadership towards the commercialization of the university research is limited. Study recommends future researchers to empirically investigate the relationship between the entrepreneurial leadership and university research commercialization.

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