Using Technology Transfer as Mediator Between Leadership Style and Entrepreneurial Orientation for Commercialization to Thrive: A Conceptual Framework

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Considering the high emphasis placed by nations recently on higher educational institutions for researches that can be commercialized, there is paucity of empirical researches and evidence on the examination of whether leadership style and entrepreneurial orientation could spur commercialization activities in the Nigeria Polytechnics. Furthermore, no empirical evidences can can/have provided answers to how leadership style and entrepreneurial orientations of higher institutions of learning to influence commercialization of academic researches. To address this void, this paper proposes a conceptual framework initiating a linkage between leadership style and entrepreneurial orientation to commercialization, using technology transfer office as a mediating variable to permeate the relationship.

Key words: Conceptual Framework, Leadership Styles, Entrepreneurial Orientation, Commercialization, Technology Transfer

INTRODUCTION

Overtime, researches on leadership and entrepreneurship orientation has shown that the increasing global quest for entrepreneurial activities is emerging in most academic institutions leaving them with no choice but to engage in different entrepreneurial ventures to remain competitive globally (Elenurm and Alas, 2009). This has make them just like the industries strive to embrace innovation and commercialization of their activities (Duening and Sherrill, 2005; Drucker, 2006). Chan et al. (2012) points out that the traditional academic viewpoint dictates academic institutions have previously focus only on teaching, learning and research with little or no involvement in turning them into commercialization. This traditional academic thinking has continued for centuries mainly due to protection of the government worldwide (Buenstorf and Geissler, 2012; Berman, 2008; Bercovitz and Feldman, 2008; Ismail and Ajagbe, 2013). Today, the competitiveness in higher education environment, where institutions are continually seeking for more funding has brought the realization of the need to engage into researches for knowledge and technology development. This no doubt has compelled institutions nowadays to venture into
entrepreneurial activities through commercialization (Dahl and Sorenson, 2011; Kenny and Patton, 2012; Merrill and Mazza, 2010; Bianchi et al., 2011).

Researches further conducted on this field reveals that entrepreneurship is relatively new to the higher institutions environment, specifically to most developing and underdeveloped nations (Raunuch et al., 2009). It has make commercialization of academic research depends on the institutions leadership style of management to generates the needed support to encourage academic staff to want to commercialized their research efforts (Chan et al., 2012). Thus, most studies on this have point that the type of leadership behaviours present is essential to determine the long term success of institutions and the society in general (Arham and Muenjohn, 2012; Bass and Riggio, 2006). It is thus, a general consensus among most scholars that in a competitive environment, organizations are supposed to be entrepreneurially oriented, to compete and survive and leaders are required to build, inspire, further and uphold entrepreneurial orientation within the organizational setting to enhances the overall performance and productivity (Felgueira and Rodrigues, 2012; Arham et al., 2011; Duening and Sherrill, 2005; Bercovitz and Feldmann, 2008; Berman, 2008).

From foregoing, a considerable amount of studies has shown an increased pressures from the governments for academic institutions to engage in research & development activities for commercialization to enhance economic and national development. Such activities require leadership attributes, dispositions and skills that are peculiar of entrepreneurs may be an important predictor of how extensively their universities embark on entrepreneurial activities (Garcia-Villaverde et al., 2010). Despite a lot of studies on leadership styles and entrepreneurial orientation, to date researchers have offered little or not much theoretical explanations on how and when does leadership and entrepreneurial orientation could influence commercialization activities. Resource based view theory may provide a valuable insight for understanding the relationship. Similarly, the study will add drawing the theory how technology transfer offices can provide mediation role on the relationship between leadership style and entrepreneurial orientation on commercialization.

LITERATURES REVIEW AND STUDY PROPOSITIONS

O’Shea et al. (2008) have highlighted that the entrepreneurial disposition and individual’s abilities are important in shaping the individual’s behaviour regarding commercialization. Bakar and Mahmood, (2014) further stress that there is need to emphasized why academic institutions to become entrepreneurial, and to have a change in approach of leadership to ensure maximum growth.

Leadership Style (LS):

Powell (2010) has suggested that a study of past and present leadership styles is imperative to research on developing skills, knowledge, and a foundation from which to lead organizations into a new millennium. Kezar et al. (2006) perceive leadership as a process which is a key to worker’s engagement and attention on attaining organizational mission. Muscio et al (2013) finds leadership as a necessary ingredient to transit an organization to meet the challenges of industry changes and bring the organizations through the transition from good to successful
Researchers are of the view that to be a good leader certain skills such as establishing and maintaining networks, problem solving, conflict resolution, information processing, on the spot decision making, sensible risk taking, and introspection are necessary (Sypawka, 2008; Lustik, 2008; Powell, 2010; Collier and Gray, 2010). However, researchers are of the view that the most important skill and ability of a leader is to influence and direct other people motivation (Astebro and Bazzazian, 2011). Leaders are effective through self-assessment, analysis, and the implementation of multiple leadership styles in individuals as well as in teams (Naqvi, 2009; Hmieleski et al., 2012). All of the above studies point out towards two main styles that are most relevant that is transformational leadership and transactional leadership and thus, the present study utilizes the characterization of leadership styles of transformational, transactional and laissez faire or passive-avoidant as proposed by Avolio and Bass (2004).

**Proposition 1:** There will be a positive relationship between Leadership style and academic research commercialization.

**Entrepreneurial Orientation (EO):**

Many approaches to explain entrepreneurial activities, however, the most frequently cited approaches are those that incorporate personality traits in explaining entrepreneurial activities. McAdam et al (2012) argue that the trait approach to entrepreneurship has been unsuccessful and does not contribute significantly to the knowledge of the domain; however, if a behavioural approach to explain entrepreneurial activity is adopted it would serve a better purpose. Many researchers have adopted a behavioural approach through intention to study academic entrepreneurship (Kim, 2012; Yang, 2008; Powell, 2010). Entrepreneurial orientation is one of the most common and extensively used constructs to describe entrepreneurship (Fini et al., 2010; Renko et al., 2013). The concept of entrepreneurial orientation (EO) has its origins in the literature on strategy (Weiss and Rupp, 2011; Jacobsson et al., 2013). Entrepreneurial orientation was defined as entrepreneurial firms that "engages in product marketing innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations, beating the competition to the punch (Romero Martinez et al., 2010).

Furthermore, entrepreneurial orientation was perceived from a marketing perspective essentially as a more proactive marketing orientation. Hmieleski et al (2012) have equated entrepreneurial orientation with marketing orientation, asserting that an organization needs both orientations if they want to be effective and successful. From a management perspective, however, Huynh (2007) have stressed that entrepreneurial orientation should reside in all management levels and should not be concentrated at the top management level. Well known for their delineation of the EO construct, Kenny and Patton (2012) defined entrepreneurial orientation as a firm's "propensity to act autonomously, innovate, take risks, and act proactively when confronted with market opportunities". They further explained that entrepreneurial orientation is a "process construct and concerns the methods, practices, and decision making styles managers use. As such, they posited entrepreneurial orientation is about the intentions and actions of individuals actively involved in dynamic processes. The EO construct captures the salient features present in entrepreneurial firms, and may be defined as the processes and strategy-making practices that businesses use to identify and launch corporate ventures and entering new markets (Rutherford..."
and Holt, 2007; Litan and Mitchell, 2010). This represents a firm-level orientation that permeates the decision-making styles and practices of organization employees. Importantly, on this, a large body of literature has suggested that EO encourages a broad range of positive organizational outcomes, such as organization performance, new market entry and new product innovation (Rauch et al., 2009).

**Proposition 2:** There will be positive relationship between Entrepreneurial Orientation and academic research commercialization.

**Technology Transfer (TT):**

Technology transfer refers to the process adopted by institutions to transfer the rights of use of their intellectual property to private companies. Given this, Ismail, et al., (2012) highlighted that the institutions being champion of knowledge production are important element for any national system. They further pointed that technology transfer process encompass securing IP rights, prototype development, compliance with regulatory standards and marketing activities. Most nations government support this by establishing technology transfer agencies to enhance the commercialization of academic research and to bring the new technologies to the market with emphasis on strong industry-university linkage (Othman, et al., 2014; Ismail, et al., 2012).

Technology transfer office is seen as a vehicle for not only developing and maintaining industry linkages but also as a support structure for university commercialization activities (Hague and Oakley, 2000). Wright et al. (2007) opines that technology transfer is an important structure in engendering academic entrepreneurship by developing and maintaining synergy and network between institutions and industries. Similarly, Autio, (2007) argue that because institutions researchers often seek financial support for early stage research that may not be funded by other conventional financial sources. They claim that such informal events would further increase faculty ability to acquire financial and human resources as well as increase their knowledge of the market. The role of technology transfer in commercialization activities has been stressed by many researchers with most of them highlighting that for successful commercialization of academic research, the technology transfer should be properly staffed with relevant expertise (Autio, 2007; Hughes et al., 2010).

**Proposition 3:** Technology Transfer will mediate the relationship between leadership style, entrepreneurial orientation and commercialization of academic researches.
PROPOSED RESEARCH MODEL

Building on the foregoing empirical review and theoretical perspectives, this paper proposes a conceptual model as illustrated in Figure 1 below.

![Conceptual Framework](image)

**Figure 1:** A conceptual framework illustrating the need to understand how technology transfer plays a major role to mediate the relationship between leadership styles and entrepreneurial orientations for commercialization of academic researches to thrive.

CONCLUSION

In this study, the preceding discussions have projected that leadership style and entrepreneurial orientation as precursor of commercialization, with technology transfer offices as a potential mediator to attain these relationships. The next and most important thing at this stage now is to conduct an empirical investigation towards validating the proposed relationship in the framework as illustrated in above Figure 1. Doing this, an empirical inquiry will particularly be a step further to indicate the significant importance to the realization of institutions commercialization drive for improve growth and funding.

REFERENCES

36. Muscio, A., Quaglione, D., & Vallanti, G. (2013). Does government funding complement or substitute private research funding to universities? Research Policy, 42(1), 63-75