

Harnessing Technological Orientation in Developing Nigerian University-based Entrepreneurial Ecosystem

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Abstract: *This study highlights the significance of technological orientation in developing Nigerian university-based entrepreneurial ecosystem. The result of this research shows that technological orientation is heavily depended on cost of technology, maintenance of technology and ICT awareness. Constructivist grounded theory, a qualitative typological approach, was employed to uncover the nuances in the dimensions of Technological orientation. Extrinsically, interview data were collected from respondents in Nigerian universities in two stages to identify 7 initial themes and 3 macro-themes. The perceptions of the respondents about Technological orientation was discussed contextually. The emergence of the dimension underscores the obliviousness and low paradigmatic conceptualization of technological entrepreneurial ecosystem in the research ambience. The research inferences are given for future substantive development of technologically improved university-based entrepreneurial ecosystem.*

Keywords: Technological Orientation, Constructivism, Grounded data, University-based entrepreneurial ecosystem, ICT.

1. Introduction

Technology orientation is a global phenomenon (Kim, Im & Slater, 2013; Hakala & Kohtamäki, 2011) fostering the growth of entrepreneurship development (Borges, Hoppen & Luce, 2009; Lichtenthaler, 2016). A plethora of research discovers a positive correlation between technological orientation and entrepreneurial advancement (Kim et al., 2013; Hakala & Kohtamäki, 2011; Borges et al., 2009), and this directly accentuates the development of university-based entrepreneurial ecosystem (U-BEE). Despite the global role of technology orientation as posited by Slater & Mohr (2006), there exist a conceptual differences and causal dichotomies of its position among policy makers and entrepreneurial actors.

This study is cognizant of extant research and contemporary theories of technology in relation to entrepreneurial action. Extant technological theories have had profound

influence on technological orientation (Feenberg, 1995, 2006), thus lending cadence on the development of university-based entrepreneurial ecosystem. Hence, this study shows the low paradigmatic conceptualization of technology orientation in the research ambience.

Low paradigmatic conceptualization of technology orientation is an indigenous issue which can be subjugated for substantive development of university-based entrepreneurial ecosystem development. This article establishes that developing nation and the research context cannot aptly employ validated constructs from developed nations and only substantively developed constructs would assist the entrepreneurial terrains of the research ambience. Technological orientation heightens when there is adequate technological awareness and reduced cost and maintenance of technology.

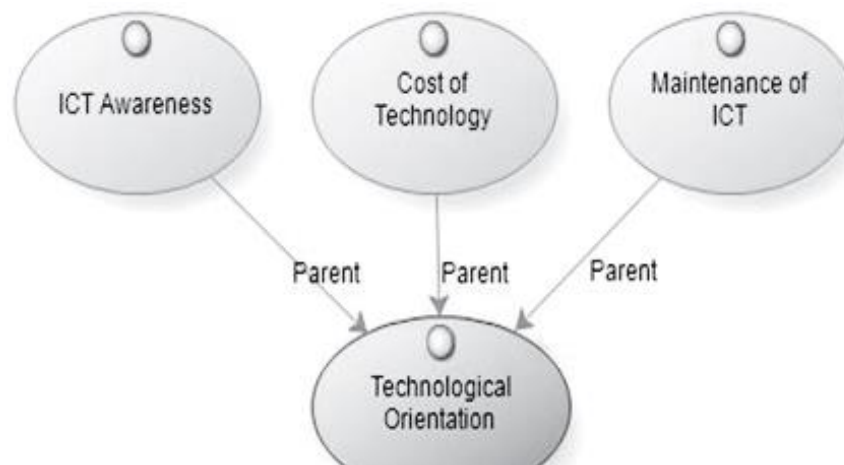


Figure 1: Harnessing Technological Orientation in the development of University-based Entrepreneurial Ecosystem. (Source: Authors' Compilation)

Figure 1. Reveals that technological orientation foreshadows technological awareness, and cost and maintenance of ICT. The distinctive robustness of qualitative typology has accentuated provided technological awareness and cost of technology were kept constant. The dimensional dichotomy of technological orientation shows low nomological significance of technocentric utilities in the research context. There is an on-going debate among scholars over its meaning and management in relation to the development of university-based entrepreneurial ecosystem.

1.1 Problem Statement

Technological orientation is fraught with low paradigmatic conceptualization and is, therefore, lacking substantive base for the development of university-based entrepreneurial ecosystem in

the context of the research. This is necessary to employ an inductive research for the exploration of the dimension of technology orientation in relation to the development of university entrepreneurial ecosystem development in Nigerian universities. Extant studies indicate that there are inconsistencies and low paradigmatic conceptualization of technology orientation and this study substantively explores its implication in Nigerian universities.

2. The Aim of the Research

Qualitatively, this study shows that past and contemporary studies need inductive complementation, and this would aid the paradigmatic conceptualization of technology orientation. Therefore, this paper emphasizes the necessity for the inductive exploration and expansion of the dimensions of technology orientation in relation to the development of university-based entrepreneurial ecosystem in research ambience.

3. Method of Research

Respondents provided a rich data after some stages of observational interviews in 10 Nigerian universities. Transcription follows and a robust data that was grounded in the respondents' rich experience was acquired.

The grounded data was obtained following the rigorous processes highlighted in Constructivist Grounded theory. Respondents' rich experiences is often the basis for grounded data (Charmaz, 2006), and this aided in the emergence of technology orientation. Coding in gerund and other ingredients of Constructivist Grounded theory aids the emergence of indigenous constructs (Charmaz, 2006).

4. Analysis and Discussion

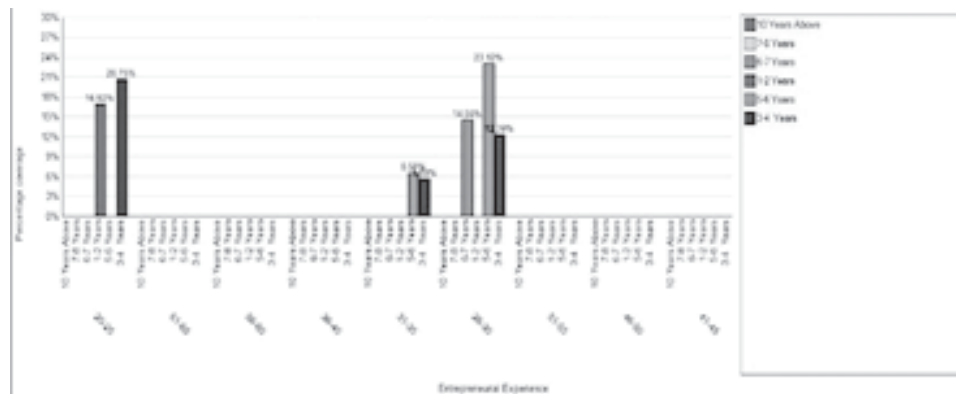


Figure 2: Technology Orientation by Gender and Informants' Years of Experience. (Source: Samuel et al., 2020)

Contextually, this research shows that technological orientation is necessary for the development of university-based entrepreneurial ecosystem. As pictorially depicted in Figure 2 and graphically expanded in Figure 1, this research interestingly shows that technological orientation is not proportional to years of usage or experience. Many informants simply develop interest in technology and within few years, they are able to develop positive entrepreneurial behavior. As seen in the data, it is heavily depended on cost of technology, maintenance of technology and ICT awareness. Some of the informants' experiences apparently resonates this verity:

We need platforms to perform... (Informant 7)

Connections are not readily available... (Informant 13)

Well...some of the universities are trying to provide good technological facilities (Informant 17)

Many of us have blogs and are waiting for start-up capital (Informant 14)

I have internet connections, at least on my phone, but no support from the university (Informant 19)

It is significant to note that the level of technological orientation in the research location is increasing, if respondents in the research ambience could maintain the usage of ICT and other technologies, entrepreneurial behavior would be enhanced. This study supports other findings from existing articles about entrepreneurial readiness index and technological orientation. Raza, Muffatto and Saeed (2019) elaborately analyzed some large data and discovered that entrepreneurial behavior could be enhanced by increased technological orientation. Contextually, facts observed during the research mandated the researchers to come up with these propositions and contextual issues:

4.1 Three Propositions

Three propositions are constructed throughout the respondents transcribed and coded interview transcript:

1. "If universities create more awareness about new technologies, it would enhance our entrepreneurial behaviour". It indicates that technological awareness is positively related to entrepreneurial behaviour.
2. If the "rising cost of technologies could be subsidized, I am sure we would have better entrepreneurial outcome". It indicates that if the cost of technology is attenuated, there would be better developed university entrepreneurship.
3. If faculty members are "regulating and maintaining available technologies, it would create an environment that would enable entrepreneurial opportunities". This logically shows that regimenting and regulating the use of available technologies is essential to entrepreneurial growth.

4.2 Three Contextual Issues

The three emerging social issues that arose from the informants’ transcripts are:

- (i) Poor technological awareness
- (ii) Exorbitant cost of technologies
- (iii) Poor maintenance of available technologies.

Table 1: Technology Orientation – Matrices by Age

Technology Orientation	Age:20-25	Age:26-30	Age:31-35
153 : Technological Orientation	2.63%	1.76%	1.08%
154 : Advancement in technology is yet to be proportional to university entrepreneurial development	0%	0.2%	0%
155 : Blogging and advertisement business have been on the rise	0.62%	0%	0%
156 : Online business should be encouraged and they should do it with the an entrepreneurial mind	0%	0%	1.08%
157 : Entrepreneurial learning, yes, it can be learnt formally!	0%	0.24%	0%
158 : Espousing technologies helps to access entrepreneurial opportunities	0.62%	0%	0%
159 : Exposure to technologies enhances entrepreneurial inclination	0%	0.36%	0%
160 : Protocols could be overtly unattainable	0.66%	0%	0%

Source: Authors’ Compilation

The result of this study, as seen in Table 1, reveals that Technological orientation is higher among the youth. The findings of Samuel, Mohd and Suhairi (2018) research are similar to those of this study that entrepreneurial ecosystem is directly proportional to technological orientation and youthfulness is responsible for the rapid advancement in technological pursuit. This research answers some timely questions which include:

- How does technological orientation impact the development of entrepreneurship in emerging economy?
- How does technological orientation heighten entrepreneurial ecosystem and to what extent?

5. Conclusion

This study theoretically supports the dimension of technological orientation in relation to entrepreneurial ecosystem development. Therefore, substantive research that inductively explores the nuances in the dimension of technological orientation would aid the development of university-based entrepreneurial ecosystem in the research ambience. Hence, this article purports the development of technology orientation and provides theoretical appurtenance for the validation of dimensional dichotomies.

However, this article purposively explicates the significance of technological orientation to the development of university-based entrepreneurial ecosystem in Nigerian universities. It also supports the findings of current research about the substantive role an indigenous

construct such as technology orientation in the development of university-based entrepreneurial ecosystem. Therefore, technological orientation is instrumental in the developmental processes of university-based entrepreneurial ecosystem in Nigerian universities.

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