

# Exploring The Antecedents Of Malaysian Public Universities Librarian Performance: Entrepreneurial Inclination, Market Orientation And It Infrastructure Capabilities

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## Abstract

A competent employee in private and public sectors will surely heighten the functioning of its organisation, which in the long run affects the whole organisational outcomes. Unlike profit-making firms, public sector employees such as those at public university librarians are complacent due to their customarily non-competitive environment, availability of adequate funding and complying to their parent organisation's customised strategies. Albeit the current academia restructuring, federal funds are becoming scarce, resources are fixed and operational costs have elevated significantly. To survive the changes and sustain competitive advantage despite the aforementioned challenges, public universities supporting units such as libraries must re-strategies their resources and re-tool its workforce asset accordingly. This paper reviews multi-constructs antecedents towards achieving employee performance among public university librarians namely the mediating effect of entrepreneurial orientation between entrepreneurial competencies and market orientation and also IT infrastructure capabilities to moderate the aforementioned constructs. The underpinning theories of these constructs are based on the Resource Based View and Theory of Planned Behaviour.

**Keywords:** Public University librarian, entrepreneurial competencies, market orientation, entrepreneurial orientation, Information Technology Infrastructure Capabilities, Malaysian Public Universities

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## 1.0 INTRODUCTION

Effective human resources produce skilled and highly knowledgeable human capital which eventually provides a cutting edge to the competitiveness of a particular nation (Sharma & Narang, 2012; Zaini, 2012). Competent workforce accelerates organisation towards achieving competitive advantage over other firms and accomplishing superior performance (Sharma & Narang, 2012). Due to this understanding, economic driven sectors and non-profit based organisations such as public universities are being selective in hiring talents because a competent employee will certainly influence the organisational performance, which in the long run affects the whole organisation outcomes.

The current restructuring of higher learning institutions provides a fresh challenge to the whole academia workforce. Higher education accreditation, universities internationalisation effort, newly acclaims universities recognition of Research Universities and Autonomy Universities, virtual campus, etc has changed traditional academia landscape enormously. Albeit the new academia refurbishment, federal funds are becoming scarce, resources are fixed and operational costs have elevated significantly. To survive changes and sustain competitive advantage despite the aforementioned challenges, public universities supporting units such as libraries are required to actively interpret opportunities and threat, re-strategies their resources and re-tool its human asset capabilities. Additional efforts to re-measure performance through various strategic perspectives must be exercised. This should include the reapplying key strategies from profit-making firms' perspectives, particularly adapting entrepreneurial thinking and culturing market-orientation among its employee. Prior to the aforementioned conditions, though public sector employees such as those of public university librarians are accustomed of being complacent due to their customarily non-competitive environment, it is high time for them to embrace new set of mindset and behaviour to survive the changes.

## 2.0 UNDERPINNING THEORIES

### 2.1 Theory of Planned Behaviour (TPB)

Organisation is describes by Katz and Kahn (1978) as 'systems of interdependent behaviours' whereby the behaviour of an individual does not only impact the person's effectiveness, but eventually influence its team and the organisation as a whole (Griffin *et al.*, 2007). Ajzen (1991) Theory of Planned Behaviour (TPB), a theory designed to predict and explain human behavior in specific contexts is the underpinning theory that support this research multi-constructs. As Ajzen (1991) describe it, '*the central factor in TPB is the individual's intention to perform a given behaviour. Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how*

hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour. As a general rule, the stronger the intention to engage in a behaviour, the more likely should be its performance' (Ajzen, 1991).

## 2.2 Resource Based View Theory (RBV)

Barney (1991) indicates that the concept of resources includes all assets, capabilities, organisational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness (Akio, 2005). Barney (1991) further segmented resources into three (3) categories; physical capital resources (i.e. firm's plants and equipment, technology, geography location); human capital resources and organisational capital resources (i.e. firm's structure, planning, informal relation among groups, etc) (Wright *et al.*, 1993). RBV theory contended the influence of a firm's resources towards the firm's performance and these may contribute towards the firm's capability to sustain its competitive advantage (Hult *et al.*, 2005; Wernerfelt, 1984). RBV is being used interchangeably with "Resource-Based Theory"; "Core Competences" and "Dynamic Capabilities" terms and remains influential in management literature as well as other disciplines such as of operations, human resources, and international business (Wernerfelt, 2013).

## 3.0 ANTECEDENTS OF PERFORMANCE

### 3.1 Overview

Survival and sustainability are the emerging key issues to ponder by within a competitive environment (Sharma and Narang, 2012). Market orientation researchers such as Narver and Slater (1990) had cited earlier that for non-profit organization, survival is analogous to profit and to survive means earning adequate revenue to cover its expenses in the long term. Public sector governance such as universities and its supporting units are proactively exploring profit-making firms' strategies and competencies as the sector is consistently looking for solution to survive changes and staying relevant in the increasing competitive environment (Sen, 2006, 2010; Singh, 2005).

Public universities employees such as the librarian do realise that it is possible to raise substantial revenue from different and non-traditional sources. Due to this circumstance, librarian had new conscious towards inclusion of certain payable services or products to raise alternate income for their organizations. De Vries (2003) wrote that many academic libraries such as USA public universities are behaving more like private firms to fund the libraries operations, to sustain librarians' working contracts and to stay competitive. Garoufallou *et al.* (2013) add further that for the survival of libraries, the provision of the library services must comply with the need, wants and demands requirements of the current library user and stakeholder trends.

### 3.2 Employee Performance

Individual employee is the most basic resource in an organisation and had been study broadly through a vast number of performance measurement literature (Wildman *et al.*, 2011). To *perform* means to take a complex series of actions that integrate skills and knowledge to produce a valuable result (Elger, 2007, Abdulsattar, 2014). Campbell *et al.*, (1993) defines performance as synonym with behaviour and describe job performance as '*includes only those actions or behaviours that are relevant to the organisation's goal and it can be scaled in term of each individual proficiency*'. Academics are interested to hypothesise test validity and theory constructions, whereas practitioners are more interested in accurately studying employee performance to exploit scarce resources (Bommer *et al.*, 1995).

Through the literature, the integrated model by Griffin *et al.*, (2007) on work role performance is closely related with the intention of this research. The model addresses the issue of effectiveness contribution of an employee in uncertain and interdependent organisational context. It consist of three (3) level at which work behaviour could contribute to effectiveness (i.e. individual, team and organisation) against three (3) different forms of work behaviour (i.e. proficiency, adaptability and proactivity) (Wildman *et al.*, 2011). Three (3) performance constructs of individual task are chosen, namely, individual task proficiency, individual task adaptability and individual task proactivity. Individual task proficiency refers to the behaviour that reflects the effectiveness of an employee to fulfil the prescribed or predictable requirements of the person role (Griffin *et al.*, 2007); individual task adaptability refers to behaviours in coping with, responds to and support changes in the environment that contribute to individual effectiveness (Wildman *et al.*, 2011); and individual task proactivity refers as the extent to which individuals engage in self-starting, future oriented behaviour to change their individual work situations, their individual work role or themselves (Griffin *et al.*, 2007).

### 3.3 Entrepreneurial Competencies

Employee with advanced performance is committed to engage actively in the procedure of identifying and exploiting opportunities to create new service (De Vries, 2003). This trait is closely linked as being entrepreneurial which is likewise consistent with Bird's (1995) following definition of entrepreneurial competencies: '*underlying characteristics such as generic and specific knowledge, motives, traits, self-images, social roles, and skills which result in venture birth, survival, and/ or growth*'.

The definition of entrepreneurship as the process by which opportunities to create future goods and services was first used by Shane and Venkataraman (2000) and had inspired authors such as De Vries (2003) and other scholars to the point that non-profit organizations or entities are capable of conducting entrepreneurial ventures and develop new business start-up. The Kauffman Foundation, USA perceived that *entrepreneurism generates value beyond a business environment as it benefits all facets of a population* when discussing about entrepreneurial abilities (Scanlon and Crumpton, 2011).

In Malaysia, funds are administered according to the university status; newly developed universities, the Research University (RU), Focused University and Comprehensive University while RU universities such as UTM, UM, USM, UKM and UPM are also conferred with the Autonomous status. This status confers the freedom to run the universities according to its administrators and these universities are likewise anticipated to be more self-funding independence. Therefore, to cope with the budget constraints and re-position the university,

Ujang (2012) proposed the 'New Academia' which consists of the development of an entrepreneurial mindset and attitude among its staff and following the strategic process of 'Blue Ocean Strategies'. The former UTM VC urges the university employees to be more entrepreneurial in thinking and dare to venture into 'market' that had not been attempted by others in front and in the long run, sustain competitive advantage over its counterparts or 'competitors'.

Somehow, library science practitioners and scholars had voiced out their growing concern that academic librarian hasn't taken any efforts of the changing academics landscape and due to this, the librarian competencies are being questioned (Sa'ari *et al.*, 2012). Therefore, following the aforementioned changes in the higher institutions landscape, supporting units such as academic libraries must re-prioritise its sources and re-tooled its people to be more entrepreneurial in thinking and eventually adapt entrepreneurial behaviour in their work performance as to cope with the new challenges.

This idea is in tandem with Jain (2011) analysis following the earlier research in entrepreneurship field that focus on the question of 'why, when and how some people (entrepreneurs) and not others discover, evaluate and exploit such entrepreneurial opportunities. This is consistent with most earlier research which agree that the previous research results show that psychological and cognitive characteristics (attitudes, motives, self-efficacy, need for achievement (nACH), locus of control, risk-taking propensity, and other personal traits) of entrepreneurs do influence the action of discovering, evaluating and exploiting entrepreneurial opportunities (Jain, 2011; Lee and Peterson, 2000). This statements supports the literature studies conducted by Pulakos *et al.* (2000) that personality constructs such as self-efficacy and locus of control are effective predictors of coping with uncertain and changing situations. As stated by Ujang (2012), "innovation may only be appreciated if entrepreneurial thinking becomes the framework and the way of our thinking, academic and non-academic alike". Studies on entrepreneurship psychology indicates several significant personality traits which have been widely associated with entrepreneur personality traits such as need for achievement (achievement motivation), self-efficacy, risk taking propensity, locus of control, innovativeness and stress tolerance (Frese and Gielnik, 2014, Khan *et al.*, 2014). Thus, the five aforementioned entrepreneurial personality traits which had been studied extensively to distinguish successful entrepreneur from others can be applied within the non-profit organizational setting such as the public library.

### 3.4 Market Orientation

Satisfied buyers or contented service recipients are among the determining factors to measure overall performance. To create superior customer's value (Slater and Narver, 1995; Gheysari *et al.*, 2012), market-orientation should be practiced by the employees as part of their organisational culture (Narver and Slater, 1990, Shafiq and Qureshi, 2014) and employee must commit towards the continual implementation of the marketing concept in their organisations (Kohli and Jaworski, 1990). This effort is consistent with the underlying existence of firms and governing bodies which are to serve the need, want and demands of its segmented clientele as well as its stakeholder.

The present patrons and stakeholders are more sophisticated, well-informed and technology savvy. University students for instance, are becoming comfortable following classes through video-conferencing rather than attending a class physically. Of such, being in the library physically is no longer necessary when everything could be done remotely despite their whereabouts. Henceforth, it is very important for service-based employees such as public university librarian to re-position their market orientation in accordance with the current public expectation.

Library science scholars and practitioners such as Johnson and Lilly (2012) relate the current patrons trend with four challenges known as the 'Four Horsemen of the Library Apocalypse' that presume to influence the survival and sustainability of public universities librarian's for the next five years. Those issues are: (i) the unsustainable cost between procurement of capital funding compare to the library's expenditures, (ii) Google domination as the most powerful online information provider, (iii) declining patrons using the library's materials and facilities, and (iv) coping with the cutting-edge patrons, which are extra technology savvy and exceptionally critical information seekers. Henceforth, engaging in market orientation might benefit the library customers because it means more appropriate services that better fit their needs. Equally for the librarian, engaging in market orientation should provide a better understanding of their roles in achieving personal and organisational performance. For libraries it could mean survival and sustaining the librarian role in the future.

### 3.5 Entrepreneurial Orientation (EO)

Prior to the anticipated construct of entrepreneurial competencies and market orientation, it is assumed that certain strategy-making processes such as entrepreneurial orientation (EO) might mediate the aforementioned conditions so that the firm and its people are able to make more entrepreneurial decisions and actions (G. T. Lumpkin and Dess, 1996; Rauch *et al.*, 2009). EO refers to the strategy-making processes that provide organizations with a basis for entrepreneurial decisions and action (Lumpkin and Dess, 1996; Rauch *et al.*, 2009; Rasli and Rehman, 2013; Wiklund and Shepherd, 2005) This is consistent with Lumpkin and Dess (1996) literature which state that *'firm's strategy-making processes may be viewed as encompassing the entire range of organizational activities that involve planning, decision making, and strategic management. Such processes also encompass many aspects of the organization's culture, shared value system, and corporate vision'*. Most importantly, this strategic making task is being carried out by the organisation's workforce, which is represented by a set of individual employee. EO is introduced by Miller (1983) which is being further developed by Covin and Slevin (1989) and augmented by Lumpkin and Dess (1996).

EO item constructs is in tandem with the presume mediating strategy-making process such as the willingness to support creativity and experimentation of new products or services, namely innovativeness; proactiveness which caters to the ability to response to opportunities; risk-taking propensity which aims at the readiness to conduct risk taking when needed; autonomy that affirms the ability to bring forward business concept and completes it and competitive aggressiveness which refers to being react accordingly to competitive trends and demands (Lumpkin and Dess, 2001; Okhomina, 2010). However, through literature reviews, the dimensions of innovativeness, proactiveness and risk-taking are posited to be closely associated with public sector employee strategic-making process as government employees such as academic librarian are compliance towards its parent organisations autonomous decision and competitive aggressiveness is more applicable for companies that are competing to gain profits within their market segments. Thus, adopting a market-orientated strategy is posited as a way of successfully handling the impact of changes in the library domain. As De Vries (2003) put it, libraries administrators actually had been engaging in business-like strategic investments for their libraries to gain advantages within their key organisation strategies.

### 3.6 Information Technology Infrastructure Capabilities (ITIC)

In this cutting edge technology era, where everything could be communicated and share instantly, IT infrastructure capabilities are being viewed as a vital source that might influence the employee effectiveness in delivering customer satisfaction (Shah et al, 2013). Thus, employees competitiveness might be further actualized with the support of an effective Information Technology (IT) infrastructure which had been widely applied across many economic sectors through multi-platforms to increase performance, productivity and competitiveness (Amran et al., 2011)

In this period where technology consumes every aspect of human activities, information technology infrastructure is the ‘mortar’ (McKay and Brockway, 1989) of current cutting-edge organisations. IT capability reign over three business process re-engineering; change in management, management commitment and customer focus (Ringim, et al., 2012; Gheysari, 2014). This statement is consistent with the influence of IT infrastructure capabilities within the higher education domain. Universities such as UTM itself, develop IT infrastructure to support re-engineering aspect as well as securing better innovation advantages, advanced market-power against its ‘competitor’, securing social capital, etc (Gheysari, 2014). Competent employees are depending heavily on the capabilities of their organisations IT infrastructure to efficiently complete their job routines, communicating fast results; monitor feedback automatically, manipulating reports according to the stakeholder expectations, etc.. This is closely associated with the underpinning theory of strategic choice perspective, where achieving superior performance is the ultimate goal of organisation.

The libraries and the librarian of public universities themselves are indeed the total dependant on the IT infrastructure capabilities as IT is the communicating backbone of effective service or product delivery to its patrons or ‘customers’; for examples, instant retrieval capabilities of information from databases point-of-access and immediate response and deliverance to information search queries posted by library patrons. This is consistent with Kim (2001) literature that IT infrastructure “generally describes a set of shared and tangible IT resources that provide a foundation to enable present and future business application” and IT infrastructure is “the enabling foundation of shared information technology capabilities upon which business depends”.

ITIC consist of five (5) constructs namely integrating capability, collaborating capability, data management capability, security capability and utility. Integrating capability refers to linking individual IT components and services for the purpose of sharing software, communications, and data resources, thus allowing IT components to work as an intergrated resource; collaborating capability is the capability of allowing two or more individuals to work together in order to perform a specific task; data management capability is the capability to manage data which includes collecting, structuring, storing, transforming and retrieving data, data architecture, database management systems, and database applications; Security is the capability to minimize IT vulnerability and abuse that includes the policies, procedures, and technical measures used to prevent unauthorized access, alteration, theft, or physical damage to information systems, backup, disaster management, and recovery planning and; utility refers to basic and common services that every type of IT infrastructure has (Kim, 2001) Thus, IT infrastructure capabilities might moderate between entrepreneurial competencies and market orientation towards achieving employee performance among academic librarian.

## 4.0 CONCLUSION

By associating employee performance with entrepreneurial inclination, market orientation and it infrastructure capabilities, the authors hope that new perspectives and contributions towards mechanisms to attain higher performance could be achieved. We believe that an integrated model that involve the interplay of the aforementioned constructs are worthy studies to be conducted accordingly.

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