



Evaluate Safety Practices of Malaysian Public Universities by using Balanced Scorecard

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ABSTRACT

The aim of this paper is to debate the concept of the balanced scorecard (BSC) and the way it will be used for evaluating the performance of safety practice in Malaysia public universities. This idea paper is especially supported secondary resources on the balanced scorecard published by other researchers. The approach of balanced scorecard model helps to the assessment of quality and safety practice of public universities. It helps public universities to create decisions and to enhance services. It translates the mission and strategy of a security practice into a system of performance indicators. A useful model is proposed that may be adapted with appropriate modifications to evaluate/managing safety practice and organizational performance of public universities in Malaysia. The study may help to those universities, who are seriously inquisitive about evaluating/managing internal safety practice, customer satisfaction, finance of universities and innovation and learning growth.

Keywords: Balanced scorecard; Safety practice; Organizational performance; Malaysian public universities

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INTRODUCTION

The university sector in most countries is large, growing, includes employers with widely varying organizational cultures, and

involves high-risk exposures. Universities need healthy and well-motivated workers if they're to deliver high-quality services. Effectively managing safety practice is essential to achieving this. Improving service delivery through better safety practice is high on the government's agenda and a joint initiative between the Department of Safety and Health (DOSH), encourages good management of safety practice and improved opportunities for people to get over illness while at work. Universities must manage staff, information, safety practices, finance in several

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supports and technical activities to provide organizational performance. Organizational performance assessment of safety practices is incredibly important to manage academic staff and non-academic staff because the evaluation process produces data that may help universities to form decisions and to enhance organizational performance.

Organizational performance measurement is a vital university management activity to make sure the effective and efficient use of resources. Increasingly, the balanced scorecard is employed as a key tool to support this activity. The Balanced Scorecard (BSC) was developed by Robert Kaplan and David Norton within the year 1992. They were proposed that this instrument would assist in solving problems related to measuring business performance (Kaplan & Norton, 1992). It absolutely was developed for the commercial sector. Now it's increasingly come to be adopted by a non-profit and public sector organizations.

The present study, therefore, sets resolute investigate the utilization of balanced scorecard within the organizational performance of public universities and the way it is used for measuring the security practices of public universities in Malaysia context.

THEORY RELATED TO SAFETY PRACTICES

Social Exchange Theory

The current paper uses social exchange theory (Blau, 1965) as a general framework to explain how safety practices may lead to organizational performance other than those traditionally studied regarding safety (e.g.,

accidents and injuries). Social exchange theory posits that in interdependent relationships, transactions between parties beget a norm of reciprocity and, possibly, quid pro quo reciprocity (Cropanzano & Mitchell, 2005; UhlBien, 2003). The reciprocity norm (Gouldner, 1960) specifies that favorable treatment received by one party obligates him/her to provide favorable treatment in return. That is, when one party provides a benefit, the receiving party is obligated to respond in kind. The reverse would then also be true; when negative treatment is shown, negative treatment or poor behavior would be reciprocated. As opposed to receiving tangible benefits or commodities in economic exchanges, the rendering of benefits in social exchanges is discretionary (Aryee, Budhwar, & Chen, 2002).

The application of the social exchange theory and the reciprocity norm to organizations has been supported in previous studies (e.g., Eisenberger, Fasolo, & Davis-LaMastro, 1990). For example, the perceptions of organizational support for, and investment in, employees creates an obligation among employees in providing treatment favorable to the organization in return (DeJoy, Schaffer, Wilson, Vandenberg, & Butts, 2004). In other words, employees respond accordingly to how they perceive they are treated by their organization (Mearns, Hope, Ford, & Tetrick, 2010). In fact, DeJoy, Della, Vandenberg, & Wilson (2010) have found support for the application of social exchange theory in the context of safety practices, such that management commitment to workplace safety functions as part of the social exchange dynamics in that employees were found to react more positively when they perceived greater levels of organizational support for workplace safety.

The connection between safety practices and organizational performance to safety has been grounded in both theoretical reviews and empirical findings. Based on a review article published by Cohen (1977), Zohar (1980) Zohar listed multiple characteristics of safety practices: management and leadership commitment to safety, emphasis being placed on safety learning and training, understandable safety policy, processes and procedures, a good and stable workforce safety culture (Cohen, 1977; Zohar, 1980). The current study follows the same argument based on the social exchange theory, such that academicians who work in a public university with positive safety practices are more likely to perceive organizational commitment to and support for safety as beneficial to their personal well-being. They are also more likely to reciprocate by engaging in safer behaviors, thereby reducing the occurrences of accidents and injuries (Hofmann, Morgeson, & Gerrass, 2003). In addition to the greater motivation to perform more safely at work, a safety practices are also expected to lead to other benefits beyond traditional safety outcomes, such organizational performance (Cropanzano & Mitchell, 2005; Eisenberger, Huntington, Hutchison, & Sowa, 1986; Michael, Evans, Jansen, & Haight, 2005).

MALAYSIAN PUBLIC UNIVERSITIES SAFETY PRACTICES

Safety practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. Safety practices and procedures in the workplace are part of federal regulations overseen by the Occupational Safety and Health Administra-

tion. Regardless of regulations, a work environment promoting safe and healthy workers improves productivity and has an impact on the bottom line, reducing downtime, workers compensation claims and improving morale. To encourage safe work practices within the workplace, employees need to know and be trained in what a safe work practice is. The foundation of this knowledge will come from the Health and Safety Statement, training and written Standard Operating Procedures (SOP's).

In general, safety management and leadership in universities relate to the actual practices, management roles, and functions associated with safe practice in the workplace (Mearns, Whitaker, & Flin, 2003). Management commitment to safety is very important where management plays a key role in promoting a positive safety culture (Choudhry, Fang, & Mohamed, 2007). It is demonstrated through the allocation of resources and time (Barney, 2001), by participating in risk assessments and consultative committee meetings, and by the completion of actions. As management committed to safety should take actions on safety issues and promotes a safety culture in a workplace (Choudhry et al., 2007; Mearns et al., 2003; Wadsworth & Smith, 2009). For the safety culture, management should provide adequate resources (Choudhry et al., 2007; Mearns & Ivar Håvold, 2003; OSHA, 2016). Other than that management has to participate in risk assessments, consultative committee meetings, and inspections (Choudhry et al., 2007; Mearns & Ivar Håvold, 2003). Management also encourages employees to voice concerns and safety improvement proposals for better safety practice (Rundmo & Hale, 2003). Safety learning and training is a process that aims to provide the workforce with

knowledge and skills to perform their work in a way that is safe for them and their co-workers (Lingaswaran, Fadly, Suwardi, & Rasikumari, 2019). In addition, an effective workplace safety plan includes instructions and guidelines to identify hazards, report them, and deal with incidents (Bahn & Barratt-Pugh, 2014). Management is concerned with the development of safety training, and the allocation of resources to implement safety training and education (Ng, Cheng, & Skitmore, 2005; Ripamonti & Scarlatti, 2015). Training and development programs may range from formal coursework with a competency assessment to less formal instruction and information sessions such as team meetings, short talks and workplace safety responsibilities (Department of Health Organisational Health, 2014). Training can be provided in various ways, including formal training, mentoring and on the job training. Provision of safety training for all employees so that organization should allocation resource for safety training (Thomas Ng, Pong Cheng, & Martin Skitmore, 2005). Training plans must be reviewed regularly to ensure that they are up to date and current. Training should be scheduled and prioritized according to the needs of the work area (Ba et al., 2017).

Universities comply with government policies, procedures and processes to effectively evaluate safety environments and work practices and to improve the effectiveness of safety management systems (Teo et al., 2005). Safety audits and reviews are a structured process of collecting independent information on the efficiency, effectiveness, and reliability of the total Safety Management System (SMS), as well as the drawing up of plans for correction and prevention actions (Ai Lin Teo & Yean Yng Ling, 2006;

Jaafar, Choong, & Mohamed, 2017; Mearns et al., 2003). A workplace inspection is a planned walkthrough of a workplace or selected areas or locations of a workplace. Inspections are needed to critically examine all factors (equipment, processes, materials, buildings, procedures) that have the potential to cause injury or illness, and to identify where action is necessary to control hazards (Håvold & Nasset, 2009; Jaafar et al., 2017; OSHA, 2014; OSHA, 2015). Be familiar with any health and safety policies, procedures, risk assessments (Benjamin, 2008; Håvold & Nasset, 2009; OSHA, 2014). An audit program is conducted regularly (Ai Lin Teo & Yean Yng Ling, 2006; Alolah, Stewart, Panuwatwanich, & Mohamed, 2014a; Lawrie, Parker, & Hudson, 2006).

Safety culture is a universities culture that places a high level of importance on safety beliefs, values and attitudes and these are shared by the majority of people within the workplace. It can be characterized as 'the way we do things around here'. Positive safety culture can result in improved workplace health and safety and organizational performance (Cooper & Lindley, 2013; Morrow, Kenneth Koves, & Barnes, 2014; Varmazyar, Mortazavi, Arghami, & Hajizadeh, 2016). Further, safety culture is important because it forms the context within which individual safety attitudes develop and persist, and safety behaviours are promoted (Ju & Rowlinson, 2014; Mearns et al., 2003).

BALANCED SCORECARD (BSC)

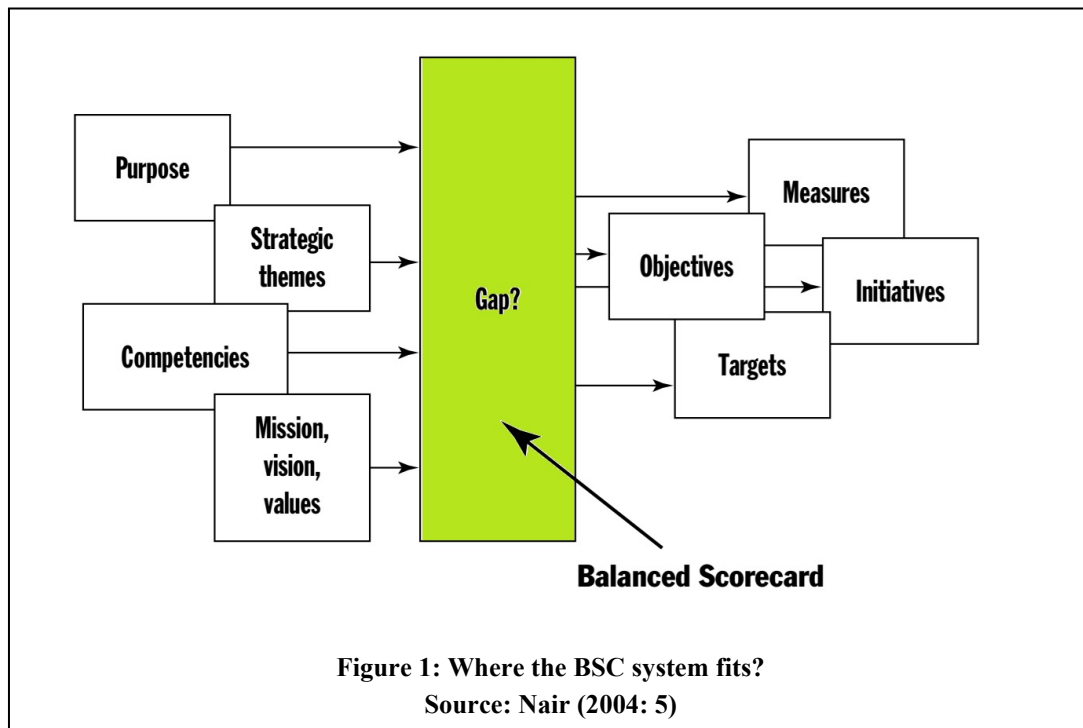
Managers are becoming increasingly concerned about how to achieve their planned goals. In the past, managers need to only focus on financial goals and, therefore, the organizations' performances were measured by

financial measures. However, due to the limitations of financial accounting measures, these types of measurements have not been able to characterize present and future performances (Hopwood, 1972).

Since the 1960s and 1970s, measuring an organization's performance has gone through reasonable changes. Financial measures of an organization's performance are not the only meaningful measuring tool, and with newer tools being available to overcome the weaknesses of these measures (Lynch, 1995). Ongoing studies have clarified a broad range of perspective in relation to an organization's performance. One study, that by Kaplan and Norton (1992), introduced the notion of the BSC system. This study has received absorption in the literature and was considered to be one of the imperative management ideas of the past 75 years (Sibbet, 1997).

Briefly, the BSC system aimed to contribute a balance between financial and non-financial goals. Focusing only on financial performance was no longer applicable and, as such, other operational performances became admissible in the current era. Given this, and that what you measure is what you get, Kaplan and Norton (1992) argued that the BSC system gives managers a broader view of their organization by linking with the financial and operational measures. Hence, the BSC system enables managers to meet their need to effectively manage the performance of essential sectors in their organisation (Kaplan & Norton, 1996b).

The BSC system was a transformation in administrative sciences, as it gave the administrator a better understanding of their organizations' performance (Nørreklit, 2003). Other researchers have described the BSC system as a new approach to strategic management (Speklé & Verbeeten, 2014), as it



provides an excellent framework for evaluating the performance of selected strategies in organizations (Aetis Heromi, bin Awang Said, & Abd Latip, 2017; Hill & Jones, 2007). Usually, strategic planning exercises drive for aligning vision, mission, values, and strategy. They also discuss items such as competencies, strengths, weaknesses and opportunities, and threats. This method is often called SWOT analysis, which is a way for organizations to ensure that all elements of the business are incorporated into a strategic plan in the marketplace. Hence, the exercise usually covers the internal and external challenges that a corporation is facing and will face, in an attempt to look ahead and find the next big thing (Nair, 2004).

Meanwhile, the corporation is running along driving to current measures at the operational level and therefore the challenge comes when wishes to drive new strategies into the organization. BSC fits this purpose of providing a framework for aligning strategy to the approach, with corresponding objectives and measures. Figure 1 shows the gap filled by the BSC.

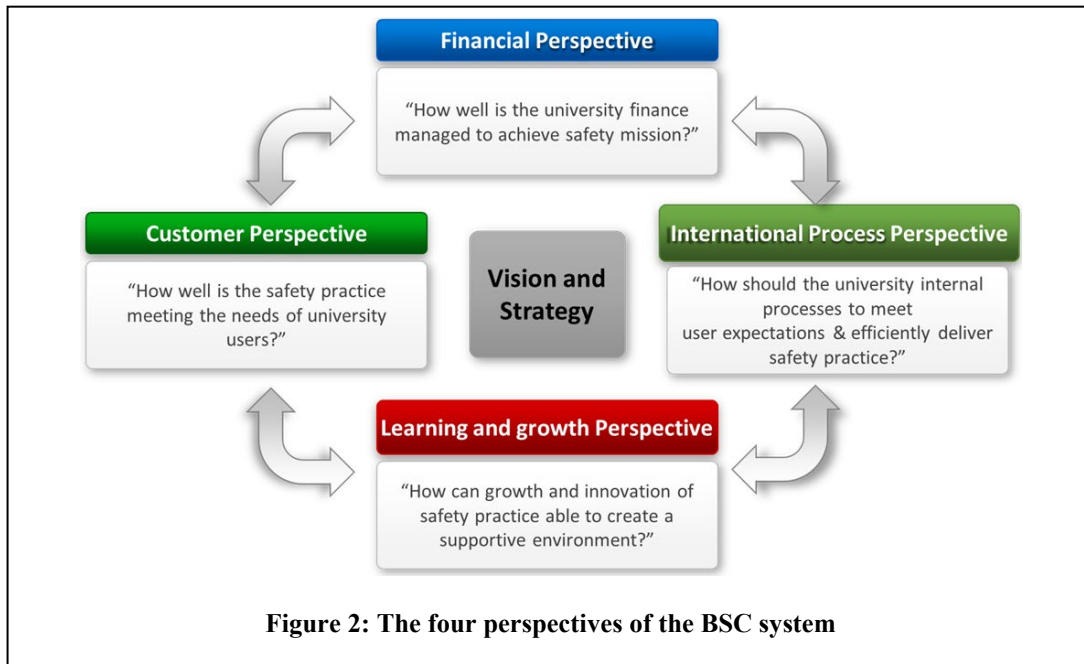
BALANCED SCORECARD AS SAFETY PRACTICE MEASURES

In order to possess successful safety practice, the construct should impact on some performance measures. Performance measurement is the process of collecting, analyzing and reporting information regarding the performance of a company, system or component (Upadhaya, Munir, & Blount, 2014). supported that, the administrator must target both financial and non-financial measures to realize organizational goals (Banker, Potter, & Sriniva-san, 2000; Ittner & Larcker, 1998; Khan et al., 2011; McNair, Lynch, & Cross,

1990). Inadequacies in financial performance measures have led to innovations starting from non-financial indicators of “intangible assets” and “intellectual capital” to “balanced scorecards” of integrated financial and non-financial measures.

The BSc isn't only better in monitoring and evaluating the security practice of an academic institution but also in improving the performance to its best level (Saudi, 2014). for example, by tracking value delivery and paying incentives to staff supported a way to value a company delivers to customers, instead of the quantity or value received from the customer, educational institutions can motivate and redirect staff to appear for better ways to enhance the worth of service. this could function a counter to the chance to staff motivation to promote short-term importance on the revenue received from the client. Also by effectively tracking improvement made by students, families and community, BSC can give internal stakeholders like teaching staff and employee a renewed pride in what they are doing.

The original BSC of the Kaplan and Norton (1996) incorporates a financial, customer, internal process, and learning and growth perspectives, but educational institutions may modify these four perspective in their scorecard or add another perceptive. the initial BSC slightly changed and used four perspectives within the Balanced Scorecard for educational services: customers, internal process, innovation and learning growth, and financial perspectives (Yüksel & Coşkun, 2013). Figure 2 shown the four perspectives of the BSC system with their underlying questions and an example of a whole BSC system map.



In each perspective of the balanced scorecard for educational service, there are related strategic objectives and a specific number of performance measures to judge the achievement of those objectives. Performance targets for every performance measure are determined and achieved results have gathered the tip of every period. Depending on the characteristics of the institutions and therefore the strategic objectives performance measures may differ.

Financial Perspective

This perspective can be considered because the most classic and implemented to a greater or lesser extent all told companies, educational institutions or government agencies to retort if the expected economic and financial results are being achieved by translating the principles of the strategy into values that reflect matters and economic trend of the corporate or institution, therefore describes the tangible results of the strategy in financial terms. Traditionally, a range of economic and

financial indicators are available for solvency, profitability, cost reduction, etc.

It is necessary to contemplate the chance and necessity of everyone in all these indicators in order that they're employed in each moment those who are useful since otherwise, it'll have a group of information facilitated by the indications without real utility. The key inquiries to be answered would be: How do the authorities see us? How were safety expenditures applied to total expenditures? How were administrative and operational expenditures applied per student? What objectives are derived from the financial expectations of the security educational authorities?

Two fundamental aspects are often considered. On one hand, is that the correct adaptation of objectives and indicators to the business unit in question, and on the opposite hand, is that the life cycle of the merchandise or service within which the organization or company is located. Since the financial approach is predicated on an easy premise, you'll only generate extra money by selling

more or by spending less or making efficient use of resources. within the educational activity setting, this angle may include measures like utilize asset, build endowments, allocate take into account safety development, reduce accident cost, generate revenue streams (special project revenue, material possession, consult or facilitate training) and invest in safety equipment.

Customer Perspective

Every company considers clients as a fundamental element; the corporate or institution doesn't exist without clients or within the case of educational institutions students or government departments. Customer satisfaction is intrinsic to business performance, additionally to that depends on economic and financial objectives. However, satisfaction isn't always easy to realize as a basic goal on which others depend. The customer perspective defines the worth proposition for the target clients, providing the context for intangible assets to form value. The key inquiries to answer would be: How is that the institution perceived by students about the satisfaction, acquisition, retention and delivery of continuous benefits to the students? What objectives are derived from the characteristics of the scholars that are necessary to achieve the value-added proposals?

In the education sector, it's very valuable to keep up university reputation. Moreover, this angle also may indirectly increase the tutorial distinction were will enhance student's employability by connecting academics with safety practices within the academic context of public higher education. Other researchers have also noted that this angle will indirectly develop high-quality students by educating safety management and increases the extent of communication about health and questions

of safety and it'll reduce the quantity of incident/accident complaints and increases students satisfaction (safe and secure campus). Partnerships with foreign universities and maintain the standard of the merchandise and repair. Meanwhile, the customer perspective is additionally associated with the context of a student's academic or parents, faculty or staff, alumni, and community.

Internal Process Perspective

As an extension of the previous perspective, the one relative to internal processes arises. Achieving customer satisfaction by delivering a product or service that meets their expectations needs a collection of previous elements that constitute a more or less complex process. The key inquiries to be answered would be: Which core processes within the value chain would be considered? What objectives are derived from the processes developed by the institution which are necessary to fulfil the economic objectives and therefore the students?

This process comprises all the transformation operations within the case of the manufacture and configuration of the service just in case of provision of the service, similarly as supplies, storage, handling, transportation and distribution. Aspects like technology, innovation and control complete the method. it's not an issue of tackling all processes, but of these considered key and key importance within the framework of the strategy.

In the case of education, it's a matter of covering the development of the security of the equipment's supplied by the seller, proper disposal of waste (chemical, gases), reducing the incident/accident rate, increasing safety

and health surveillance, improving academic efficiency in safety management, safe work practices by the upkeep and general services like quality in classrooms, laboratories, parking, sports courts, and others.

The rummage around for more efficient and effective processes results in the consideration of procedures like continuous improvement, which allows mechanisms to detect errors and deficiencies, correct them and improve the method. there's an immediate relationship between process management and quality management, which is integrated into the BSC. Time, quality and repair become key variables.

The processes describe two fundamental concepts of the strategy, on the one hand from which the products are obtained or the services that are delivered to the clients, on the opposite hand, the development of the processes are directly related with the reduction of costs that successively are linked to productivity. Internal processes are often grouped into operational management processes, customer management processes, innovation management processes and social processes.

Innovation and Learning Growth Perspective

Employee satisfaction, improvement of processes and achievement of economic and financial objectives couldn't be achieved without fundamental elements like people, information and organization, designing effective organizational structures. The human thinks about organizations becomes a key asset for the deployment and execution of the strategy and also the achievement of the objectives.

Technology development, knowledge enhancement, quality of leadership development and partnership with related institutions are essential for the event of the objectives.

This perspective identifies the intangible assets that are most significant for achieving the specified results for the strategy, identifies which jobs (human capital), which systems (information capital) and what climate (organizational capital) are required to support the processes valuable creation; these assets must be aligned with critical internal processes. The inquiries to be answered would be: What objectives should be established regarding the capabilities and potentials of the institution, to face the present and future challenges, what strategic resources are considered, will be further improved and creates value in staff training, how the organizational climate is considered?

It is about evaluating the power to innovate, improve and learn, learning and growth are the implications of professionals involved and motivated. The continuous training gets an increasing adaptation of the workers to their jobs, and therefore, a far better performance producing a spiral of learning-growth that culminates with the most effective fulfilment of the objectives. Information is that the key piece, in order that employees, each at their level can make more convenient decisions at any time. This perspective reflects the knowledge and skills that the corporate has, both to supply and provide services, to vary and learn. The foundations on which the BSC relies allow us to achieve the objectives of the previous perspectives due to the so-called strategic capacities of the corporate. Intangible assets linked to human capital, information and organization.

RESEARCH DESIGN

The purpose of the research, styles of investigation adopted, research setting, level of researcher interference and unit of study are fundamental to research design (Sekaran & Bougie, 2016). Thus, in designing research, the researcher must clearly address these basic aspects.

With dignity to the research purpose, research will be classified as either descriptive, exploratory or explanatory (Bhattacharjee, 2012; Saunders, Lewis, & Thornhill, 2009). on condition that this research attempts to gauge the organizational performance in Malaysian public universities, particularly by using BSC as performance measurement, the aim of this research is considered as descriptive in nature (Saunders et al., 2009; Sekaran & Bougie, 2016). Further, rather than developing BSC for evaluating organizational performance, this research is more fascinated by

investigating whether the numerous relationship exists among the variables tested and delineating the variables that influence the variable (Sekaran & Bougie, 2016). Hence, this research matched during a correlational instead of causal research (Sekaran & Bougie, 2016). on verify the relationships proposed, the info was collected from public universities academicians. Accordingly, the unit of study for this research is a personal public universities academician within the precise data collection period and setting (Bhattacharjee, 2012).

In addition to the five basic aspects, there are several other issues that require to be explained so as to make your mind up on the appropriate data collection techniques and analysis procedures for a search (Saunders et al., 2009). Through the research “onion” (Figure 3), they describe that before determining the acceptable techniques for collecting and analyzing the info, each of the important issues regarding the research design

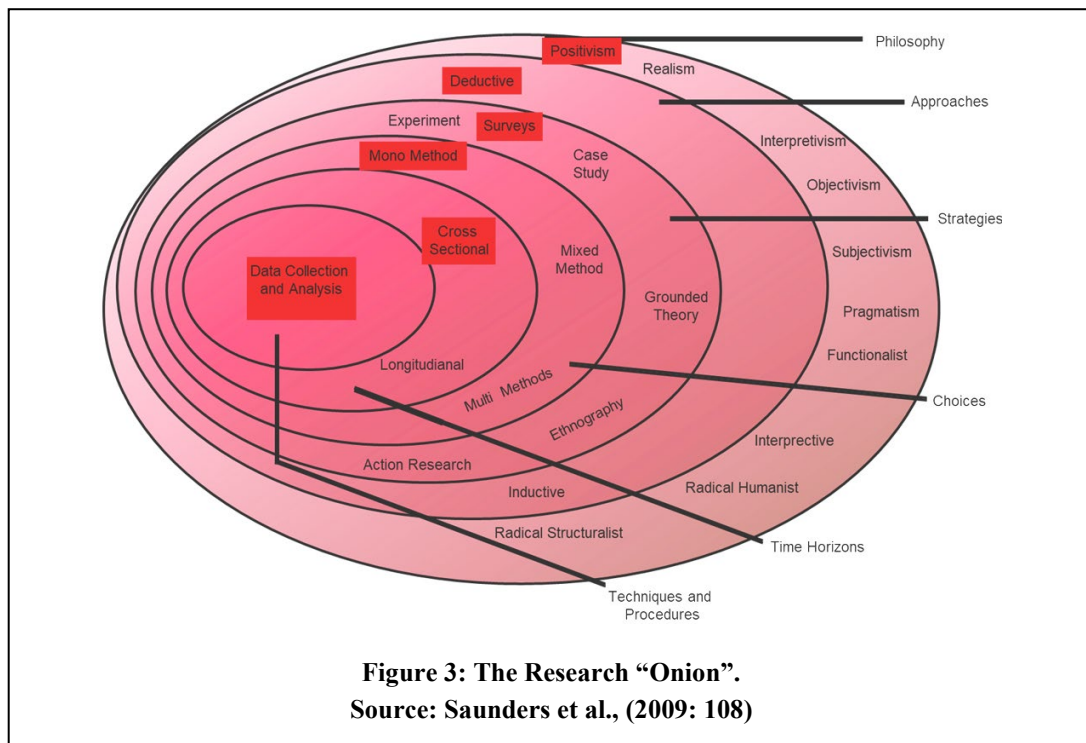


Figure 3: The Research “Onion”.
Source: Saunders et al., (2009: 108)

must be sequentially clarified. the problems are the research philosophy, approach, strategy, choice and time horizon.

Philosophical Position

There are several research philosophical positions that are possible in business re-search including positivism, realism, interpretivism and pragmatism (Saunders et al., 2009). In each of those philosophies, there are core assumptions held regarding the character of reality (ontology), what represents the appropriate knowledge (epistemology) and therefore the role of researcher's values within the research (axiology) (Bryman & Bell, 2011; Pickard, 2013; Saunders et al., 2009).

To conduct this research, the positivist paradigm is adopted. There are several factors underlying the choice to pick the positivist position. First, despite much the controversy, it's been widely accepted that positivism is applicable and transferable to the scientific discipline research (Bryman & Bell, 2011). Second, supported the ontological assumption, positivist believes that the social reality exists objectively, independently and can't be bound by time and context (Bryman & Bell, 2011; Pickard, 2013). As such, not only the truth of human behavior is observable and measurable, there's also a universal explanation or theory (Evely, Fazey, Pinard, & Lambin, 2008; Holden & Lynch, 2004). Thus, positivism provides the foremost appropriate frame for this research that aims to deal with the research problem by using and refining the prevailing theories to elucidate the protection practice of evaluating organizational performance.

Research Approach

There are two distinguishing approaches to conducting research, namely the deductive and inductive approach (Bryman & Bell, 2011; Saunders et al., 2009). The deductive approach could be a research approach that starts by choosing the acceptable theory, develops hypotheses from the idea and styles the strategy to check the hypotheses (Bryman & Bell, 2011; Neville, 2007). The aim of this approach is to elucidate the connection between the variables by collecting quantitative data from a sample that's large enough to generalize the result (Saunders et al., 2009). Conversely, the inductive approach starts by collecting data, analyzes data and generates a theory (Bryman & Bell, 2011; Neville, 2007). This approach aims to achieve the meaning of human actions by gathering qualitative data so as to supply an understanding of a phenomenon that's time and context-specific (Saunders et al., 2009).

By adopting the positivist position, this research tends to specialize in theory testing, which adopts a deductive approach (Holden & Lynch, 2004). Given the provision of several proven theories on safety practice and sufficient literature to tell the research on the event of the research framework and hypotheses, a deductive approach are employed in conducting this research. Specifically, this research will adopt the prevailing theories to formulate hypothesis relationships, collect quantitative data from a sample of lecturers and use the acceptable statistical analysis techniques to check the hypotheses. The results of the empirical testing are expected to be objective and fewer hospitable bias and might be generalized to a distinct context.

Research Strategy, Choice and Time Horizon

Subsequent to establishing the philosophical stance and research approach, the determination of the acceptable research strategy, research choice and therefore the time horizon adopted are next pursued.

Many research designs are commonly employed in conducting business research including experiment, survey, case study, action research, grounded theory, ethnography and archival research (Saunders et al., 2009). only if this research will adopt the positivist position, emphasizes on deductive approach and explanatory (correlational) in nature (Saunders et al., 2009), which aims to prove the hypothesis relationships among underlying constructs that derive from the prevailing theories, survey strategy is the simplest strategy for this research (Sekaran & Bougie, 2009). what's more, survey strategy is economical in terms of cost, time and energy than the other strategies, and therefore the simplest tool in collecting data from a bigger sample to provide generalized results (Bhattacharjee, 2012; Saunders et al., 2009). More importantly, a survey has also been utilized in many of the previous organizational performance studies as an example (Biggs, Banks, Davey, & Freeman, 2013; M. D. Cooper & Phillips, 2004; Griffin & Curcuruto, 2016; Ismail, Farhan Mohamad Shukri, Badzis, & Siraje Abdallah, n.d.; Liu et al., 2015; Sacks, Perlman, & Barak, 2013; Umayal Karpagam & Suganthi, 2013; Zahoor, Chan, Utama, & Gao, 2015; Žiković, 2015).

Further, research may be classified as qualitative and quantitative (Creswell, 2009; Saunders et al., 2009). While qualitative research aims to achieve preliminary in-sights

so as to get a theory, quantitative research focuses on testing the hypotheses and providing empirical evidence (Saunders et al., 2009). Moreover, qualitative research entails an inductive approach, intimate researcher involvement and a tiny low size sample whereas quantitative research involves a deductive approach, researcher independence and huge sample size (Bryman & Bell, 2011; Saunders et al., 2009). Provide that this research will adopt the positivism and deductive approach, the quantitative research is deemed to be applicable for this research so as to empirically investigate the relationships among the underlying constructs (Creswell, 2009).

In choosing the tactic to adopt, the researcher can use either mono-method or multiple methods (Saunders et al., 2009), many of the previous studies within the organizational performance domain still adopt a mono-method. To a specific extent, it'd be appropriate for this research to also will adopt mono-method in conducting this research.

In addition, data for research are often collected in two different time horizons, either cross-sectional by specializing in a selected phenomenon at a selected point of your time, or longitudinal by observing a phenomenon over an extended period (Saunders et al., 2009). Despite a brief data collection period, cross-sectional research involves a more stratified sample and provides valid information as critical a longitudinal study (Greener, 2008). Thus, supported the argument and therefore the objective of the research, a cross-sectional study will consider more appropriate and can employ for this research.

Data Collection Technique

This research conducts a survey and uses a mono-method quantitative approach for collecting the information. Since there are many ways to hold out a survey, a choice should be made to decide on the survey strategies that may gather the specified data within the best and effective way (Saunders et al., 2009). Generally, three varieties of survey strategies are commonly employed to assemble quantitative data, namely structured observation, structured interview and self-administered questionnaire (Bhattacharjee, 2012; Saunders et al., 2009).

The self-administered questionnaire allows data to be collected from a larger sample size and a wider geographical region (Saunders et al., 2009). What's more, data can even be gathered more quickly and economically using self-administered questionnaires (Bhattacharjee, 2012). Hence, the self-administered questionnaire is going to be the foremost appropriate technique for this research thanks to the time and budget constraint.

In maximizing the response rate, electronic and online questionnaires and drop-off questionnaires tend to outweigh the opposite questionnaire survey strategies (Saunders et al., 2009). However, the employment of electronic and online questionnaires seems to be the foremost appropriate strategy to gather the specified data for this research. More importantly, recent studies within the evaluate organizational performance domain have also utilized the electronic and online questionnaires to gather data as an example or e.g Beard, (2009); Biggs et al., (2013); Sacks et

al., (2013). Thus, this research will use electronic and online questionnaires to gather data.

CONCLUSION

Safety in universities is incredibly important to a large range of stakeholders (e.g. parents, staff and administrators, students, etc.). Furthermore, the number of accidents are often used as an indicator of the necessity to review or install safety systems. Several studies have identified and reported on the causes of campus accidents (Stark, Wright, Lee, & Watt, 1996) and, although the increased numbers of campus accidents have gained considerable research attention, there's still an absence of research on the way to make sure the correct application of safety systems. This lack of research is more prevalent in developing countries, like Malaysia.

In response to the prevailing campus safety-related issues in Malaysia, this research developed safety practices and organizational performance tool for Malaysian public universities. This study will re-view the chance of applying a security management system publicly universities buildings. The study will develop a tool for public universities to gauge safety practice and test in a very number of public universities in Malaysia.

This research will contribute to the prevailing body of data by proposing and validating a security measurement system employing a tool. It's expected that the proposed safety measurement framework is going to be accustomed assess the security not only of Malaysia public universities but also of HEIs in other countries that are searching for an efficient safety measurement system. Thus, the

study also examines the causes of campus accidents in a very systematic and comprehensive way. Hence, one in all the most outcomes of the research is going to be the linking of theoretical assumptions to the sensible facts which, in turn, can enrich the body of data within the safety literature.

The balanced scorecard process gains ground within the business organizations (profit and non-profit sectors) including in knowledge-based and networked environments, universities may find it a useful approach in determining service value and demonstrating fiscal responsibility. It compels the university management to concentrate on the evaluations critical to success within the quality, cost efficiency and promptness of the university. Through the employment of balanced scorecard specifically focused on organizational goals and strategy, the university may better measure those services most closely reflecting their organizational values so as to validate their crucial role within the delivery of a top-quality product and repair to their users. The implementing a balanced scorecard within the safety practices can provide a chance for locating what really matters to users, likewise as for determining how limited human and financial resources are often leveraged to drive service to increasingly higher levels of performance and user satisfaction. It's abundantly helpful to the university in managing and measuring the performance of safety practice within the era.

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