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THE HOLISTIC VIEW OF BUSINESS INTELLIGENCE (BI) AND BIG DATA ANALYTICS (BDA) TOWARDS DESIGNING STRATEGIC PERFORMANCE MANAGEMENT FRAMEWORK: A CASE STUDY

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ABSTRACT

In this research paper, we had approached the contradictory characteristic of holistic perspective in an organization that generated data value on organizational strategic performance by utilizing Business Intelligence (BI) mechanism and Big Data Analytics (BDA) within a conceptual framework and their strategy expansion and execution for strategic performance management. BI and BDA were emphasized due to the significance in empowering organizations for deriving better knowledge inception and decision-making process. Derived knowledge from organizing big data (BD) and utilizing BI together with MIT90s model, McKinsey 7S's framework and survey findings. These approaches were used as the baseline of information excellence framework for the formulation of BI and BDA towards strategic performance management framework for an organization. This conceptual framework stated the simultaneous BI stages and BDA in strategies adoption via visualizing the organizational performance indicator. The outcome will be a blueprint of a strategic performance management framework for a prototype of such strategic application.

Keywords: *Business Intelligence, Big Data Analytics, MIT90s Framework, McKinsey 7S's Framework, Information System*

1. INTRODUCTION

In today's fast-moving world, it is important that organizations are continuously moving on and finding strategies to survive from the competition. This is followed by the need of contemporary BD predicament, where various organizations have come up with diverse innovative methodological approaches for strategic planning decisions in their organizations, based on innovation and enormous participation processes [1]. BI is the set of expertise and mechanism for the transforming raw data into significant and productive information for organization competitive growth and analysis purposes [2]. BI is the approach towards obtaining this competitive edge and has become increasingly dominant to the prosperity of organization in every industry. Furthermore, BI as a comprehensive application can be easily adapted with BD scenarios of an organization, and to be implemented by doing analysis on BD gaps and prompting the action of collected information - knowledge [3]. [4] states that BI technologies are significant in managing tremendous proportion of unstructured data in order to aid in identifying, developing and otherwise initiating the respective organizational future strategic opportunities.

According to [5], the contemporary global environment had indicated that BD scenarios aiming at heuristic perspective of an organization proposition on problem solving management issues. Discovering modernist opportunities and enforcing effective strategies, moves and insights, these can yield a competitive market advantage and long-term stability [6]. In addition, this global scenario has given such impression on internal environment of an organization, predominantly on holistic perspective of engaging and developing divergent levels of socio technical perspectives and interaction between society's nexus infrastructure and human behavior dimension.

In today's applications, data is available at unprecedented rates. Accumulated market volatility

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and emancipated customers have yielded a premium on data and information to assist strategic decision-making [4]. Therefore, there is a necessity to adopt BDA and BI dynamism for optimizing the organizational strategic performance management. We have adapted an approach - a survey, for understanding a characteristic and comprehensive organizational socio technical perspective and human behavior dimension upon implementing McKinsey 7S's framework and MIT90's model. These are used as the baseline information frameworks towards designing a strategic performance diagnostics framework for a higher education institution - a university.

2. RESEARCH PROBLEMS

Information System (IS) has become the back bone of most organizations as an important, integrated and systematic network of organizational elements, which to be synthesized simultaneously in transforming data into information [7]. An IS is referring to software that assist to systematize and analyze data for strategic decision-making process [8]. Decisions in an organization are interpreted as a progression of actions, and specifically chosen to achieve organizational or managerial goals and its objectives [9]. Therefore, strategic decision-making is a persistent process of formulating organizational goals, mission, objectives, values and perhaps indispensable element of supervising organization for a specific action of plan and transcribing strategies based on perceived outcomes [2].

Nowadays, many organizations are experiencing and encountering BDA failures due to the growth of holistic perspective in enchanting characteristics of socio technical perspectives upon human behavior dimension [10]. Organizations are stimulated and trigged by enormous data silos or isolated information repositories, data delusion and information bottleneck [1]. This circumstance is also due to human deficient of knowledge on incompetent information management and analytics inability to indicate strategic level information-"blind spot", predominantly on a particular pattern of constructive problematic scenarios and responses. We have observed these problematic scenarios as critical characteristics of our research questions:

1. What are the main hindrance arise in implementing and supervising strategic planning and its accomplishment?
2. How to observe the socio technical perspectives that could be refraining or else promoting BDA and BI technology for organizational strategic performance management?
3. What is the applicable evaluative strategies and framework to be used for probing the strategic performance of a higher education institution-a university?

3. RESEARCH OBJECTIVES

Poor strategic decision-making has been emphasized as the main characteristic contributing instantaneously to the predicament of organization failures [11]. It has enhanced the dominant purpose for the entailing of futuristic research directions and perspectives, in order to furnish further supervision and insights for executives on characteristic empowering organization prosperity and avoiding organization failure. Most of the obstacles arise in decision-making affiliated to IS for strategic decision-making from various possibilities, to push beyond precise features of the organization artifacts and to exploit into unexplored organizational opportunities within the environment of BDA.

Based upon the socio technical perspective, the fundamental explanation of such organizations failures and BD complications are typically due to inability to emphasize on psychological mechanism that precedent to such divergent people behaviors and personalities. The velocity of organization blunders have remained unreasonable because, organizations failed to prospect and utilize their IS structure and system for strategic decision-making [12]. Moreover, it has unveiled that an isolated pattern of gaps for engaging and compounding personality traits, technologies and systems with BDA and BI as a characteristic-reaction framework in structuring organizational strategic performance diagnostic mechanism.

We have studied such prevailing important requirements, techniques, data scenarios, practices and operations in an organization, which we have developed scenario for a university as a case study, let's define the university as University A. These approaches will be used for constructing and redesigning existing work as a problem-solution mechanism. Our research objectives are:

1. Observing an integrated framework; BDA and BI approaches to be aligned with MIT90's model and McKinsey7S's framework as the

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baseline information framework for organizational or strategic performance diagnostics mechanism.
2. Applying the conceptual strategies towards scrutinizing socio technical perspective model in the environment of BDA and BI approaches.
3. Designing an organizational strategic performance management framework for supervising, evaluating and measuring, as well as perceiving the socio technical and behavioral dimension of performance indicators for university's executive.

Based on holistic perspective, we have begun with designing and engaging multi-dimensional frameworks for Key Performance Indicators (KPI's) by perceiving the MIT90's and McKinsey 7S's approaches towards developing the socio technical perspective gaps and integrating with BDA and BI. As an outcome, we would come up with an integrated strategic performance and organizational excellence framework.

4. LITERATURE REVIEW

Today's organizations are so excited with the endeavor for accomplishment by prospecting their business in a digital business context and devising BDA and yielding BI innovation. In order to adopt such BI innovations, organizations can accomplish the competitive advantages through formulating strategic innovativeness of decision-making, which are amongst interconnected characteristic and respective development and proficiency [13]. However, BDA is not simple to be accomplished without a precise operational mechanism. The emerging stipulation of BD evaluation has disputed organizations to transform their data analytics ability and operation [1]. BD scenarios are about dealing with voluminous data for information overload that must be prompted and processed by applicable data processing and high availability in obtaining insight and yielding efficient decisions [14].

Therefore, strategizing and complimenting decision-making approaches should be accomplished by adopting data analytical approach of BI-BDA decision making. According to [3], using strategic performance structure alone could not solve the instantaneous enhancement of BD scenarios and transformation of data analytics in an organization. These obstacles appeared due to human oversight especially upon the inadequate of knowledge that has led to data delusion, poor communication and inadequacy of action – had resulted of such speculative communications to all levels in the organization.

According to [15], many organizations are still encountering operational complexity and failing to leverage their innovative competence and creativity for accomplishing middle range and long-term success. The enhancement in socio technical perspective and human behavior dimension had disputed an organization in such struggling upon operating BDA. Perhaps, this can be defined as the role of high involvement of work by employees with the complexity of work environment and conditions, had failed to pursue and reconcile strategic circumstance [16]. Furthermore, socio technical perspective approach has led to complex organizational scenario and competing scenario with each other, rather of working cooperatively, had originated the information overloading.

Ideally, strategic human behavior dimension can be significant in helping organizations in as well as supervising information overload by ensuring excellent knowledge supervision of the respective departments [1]. Moreover, [17] stated that MIT90's model has been a determinant for the technical characteristic of systematic BDA of the organization performance for utilizing technologies, whereby BI mechanism can be useful for accomplishing its organization KPI's for performing strategic performance management.

In addition, towards understanding this human behavior dimension, it is important to have a multiple perspective sight in scrutinizing patterns of information seeking behavior framework in an organization. According to [17], by implementing McKinsey 7S's framework as the baseline information framework could be a mechanism for determining organization behavior. This multiple perspective diagnostics mechanism has signified three (3) "hard" "S's"; Systems, Strategy and Structure. These are followed by the four (4) "soft" "S's"; Style, Shared values, Staff and Skills. This conceptual framework will be pre-assessed and associated with MIT90's model as a complication model in reconciling the gaps, predominantly on data silos-isolated information repositories, data delusion and information overload or bottleneck.

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5. MIT90'S MODEL AND MCKINSEY 7S'S FRAMEWORK: DESIGN AND ANALYSIS

A university is an organization within higher education environment, corresponds the characteristics that defines any organization on its goal orientation, boundaries, social interaction, structured activity - system and culture towards accomplishing their KPI's achievement [18]. In addition, universities have required numerous different models to prosper and perceive technology adoption of a virtual strategic diagnostic situation for strategic decision-making process on their KPI's and goals [19]. According to [20], MIT90's strategic framework has been designed as the fundamental approach to encourage organizations in comprehending the dynamics of transformation in technology.

This framework interactive adaptation has designated as a model for planning organization business design approach in the respective Information Technology (IT) or Information and Communication Technology (ICT) [21]. In addition, MIT90's model can be used to highlight some mechanism of supervision, of that essential for a passionate equilibrium with each other as a comprehensive and reliable model of IS supervision. In addition, [22] stated that MIT90's model was useful to assist managers in comprehending the impact ICT and will have influential moves on institutional missions, organizational structures and operating practices as shown in Figure 1.

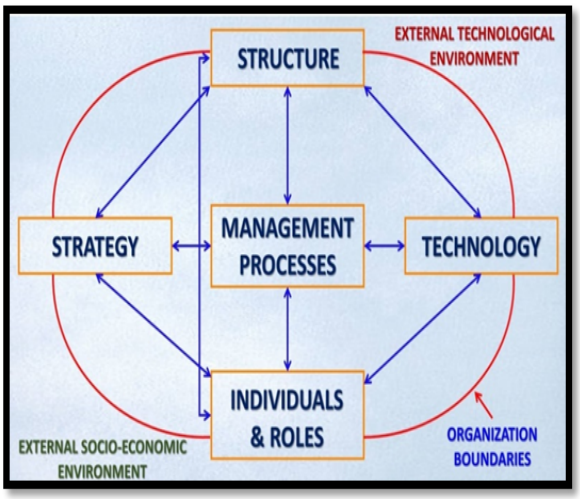

Figure 1: An overview MIT90's Model for critical success factors: external factors and internal factors

Based on Figure 1, the MIT90's model shows critical success factors that consists of external factors such as society, economy, science and technology, and the internal factors such as strategy, structure, processes, people and their roles. [10] has stated that MIT90's model could be a flexible framework with a focal point on assimilation holistic perspective by assisting organizations through their adoption of IT as an organizational and strategic accumulation from their computer automated environments. The model admits that IT is an enabler for organizations to leverage their resources to accomplish excessive levels of performance and determine parts of the organization that will be simulated by its adoption [23].

In order to design a comprehensive framework, we have chosen policies and strategies based upon the guidance of ideal philosophy of MIT90's model and McKinsey 7S's framework as the baseline information framework for excellence, and yet being analytics on strategic application. According to [5], McKinsey 7S's framework expand the policies and strategic representation as an analytical diagnostic mechanism for strategically observing the socio technical perspective of internal characteristic of an organization. This is to be aligned with strategies in order to accomplish lasting effectiveness. These strategic key points are to align with the promptly emerging BD and transforming of data analytics in organization towards proposed strategic plan. Furthermore, the seven (7) criteria will leverage the success of an organization strategic plan, by focusing on systems, skills, style, structure, staff, strategy and shared values as shown in Figure 2.

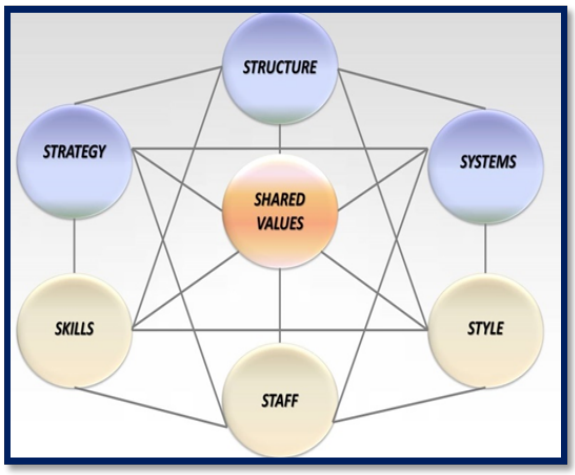

Figure 2: An overview McKinsey 7S's Framework for Organizational Strategic Performance Diagnostics

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Based on Figure 2, all these seven (7) elements are interconnected strategically, whereby changing in one specific area will require changes in the rest of an organization strategy. McKinsey consists of seven (7) critical factors for effective strategy implementation on socio technical perspective and human behavior dimension [24]. Derived from the strategic literature review, the study has come up with an adapted relationship of seven (7) components; all are in interaction with each other as shown in Table 1.

Table 1: The McKinsey 7S's Model Component.

Components	Clarification	References
Strategy	Inappropriate communication flows give rise to conflicts and occupant the organization's image. It is predominant to make the precise communication strategies for conflict sustainable advantage and resolution. The long-term organization plan of action, to accomplish and clearly articulate the competitive advantage by transforming an organization and enhance alignment to mission, vision and values. (It is dominant for a leader to utilize his emotional intelligence and be flexible and applicable as the precise strategy at the proper time).	[25]; [26]
Structure	Most organizations utilize conventional mechanism of communication. This outcomes in stifle the crucial information commends ascend to grapevines. The organizational structure must be designed in a mechanism that information is not bottleneck. Effusion the compilation role of BD of an organization by cluster coordination and providing analytical decision-making. (Organizational structure should motivate open communication beyond all levels which allows for self-correction and group problem solving).	[27]; [26]
Systems	The internal operation and mechanism has facilitated excellent communication and it is significant to comprehend how constructive they are in maintaining the precise flow. Designate the internal approach of BDA on daily activities and interconnected organizational obligation. (A leader has to utilize the internal approach to prospect what is unknown).	[28]; [29]
Staff	The staff can facilitate constructive communication and significance needs to be attached to communication skills through selection and recruitment. Pledge diverse experience capabilities and competencies of skill posit on utilizing and encountering strategic implementation on BD scenarios. (People with compassionate communication skills should be hired).	[26]; [17]
Skills	Communication can circulate smoothly if the staff boast the precise skills. Intimate for knowledge-abilities and capabilities of futuristic strategy of an organization to perform very well upon complexities in BD transfigure. (A leader must persuade people to utilize compassionate communication).	[26]; [30]
Style	The management is accountable for promoting a culture of open communication. Regulate human behavior components of an organizational leadership, adopted culture and dedication. (Persuade the people not to devise self-fulfilling prophecies hinge on past work experiences).	[31]; [26]
Shared Values	The organizations interpretation system and perspective towards communication is at the elemental of other components. The principal of the excellent norms and standards that guide human behavior and socio technical actions dispense within an organization. (A leader must forge a transparent organization where people can lead with their desirability).	[26]; [32]

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Table 1 has summarized the McKinsey 7S's components being composed of seven (7) characteristic by guiding thinking about organizational effectiveness in the immense sense as an excellent mechanism for judging an organizations ability to implement a specific strategy. To be coherent, an organization must have a high degree of internal alignment among all seven (7) S's. Certain critical factors such as system, staff, structure and strategy can be changed in the short term [33]. The three (3) prevail S's of skills, style and shared values are hinder factors that can only be affected long term [34]. Therefore, we have observed the integrated MIT90's model and McKinsey 7S's framework in adopting and adapting to comprehensive strategic, conceptual thinking of tactical and operational analytics on strategy implementation and components of an organization's strategic performance management. We had concluded that there are similar components of McKinsey 7S's framework and the comprehensive University A components. Derived from the strategic literature review, we have come up with an adapted policy and strategic implementation as a diagnostic performance framework by adopting the seven (7) criteria - influencing on prosperity of University A strategic plan as shown in Table 2.

Table 2: Adoption Factors of McKinsey 7S's and University A Framework Integration.

Variables Components		MIT90's Model & McKinsey 7S's Framework Component		Adoption Factors	Focus of University A's BI Framework Component System	References
Hard	1	Strategy	Strategy	Proposition of act that interprets the firm and apportion firm's scarce resources, over time, to transform an organization from the contemporary to the strategic posture.	Strategic Planning	[22]
	2	Structure	Structure	The decision-making and coordination authority that is indicate by organizations chart.	Leadership	[26]
	3	Technology	Systems	Internal approach assists by various interconnected systems.	Operation Focus	[35]
Soft	4	Individuals & Roles	Staff	The personnel with the proficiency and skills inside the organization.	Workforce Management	[36]
	5		Skills	Distinctive technical, relational and conceptual ability of key personnel.	Knowledge Management	[27]
	6		Style	The variety of leadership style, management and commitment.	Customer Management	[18]
	7	Management Processes	Shared Values	Dominant norms and values that are split with an organization.	Excellence System	[37]

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This is the prospective Strategic Performance Management System for organizational BI Framework with characteristic components of McKinsey 7S's business excellence model with the existing strategic components of an University A, where the Strategic Planning system to be associated with the Strategy, Leadership system will be associated with Structure and Operation Focus system to be associated with Systems as strategic hard areas for measurements. Meanwhile, the Workforce Management system to be associated with Staff, followed by Knowledge Management system adapted to Skills and Customer Management system to be associated with Style as strategic soft areas for measurements.

Eventually, the Shared Values will be adapted as structural application of the University A's Excellence System for evaluating quality objectives, standards and characteristic of critical success factors as the organizational dashboard conceptual mechanism. This will be the fundamental template for the prerequisite of a precise dashboard framework application as an infographic mechanism as shown in Figure 3.

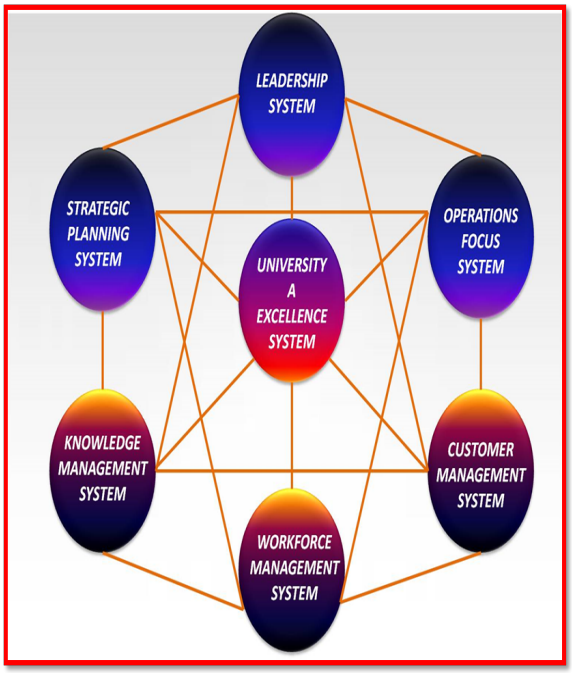

Figure 3: The Contemplate of Organizational Excellence (McKinsey 7S's-University A's BI design) Framework

Based on Figure 3, we have derived the inaugurate approach to configure the preliminary survey study on socio technical perspective and human behavior dimension by analyzing a comprehensive organizational strategic performance of McKinsey 7S's baseline information excellence framework - BD and BI illustrations. The study reviews previous research according to strategic performance diagnostics framework for a higher education institution – a university implementation for the duration of seven (7) years namely 2011 to 2017 to obtain appropriate matrices indicator. Table 3 shows the respective matrices and indicators that can be formulated for this study.

Table 3: Matrices of University A's BI Framework and Generic STO components.

University A's BI Framework Component System	Generic Strategic, Tactical and Operational (STO) Components
Strategic Planning	**Strategic Management System**: Strategic Planning Process, Development and Risk Assessment
Leadership	
Operation Focus	**Quality Management System**: Quality Strategies, Capabilities and Culture, Processes and Structures
Customer Management	**Academic Accreditation Management System**: Program Educational Standards & Accreditation
Knowledge Management	
Workforce Management	**Human Resource Management System**: Competency, Talent, Integrity Evaluation and Appreciation

Table 3 has summarized the matrices of University A's BI framework and generic STO components. The study begins by analyzing integrated frameworks in comparison to adopt and adapt generic STO elements of an organization's operation as dynamic equilibrium with each other to complete consistency model of IS Management. This is an approach of designing the structural application of the organizational dashboard conceptualization of the adoption factors of socio technical components based on the extant literature and next, we will develop and design the characteristic and KPIs of the organizational dashboard framework – a mashup conceptual design as shown in Figure 4.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

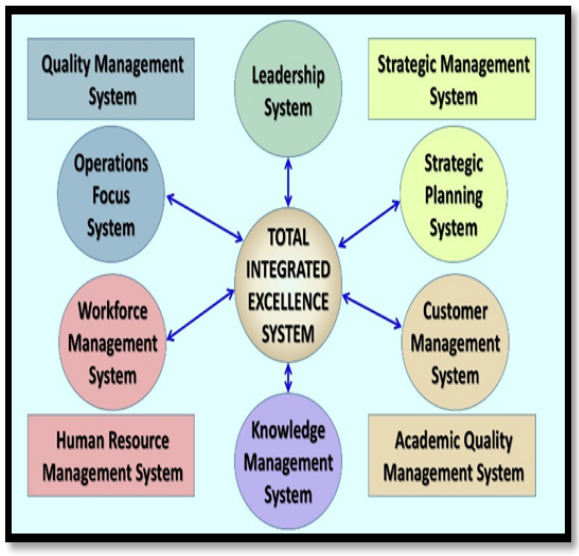

Figure 4: The Establish Perspective of an Organizational McKinsey 7S's-University A's BI model for Strategic Performance Diagnostics – a dashboard framework

We encapsulate the above proposed framework as a total integrated excellence system that yet interprets the Strategic Performance Management model for University A. The elements are integrated as informative measurements of strategic planning, leadership, operations or quality, workforce or human resource, customer and knowledge management systems respectively.

6. RELIABILITY AND DATA ANALYSIS BASED ON THE SURVEY RESULTS

For this preliminary survey, the respondents that will be involved in this data accumulation are form University A. The present study used a convenience sample in which data were collected from University A, which are available and accessible to the researcher. Convenience sampling refers to the collection of information from members of the population who are conveniently available to provide it [38]. This technique is appropriate when frames are unavailable or population is so widely dispersed that cluster sampling would be too inefficient [39]. Furthermore, [40] and [41] assured that this method is frequently used in IS research and very commonly used in the field of organization learning studies, the researcher observed every response online, hence, the number of responses for each characteristic were closely monitored. The origin data comes from a survey of 270 respondent, applying strategic performance management approaches typically attain from the critical role of coordination that comprise of current administration and academia staff of University A. According to [42], if the population size given is 500, sample size needed for this study is 260 respondents. Therefore, the structure of content analysis implements the McKinsey 7S's framework that emphasis on seven (7) internal aspects of a University A that align with its position and success. This is the initial step of an organizational analytical mechanism to monitor and determine transformation in the internal environment of University A, which empower us to configure the survey.

The survey is designed based on determining the depth of the requirement in the conceptual framework that need to be measured. After that, designed questions need to be refined by theoretical model. Dichotomous questions are used so it would not confuse the responders. The constructs of the survey questions are presented in Table 4 and Table 5 below and a sample of the questionnaire is provided in Appendix A. The study obtained information through dichotomous questions from section 1 on obtaining respondents profile until section 8. [43] stated that dichotomous questions are structured question with only two response alternatives, such as yes or no.

Table 4: Construct and Operational Measure for Questionnaire.

Objectives	Construct	Operational measure	Question/Location of questions in the questionnaire	Total Items
Respondents Profile	Demographic	Dichotomous Questions	Section 1: Q1-Q4 Yes No	4
Holistic View Perspective Towards Strategic Factors	Strategic Factors adapted from [22]	Dichotomous Questions	Section 2: Q5 Yes No	3

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Holistic View Perspective Towards Structure Factors	Structure Factors adapted from [26]	Dichotomous Questions	Section 3: Q6 Yes No	3
Holistic View Perspective Towards Systems Factors	Systems Factors adapted from [35]	Dichotomous Questions	Section 4: Q7 Yes No	3
Holistic View Perspective Towards Style Factors	Style Factors adapted from [18]	Dichotomous Questions	Section 5: Q8 Yes No	3
Holistic View Perspective Towards Staff Factors	Staff Factors adapted from [36]	Dichotomous Questions	Section 6: Q9 Yes No	3
Holistic View Perspective Towards Skills Factors	Skills Factors adapted from [27]	Dichotomous Questions	Section 7: Q10 Yes No	3
Holistic View Perspective Towards Shared Values	Shared Values adapted from [37]	Dichotomous Questions	Section 8: Q11 Yes No	3

Table 5: Items Measuring for Adoption Factors of Strategic Performance.

Strategy Factors	**Sources**
Lack of Appreciation Among the Staff. (Q5_1) Unclear with the direction. (Q5_2) No obstruction. (Q5_3)	[22], [44], [45]
Structure Factors	**Sources**
Communication gap between the staff. (Q6_1) Limited Coordination. (Q6_2) No obstruction. (Q6_3)	[26], [46], [47]
Systems Factors	**Sources**
Lack of systematic workflow. (Q7_1) Unclear or loose of control & monitoring. (Q7_2) No obstruction. (Q7_3)	[35], [48], [49]
Style Factors	**Sources**
Unclear Approach & Support. (Q8_1) Lack of Cooperation Among Staff. (Q8_2) No obstruction. (Q8_3)	[18], [50], [51]
Staff Factors	**Sources**
Passive and lack of interest, resist changes. (Q9_1) Unsuitable task-staff. (Q9_2) No obstruction. (Q9_3)	[36], [52], [53]
Skills Factors	**Sources**
Lack of knowledge. (Q10_1) Lack of skilled. (Q10_2) No obstruction. (Q10_3)	[27], [54], [55]
Shared Values	**Sources**
Lack of Practices. (Q11_1) Insufficient of effort and commitment. (Q11_2) No obstruction. (Q11_3)	[37], [56], [57]

As we analyzed the diagnostic and prescriptive framework for an organizational alignment, we experience more tangible and measurable of structure, systems, strategy and organization behavior needed to be determined on for shared values. To designate the elements, we had comprised respective matrix interface that embrace of seven (7) themes of McKinsey with fourteen

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(14) sub-themes as the purposive socio technical and behavioral dimension of performance indicators as shown in Table 6.

Table 6: The McKinsey 7S's and Elements of Performance Indicator of University A.

Themes	Sub-Themes Elements	Percentage (%)
Strategy (270-Respondent) **Strategic Planning System**	Lack of Appreciation among the staff	142 52.6%
	Unclear with the direction	102 37.8%
Structure (270-Respondent) **Leadership System**	Communication gap between the staff	121 44.8%
	Limited coordination	142 52.6%
Systems (270-Respondent) **Operation Focus System**	Lack of systematic workflow	131 48.5%
	Unclear or loose of control & monitoring	159 58.9%
Style (270-Respondent) **Customer Management**	Unclear Approach and support	101 37.4%
	Lack of Cooperation among staff	138 51.1%
Staff (270-Respondent) **Workforce Management**	Passive and lack of interest, resist changes	153 56.7%
	Unsuitable task-staff	111 41.1%
Skills (270-Respondent) **Knowledge Management**	Lack of knowledge	153 56.7%
	Lack of skilled	117 43.3%
Shared Values (270-Respondent) **Excellence System**	Lack of Practices	86 31.9%
	Insufficient of effort and commitment	154 57.0%

To begin the analysis, we predicament the enactment of the themes is based on the four (4) components of McKinsey 7S's-University A's BI framework itself as shown in Figure 5.

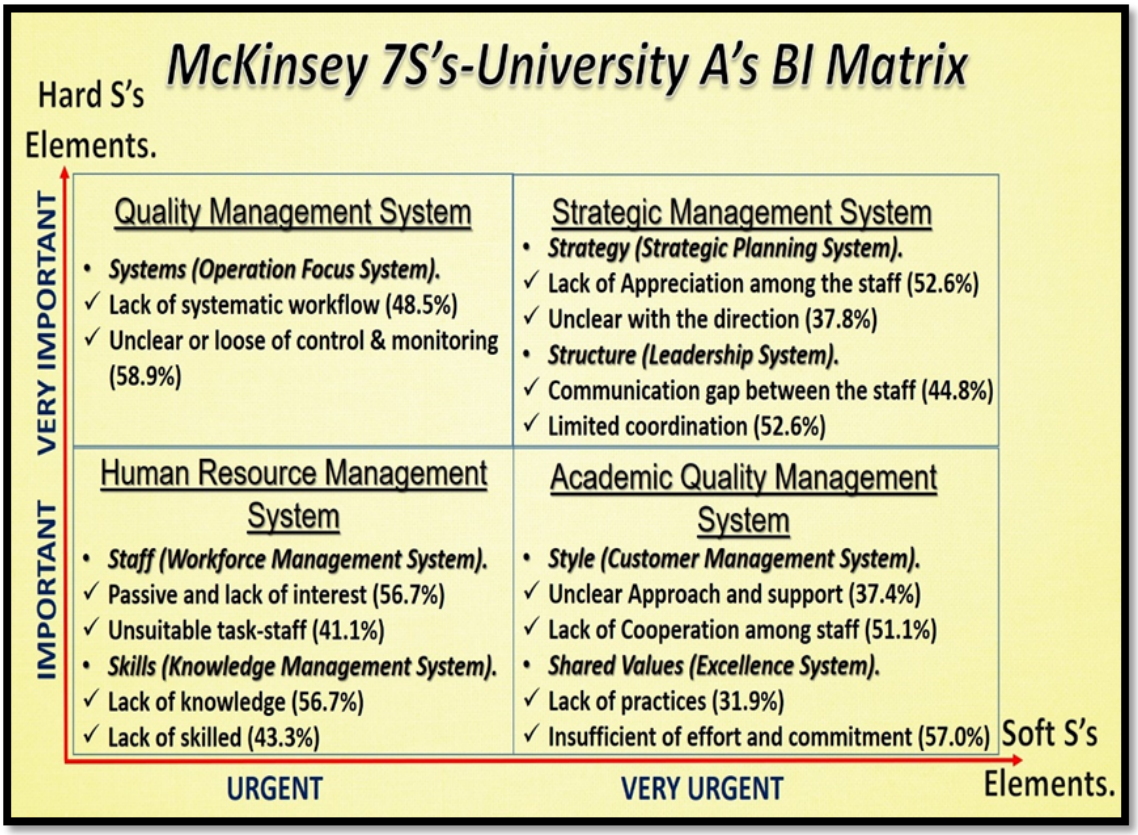

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Figure 5: The McKinsey 7S's-University A's BI Matrix

Furthermore, we present the analysis and results of this study which provide answers for the three (3) research objectives highlighted. The analysis is performed by using a few methods to gain relevant validation results. We had validated the framework by using reliability analysis, which is the most frequently used Cronbach Alpha. A Cronbach Alpha greater than 0.60 is predominantly accepted to indicate reliability for the measurement, however a value greater than 0.70 is more preferable [58]. Table 7 depicts the reliability analysis using Cronbach's Alpha.

Table 7: Reliability Analysis.

Construct or Variables	Cronbach's Alpha
Strategy Factors	0.705
Structure Factors	0.705
Systems Factors	0.796
Style Factors	0.715
Staff Factors	0.750
Skills Factors	0.709
Shared Values	0.811

Reliability analysis is conducted to validate the instrument of the study. Based on Table 7, the study discovers the entire variables are reliable for the study. The objective of the research is discovered by performing reliability analysis whereby six (6) factor of strategic performance standards adoption are found.

The majority of University A staffs were the Administration (Gred 11-40) 106 (39%) staffs, followed by Academia 86 (32%) staffs and Administration (Gred 41-54) with 78 (29%) staffs. The highest duration of service or working years at University A with more than 150 (56%) staffs in year > 8 years. This is followed by 65 (24%) staffs in year between 4-7 years and the lowest were 55 (20%) staffs in year < 3 years. The highest group of service or working status at University A started with more than 200 (74%) staffs are permanent or fixed in their job status, followed by less than 60 (22%) staffs are contract in their job status and the lowest were 10 (4%) staffs are categorized as others in their job status, are shown in Table 8.

Table 8: Frequency Analysis Results (Respondents Profile).

Characteristics	Number N=270	Percentage (%)
Job/Position Title		
• Administration (Gred 41-54)	78	29
• Administration (Gred 11-40)	106	39
• Academia	86	32
Duration of Service/Working		
• > 8 years	150	56
• 4 - 7 years	65	24
• < 3 years	55	20
Service/Working Status		
• Permanent/Fixed	200	74
• Contract	60	22
• Others	10	4

We observe further that those themes and provides key determinants underlying gaps or issues. The study had concluded that there was a growing amount of data available to be inaccurate and inconsistent. Therefore, we indicate that key enabler from this big data picture must be aligning with infographic mechanism and providing the important insights that can be applied to boost up the findings of University A, as shown in Table 9.

Table 9: Findings and Action Plan for the Critical Gaps.

Themes	Scenario	Action Plan	Criteria	References
(Strategy) Strategic Planning System	Lack of Appreciation among the staff	Promote Teamwork	Teamwork is the way to go, pitting one staff against the other can only be counterproductive.	[22], [44], [45]
	Unclear with the direction	Give Information Freely	Let the staff know the organization plans and change of plans, if any.	

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(Structure) Leadership System	Communication gap between the staff	Evaluate intrapersonal relationships between staffs	The caliber of communication devices in the organization.	[26], [46], [47]
	Limited coordination	Advises managers to review all formal messages	To ensure additional communication to clarify main themes.	
(Systems) Operation Focus System	Lack of systematic workflow	Implementation of a controlled and disciplined workflow process	Systematic processes for gathering organizational information.	[35], [48], [49]
	Unclear or loose of control & monitoring	Monitor performance and provide feedback	Check progress toward an objective of staff performance evaluation.	
(Style) Customer Management	Unclear Approach and support	Work Groups	Encourage teamwork and dependency.	[18], [50], [51]
	Lack of Cooperation among staff	Cross Training	To upskill individual staffs how to execute multiple positions within the organization.	
(Staff) Workforce Management	Passive and lack of interest, resist changes	Communication about change	Communicate with staffs about it.	[36], [52], [53]
	Unsuitable task-staff	Organizational structure	Explain the roles of formalization, centralization, levels in the hierarchy and departmentalization in staff attitudes and behaviors.	
(Skills) Knowledge Management	Lack of knowledge	Knowledge transfer and learning	Staff shared experiences to identify better practices.	[27], [54], [55]
	Lack of skilled	Reinvent	Renewed imperative to rethink our organization traditional patterns and habits.	
(Shared Values) Excellence System	Lack of Practices	Training involving staff and middle managers	The work assignments and implementation progress.	[37], [56], [57]
	Insufficient of effort and commitment	Break Down Silos	Transparent communication and team players fostered a cross functional environment.	

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7. CONCLUSIONS

The predominant contribution of the proposed framework emphasizes on human behavior dimension and socio technical perspective paradigm of information-seeking behavior towards assimilation BD situation in an organization utilize BI as an application mechanism for strategic performance diagnostics. The proposed framework for the strategic performance has been derived from literatures of McKinsey's 7S's framework and mapped with the MIT90's model. This produces the adapted strategic planning model for University A. Yet, we had come up with our observation through a survey on seven (7) divergent components.

All of these variables and dimensions were utilized into our determinant for adapting and adopting a futuristic framework as a research work for scrutinizing structures, enactment and evaluation of the strategic performance management system in a holistic perspective. In addition, this proposed framework furnishes a mechanism for the researchers to chronicle the continuous, structural analysis and evaluation parameters of the controlling and monitoring technique deployed by the stakeholders and all level management teams. This framework ensures that an organization's strategic plans and agitation will be efficiently and effectively implemented under such critical strategic objective formulation as shown in Table 10.

Table 10: Summarize the result of the research questions and objectives.

Research Question	Research Objective	Remarks	Analysis Results
RQ1 What are the main hindrance arise in implementing and supervising strategic planning and its accomplishment?	Observing an integrated framework, BDA and BI approaches to be aligned with MIT90's model and McKinsey 7S's framework as the baseline information framework for organizational or strategic performance diagnostics mechanism.	Study on the Literature Review related to strategic performance diagnostic elements in organizational learning. (Data Collection)	Refer to: 4. Literature Review and 5. MIT90's Model and McKinsey 7S's Framework: Design and Analysis (Table 1 & 2)
RQ2 How to observe the socio technical perspectives that could be refraining or else promoting BDA and BI technology for organizational strategic performance management?	Applying the conceptual strategies towards scrutinizing socio technical perspective model in the environment of BDA and BI approaches.	Specific analysis that determines factors of social technical perspectives for University A and study on theory adoption. (Analysis Data Collection)	Refer to: 5. MIT90's Model and McKinsey 7S's Framework: Design and Analysis (Table 3) and (Figure 3 & 4)
RQ3 What is the applicable evaluative strategies and framework to be used for probing the strategic performance of a higher education institution-a university?	Designing an organizational strategic performance management framework for supervising, evaluating and measuring, as well as perceiving the socio technical and behavioral dimension of performance indicators for university's executive.	The action plan of the scenario is designed based on the conceptual model framework. (Development Validate)	Refer to: 6. Reliability & Data Analysis Based on the Survey Results (Table 6,7 & 9) and (Figure 5)

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The proposed framework provision a useful means of deriving an overview of the functionality and structure of the proposed strategic performance management that are currently in place within University A. In future, this proposed framework for monitoring strategic performance will be a powerful mechanism for us as empirical researchers. This will also expedite us in describing, documenting and capturing the operation and enactment of strategic management as well as prospect the holistic underlying concepts, reasons and principles for such controlling and monitoring mechanisms and approach in the complexities and context of BDA.

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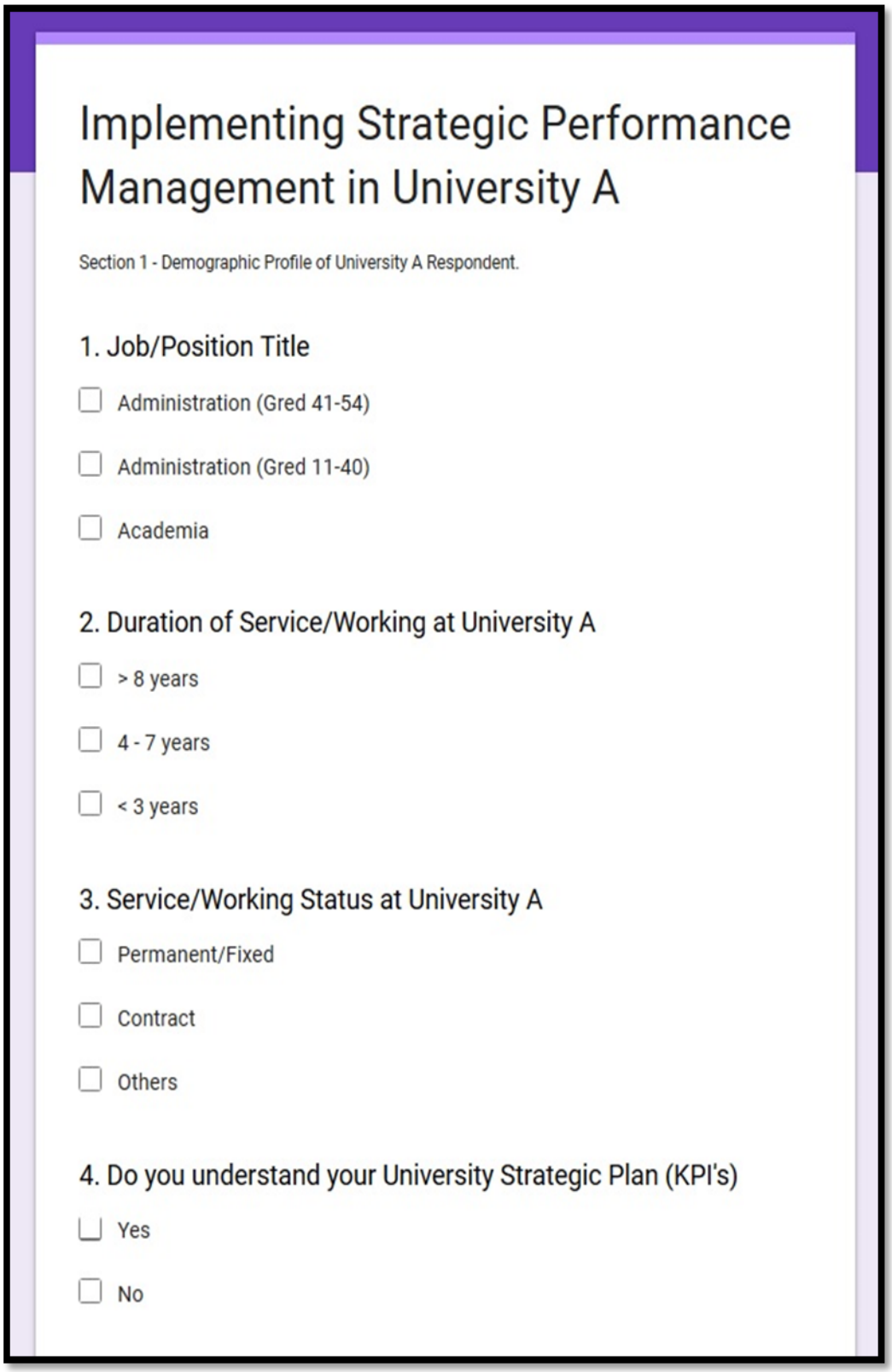
Appendix A: Online Questionnaire.



Implementing Strategic Performance Management in University A

Section 1 - Demographic Profile of University A Respondent.

1. Job/Position Title

- [ ] Administration (Gred 41-54)
- [ ] Administration (Gred 11-40)
- [ ] Academia

2. Duration of Service/Working at University A

- [ ] > 8 years
- [ ] 4 - 7 years
- [ ] < 3 years

3. Service/Working Status at University A

- [ ] Permanent/Fixed
- [ ] Contract
- [ ] Others

4. Do you understand your University Strategic Plan (KPI's)

- [ ] Yes
- [ ] No

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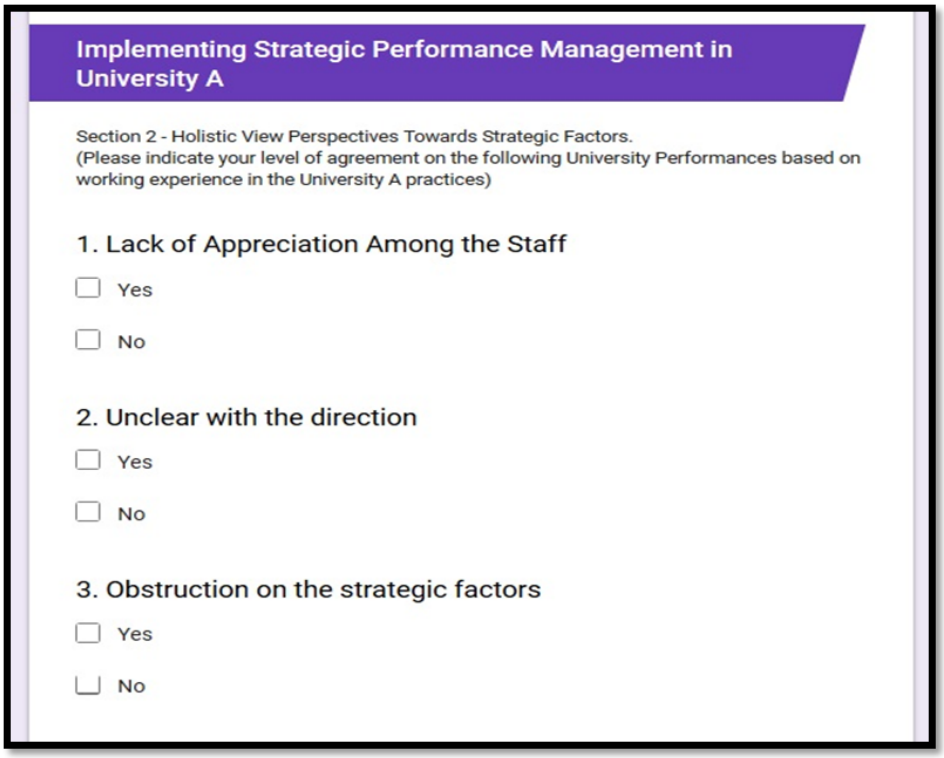

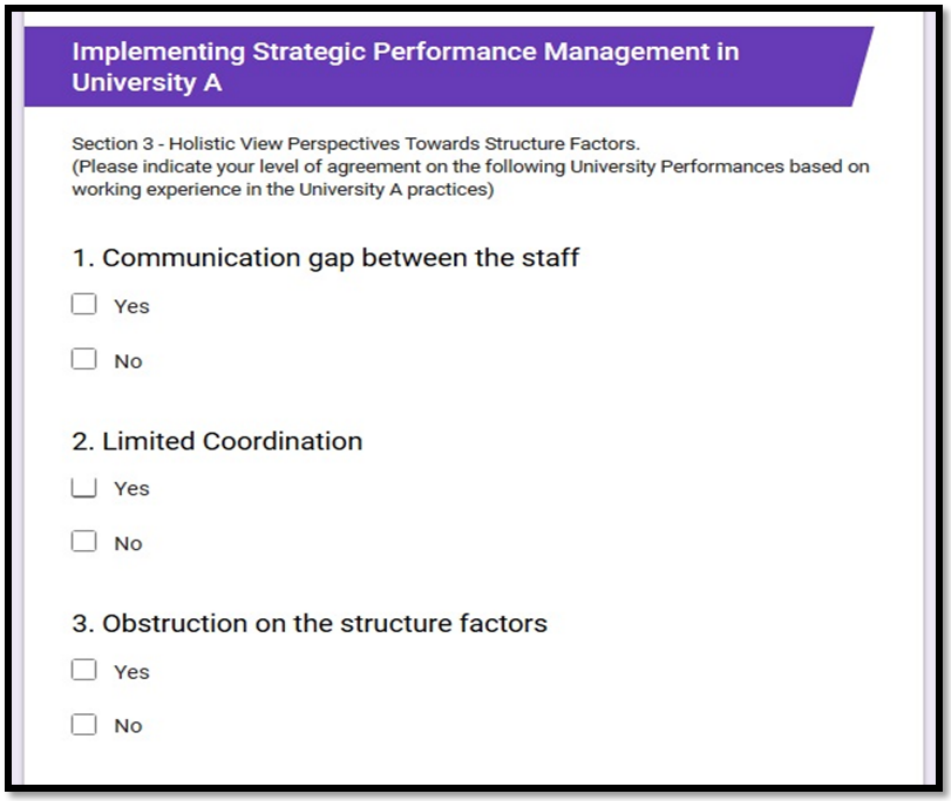

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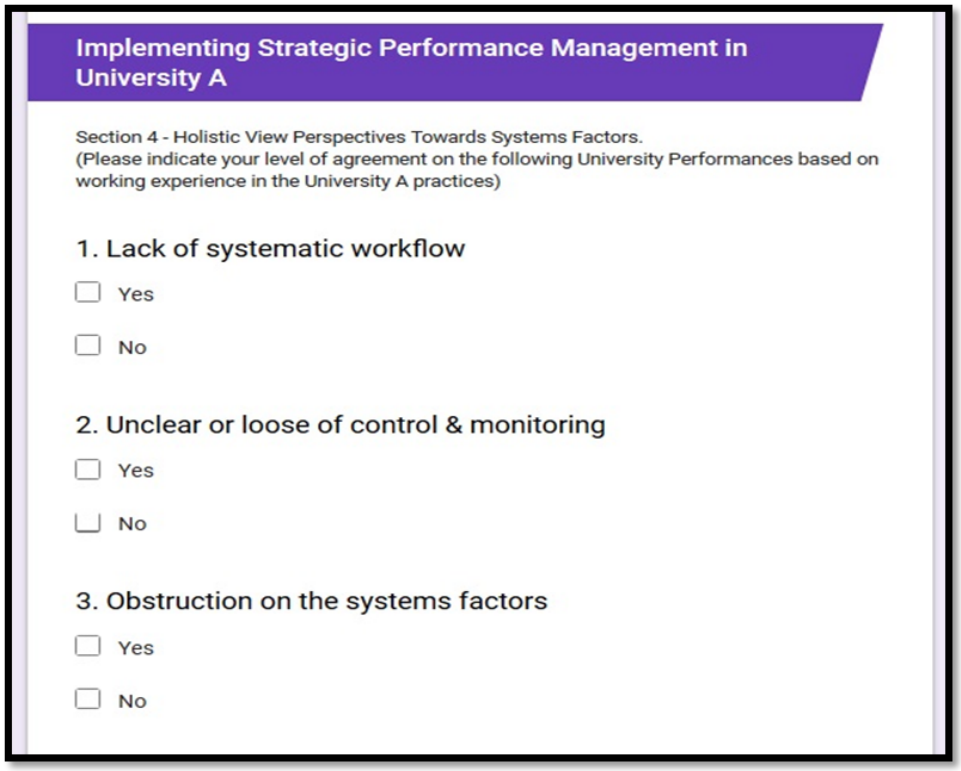

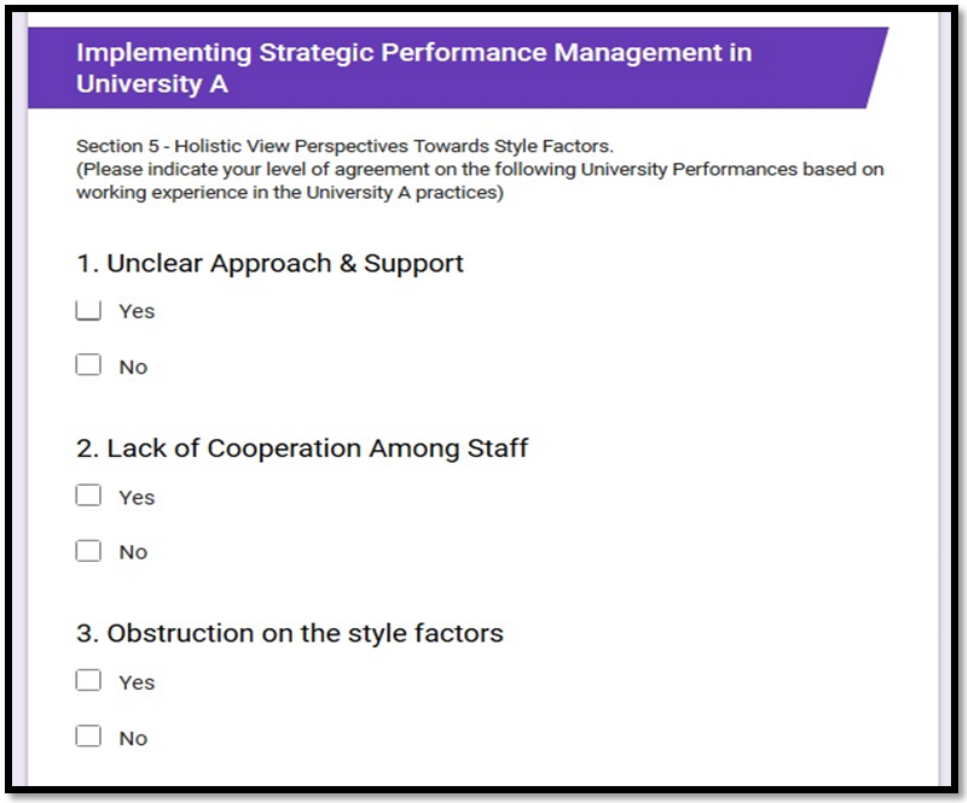

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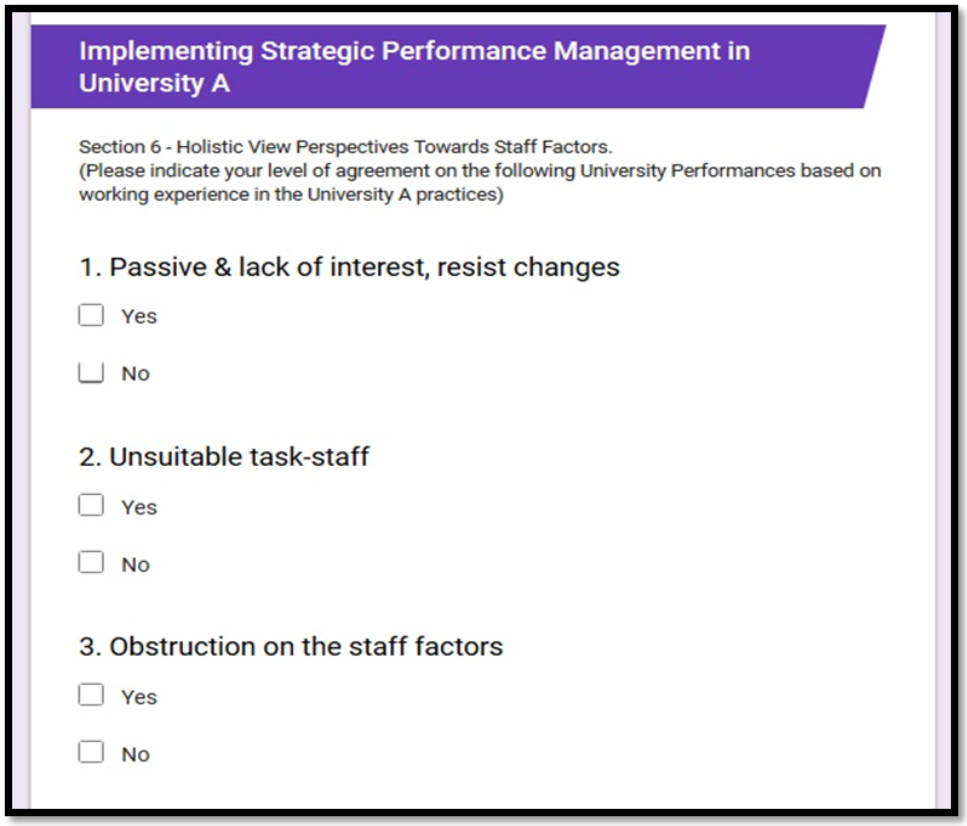

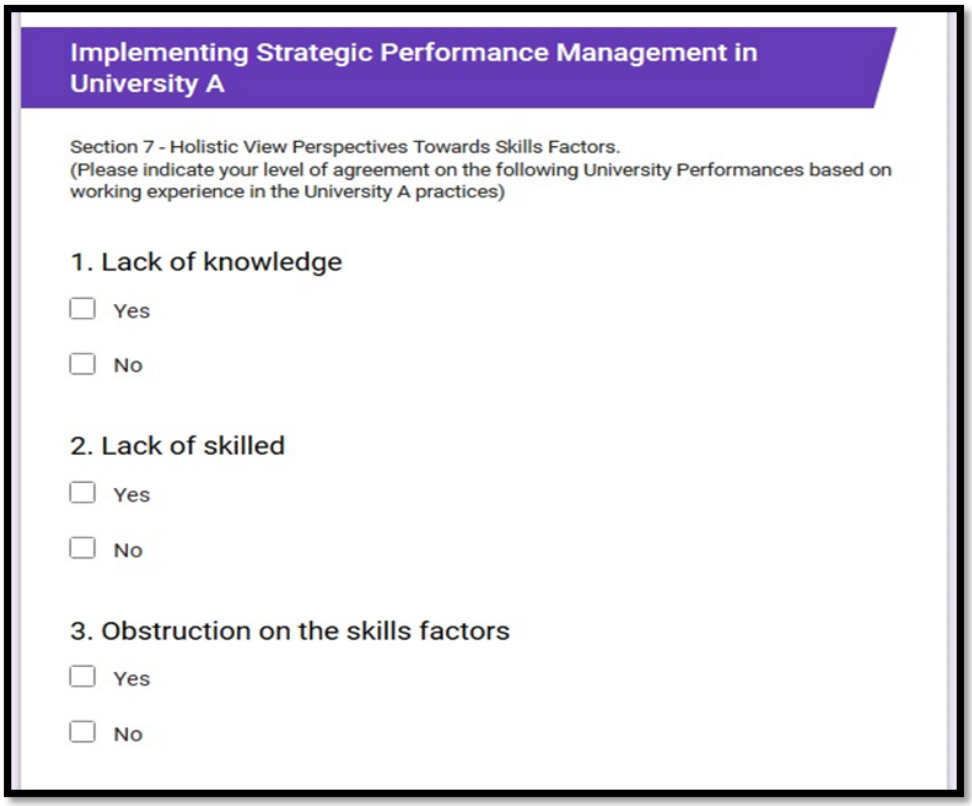

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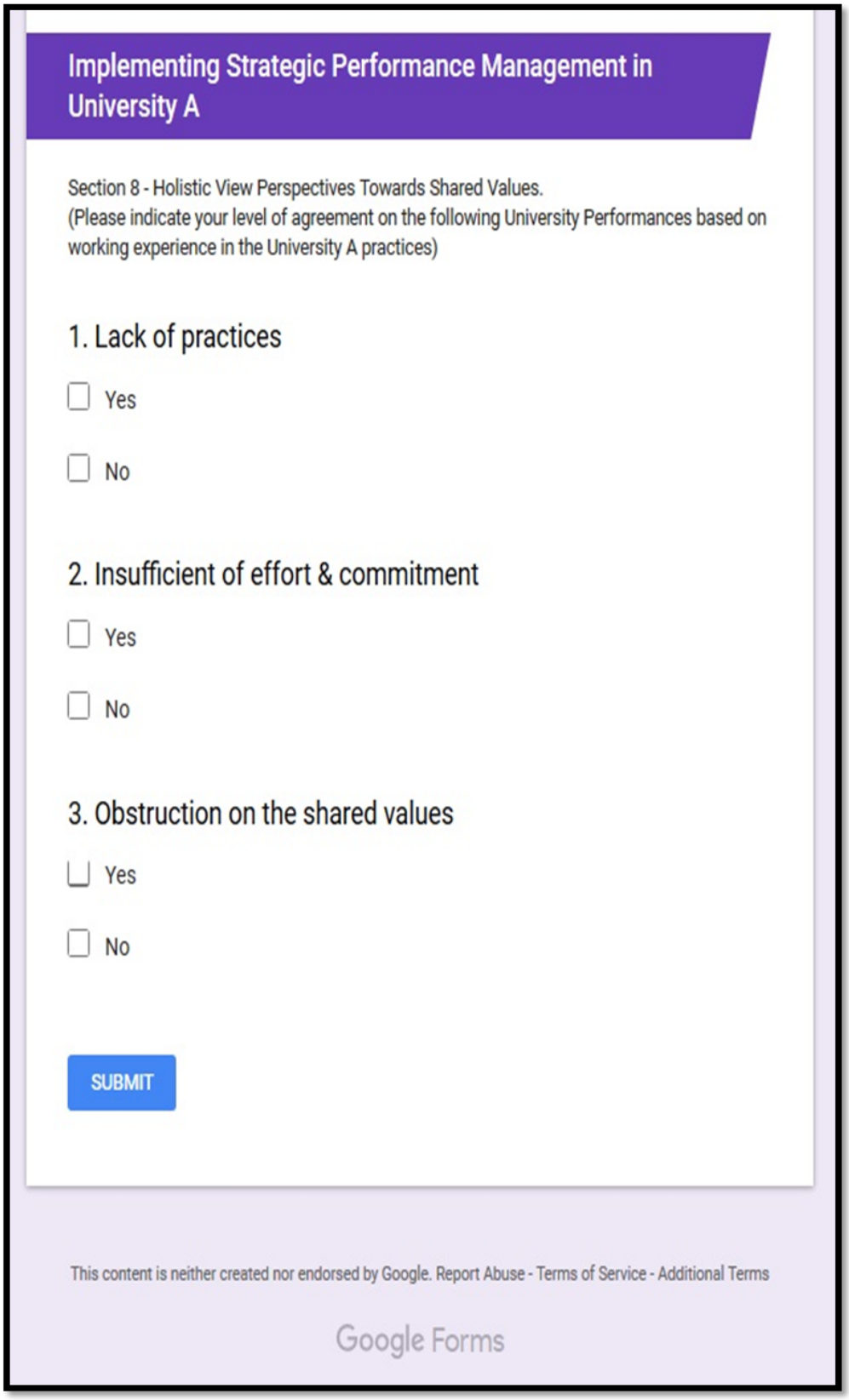

Implementing Strategic Performance Management in University A

Section 8 - Holistic View Perspectives Towards Shared Values.
(Please indicate your level of agreement on the following University Performances based on working experience in the University A practices)

1. Lack of practices

- [ ] Yes
- [ ] No

2. Insufficient of effort & commitment

- [ ] Yes
- [ ] No

3. Obstruction on the shared values

- [ ] Yes
- [ ] No

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