SCHOLARLY PUBLICATION KEY PERFORMANCE INDICATOR DIAGNOSTIC MODEL USING VIABLE SYSTEM AND SOCIAL COGNITIVE THEORY

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UNIVERSITI TEKNOLOGI MALAYSIA

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SHARANJIT KAUR A/P BHATHAL SINGH

A thesis submitted in fulfilment of the requirements for the award of the degree of Doctor of Philosophy (Information Systems)

> Faculty of Computing Universiti Teknologi Malaysia

> > MAY 2016

TO MY LOVING HUSBAND, FATHER, MOTHER, SIBLINGS DR. ROLIANA IBRAHIM AND PROF. ALI SELAMAT, FAMILY MEMBERS, AND BEST FRIENDS THANKS FOR ALL YOU SUPPORT.

ACKNOWLEDGEMENT

First and foremost, I would like to thank God for giving me the determination and will to complete this study.

I would like to express my sincere thanks and appreciation to my supervisor Dr. Roliana Ibrahim and my co-supervisor Prof. Dr. Ali Selamat for their continuous advice, guidance, support, and patience to guide me through the steps of my research. I thank them for being supervisors, advisors and teachers.

I am also grateful to the The Ministry of Higher Education, Malaysia, for giving me the opportunity to conduct my research by funding my studies.

Special thanks to my colleagues, friends, staff, and lecturers in the Faculty of Computing and Research Management Centre, UTM for their help, facilities, and for providing me the fullest cooperation and encouragement.

I can never forget the valuable encouragement of my husband, parents, siblings and other family members who had given to me at every walk of life and their moral and undivided support which helped me to carry on this research.

Last but not least, my sincere thanks to my friends for their encouragement and endless support during my course in this Faculty.

ABSTRACT

Scholarly Publications (SP) are almost certainly the most significant resources by which researchers at universities are appraised. It is part of the requirements for obtaining a Research University (RU) status. In the aspiration of these, to strategically improve and maintain their status, a series of performance measurement interventions were initiated, such as the use of Key Performance Indicators (KPI) delivery. The aim of this study is to propose a diagnostic model for SP productivity involving various stakeholders in monitoring a complex KPI delivery ecosystem for Malaysian university. This study employs Viable System Model (VSM) and Social Cognitive Theory (SCT) factors to develop a research model based on a comprehensive literature review. Following an interpretive paradigm this research applies qualitative method triangulated with quantitative method. VSM was applied as a diagnostic tool to diagnose process of KPI delivery for monitoring four recursion levels involving Deputy Vice Chancellor of Research and Innovation (DVCRI), Research Alliances (RAs), Research Groups (RGs) and lastly the academic staffs of the chosen institution which is, Universiti Teknologi Malaysia (UTM). Three strategies which are strategic, tactical and operational in achieving the SP KPI to maintain RU status for the institution were recommended to assist all pertinent stakeholders in monitoring the KPI delivery. Besides, to complement the results, a survey was designed and the data from the institutional repository involving UTM faculty members were analyzed to investigate the SCT factors involving human factor which is lacking in VSM tool. The findings show that the most influential factors for the SP of UTM are age, gender, experience, rank, teaching load, collaboration, funding, resource, discipline and skill. The model was evaluated for the SP KPI monitoring process, which further can be used by public and private universities to improve the performance of their institution's publication.

ABSTRAK

Penerbitan Ilmiah (SP) merupakan satu-satunya sumber yang paling penting di mana para penyelidik di universiti dinilai. Ia merupakan sebahagian daripada syarat untuk mendapatkan status Universiti Penyelidikan (RU). Dalam aspirasi ini, untuk meningkatkan strategik dan membantu dalam mengekalkan status, satu siri pengukuran prestasi telah diperkenalkan, seperti Petunjuk Prestasi Utama (KPI). Tujuan kajian ini adalah untuk mencadangkan model diagnostik untuk produktiviti SP yang melibatkan pelbagai pihak berkepentingan dalam memantau ekosistem penghantaran KPI yang kompleks untuk universiti di Malaysia. Kajian ini menggunakan Model Sistem Lestari (VSM) dan Teori Kognitif Sosial (SCT) untuk membangunkan satu model penyelidikan berdasarkan kajian literatur yang komprehensif. Berikutan paradigma interpretif, kajian ini menggunakan kaedah kuantitatif dan kualitatif. VSM digunakan sebagai alat diagnostik bagi diagnos proses penyampaian KPI untuk memantau empat tahap rekursi yang melibatkan Timbalan Naib Canselor Penyelidikan dan Inovasi (DVCRI), Perikatan Penyelidikan (RA), Kumpulan Penyelidikan (RG) dan ahli-ahli akademik bagi institusi yang dipilih, iaitu Universiti Teknologi Malaysia (UTM). Tiga strategi iaitu strategik, taktikal dan operasi dalam mencapai KPI SP bagi mengekalkan status RU bagi institusi telah disyorkan untuk membantu kesemua pihak berkepentingan yang berkaitan untuk memantau penyampaian KPI. Selain itu, satu kaji selidik telah direka untuk menyokong penemuan dan data dari pangkalan data institusi yang melibatkan ahliahli fakulti UTM dianalisis untuk menyiasat faktor SCT yang berkurangan dalam alatan VSM. Hasil kajian menunjukkan faktor paling berpengaruh untuk SP di UTM adalah umur, jantina, pengalaman, pangkat, sumber, pembiayaan, kerjasama, beban mengajar, bidang dan kemahiran. Model kajian telah dinilai untuk pemantauan proses KPI SP yang dicadangkan dan boleh diguna oleh universiti awam dan swasta lain bagi meningkatkan pencapaian penerbitan institusi masing-masing.

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Summary

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LIST OF ABBREAVIATIONS

BSC	-	Balanced Scorecard
CICT	-	Center of Information & Communication Technology
CIF	-	Cumulative Impact Factor
COE	-	Center of Excellence
DVCRI	-	Deputy Vice Chancellor of Research and Innovation
EAS	-	Electronic Appraisal System
ELPPT	-	Annual Appraisal and Evaluation System
HLI	-	Higher Learning Institution
HOD	-	Head of Department
IF	-	Impact Factor
ISRD	-	Information Services and Research Division
KAI	-	Key Amal Indicators
KPI	-	Key Performance Indicator
MOHE	-	Ministry of Higher Education
MyRA	-	Malaysian Research Assessment
NPM	-	New Public Management
PAS	-	Performance Appraisal System
PM	-	Performance Measurement
PSZ	-	Perpustakaan Sultanah Zanariah
QS	-	Quacquarelli Symonds
RA	-	Research Alliance
RADIS	-	Research and Development Information System
RG	-	Research Group
RL	-	Recursion Level
RMC	-	Research Management Center
RPC	-	Research and Publication Center
RU	-	Research University

S1-S5	-	System1-System5
SCT	-	Social Cognitive Theory
SP	-	Scholarly Publication
THE	-	Times Higher Education
THES	-	Times Higher Education Supplement
UKM	-	Universiti Kebangsaan Malaysia
UM	-	Universiti Malaya
UPM	-	Universiti Putra Malaysia
USM	-	Universiti Sains Malaysia
UTM	-	Universiti Teknologi Malaysia
VSM	-	Viable System Model
WOS	-	Web of Science

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CHAPTER 1

INTRODUCTION

1.1 Overview

This chapter begins with the introduction of the study concept and highlights the significance of the study. Strategy implementation provides a high contribution in judging organizational performance. In an academic world, it is important to expand a research "track record", a key indicator of which is the publication list. This can manipulate job satisfaction, promotion plus success in getting grants. The most important aspect seen in getting publications counts in a university is to attain the Research University (RU) status and also to sustain the status.

Publications are most likely the only most noteworthy assets by which researchers in institutions are evaluated. Publishing research results drives a sign to possible research funders and also employers that the researcher is capable of getting a research project to an end and, can produce a substantial result. Publications are additionally a premier perspective in exchange of innovation – for example, most recent procedures and new comprehension of system behavior and management techniques – to the potential users.

Mainly, when grant funding has been achieved, publication is foreseen, likewise, is the essential for further funding. Writing papers are a noteworthy task for researchers, furthermore for the academic staffs. Writing is some expand of a matter of culture and habit. As an accomplishment in research is to a large extent a matter of determination and dedication, various strategies may be utilized to help productivity in scholarly publication writing.

1.2 Problem Background

The use of key performance indicators (KPIs) in organizational performance measurement (PM) is aspired to create and enhance targeted objectives that will incorporate most significance to the organization, yet such focused goals are not generally accomplished as a result of some leading factors distressing their understanding (Metawe, 2005). This happens because the targeted objectives require high productivity of the staffs.

The understanding procedure that staffs in an organization experiences to accomplish such targets is called KPI delivery process. A KPI delivery process in organizations is maybe a standout amongst the most difficult issues with PM in higher learning institutions (HLIs) (Martin, 2011). Even though with complexity that revolves around the various levels, the figures of KPI targets are continuously expanding in numerous HLIs. This rising point of the target values has been fundamentally inclined by the aspiration to congregate with international standards on RU status as well as funding from government. For instance, in Malaysia, public universities received financial allocation derived from the accomplishment of their KPI targets (10th Malaysia Plan, 2010).

Part of the requirements for obtaining RU status with international standard focused on publication production or else known as scholarly publication (SP). In the aspiration by these HLI to strategically improve and assist in maintaining their status, a series of PM interventions were initiated, such as use of KPI delivery as a foundation for promotion and other incentives. The KPI delivery process for SP is one of the foremost reasons for achievement or breakdown of organizational objectives (Bourne, 2002). In many HLIs, the KPI delivery process is assumed to be unclear, incoherent and current issues of great concern with regard to future sustainability (Langston, 2013).

KPI delivery in HLI habitually creates frustration amongst academic staffs (Gholizadeh, 2014). For instance, KPI of SP has been apparent by the academic staffs to carry the burden connected with applying for grants, training postgraduate

students to do improved research, research and publications and acknowledgment of their works to the system in place. They observe several of these activities as additional tasks to their planned tasks (Zhou, 2010).

1.2.1 Key Performance Indicator (KPI) Delivery in Performance Measurement (PM) Context

The KPI delivery for SP focuses on one of the KPIs assigned to achieve the institutional goals or objectives by all applicable stakeholders (Ujang, 2012). It is to align with the targets to achieve for the global knowledge economy agenda set by the Ministry of Higher Education (MOHE) in Malaysia to visualize the goal of being one of the top universities in the world ranking. Deliverables in the SP focuses on the publication production that are indexed in internationally recognized databases is the main concern of the institutional goals (Ujang, 2012).

Target values might require quantitative or qualitative, that can be measured and determined whether they are attainable. Therefore, the KPI delivery process is an essential division of organizational enhancement consisting of many stakeholders in the PM perspective. KPI delivery process can take several forms, typically concerning those accountable for providing the data or information required and those collecting and reporting the result (Amir, 2011).

Various SP reporting tools are used in gathering the KPI for SP production using online or offline methods in HLIs. Those responsible for the collection and reporting of the academic staff research output, depends on the outcome from the academic staffs that is provided either through subscribed journals, current appraisal systems or directly through emails and phone calls. These are bound to the quantity of publication production of the academic staffs. Hence, the SP KPI delivery process might fundamentally signify the joint endeavor in meeting overall organizational objectives. The data and information providers readily provide the collectors with the necessary SP related data within the particular time (Ong, 2013).

1.2.2 Key Performance Indicator (KPI) Delivery Process in Malaysian Higher Learning Institutions (HLIs)

KPI delivery is among the key activity put into practice by the Malaysian HLIs to advance the general execution of the academic staffs towards accomplishing the institution's strategy. The SP KPI delivery process is derived from the objectives that are placed to be accomplished by all pertinent stakeholders, namely; the Deputy Vice Chancellor of Research and Innovation also known as DVCRI, Research Management Center (RMC), Research Alliance (RA), Research Group (RG), Faculties, the Library, also known as PSZ, and the individual academic staffs themselves. While the SP KPI delivery process is straightforward in its objectives, its usage and execution needs a mixture of endeavors from a diverse group of actors. This group of actors has their own potentials, targets and standpoint in order to accomplish the SP targets set by the university management.

Moreover, the actor's input to the essential target in the SP KPI delivery process changes in diverse level of the organization. In Universiti Teknologi Malaysia (UTM) itself, at the present time, for three consecutive years (2012, 2013, 2014), the KPI target on SP have not been achieved (UTM, 2013). The complexity of the SP KPI monitoring involving various stakeholders requires different approaches in reporting the KPI delivery of SP. Therefore, SP KPI delivery process that draws in all the aforementioned players involves an information system that will help the spread of data, correspondence of the appraisal processes. Electronic Appraisal System (EAS) is an example of the information system utilized in organizational appraisal procedures to assess the SP KPI delivery of the employees in UTM.

In a recent development, Times Higher Education Supplement (THES) just uses the ISI information in its university ranking system. Malaysian RUs, for example, Universiti Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM) and Universiti Teknologi Malaysia (UTM) takes after this progression as to its academic staffs works published in the ISI database. The work published in journals recorded in different databases convey no weightage. Current advancement gives evidence that these universities endeavors have yielded an ideal result despite the fact that this was executed just a couple of years prior. On the other hand, Malaysian RUs are attempting to accomplish the most elevated number of records in ISI Web of Science (WoS).

1.3 Problem Statement

The research problem revolves around the challenges in implementing the organizational strategies for achieving SP KPI targets in a selected RU in Malaysia. In the publication ecosystem of a RU, monitoring KPI for SP can be a complex task because it involves different stakeholders monitoring different perspectives of the KPI delivery. Within RUs, concern arose about the complexity of KPI delivery on SP. Moreover, with regard to the issues identified during the preliminary study conducted by the researcher, different perspectives for the complex SP KPI delivery in the organization was known. This apprehension is worth mentioning given the elevated requirement to uphold the RU status in the existing government economic growth agenda and has arisen because of a number of factors:

- i. For the academic staff's perspective, the people problem is identified where the ever changing requirements from MOHE on the Malaysian Research Assessment or MyRA tool have caused confusion and left the staffs demotivated in achieving the SP target with the new policies introduced. The elevated requirement from the MOHE has increased from MyRAI to MyRAII (Universiti Teknologi Malaysia, 2013) and soon to be introduced MyRAIII targets. The number of KPI target values is reported to be increasing, while the previous set targets were not achieved
- ii. From the organizational perspective, in order to uphold the RU status, different guidelines are being designed and introduced to the academic staff. The authorized personnel in the organization are also responsible to see the KPI for SP are met as targeted or not.
- iii. As for the analysis perspective, currently the office of DVCRI uses the Balanced Scorecard (BSC) while the academic staffs use Research and Development Information System (RADIS) to monitor the SP KPI

performances. Therefore, different needs to cater the targets of SP KPI are identified as a problem for the unachievable SP targets.

iv. An appropriate model to analyze the complexity revolving the academic, organizational, and analytical perspective is needed to minimize the complexity in SP KPI targets achievement in an organization. Since it revolves around the involvement of the various stakeholders and a dynamic KPI delivery process for SP.

Since the problem revolves around diagnosing different stakeholder perspectives, therefore an appropriate diagnostic tool is required to monitor the SP KPI delivery. The inadequacy in the present structure of the institution requires a more systemic and comprehensive model. In this study, the researcher views the institution from the systems perspective. So far, there is no model that can provide the foundation for diagnosing several functions within a RU (Adham, 2015).

Therefore, an appropriate methodology to maintain KPI delivery in attaining institutional objectives is needed to achieve the SP KPI as proposed by the university management. The proposed model should be able to diagnose the SP KPI delivery at different perspectives to monitor the KPI target achievements. Moreover, a system with the features to cater requirements of different stakeholders in diagnosing the organizational scenario is essential.

Hence, in this study, the researcher identifies that there is a need for a KPI monitoring model that can facilitate the strategy implementation formulation in the organizational context. Besides that, the identification of key actors who influences the strategy implementation success; amongst the top and middle level management, Ministry of Higher Education (MOHE), and academic staffs as stakeholders is also included in this model. In addition, the proposed model will provide the analysis of an organizational situation as the reflection of the strategy implementation process.

1.4 Research Questions

The following are the questions being addressed by this study to provide answers to the problem statement.

MAIN: How to improve SP KPI delivery involving various stakeholders in a complex publication monitoring ecosystem in RU?

- i. What are the current factors influencing SP KPI delivery among the RU stakeholders?
- ii. What strategies are effective to diagnose the monitoring of the SP KPI among the RU stakeholders?
- iii. What is the appropriate model for diagnosis in the monitoring of the SP KPI within Malaysian RU context?
- iv. What tool is appropriate to diagnose the SP performances?

1.5 Research Objectives

The development of the research questions leads to the following set of research objectives:

AIM: To propose a diagnostic model for SP KPI involving various stakeholders in monitoring a complex KPI delivery ecosystem for Malaysian university.

- i. To investigate current factors that influence on SP KPI among the RU stakeholders.
- ii. To propose a theoretical model for SP KPI delivery.
- iii. To propose an appropriate tool to monitor the SP KPI performances.
- iv. To evaluate the model for effective SP KPI delivery.

1.6 **Research Scope**

The scope of this study focuses on the strategy implementation stage and disregards the strategy formulation stage. For field observation, it is confined to a public university in Malaysia with the RU status, Universiti Teknologi Malaysia (UTM). As a limitation, this research does not include other public universities and private institutions of higher education in Malaysia. In addition, this study provides conceptual analysis of an organizational situation based on the outcome of strategy implementation using VSM which is incorporated with SCT.

The scope of the study is to get first hand information related to SP issue. Therefore, multiple stakeholders are identified to fulfil the study outcome. The stakeholder involvement will be considered as follows:

Stakeholder(s)	Boundary		
DVCRI	Research related activities specifically on SP		
RA	SP activities without considering research grant elements		
RG	SP activities without considering research grant elements		
Academic Staffs	SP activities without considering other research or service		
	activities.		

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1.7 **Research Importance**

The importance of this research is it provides an insight on the complexity on SP targets achievement in an organization. This study analyzes different stakeholder perspective in a dynamic KPI delivery process for monitoring SP ecosystem in RU. The stakeholders involved comprised of DVCRI, RA Deans, RG Heads, Perpustakaan Sultanah Zanariah (PSZ) or UTM library and academic staffs. This research proposes a diagnostic model for improvement in SP KPI delivery among the RU academic staffs that can be seen in different angles of SP ecosystem with many stakeholders handling it.

The achievement of strategy implementation success is through the significance of stakeholders' involvement in solving the strategy implementation problems. The link between a strategy implementation using the proposed diagnostic model and stakeholders' involvement in the KPI delivery process will give a contribution to the HLI SP ecosystem. Besides that, the approach will help organization to analyze the situation at both angles, namely the system (which is seen as an organization) as well as the stakeholder perspective.

Furthermore, this model raises the importance of human factors to lead into the achievement of KPI monitoring success at multiple recursion levels. This can increase the effectiveness and efficiency of organizational SP performance by monitoring the process at each level described in Chapter 6. The importance of stakeholders' involvement in strategy implementation will directly or indirectly affect the management level to increase their knowledge and ability in achieving the success. This triggers the organizational culture to change towards the innovation in organizational performance. Practically, this model can be applied in the diverse fields, particularly organization areas such as, government universities as well as private universities for KPI delivery purposes.

1.8 Organization of Thesis

This thesis is organized into eight (8) chapters. The chapters are connected and complimentary to each other. Part 1 (Chapter 1) begins with the background and significance of the study by covering the problem statement identified, as well as the research question and research objectives to be achieved. The scope and the importance of the study is also discussed in this part. Part 2 (Chapter 2, and 3) points up the ideas and construct a theoretical basis for understanding the density of this subject and methodology applied in this study. In Chapter 2, researcher conducted an intensive literature review on the current scenario and strategies being applied in the research related environment. The suitable theoretical foundation was determined after studying the theories related to the success of the study. Chapter 3 discusses the research design and operational framework step -by-step and explains the methods applied to seek the answers to the research questions.

Part 3 (Chapter 4 and 5) incorporates the theoretical findings and constructed incorporated model derived from the objectives of this study. The organizational analysis in the form of a case study was analyzed to determine the advantages of the proposed model for the organization chosen. Then, data collected from the preliminary and main survey as well as interview sessions were analyzed using numerous software to report the results. Finally, Part 4 (Chapter 6,7, and 8) relates the practicality of strategy management into a KPI monitoring tool. In Chapter 6, the VSM approach was used to diagnose the organizational situation related to SP KPI monitoring process. Various stakeholder involvement was discussed at the recursion levels reported. The results of the diagnosis of VSM with SCT were then applied to the KPI monitoring tool in Chapter 7 to map the recursion levels in answering the research objectives. Finally, in Chapter 8 the outcomes and achievements of the study conclude the research work.

1.9 Summary

As summarized in brief, Chapter 1 began with the overview of the research topic. Next, the problem background was discussed. The discussion included the importance of the research and on the KPI delivery process which is applied to achieve what has been set up as the target values for a particular KPI with the intention of monitoring and achieving an organizational strategic objective by all applicable stakeholders. Besides that, the discussion was to establish the focus of the study that directs the research questions and the research objectives. Subsequently, the scope of the study was detailed to focus on the particular area. Finally, this chapter presented the research importance, followed by the thesis organization structure.

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APPENDIX A (I)

(INTERVIEW QUESTIONS)

Invitation Letter For Interview Participants

Dear Sir/Madam,

I am writing to seek your interest for participating in the interview for a research project entitled "Strategy Implementation For Scholarly Publication Among Research University Academic Staffs". This interview is part of a Ph.D research at the University Teknologi Malaysia (UTM), Johor, Malaysia. We believe that the results of the interviews will be useful for university management in formulating strategies for KPI improvement in scholarly publications.

The participants from your organization will involve in approximately 1 hour interview session. The research student undertaking the project, Mrs. Sharanjit Kaur Dhillon, will contact you in the near future and can discuss details with you. Mrs. Sharanjit Kaur Dhillon is a PhD candidate supervised by Dr. Roliana Ibrahim and Professor Dr. Ali Selamat at the Faculty of Computing at UTM.

We will send formal interview information such as consent form and interview scripts prior to conducting the interview. Your anonymity will be ensured and your responses will be kept confidential. For interview the results will be recorded in a form which has no reference to you or your organization. Whilst your participation in this interview is obviously voluntary we would value your contributions. If you have any questions or concerns about participating in this interview please contact Mrs. Sharanjit Kaur Dhillon via email skdhillon84@gmail.com or phone 012-5391504.

Yours sincerely, **Roliana Ibrahim, Dr.** Senior Lecturer, Faculty of Computing, University Teknologi Malaysia, Johor, Malaysia. Phone: +607- 5538727

Ali Selamat, Prof. Dr.

Professor

Faculty of Computing, University Teknologi Malaysia, Johor, Malaysia. Phone: +607- 5531008

Sharanjit Kaur Dhillon

PhD student, Faculty of Computing, University Teknologi Malaysia, Johor, Malaysia. Phone +6012-5391504

CONSENT FORM FOR INTERVIEWS

I ______agree to participate in the research entitled "Strategy Implementation For Scholarly Publication Among Research University Academic Staffs" being conducted by Sharanjit Kaur (Faculty of Computing, skdhillon84@gmail.com, contact no. +6012 5391 504).

I understand that the purpose of this study is to investigate the current strategies in KPI improvement for scholarly publication among the academic staffs in order to sustain the research university status.

I understand that my participation in this research will involve 1 hour of participation in interview questionnaire and would be recorded (audio-taped) if required. I also understand that there will be no harm or risk for me in this research.

I am aware that I can contact Dr. Roliana Ibrahim (roliana@utm.my), Professor Dr. Ali Selamat (aselamat@utm.my) or Mrs. Sharanjit Kaur (skdhillon84@gmail.com) if I have any concerns about the research. I also understand that I am free to withdraw my participation from this research at any time and without giving any reason, if I feel uncomfortable of the questions asked on the questionnaires.

I agree that the research data gathered from this project may be published in a form that does not identify me in any way.

/ /

Signed by

_____/__/____

Witnessed by

Strategy Implementation For Scholarly Publication Among Research University Academic Staffs

Brief Introduction of Research

The application of key performance indicators (KPIs) in organizational performance measurement is aspired to develop and improve targeted objectives that will include most significance to the organization, yet such targeted objectives are not always achieved as a result of some leading factors distressing their understanding. This on average happens because the targeted objectives require high productivity of the academic staffs. Despite many implementations in delivering the KPIs for scholarly publication, the academic staffs are still unable to perform. The requirements to have the publications published in well known and established databases like ISI and WoS are among the requirements need to be fulfilled by the academic staffs. This research would involve investigating the current strategies undertaken by the university management on how they deliver KPIs to academic staffs in RUs. This research aims to investigate the problems of non-achieving KPI targets among academic staffs of RUs. It also aims to highlight the strategy implementation that can be developed to deliver improved publication outcomes for the targets set. The research problem revolves around the challenges in implementing the strategies, which is caused unachievable target in scholarly publication in selected RUs in Malaysia. Within RUs concern has arisen about the complication of KPI delivery on scholarly publication. This apprehension is worth mentioning given the elevated requirement to uphold the RU status in the existing government economic growth agenda. Hence there is a need for a model that can facilitate the strategy implementation in this context. Moreover, the identification of key actors who influence the strategy implementation success amongst the top management as stakeholders is also included in this model. In addition, this measurement will provide the analysis of an organizational situation as the reflection of the strategy implementation process.

Read to participants:

This research is targeted at University Management personnel whom are involved in setting the requirement of scholarly publication targets of the university and

R.A. members whom are responsible to fulfill the requirements set by the university management for their KPIs in publication. The focus of our interviews are to observe current strategies applied in achieving the scholarly publication targets and to identify the problems and issues while adopting to strategies that are imposed for better improvement in publication for the university targets.

Interview Questions - Top Level Management

- 1. According to former VC, Blue Ocean Strategy and Balanced Scorecard are used in UTM to achieve the UTM Global Plan. Specifically, what are the strategies concerned for publication productivity?
- 2. What are the limitations identified for current strategies?
- 3. What are the steps proposed to achieve the strategies imposed?
- 4. Are there any difficulties identified for implementing the strategies imposed?
 - The cooperation among the academic staffs
 - The timeframe to implement it
 - The requirement is getting more and more though
 - Other(Specify)
- 5. Does UTM management encourage academic staffs in placing priority on publishing in High Impact Factor journals rather than local journals?
 - Priority is for high impact factor journals only.
 - Local journals are acceptable
 - Both are acceptable
 - Other(Specify)
- 6. What are the steps taken to embed research culture among the academic staffs?
 - Workshops
 - Seminars
 - Co-authoring with senior staffs
 - Collaboration with other university staffs
 - Collaboration with industry
 - Other (Specify)
- 7. How frequent are workshops being conducted in writing high impact factor journals?
 - Weekly

- Monthly
- 2 Months Once
- Others (Specify)
- 8. Are the Thomson ISI journal papers related seminars conducted in each RA in UTM?

- 9. The current incentive/reward scheme for academic staffs and postgraduates fulfilling their effort shown in publishing papers in ISI publications? Are the any plans to increase the incentives/rewards?
- 10. What is your idea of getting requirements for Tier Type in ISI journal publication as implied by UM since UM is holding the top rank among the RU universities currently.
- 11. UTM has collaborative programs with universities from US, Japan and etc. So, do UTM take the initiative to get collaboration with this universities to produce high impact factor journals?
- 12. Postgraduate students can be mobilized for publication. They should produce papers related to the areas of topic for research/dissertation. Is there any requirements for Postgraduate students in publications currently in the UTM policy?
- 13. A recent count shows 1500 for Indexed Publication (SCOPUS) and 1500 for ISI impact factor as of ISI impact factor, it shows an increment from 1200 as estimated in New Academia book but scored 1500. But for Indexed Publication, was estimated 2500 but only 1500 was accomplished, what are the issues pertaining this unachievable target?
- 14. MyRA1 --> What is the overall view and also highlights for publication in it?
- 15. Is there any difference in measuring the promotion criteria among the science/non-science background academic staffs?
- 16. KPI targets set on scholarly publication are always mutually agreed upon between relevant stakeholders among the top management before applying it officially? Who are among the stakeholders involved in this activity?
- 17. Are KPI targets being revised based on changing needs of the university from time to time?
- Again, who are among the stakeholders involved in this activity?

▶ What are the criteria outlined before getting the decision framed?

----THANK YOU FOR YOUR COOPERATION----

INTERVIEW QUESTIONS - MIDDLE LEVEL MANAGEMENT

1. According to former VC, Blue Ocean Strategy and Balanced Scorecard are used in UTM to achieve the UTM Global Plan.

Specifically, what are the strategies concerned for publication productivity?

- 2. What are the limitations identified for current strategies?
- 3. What are the steps proposed to achieve the strategies imposed?
- 4. Are there any difficulties identified for implementing the strategies imposed?
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 - ➤ What are the criteria outlined before getting the decision framed?
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