



TOTAL QUALITY MANAGEMENT AND PROJECT MANAGEMENT TOWARDS ORGANISATIONAL SUCCESS OF AGRICULTURE AND FISHERIES IN SULTANATE OF OMAN: A MEASUREMENT MODEL

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Abstract:

The role of quality management has been limited to attract and train the staff. Therefore, this study discusses the relationship between TQM and project management towards organisational success in the Sultanate of Oman Agriculture and Fisheries context. For this study, data were collected through a self-administered questionnaire from the various Agriculture and Fisheries companies operating in Sultanate of Oman. The respondents for this study were the employees working at various Agriculture and Fisheries companies in Oman. A random sampling method was used to select the samples for this study. A self-administered questionnaire was developed basing on the literature review. However, few items were also be adapted from the existing scales on TQM, organisational success and project management. After adapting, all the items were modified according to the study requirements to make those fit for Oman context. The respondents were chosen from different companies randomly. Before that, the respondents were asked their willingness to participate in this survey, and only those who voluntarily agreed were given the questionnaire. The study findings show that there is a strong relationship between TQM and project management towards organisational success in the Agriculture and Fisheries context. The potential implications and recommendations of this study are discussed from methodological, empirical, and practical standpoints.

Keywords: TQM strategy, employee retention, employee management, TQM competencies

1. Introduction

The need for management of quality and experts in the organisation is imperative. Project management (TM) has as of late been the objective of expanding intrigue and is thought to be a strategy by which organisation can meet the requests that are connected with expanded multifaceted nature (Nilsson & Ellström, 2011; Azam and Moha Asri, 2015; Tham et al., 2017; Udriyah et al., 2019). Employees with specific knowledge or experts in their field of knowledge are considered qualified individuals. Initiatives to retain them in organisational must be put high consideration by the top management. Top management has a vital role in determining the loyalty of an individual in an organisation. Project management is considered as one of the five critical areas faced by quality management's profession (Vaiman, Scullion & Collings, 2012; Haque et al., 2014; Rachmawati et al., 2019; Tarofder et al., 2019). Hence, quality management needs to identify the potentials and the capability of employees that can benefit the organisation for competitive advantage. When these qualified individuals are overlooked, they might be hired by their competitors in the same area of business which can cost the organisation dearly. Challenges currently facing in retaining the workforce have brought the management of top companies and organisation to project management. Values and money had been significantly invested in recruiting, retaining and developing qualified individuals in order for significant contribution to performance (Minbaeva & Collings, 2013; Azam et al., 2014; Haur et al., 2017; Tarofder et al., 2017; Katukurunda et al., 2019). Another issue of current TQM practices in the Agriculture and Fisheries is that people involved in the TQM have lack of knowledge or training on how to handle human capital in the Agriculture and Fisheries (Raj & Kothai, 2014). However, the primary function of TQM is to ascertain the required number of people in the organisation as well as to retain the qualified workforce for the organisation to compete in this ever competitive Agriculture and Fisheries market (Wright, Snell & Dyer, 2005). As such, proper knowledge should be acquired by the people involved in the TQM to effectively handle this ever challenging Agriculture and Fisheries environment (Hammad, Omran & Pakir, 2011). Sweis et al. (2009) further noted that good TQM practice in Agriculture and Fisheries helps to build trust between the employees and employers. As Agriculture and Fisheries involve diverse occupational cultures, thus, it makes this particular industry as one of the most complex industries where a proper and refined TQM practice is a must (Maloney, 1997; Bernstein, 2003; Donald, 2006; Jayasuriya and Azam, 2017; Dewi et al., 2019; Nguyen et al., 2019). As such, the HR department is liable for developing a healthy and friendly work environment along with the tactics for converting those towards achieving the organisation's ultimate goal. Hence, organisations need to analyse the ability of a worker that drives the organisation smoothly. Therefore, the organisation must be cautious in managing these diverse workforces that will lead to better productivity through increased employee satisfaction.

In many of research in the area of project management, scholars have paid attention to several key areas. Issues that are focused on such as quality conceptualisation, project management degree of inclusivity, demand and supply of quality forecast, project management and business strategy alignment and project management and total quality management differences (McCracken, Currie & Harrison, 2015). There are still many gaps in addressing the area of project management as in various industries; the focus might be different either on a specific issue or multiple issues at one time (Bhatnagar, 2007; Cappelli, 2008; Iles, Chuai & Preece, 2010; Morton & Ashton, 2005; Ruppe, 2006; Scheweyer, 2004). The government agencies, as well as the private companies, have lots of responsibilities to adhere to project management principles in order not only to increase the profits but also the human capital development (Bhatnagar, 2004; Boudreau & Ramstad, 2005; Deloitte, 2012).

From this fact, the investment in quality management became an essential part of the organisations' strategies in order to be able to compete globally (Collings & Mellahi, 2009; Maghfuriyah et al., 2019; Pushpakumara et al., 2019; De Silva et al., 2017; Kuruwitaarachchi et al., 2019; Pambreni et al., 2019). Therefore, it is necessary to pay attention to the qualified human elements in contemporary organisations as it is the most critical elements of excellence and success. Besides, changes and developments in technology and economy create new issues in the field of quality management as the organisation alone cannot deal with these challenges without considering and investment on qualified human capital (Cappelli, 2000; Lockwood, 2006).

Organisations in the past have neglected quality employees (Whelan, Collings & Donnellan, 2010). Alongside, the role of quality management has been limited to attract and train the staff (Longenecker & Fink, 2011, 2012). However, international experiences have confirmed that the countries that have focused more on establishing and expanding projects and importing the latest technology and neglected the qualified human elements have failed to achieve any economic progress among countries and organization (Abdullah, Ahsan & Alam, 2009; Alagaraja, 2013; Becker & Gerhart, 1996; Boxall & Purcell, 2008; Delery & Doty, 1996; Hitt, Hoskisson & Kim, 1997; Katou & Budhwar, 2010).

Evaluation of the concept of human recourse has attract a lot of academic and specialist to study this field as distinct cognitive science and to learn from theatrical and practical development (Baron & Kreps, 1999; Boselie, Brewster & Paauwe, 2009; Boxall & Macky, 2009; Cania, 2014; Dave & Wayne, 2005; Ferguson & Reio Jr, 2010; Hassan, 2007; Huselid, 2011; Li, Zhao & Liu, 2006; Purcell & Hutchinson, 2007; Tessema & Soeters, 2006). Organisations have begun to focus on quality employees by hiring and attracting as future assets for the organisation and to achieve organisational goals and objectives (Bhatnagar, 2004; Cappelli, 2008; Iles et al., 2010; North, 2011). Despite the tremendous cognitive development achieved by developed countries, Arab countries are still progressing slowly toward the development of human capital (Downs & Swailes, 2013; Haghparast et al., 2012; Mashood et al., 2009; Saadi, 2015). Therefore,

there is a need to identify the relationship between TQM and project management that increases organisational success in Oman.

This study will also provide some meaningful insights into the methodological, empirical, practical as well as theoretical aspects. Empirically, this study will test the proposed model; thus, it will contribute to the development of a new framework on the relationship between TQM and TM that increases organisational performance. Methodologically, this study will develop a reliable and valid measurement tool to measure TQM and its relation to TM and organisational success. This study will provide such guidance to academics as well as to the practitioners. From the theoretical stance, there is a lack of a proper mechanism by which TQM is related to project management (Treblay et al., 2010; Yeung & Berman, 1997). Therefore, this study will fill this research gap in the Oman context. Finally, from the practical point of view, the findings will serve as an essential guideline for TQM for ameliorating employee motivation and also retaining employees with high potential and quality, in the setting of Oman.

2. Literature Review

Literature review for a particular research topic is fundamentally conducted to support the concept and hypothetical models used in the previous research tasks. Fundamentally, TQM has grown as the key and most integral portion of organisations. It involves mostly in the managerial functions of hiring, firing and payroll. Thus, it deals with employees' satisfaction and legal compliance (Noe et al., 2010).

On the other hand, project management is interchangeably used with other terms such as "succession management", "quality strategy" and "human planning". As a basis, project management is concerned with effective employee project management. Differences of terms provided in the literature somehow have strong contrast in the definition of project management, either on the processes or decision alternatives (Guthridge et al., 2008; Minbaeva & Collings, 2013; Nilsson & Ellström, 2011; Whelan et al., 2010). Qualified individuals are considered to deliver and perform or believed to have to deliver on higher contribution to the organisation compared with other employees, in whatever position or sector in any industry (Vaiman et al., 2012). The quality possesses by the individual are considered obsolete and could not acquire by others easily or require more monetary investment and time to develop an individual with specific quality (Downs & Swailes, 2013).

Project management is broadly specified in term of domestic and global. The challenges to manage quality on a global scale are higher than national scale due to its location and demographic barriers (Minbaeva & Collings, 2013). Multinational companies, for instance, have to deal with global project management where their offices are available in several countries and region (Iles et al., 2010). With many offices, it is difficult to identify and retain qualified individuals who can deliver and contribute to the development and sustaining the excellence of these companies (Cappelli, 2000;

Collings & Mellahi, 2009; Deloitte, 2012). The management in big companies requires a lot of money and budget for their operations and trusting their employees requires quality in the organisation (Boxall & Macky, 2014). Even though domestic companies are much easier to manage compared with a global multinational company, to manage quality in an organisation with thousands of staff is difficult (Cassoni & Labadie, 2013). This is the case for Agriculture and Fisheries, where the employees consist of different backgrounds and expertise (Conti, 2005).

The concepts of managing quality have been around since the hunter-and-gather stage of human development. However, the concept of explicit quality focus and term "project management" seems to have arisen only in the mid-70s (Setiarso, 2007). Despite the progress of the concept, there is no one definition of Project management has been officially defined and accepted by the practitioners and adopters. According to Hassan (2007), employees play an integral role in organisations as they make up a crucial part and also are the most vital asset of the companies. Due to this reason, it is obligatory for every organisation to handle the employees with proper management skills so that they can adequately maintain a positive relationship with employees. Therefore, for every organisation, effective leadership plays a vital role to keep not just the employees active and satisfied but to uphold the company's value in every circumstance (Huselid, 2011).

Moreover, project management has been recognised to be important in improving adaptability and gaining competitive advantages. Preparing an organisation for project management initiatives means changing or adapting the organisational culture to facilitate, support, and encourages the sharing, utilisation, and creation of quality (Vaiman et al., 2012). However, the effectiveness of the TM has to be measured beyond the availability of centralised repository of quality (Michaels et al., 2001). Organisations are becoming aware that organisation quality exists and is distinct from the quality of individuals and groups (McCracken et al., 2015). The organisation has to develop itself as a learning organisation in order to compete successfully in the current information edge. Communities of Practices provide the environment and process for an organisation to harness the internal and external tacit quality usually confined by the experienced employees within the separate department or unit. The development of a community of practitioner, instead of a team of providers, has encouraged voluntarily sharing of the magnitude of information, without the limitations of the political, value or organisational barrier. Furthermore, proper implementation and utilisation of TQM policies will ensure that the right employees are employed to perform the right task which will significantly increase the employees' performance (Mynatt et al., 1997). As a result, organisational performance will be improved.

All pressing issues are presented based on available literature, and that will contribute to the justification of variables used and linkages within the developed framework. This clarifies the research and is organised effectively to produce the best work of prospects and sources that are readily available. As such, this study will test the following hypothesises in the Oman Agriculture and Fisheries context.

H1: There is a significant positive relationship between TQM and organisational success.

H2: There is a significant positive relationship between TQM and project management.

H3: There is a significant positive relationship between project management and organisational success.

H4: There is a significant positive relationship between the total quality management and organisational success mediated by project management.

3. Research Methodology

In this study, phase one will be of exploratory research type while phase two will be descriptive. Each of these types has distinct and complementary roles to play in this research. Exploratory research focuses on primary or secondary data (Kothari, 2004; Yin, 2013). Exploratory research covers the literature review in order to get insights into the research problems and to get an overview of the relations between the dependent and independent variables identified for this study. The primary sources of the exploratory research were academic journals, books and other printed as well as online materials.

The researcher chose a survey method for some reasons such as to get a holistic perception of the respondent and to know the actual scenario of Oman Agriculture and Fisheries. These can be related to lower operational costs, minimisation of possible researcher's bias, and maximisation of the possibility of a higher degree of objectivity and usefulness for hypotheses testing.

The Oman government lists a total of 12 Agriculture and Fisheries companies in Oman (Gherbal et al., 2012; Shibani et al., 2010; Zhang & Wei, 2012). Hence, the population for this study were these 12 Agriculture and Fisheries companies listed. The unit of analysis is based on the organisation. However, data were collected from the employees working in these 12 Agriculture and Fisheries companies (e.g. project manager, engineers, architect, quantity surveyor, and site supervisor). Beside, classification of Agriculture and Fisheries workforce can be divided into different categories. The first category consists of employees who are experienced and working for a minimum of ten years. The second category consists of middle managers who are experienced in more than five years. The third category consists of people whose experience must be not less than three years. Finally, the last category consists of people whose experience must be no more than three years.

In this study, data analysis was done in four stages. In the first stage, the collected data were coded and entered into SPSS worksheet. Stage two involves testing validity, reliability and exploratory factor analysis (EFA) using SPSS. In stage three, further statistical tests were conducted; such as confirmatory factor analysis (CFA), reliability, and validity using Amos. The last stage employed SEM for the model and hypotheses testing.

3.1 Data Analysis

The discussion regarding the results which have been obtained based on the 321 respondents is presented in this section. The data collected from the respondents were run into SPSS to do the analysis, and all the results have been presented in this section. This section gives a clear picture of all the analysis, which has been conducted and testing the hypothesis that has been formulated for this study.

From the total respondents, 62.6 per cent of respondents were male while female respondents answered 37.4 per cent of the questionnaires. The result showed the distribution between male and female respondents. Base on the question answered, 6.7 per cent of the respondents come from respondents aged between 0 to 25 years old. Another 37.7 per cent come from people aged between 26 to 35 years old. 39.1 per cent of respondent fall between the age of 36-45 and the rest 16.5 per cent falls in the age of 46 and above. Base on the question answered, 20.2 per cent of the respondents is unit heads. Another 71.7 per cent are line managers, and the rest 8.1 per cent belongs to the top management. Descriptive analysis was carried out for all the attributes of TQM, project management and organisational success. Item wise statistics are presented in Table 1. From the table, it can be observed that the item Q28 (This organisation remunerates and rewards fairly) under the “project management” construct has the highest mean average (4.2121) with a standard deviation of 0.71574. This confirms that most of the respondents are happy with their current to remunerate and reward system. On the other hand, the item Q17 (Employees are provided with an opportunity to suggest improvements in the way things are done here) under the TQM construct achieves the lowest average mean score of 3.0080 with a standard deviation of 1.48864. This means that majority of the respondents does not agree with this statement. This may be due to the reason that Oman being conquered by the common Arab culture do not allow the lower level employees to participate in the decision making process. This also reveals that the hierarchical management system still exists in Oman.

Besides that, the reliability statistics for the study constructs. It shows the level of consistency between the constructs being tested (Babbie, 2016). This test ascertains that the output is similar and reliable with past and future outputs (Hair et al., 2010). For this, Cronbach’s alpha is used that defines the consistency of the variables measured. However, to be a reliable construct, the Cronbach’s alpha value should be 0.70 or higher (Nunnally & Berstein, 1994). The Cronbach’s alpha value was verified using SPSS. By considering the value, we can confirm that the reliability of the measurement tool used in this study is moderately high (the overall Cronbach’s alpha for this study is 0.860). Besides, the alpha value for all the dimensions varies from 0.729 to 0.904.

This study further conducted measurement modelling for each construct. According to Byrne (2016), to achieve discriminant validity, every study must conduct measurement modelling by combining all the constructs. This is done to check the Inter-correlation among the study variables. It has also achieved the required fitness value [Incremental fit (CFI) = .961, (GFI) = .953; Parsimonious fit (ChiSq/df) = 2.215; and Absolute fit (RMSEA) = .077].

To achieve the discriminant validity, this study runs CFA for the measurement model by linking all the exogenous and endogenous constructs together to examine whether these constructs are highly correlated. In the case where the measure of correlation between two constructs is higher than 0.85, one could conclude that the discriminant validity is not achieved (Byrne, 2010; Hayduk et al., 2007; Zainudin, 2012). If the discriminant validity is not achieved, then the researcher needs to drop one of those two constructs for further analysis since it is like the mirror of the other (Byrne, 2016; Kline, 2011; Zainudin, 2012). Table 1 indicates that none of the exogenous constructs' correlation is higher than 0.85. Thus, it is assumed that the discriminant validity is achieved.

Table 1: Discriminant Validity

Inter Item Correlations			Estimate
Total quality management(TQM)	<-->	Project management (TM)	.471
Total quality management(TQM)	<-->	Organizational success (OS)	.314
Organizational success (OS)	<-->	Project management (TM)	.243

All the hypotheses of this study have been tested through the application of SEM. For the overall model as a whole, the statistical result indicates a good fit. The complete model inclusive of the four hypothesised paths is illustrated in Table 2. From the model, it can be seen that all the variables uphold a positive significance.

Table 2: Hypothesis Testing

			Estimate	S.E.	C.R.	P
Project management (PM)	<---	TQM	.374	.075	10.268	***
Organizational success (OS)	<---	TQM	.342	.087	.760	***
Organizational success (OS)	<---	Project management (PM)	.530	.110	1.635	***

From the findings, it can also be seen that the first model was not fit perfectly in the goodness of fit [Absolute fit (RMSEA) = .069; Incremental fit (CFI) = .911, (GFI) = .893; and Parsimonious fit (ChiSq/df) = 3.929]. However, the revised model improved and the goodness of fit has met with the required value [Absolute fit (RMSEA) = .079; Incremental fit (CFI) = .961, (GFI) = .953; and Parsimonious fit (ChiSq/df) = 3.114]. Thus, it was assumed that the revised model was correct as this has improved all the goodness of fit (GOF) as suggested by (Byrne, 2016; Davey & Savla, 2010; Hair et al., 2010; Kline, 2011; Zainudin, 2012). Summary of the main findings of the study is provided in Table 3.

Table 3: Summary of the Main Findings of the Study

H(x)	Hypothesis	Finding
H1	There is a significant positive relationship between TQM and organisational success	Accepted
H2	There is a significant positive relationship between TQM and project management	Accepted
H3	There is a significant positive relationship between project management and organisational success	Accepted

H4	There is a significant positive relationship between the total quality management and organisational success mediated by project management	Accepted
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4. Conclusion and Managerial Implication

The primary objective of this study was to investigate the relationship between TQM and project management towards organisational success in the Oman Agriculture and Fisheries context. Katou (2008) pointed out that identifying the exact mechanisms is crucial to understand the relationship between TQM practices and organisational success. This is because business strategies are defined in line with organisational goals and objectives (Vermeeren et al., 2014). Therefore, proper TQM policies need to identify which will lead any organisations towards success. However, organisational success also influenced by project management as identified in this study. Definitely, in larger organisations, it is not an easy task to manage its employees; however, this will have more significant variation in the output compare to a smaller organisation. This is because large organisations may be more likely than small ones to have well-developed TQM policies. Besides, capital intensity, industry and degree of unionisation also influence the values and development of the organisation. Hence, these elements will help to better understanding the linkage between TQM and project management towards organisational success.

Interestingly, this study also highlighted that TQM and project management strongly influence organisational success. It should be noted that these elements and success are interlinked variables and these are counted as the critical factors in moving the organisation forward. If the employee attitude and behaviour towards the organisation is not positive, the outcome cannot be positive (Dearden et al., 2006). Appropriate job training motivates employees towards increased productivity where both the employees and the employers share the results.

Due to limited scholarly literature available from the Oman Agriculture and Fisheries perspective, this research started with reviewing the current literature on TQM and project management and their role in organisational success. From there, this research narrowed down to specific TQM and project management issues related to Agriculture and Fisheries which was the primary purpose of this research. In the process of doing so, this research has explored that although that project management is a subset of the TQM process. Moreover, active management will lead towards organisational success. This also helps to bridge the gap in the existing literature, because empirical evidence is limited in the context of Oman in this particular field. Oman is presently undergoing rapid expansion in the Agriculture and Fisheries for its infrastructure development, and this particular industry needs proper TQM policies and practices to compete in this ever challenging working environment. The present study tried to gain an insight about the pertinent research questions through acquiring knowledge in regards to the success as also the underlying factors that determine the efficiency as well as the profitability of the Agriculture and Fisheries of Oman.

The emergence of internet technology has led to tremendous changes in organisational structure and impact on project management towards organisational success. Many companies are trying in this competitive market to be successful in their product offerings by given the customer with the best possible experiences. As a result, managers, and CEOs are concerned about taking the right direction to introduce new training to manage their qualified employees. Nonetheless, this study is more concerned about TQM and project management towards organisational success from the Oman Agriculture and Fisheries perspective. Conversely, to be successful in this competitive market, all companies must care about their employees.

Based on this study, each company should understand the importance of managing the qualified employees and how they can fulfil the needs and wants of their employees by introducing proper TQM policies to retain them. Hence, Oman companies should consider these factors that have been developed in the framework that will experience good sales and would generate the right profit margin in the coming future.

References

- Abdullah, Z., Ahsan, N., & Alam, S. S. (2009). The Effect of Total quality management Practices on Business Performance among Private Companies in Malaysia. *International Journal of Business and Management*, 4(6), 65-72.
- Alagaraja, M. (2013). HRD and TQM Perspectives on Organisational Performance: A Review of Literature. *Quality management Development Review*, 12(2), 117-143.
- Azam, S. M. F. and Moha Asri A., (2015). "Differential Roles between Owner and Manager in Financial Practice That Contributes to Business Success: An Analysis On Malaysian Small Business", *Academic Journal of Interdisciplinary Studies*, 4 (1 S2): 123-134
- Azam, S. M. F., Haque, A., Sarwar, A. and Anwar, N. (2014), "Training Program Effectiveness of Service Initiators: Measuring Perception of Female Employees of Bank Using Logistic Approach", *Asian Research Journal of Business Management*, 1 (2): 98-108
- Babbie, E. R. (2016). *The practice of social research* (14th Ed.). Belmont, CA: Wadsworth Publishing Company.
- Baron, J. N., & Kreps, D. M. (1999). *Strategic quality management. Framework for general managers*. New York: Wiley and sons.
- Becker, B., & Gerhart, B. (1996). The Impact of Total quality management on Organizational Performance: Progress and Prospects. *Academy of Management Journal*, 39(4), 779-801.
- Bernstein, H. M. (2003). Measuring productivity: An industry challenge. *Civil Engineering*, 73(12), 46-53.

- Bhatnagar, J. (2007). Project management strategy of employee engagement in Indian ITES employees: the key to retention. *Employee Relations*, 29(6), 640-663.
- Boselie, P., Brewster, C., & Paauwe, J. (2009). In search of balance-managing the dualities of TQM: An overview of the issues. *Personnel Review*, 38(5), 461-471.
- Boudreau, J. W., & Ramstad, P. M. (2005). Quality, quality segmentation, and sustainability: a new HR decision science paradigm for a new strategy definition. *Quality management*, 44(2), 129-136.
- Boxall, P. & Macky, K. (2009). Research and theory on high-performance work systems: Progressing the high-involvement stream. *Total quality management Journal*, 19(1), 3-23.
- Boxall, P. & Purcell, P. (2008). *Strategy and quality management*. (2nded.). Basingstoke: Palgrave Macmillan.
- Boxall, P., & Macky, K. (2014). High-involvement work processes, work intensification and employee well-being. *Work Employment & Society*, June 12. doi: 10.1177/0950017013512714.
- Byrne, B. M. (2016). *Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming* (3rd ed.). New York: Routledge.
- Cania, L. (2014). The Impact of Strategic Total quality management on Organizational Performance. *Economia. Seria Management*, 17(2), 373-383.
- Cappelli, P. (2008). *Quality on Demand – Managing Quality in an Age of Uncertainty*. Harvard Business Press.
- Cassoni, A., & Labadie, G. J. (2013). *The Impact of TQM Practices on Organizational Performance: A General Model and a Test for Uruguay*. Paper presented at the annual meeting of the BALAS Annual Conference, 20-22 March, Universidad ESAN, Lima, Peru.
- Collings, D. G., & Mellahi, K. (2009). Strategic project management: a review and research agenda. *Total quality management Review*, 19(4), 304-313.
- Conti, G. (2005). Training, Productivity and Wages in Italy. *Labour Economics*, 12, 557-576.
- Dave, U., & Wayne, B. (2005). *TQM value of the proposition*. Boston: Harvard Business School.
- Davey, A., & Savla, J. (2010). *Statistical power analysis with missing data: a structural equation modelling approach*. New York: Routledge Taylor & Francis Group.
- De Silva, A. D. A., Khatibi, A. and Azam, S. M. F. (2017). Do the Demographic Differences Manifest in Motivation to Learn Science and Impact on Science Performance? Evidence from Sri Lanka, *International Journal of Science and Mathematics Education*, 16(S1), 47–67
- Dearden, L., Reed, H., & Van Reenen, J. (2006). The Impact of Training on Productivity and Wages: Evidence from British Panel Data. *Oxford Bulletin of Economics and Statistics* 68(4), 397-421.

- Delaney, J. T., & Huselid, M. A. (1996). The impact of total quality management practices on perceptions of Organisational performance. *Academy of Management Journal*, 39(4), 949-969.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorising in strategic quality management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39, 802-835.
- Deloitte. (2012). The quality paradox: a 21st-century quality and leadership agenda. Available at: www.deloitte.com/.../.
- Dewi, N, Azam, S. M. F. and Yusoff, S. K. M. (2019). Factors influencing the information quality of local government financial statement and financial accountability, *Management Science Letters*, 9 (9): 1373-1384
- Donald, I. H. (2006). Contract Staff Management System in the Construction Industry in Nigeria. *Pakistan Economic and Social Review*, XLIV(1), 1-18.
- Downs, Y., & Swailes, S. (2013). A capability approach to organisational project management. *Quality management Development International*, 16(12), 267–281.
- Ferguson, K. L., & Reio Jr, T. G. (2010). Total quality management systems and firm performance. *Journal of Management Development*, 29(5), 471-494.
- Gherbal, N., Shibani, A., Saidani, M., & Sagoo, A. (2012). *Critical Success Factors of Implementing Total Quality Management in Libyan Organisations*. Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management Istanbul (pp. 80-89), Turkey, July 3 – 6, 2012.
- Guthridge, M., Komm, A. B., & Lawson, E. (2008). Making quality a strategic priority. *McKinsey Quarterly*, 1(11), 3-6.
- Haghparast, S., Moharamzadeh, M., & Mohamadzadeh, H. (2012). The relationship between project management and organisational success. *International Research Journal of Applied and Basic Sciences*, 3(12), 2424-2430.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th Global ed.). Upper Saddle River: Pearson Prentice-Hall.
- Hammad, M. S., Omran, A., & Pakir, A. H. K. (2011). Identifying ways to improve productivity in the construction industry. *ACTA Technica Corviniensis - Bulletin of engineering tome*, 4, 47-49.
- Haque A., Sarwar, A., Azam, S. M. F. and Yasmin, F. (2014), "Total Quality Management Practices in the Islamic Banking Industry: Comparison between Bangladesh and Malaysian Islamic Bank", *International Journal of Ethics in Social Sciences*, 2 (1): 5-18.
- Hassan, A. (2007). Quality management development and organisational values. *Journal of European Industrial Training*, 31(6), 435-448.
- Haur, C. H., Khatibi, A. and Azam, S. M. F. (2017), "Antecedents of Consumers' Perception towards Online Advertising in Malaysia: The Structure Equation Modeling Approach", *European Journal of Management and Marketing Studies*, 2 (3): 15-30

- Hayduk, L., Cummings, G. G., Boadu, K., Pazderka-Robinson, H., & Boulianne, S. (2007). Testing! Testing! One, two three – Testing the theory in structural equation models! *Personality and Individual Differences*, 42, 841-850.
- Hitt, M. A., Hoskisson, R. E., & Kim, H. (1997). International Diversification: Effects on Innovation and Firm Performance in Product-Diversified Firms. *The Academy of Management Journal*, 40(4), 767-798.
- Huselid, M. A. (2011). The impact of total quality management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672.
- Huselid, M. A., Becker, B., & Beatty, R. W. (2004). *The Workforce Scorecard*. Boston: Harvard Business School Press.
- Iles, P., Chuai, X., & Preece, D. (2010). Project management and TQM in multinational companies in Beijing: definitions, differences and drivers. *Journal of World Business*, 45(2), 179-189.
- Jayasuriya, N. A. and Azam, S. M. F. (2017). *International Review of Management and Marketing*, 7(5), 178-183.
- Katou, A. A. (2008). Measuring the impact of TQM on organisational performance. *Journal of Industrial Engineering and Management*, 01(02), 119-142.
- Katou, A. A., & Budhwar, P. S. (2010). The causal relationship between TQM policies and organisational performance: Evidence from the Greek manufacturing sector. *European Management Journal*, 28(1), 25-39.
- Katukurunda, K. G. W. K., Yajid, S. M. A, Khatibi, A. and Azam, S. M. F. (2019). Students' Satisfaction towards Biosystems Technology; Does Programme Quality Matters? (Evidence From Sri Lankan Perspectives), *European Journal of Open Education and E-learning Studies*, 3 (2): 174-190
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modelling* (4th ed.). New York: The Guilford Press.
- Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Delhi: New Age International Publishers.
- Kuruwitaarachchi, N., Yajid, S. M. A, Khatibi, A. and Azam, S. M. F. (2019). Enhance the use of Internet Based Advanced Communication Technologies in Small and Medium Scale Enterprises in Sri Lanka, *European Journal of Social Sciences Studies*, 3 (2): 44-57
- Li, Y., Zhao, Y., & Liu, Y. (2006). The relationship between TQM, technology innovation and performance in China. *International Journal of Manpower*, 27(7), 679-697.
- Lockwood, N. R. (2006). Project management: driver for organisational success. *STQM Quarterly Review*, 7, 1-11,
- Longenecker, C. O., & Fink, L. S. (2011). The new TQM reality: HR leadership in trying economic times. *HR Advisor Journal*, 3(4), 19-28.
- Longenecker, C. O., & Fink, L. S. (2012). Breaching the barriers to creating human-resource management value: an executives' guide. *Effective Executive Journal*, 15(2), 39-52.

- Maghfuriyah, A., Azam, S. M. F. and Shukri, S. (2019). Market Structure and Islamic Banking Performance in Indonesia: An Error Correction Model, *Management Science Letters*, 9 (9): 1407-1418
- Maloney, W. F. (1997). Strategic planning for total quality management in construction. *Journal of Management in Engineering*, 13(3), 49-56.
- Mashood, N., Verhoeven, H., & Chansarkar, B. (2009). *Emiratisation, Omanisation and Saudisation*.
- McCracken, M., Currie, D., & Harrison, J. (2015). Understanding graduate recruitment, development and retention for the enhancement of project management: sharpening “the edge” of graduate quality. *The International Journal of Quality Management*, 5192(12), 1-26.
- Michaels, E., Handfield-Jones, H., & Axelrod, B. (2001). *The War for Quality*. Boston, MA: Harvard Business Press.
- Minbaeva, D., & Collings, D. G. (2013). Seven myths of global project management. *The International Journal of Quality Management*, 24(12), 1762-1776.
- Morton, L., & Ashton, C. (2005). Managing quality for competitive advantage, taking a systemic approach to project management. *Strategic HR Review*, 4(5), 28-31.
- Mynatt, P. G., Omundson, J. S., Schroeder, R. G., & Stevens, M. B. (1997). The impact of anglo and Hispanic ethnicity, gender, position, personality and job satisfaction on turnover intentions: A path analytic investigation. *Critical perspectives on accounting*, 8, 657-683.
- Neuman, W. L. (2007). *Basic of Social Research: Qualitative and Quantitative Approaches* (2ndedn). New York: Pearson Education, Inc.
- Nguyen, H. N., Tham, J, Khatibi, A. and Azam, S. M. F. (2019). Enhancing the Capacity of Tax Authorities and its Impact on Transfer Pricing Activities of FDI Enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong Province of Vietnam, *Management Science Letters*, 9 (8): 1299-1310
- Nilsson, S., & Ellström, P. E. (2011). Employability and project management: challenges for HRD practices. *European Journal of Training and Development*, 36, 26–45.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2010). *Quality management: Gaining a Competitive Advantage* (7thed.). New York: McGraw-Hill/Irwin.
- North, S. (2011). Finding new roles for existing staff within your organisation. *Total quality management International Digest*, 19(5), 3-5.
- Nunnally, J. C., & Berstein, I. H. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw-Hill.
- Pambreni, Y., Khatibi, A., Azam, S. M. F. and Tham, J. (2019). The Influence of Total Quality Management toward Organization Performance, *Management Science Letters*, 9 (9): 1397-1406
- Purcell, J., & Hutchinson, S. (2007). Front-line managers as agents in the TQM performance causal chain: theory, analysis and evidence. *Total quality management Journal*, 17, 3-20.

- Pushpakumara, W. D. H., Atan, H., Khatib, A., Azam, S. M. F. and Tham, J. (2019). Developing a Framework for Scrutinizing Strategic Green Orientation and Organizational Performance with Relevance to the Sustainability of Tourism Industry, *European Journal of Social Sciences Studies*, 4 (3): 1-18
- Rachmawati, D., Shukri, S., Azam, S. M. F. and Khatibi, A. (2019). Factors Influencing Customers' Purchase Decision of Residential Property in Selangor, Malaysia, *Management Science Letters*, 9 (9): 1341-1348
- Raj, A. B. V., & Kothai, P. S. (2014). Study on the Impact of Total quality management Practices in the Construction Industry. *The International Journal of Management*, 3(1), 1-22.
- Ruppe, L. (2006). Tools and dialogue set the stage for project management at John Manville. *Journal of Organizational Excellence*, 25(3), 37-48.
- Saadi, D. (2013). Sultanate of Oman steps on to the global Agriculture and Fisheries stage. Retrieved from <http://www.thenational.ae/>
- Shibani, A., Ganjian, E., & Soetanto, R. (2010). Implementation of total quality management in the Libyan construction industry. *International Journal of Project Organisation and Management*, 2(4), 382-403.
- Sweis, R. J., Sweis, G. J., Abu Hammad, A. A., & Abu Rumman, M. A. (2009). Modelling the Variability of Labour Productivity in Masonry Construction. *Jordan Journal of Civil Engineering*, 3(3), 197-212.
- Tarofder, A. K. and Azam, S. M. F. and Jalal, A. N. (2017), "Operational or Strategic Benefits: Empirical Investigation of Internet Adoption in Supply Chain Management", *Management Research Review*, 40 (1): 28-52
- Tarofder, A. K., Haque, A., Hashim, N., Azam, S. M. F. and Sherief, S. R. (2019). Impact of Ecological Factors on Nationwide Supply Chain Performance, *Ekoloji*, 28(107): 695-704
- Tessema, M. T., & Soeters, J. M. M. L. (2006). Challenges and prospects of TQM in developing countries: Testing the TQM-performance link in the Eritrean civil service. *International Journal of Quality Management*, 17(1), 86-105.
- Tham, J., Yazid, M. S. A, Khatibi, A. A. and Azam, S. M. F. (2017), "Internet and Data Security – Understanding Customer Perception on Trusting Virtual Banking Security in Malaysia", *European Journal of Social Sciences Studies*, 2 (7): 186-207
- Tremblay, M., Cloutier, J., Simard, G., Chênevert, D., & Vandenberghe, C. (2010). The role of TQM practices, procedural justice, Organisational support and trust in Organisational commitment and in-role and extra-role performance. *The International Journal of Quality Management*, 21(3), 405-433.
- Udriyah, U., Tham, J. and Azam, S. M. F. (2019). The Effects of Market Orientation and Innovation on Competitive Advantage and Business Performance of Textile SMEs, *Management Science Letters*, 9 (9): 1419-1428
- Vaiman, V., Scullion, H., & Collings, D. (2012). Project management decision making. *Management Decision*, 50, 925-941.

- Vermeeren, B., Steijn, B., Summers, L., Lankhaar, M., Poerstamper, R. -J., & van Beek, S. (2014). TQM and its effect on employee, organisational and financial outcomes in health care organisations. *Quality management for Health, 12*, 1-9. Doi: 10.1186/1478-4491-12-35.
- Whelan, E., Collings, D. G., & Donnellan, B. (2010). Managing quality in knowledge-intensive settings. *Journal of Knowledge Management, 14*, 486-504.
- Wright, P. M., Snell, S. A., & Dyer, L. (2005). New models of strategic TQM in a global context. *International Journal of Quality Management, 16*, 875-881.
- Yeung, A.K., & Berman, B. (1997). Adding value through quality management: reorienting quality management measurement to drive business performance. *Quality Management, 26*(3), 321-335.
- Yin, R. K. (2013). *Case Study Research: Design and Methods (Applied Social Research Methods)* (5thed.). Thousand Oaks, CA: Sage Publications.
- Zainudin, A. (2012). *A Handbook on SEM: Structural Equation Modelling Using Amos Graphics* (4th ed.). Kelantan: University Technology MARA Press.
- Zhang, J., & Wei, W. X. (2012). Managing Political Risks of Chinese Contracted Projects in Libya. *Project Management Journal, 43*(4), 42-51.

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