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Factors Influencing the Performance of Sarawak Local Authorities

Siti Mardinah Binti Abdul Hamid[1], Jamil Bin Hamali[2] and Firdaus Bin Abdullah[3]
[1,2,3]Universiti Teknologi MARA, Kota Samarahan, Malaysia

[1]ctmardinah@uitm.edu.my; [2]jamil1@uitm.edu.my; [3]fir@uitm.edu.my

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ABSTRACT

This paper presents the empirical research on factors that influenced the performance in Local Authorities in Sarawak. It explores the benefits of performance measure and discusses the factors that influenced the performance for Local Authorities in providing an excellent service delivery in accordance with the vision to provide a world class standard of civil service in Sarawak. Additionally, this paper highlights issues affecting the performance of Local Authorities and their usage in performance management. Findings from this study could assist in the identification of factors that notably have an impact on performance and provide recommendations that would efficaciously enhance the performance for Local Authorities in Sarawak.

Keywords: *performance; performance measure; local authorities*

INTRODUCTION

In Sarawak, Local Authorities (LAs) are part of the constitutional structure of the State Government and they are confined with the authority as prescribed in the LAs Ordinance, 1996. The Ordinance touched on the constitution of all LAs, its composition and organization, whether for the Councillors who act as policymakers or the officials dealing in daily operations of LAs. It additionally covers financial provision for the LAs, including its account and audit. The Ministry of Local Government and Community Development (MLGCD) is responsible for monitoring all LAs to exercise their powers in the provisions of the legal guidelines. The Ministry is also responsible for securing funds from the State Government to help the LAs to enforce their development programs and deliver their services to the community. LAs in Sarawak additionally acquire statutory grants from the Federal Government. MLGCD is responsible for the twenty-three (23) councils including Miri City Council, Municipal Councils of Sibu, Padawan and Samarahan. District Councils are Bau, Lundu, Serian, Simunjan, Sri Aman, Lubok Antu, Betong, Saratok, Luar Bandar Sibu, Kanowit, Meradong & Julau, Kapit, Dalat & Mukah, Matu & Daro, Sarikei, Marudi, Subis, Lawas, and Limbang (MLGCD, 2015). LAs worldwide are constantly under pressure to modernize, as well as improve overall performance and service delivery and increase accountability to their stakeholders (Sidiqque, 2014). All the while, a strategic measure on financial measures is well established for twenty-three (23) LAs in Sarawak, which focus on accountability toward financial management. The need to monitor performance is more necessary as the environment is more dynamic.

Problem Statement

Compiling performance information is often challenging as it is always incomplete and even if the information can be obtained, the accuracy is difficult to be verified (Brush & Vanderwerf, 1992). The process of discussing, planning and articulating strategies and measures is crucial to ensure that the country is ready for the future, given how much the environment has changed since the Covid-19 pandemic attacked humanity globally. After Covid-19, not only does everyone have to adjust with new norms, but a new road map is required. Thus, the government is in dire need of transforming the country's economy, people's well-being, the

environment, technology, social engagement, governance and public administration. This transformation necessitates a significant change in the new way of operating and as a result, performance can be significantly improved.

In Sarawak, different strategies have been implemented in order to fasten the service delivery and reduce administrative costs. However, it was reported that inefficiency in the service delivery such as delays in taking action, was ranked as the most common complaint made by the public to the Sarawak *Talikhidmat* Hotline. Sarawak Net (2019) recorded a total number of 10,731 (January-June 2019) complaints received via Sarawak *Talikhidmat* in 2019 and in 2018 19,563 complaints were logged via Sarawak *Talikhidmat.* In 2017, complaints received increased to 18,901 from 17,221 complaints received via Sarawak *Talikhidmat* in 2016. The statistics revealed an increase in complaints from 2016 to 2019. Most of the complaints are related to LAs' services such as delay in collecting garbage, blocked drains, faulty street lighting, faulty road conditions and more. Therefore, it has now become the government's concern, especially for LAs which are closely engaged to the communities, to continually improve the service efficiency (Sarawak Government Portal, 2016).

LAs seem to emphasize processes and procedures via ISO documentation and annual financial reports. This measurement is done to comply with the laws and not to measure performance (Kaplan & Norton, 1996). Many LAs concentrate on day-to-day tasks and do not have adequate resources to carry out detailed performance measure (Stephens, 2011). The vision of becoming a world-class civil service and delivering first-class service to the public, has become the highest priority. Given the importance of measuring the performance, further study in this field appears to be warranted. Only few variables that influence performance have been discussed in the previous studies. Factors that have had an impact on the performance according to Sarawak's local setting, however, have not been well-explored.

It is against this backdrop that the basis for capturing the authentic factors that influence performance for LAs in Sarawak is established. This research provides a detailed view of the analysis of factors that influence the performance of LAs, as well as the investigation of the most important factors that influence the performance of LA in Sarawak.

LITERATURE REVIEW

Performance is a measure of how well it serves its function through a system and method. Measuring performance is a multi-dimensional concept, and the two fundamental dimensions of performance are effectiveness and efficiency (Neely, Adams, & Kenerley, 2009). Effectiveness refers to the degree to which the expectations of stakeholders are met, while efficiency is a measure of how the resources of the organizations are used economically for stakeholders' satisfaction. It is understood that if public organizations want to survive and succeed in the new globalized and competitive environment, their way of doing things needs to change rapidly (Osborne & Gaebler, 1992; Fox & Miller, 1995). The various factors are discussed as follows:

Capability. Neely, Adams, and Crowe (2003) described capability as the combination of the people, processes, technology, and infrastructure of an organization that collectively reflects the ability of the organization to generate value for it through a distinct part of its operations for its stakeholders. Capabilities can only be of a great benefit for an organization if they are used carefully and strategically. While the importance of capabilities of an organization has often been highlighted, a lot needs to be learned about the impact on organizational performance (Evans, 2012). There is notably a lack of research in investigating the impact of capabilities in the organizations' performance.

Resources. Resources range from tangible to non-tangible, allowing or restricting development and expansion. As such, an organization must efficiently manage its human, financial, community, technical, and physical resources, as well as system and structure of organization. In order to develop strategies, LAs should use their resources wisely. It has been noted that the are challenges of integrating information and technology and performance (Pun & White, 2005).

Environment. Environmental uncertainty plays a role in influencing the decision-making of an organization and ultimately influences the organization's performance (Matthews, 1990). Measuring organizations' environment is therefore considered important that should include customer feedback, customer satisfaction, adaptability in changes in government rules, changes in technology, economic and social environments. Some

empirical studies show that an organization's performance suffers due to complexity of surroundings (Bourne, 2002).

Strategy. Strategies are seen as important factors that influence the organizations' performance. Strategies often need to be frequently developed, reviewed and revised periodically (Neely et al., 2003). Therefore, the strategies of LAs should use current objectives, consider customers' requirements and environmental factors in order to provide better service. There is very limited research exploring the connections between strategies and performance. However, the empirical evidence of the relationship between strategy and performance links very well (Guilding, 2002).

Process. Neely et al., (2003) have identified one main reason for strategic failure is the organization's processes are not consistent with its strategies. As such, LAs' processes should be able to accomplish management processes that include clarifying vision and strategy, communicating strategic objectives, goal setting, coordination of strategic initiatives and improved learning. Organizational processes have emerged as critical building blocks in performance.

Measure Analysis. Kaplan and Norton (1996) found that managers used measurement tools to conduct PM processes and introduced the roles of strategic management tools to produce results. Therefore, the use of effective and balanced PM tools by LAs provides the organization with outcomes and analysis to achieve the desired result. The need to find ways to sustain and preserve these successful PMs for analysis has therefore arisen. It became clear that PM needed to be reviewed effectively (Medori, 2000).

Innovation and Learning. Innovation is crucial to long-term survival and often requires learning, by investment in new technologies and systems and providing appropriate training (Marr, 2020). Learning is defined as the process by which information and knowledge is acquired, transmitted, incorporated and generated among organizational members (Weerawardena, 2003). The nature of organizational learning not only sustains competitive advantage in creating organizational knowledge but also contributes to new ways of doing things efficiently and effectively (Pham, 2009).

Emphasize Measure. The emphasize measure refers to the focus set by an organization as its primary criterion for outstanding performance. Although customer satisfaction is described as an evaluation of whether a specific product or service provided can achieve customer requirements, community well-being is also important. Revenue collected, total cash flow and stable budgets are other internal measures that are related to the organizations' performance (Schneider & White, 2004).

THE RESEARCH CONCEPTUAL FRAMEWORK

The research framework mentioned was also derived from empirical studies as well as conceptual contributions within the scope of performance and PM theories taken from the literature. Based on the conceptual framework, two research tasks carried out in this study are to examine the potential factors that influence the performance of LAs in Sarawak and to investigate the impact of each factor that significantly influenced the performance of LAs in Sarawak. (Figure 1).

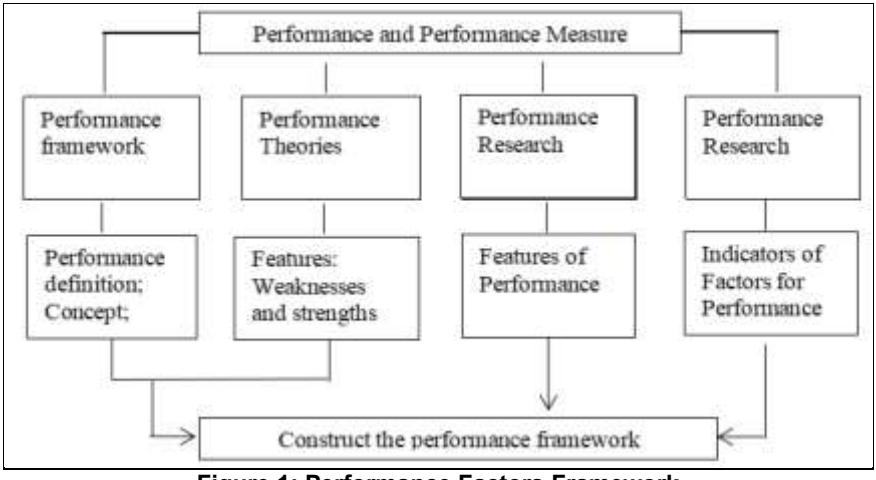

Figure 1: Performance Factors Framework

RESEARCH METHODOLOGY

The methodology used in this study is to respond to the research objectives using both qualitative and quantitative measures. This is complemented by

recommended practices such as item reductions, assessment of factor structures (Hair et al*.,* 2010; Kaiser, 1974), followed by the reliability and validation exercises (Tabachick & Fidell, 2007). It also employed the techniques of semi-structured interviews. The objective is primarily to identify the latent factors that may provide new performance insights. The study seeks, in particular, to examine the factors of performance in order to incorporate the qualitatively generated factors into a Likert type framework, and to distribute the framework to a sample population of 300 employees of LAs in Sarawak. The process begins with literature search to classify previous works in the field and depict the number of conceptual variables to be investigated. This is the fundamental step towards identifying the construction of factors. A crucial basis for designing quality measures for a robust and generic theory is to concentrate on recognizing and describing constructs (Summers, 2001; Mackenzie, 2003).

Focus Groups

Focus group interviews were also conducted alongside the literature review. The fundamental benefit of this conceptualization is that it enabled vast quantities of information in a short period of time (Berg*,* 2004). Krueger (2014) proposed that to be manageable, the number of participants is between six and twelve, large enough to obtain a range of perspectives, but too small a number would result in the fragmented discussion. Twelve (12) participants would be targeted, but more would be invited in case of no-show. On a five-point Likert type scale that varied from 1 (=not important) to 5 (=very important), the answers were specifically defined. Expert opinions are obtained to provide two perspectives on the input, to review items generated from the literature review and from interviews with the focus group. These experts are the Permanent Secretary of Ministry of Local Government and Community Development (MLGCD) and Secretaries of LAs in Sarawak. The primary objective is to comment on any ambiguities, omissions, inconsistencies and redundancies that are perceived. From the literature reviews and interviews, sixty-six (66) items were identified from eight (8) constructs in the initial stage. During the exercise, the sixty-six (66) items were reduced to fifty-nine (59), on the basis of expert advice, due to the similarity of the context of questions in the questionnaire. For the subsequent exercise, the procedures led to a total of fifty-nine (59) items.

Instrument Development and Survey

A comprehensive list of items was generated in the literature reviews and focus group interviews that would capture each of the domains of construct. The purpose was to create item pools from the existing scales and create new items that appeared to fit the construct definitions. The final fifty-nine (59) out of eight (8) constructs were identified and this was initiated. The draft questionnaire consisted of the introductory letter, demographic profile, implementation of PM, factors related questions, and finally, put an emphasis on measure. The questionnaire is written in English and presented with the same rating scale. The questions were measured on a five-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Expert opinion is sought with a relevant background in the draft questionnaire, as a means to enhance scale reliability, content and face validity (Sweeney & Soutar, 2014).

Pilot Test

Before the actual survey, the reliability test was conducted on the draft questionnaire. It assesses the scale's ability to consistently represent the construct it is measuring (Churchill, 1979). As a guide for demonstrating internal consistency of new scales, a value of 0.70 and above is adopted (Nunally, 1988). Thirty (30) respondents from three different types of LAs will be involved in the draft questionnaires. The results from the pilot test are checked for reliability by using SPSS software to determine the reliability of the measure. If the coefficient is above the threshold of 0.7, reliability is assumed.

Survey

A total of three hundred (300) respondents from all LAs in Sarawak were targeted for the actual survey. Data was obtained using the 'personal-contact method' whereby respondents would be directly approached by meeting with the Secretaries of LAs, and the survey will be explained in depth. To ensure confidentiality of the respondents and to emphasize the nature of the research, the cover letter was attached together with the questionnaire. With a large geographic landscape in Sarawak, distribution and compilation of the questionnaire were carried out in stages. A 50% response rate is generally regarded as acceptable, whereas 60% and 70%

response rates are usually regarded as good and very good, respectively. However, normal response rates are often as low as 30% (Gerrish, 2006).

Data Analysis Method

The data collected were analysed qualitatively and quantitatively. The characteristic of qualitative analysis is that it deals with data presented in words. The aim of qualitative data analysis is to rigorously and scientifically transform and analyse qualitative data (Chen, Noel & Whiter, 2012). As preliminary techniques for developing the survey framework, exploratory factor analysis is used and subsequently confirmatory factor analysis is used to determine and refine the resulting unidimensionality. Jöreskog and Sorbom, (1996) refer unidimensionality as the presence of a single structural that underlies a series of measures and it will be computed by means of the structural equation framework using Amos.

Confirmatory Factor Analysis (CFA) was run on all constructs to check for unidimensionality by means of Structural Equation Modeling (SEM) to verify how closely the same construct is represented. Based on SEM, a measurement model would be developed for each of the constructs within parameters estimated. Since the original fit index is in chi-square and because it is the basis for most other fit indices, all SEMS are regularly reported. Comparing the magnitude of x^2 with the expected value of the sample distribution, which is based on the number of degrees of freedom (df) is suggested. Normed Fit Index (NFI) is used to assess the model by comparing the x^2 value of the model to the x^2 of the independent model (Bentler, 1990). The Normal Fit index range is between 0 and 1.0, where it suggested that the index greater than 0.90 indicates a good fit.

As an alternative to the Chi-Square test, Jorekog and Sorbom (1996) developed the Goodness Fit Index (GFI) and measured the proportion of variance which accounted for the estimated population covariance (Tabachnick & Fidell, 2007). According to Lee and Jennrich, (1979), a threshold of 0.90 was suggested for the GFI, but when factors loading and sample sizes are relatively low, a higher cut-off of 0.95 could justify an acceptable model fit. Similar to other indexes, the AGFI values are between 0 and 1.0 and generally a threshold of 0.90 is accepted.

The Comparative Fit Index **(**CFI) is a revised form of the NFI that takes sample size into account, in which the index performs well even in small size circumstances (Tabachnick & Fidell, 2007). A rule of thumb for CFI is that the index of 0.97 seems to be more reasonable; nevertheless, 0.95 can be interpreted as an acceptable fit. In order to assess the extent to which the structural equation model corresponds to the empirical results, descriptive measures of overall model fit were necessary. RMSEA index is most widely used to rectify the tendency of the x^2 test of rejecting models with many observed variables (Hair et al*.,* 2010). The RMSEA is bound below by zero, where close fit with value less than or equal to 0.05 is described by Steiger (1990). Values above 0.10 indicated poor fit (MacCallum, Browne, & Sugawara*,* 1996), but was later revised, where 0.08 to 0.10 provides a mediocre fit and below 0.08 shows a good fit. The square roots of the difference between the residuals of the sample covariance matrix are both RMR and the Standardized Root Mean Square Residual (SRMR). The sizes of the variances and covariance of the observed variables depend on RMR. SRMR values vary from zero to 1.0 for fitting models with values less than 0.05 (Byrne, 2007), while high values such as 0.08 are deemed acceptable (Hu & Bentler, 1999). A rule of thumb is that the SRMR should be less than 0.05 for a good fit, whereas values smaller than 0.10 may be interpreted as acceptable.

Reliability Analysis

The measurement of variables in this research was not only those taken from other associated research to ensure reliability, but also included previous studies from reviewed literature that are important in qualitative research results and hereby ascertain the high statistical value of the data. After the unidimensionality has been established, reliability test was carried out. For this study, an alpha value of 0.70 and above is the cut-off criteria for demonstrating the internal consistency of new scales and established scales, respectively (Nunally, 1988).

Validity Test

According to Narver (1990), if the construct exhibits convergent validity, then there should be strong correlations between the components that form the construct. Convergent validity can therefore also be established by using the correlation analysis between the components of the

construct. The value of a coefficient above 0.90 is the evidence of convergent validity. Discriminant validity is the extent to which the construct is truly distinctive from other constructs, providing the evidence that the construct is unique compared to other constructs. Criterion-related validity refers to the degree to which one measure estimates the values of another measure of performance. The regression coefficient (R) indicates how well the values fit the data. The analysis would show the percentage of variation in one variable that is accounted for by another, the accuracy of the prediction of the regression equation and as an indicator of the importance of the independent variable in predicting a dependent variable (Hair et al*.,* 2010).

RESEARCH FINDINGS AND DISCUSSIONS

Both data compiled from interviews and data received from survey questionnaires were analysed. The data analysed included frequencies of implementation of performance measure being used by LAs in Sarawak, significant problems of implementing performance measure, the performance measure being used, the relevant factors that influenced performance and the most important factors that influenced performance. All these details provided the empirical outcomes towards answering the research objectives.

Summary of Interview Analysis on Each Factor

The following specific factors, as identified through interviews are considered to have an influence on performance for LAs; Innovation is an important factor in LAs. Having great innovations to ease daily operation is good as it saves time but employees need to have the skills and expertise to manage the technology well. Consistent with the findings of Weerawardena (2003), innovation is important as it is the utilization of ideas that are new to the organization to create added value. Capabilities to respond swiftly to a customer's need is a crucial factor that influences Las' performance. Most interviewees agreed that capabilities of LAs should focus on competencies of the management and staff in order to deliver an excellent service to customers (Evans, 2012). Performance oriented culture is also through the organizations' resources that focus on employees' empowerment in taking responsibility and task, and a positive approach to

improve performance by considering it as a tool for improvement. Correct utilization and development of resources can assist LAs to achieve excellent performance (Pun & White, 2005).

Customer satisfaction depends on the quality of service, delivery time, and communication. Employees of LAs also acknowledge that building a constructive working environment and responding to changes are also critical to performance (Schneider & White, 2004). Strategies should be aligned to the organization's goals to achieve excellent performance. The strategy of an organization must be clear and based on direction in order to formulate a course of action appropriate to achieve the set goals (Cooper, 2005). The internal processes in LAs are mostly about the operations and how to manage daily operations. The cooperation among various departments such as Public Works, Public Health, and Rating Assessment Department can ease the processes customers need to deal with.

Stershic (1990) stresses that in order to ease the day-to-day task, it is important for the organization to put in place a systematic process for the operations. Most LAs only practiced documentation process tools that is ISO 9001 and also used the Annual Budget Report as an indicator of performance that focused on financial performance. A specific tool to measure performance for both non-financial and financial aspects of performance of LAs should be available (Pun & White, 2005). LAs' measure performance only to emphasize customer satisfaction. However, it is necessary to have a continuous and balanced organization performance (Kaplan & Norton, 1996).

Pilot Test

The pilot test for this study was conducted at each of the Samarahan District Council, Padawan Municipal Council, Lundu District Council and Serian District Council. Approximately thirty (30) respondents were asked to fill out the questionnaires. The LAs were chosen based on the size of the council, ranging from a municipal to district council. The pilot test was performed prior to the Exploratory Factor Analysis (EFA) procedures to verify the reliability of the instrument based on Churchill (1979). To illustrate the internal consistency of new scales, a value of 0.70 and above is adopted as a cut off score (Nunnally, 1988). The Cronbach's Alpha score is 0.990 for fifty (50) items and 0.948 for nine (9) items that demonstrate

internal consistency and acceptable value of reliability values in their original form.

Reliability Test for Pilot Study

To test the reliability of each item or section in the questionnaire, the researcher used Cronbach's Alpha measurement. Nunally (1978) proposed that it would be appropriate for a moderate reliability range to be between 0.5 and 0.6. Therefore, the result of Cronbach's Alpha for all items fulfilled the minimum requirement for level of reliability. The cutting point of 0.70 for reliable and acceptable level was also stated. All items in the questionnaires are retained for the actual study, based on the reliability analysis from the Pilot Study.

Reliability Test for Actual Study

A total of two hundred seventy-two (272) respondents returned the survey. the researcher used Cronbach's Alpha measurement to indicate the level of reliability of each item or section in the questionnaires. For this analysis, it indicates that the reliability of items in the questionnaire is high. These eight (8) factors have 59 items and a score of 0.993 for Cronbach's Alpha nine (9) items that recorded 0.973 score for the reliability test. Thus, the results indicated all items measured were reliable for this study.

Factors that Influence Performance

About 300 questionnaires were sent to all the twenty-three (23) LAs in Sarawak. Only two hundred and seventy-two (272) questionnaires were returned and valid for use in this research. All factors that are important for LAs in achieving performance were analysed. Six (6) items in the Capability factor focused on customer service, resource management, managerial system, environmental changes, technology trends and flexibility to adapt to changes. Eleven (11) items in the Resource factor are capital availability, managerial experience, organization's overall performance, technical resources and expertise, comprehensive organizational system, service development, customer service and management culture. Eight (8) items in the Environment factor were tested that focused on anticipating customer needs, learning about customers, systematic process, analysed information, measuring customer satisfaction, changes in technology, and adaptation to

changes in government regulation. For Strategy, seven (7) items were tested that focused on strategies, strategies based on customer requirement, employees' participation, strategies are reviewed, strategies are developed, provide better services continuously and established value-added service. In the Process factor, six (6) items were tested that concerned changes in customers' requirement, technology changes, design and delivery processes that meet customers' needs, quality and operational performance requirement and support service process to achieve organization's performance outcomes and objectives. In the Measure Analysis factor, seven (7) items that emphasized managing organization's information, information analysed, knowledgeable in measuring performance, appropriate measurement tools, objectives measure, clear strategies translated and employees know organization strategies and objectives were tested. For Innovation and Learning factor, five (5) items focused on new system development, efficiency process of system, employee training, flexibility to environmental changes and flexibility to adapt to changes. In the Emphasize Measure factor, nine (9) items that focused on customer satisfaction, employee satisfaction, organization benefits, community well-being, gross revenues, total asset turnover, net cash flow, and inventory turnover. The reliability of these items (analysed through SPSS) was estimated by Cronbach's alpha. The alpha value for each item ranging from 0.83 to 0.94, which implies high reliability of the items (Nunally, 1978).

Multivariate Test for Normality

Next, all data was compiled and a multivariate test for normality has been checked to verify whether or not the data looks the same. Kolmogorov-Smirnov and Shapiro-Wilk tests showed that each item of the main constructs deviated from the normal distribution. The skewness values did not deviate from normality. No item had skewness statistics greater than ±2.0 and kurtosis was greater than ±7 (West, Finch & Curran, 1995). Since this study employed the factor analytic techniques which focused on variance and covariance, it is prudent to test for multivariate kurtosis for any severe deviation. Standardized scores were calculated for each observation across all variables. A response is considered an outlier for a data set with more than one hundred (100) responses, if it is more than four standard deviations away from the expected value of the variable (Hair et al., 2010). In addition, multivariate outliers were evaluated by comparing the largest outlier to the Bonferroni critical values, which is the largest Mahalanobis

distance. The outliers with values greater than the critical value should be identified as significant outliers. Mardia's coefficient ≤ P (P+2) where P is the number of variables observed which is 31(31+2) = 31(33) = 1,023.

Factor Analysis

The factor analysis aims to minimize the dimensionality of the original space and to provide an interpretation to the new space with a reduced number of new dimensions. Factor analysis offers not only the possibility to obtain a clear view of the data, but also the possibility to use the output in subsequent analyses (Lee & Jennrich, 1979). In order to determine the appropriate number of factors, exploratory factor analysis (EFA) with principal axis factoring (PAF) extraction and varimax rotation were applied to the thirty-one (31) remaining items. The aim was to find the number of factors equal to the number of scales proposed. Since the Kolmogorov–Smirnov test indicated that variables deviated from a normal distribution, instead of maximum likelihood, PAF was used (Hair et al., 2010*)*. The correlation matrix from the analysis showed that this requirement was also satisfied.

The KMO measure tests are intended to check if partial correlations between variables are minimal. A measure over 0.5 is scarcely acceptable, values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are excellent (Kaiser, 1974). KMO is meritorious with 0.73. With regard to the factor loading assessment, Hinkin (1998) suggests that for a new scale, items with factors loading below a recommended threshold of 0.5 but above 0.40 may be retained, especially if the items are needed due to considerations of content validity. With a sample size of 272, factors loading lower than 0.4 are also not statistically significant than at the 0.05 level (Hair et al., 2010). The items with cross-loadings greater than 0.3 were removed from the analysis (Lawley & Maxwell, 1971). Nineteen (19) items did not meet the established criteria and were deleted. Only thirty-one (31) items were retained.

Exploratory Factor Analysis

While the eight (8) scales of PM characteristics have been adapted from the previous research, they have never been tested empirically in LAs.

The unidimensionality of the performance scales was therefore investigated using exploratory factor analysis (EFA). The results of reliability measures of Cronbach's alpha and composite reliability of the eight (8) factors from the EFA provided by the structural equation model (SEM) are as follows: Chi-square = 63.184, df = 406, p-value = .000, GFI =. 868, RMSEA = .048, RMR = .044, NFI = .832, CFI = .926, AGFI = .839, and PNFI = .726. Based on Nunnally's (1978) guideline, all the constructs of the measurement framework exhibited acceptable levels of reliability, with most having values well above the minimum recommended value of 0.70.

Confirmatory Factor Analysis

Next, the Confirmatory Factor Analysis (CFA) for the structural model is run on all the constructs by utilizing Structural Equation Modelling (SEM). The objective is to empirically test the model for unidimensionality, reliability, and construct validity. The assessment of the unidimensionality of the measures is to imply the existence of a single construction or trait underlying a set of measures (Anderson & Gerbing, 1991; Hattie, 1985). As the x^2 test is not only sensitive to sample size but also sensitive to the violation of the multivariate normality assumption (Curran, McGinley & Bauer, 1996; West et al., 1995; Hu, 1999), it should not serve as the sole basis for judging model fit, particularly for cases in which sample size exceeds 200 respondents (Hair et al., 2010). Therefore, to assess the "goodness of fit" of the model, different classes of the goodness-of-fit criteria were employed (Hair et al., 2018; Byrne, 2007; Mulaik et al., 1989). Fit indices such as RMSEA, NNFI, and CFI are sensitive to model misspecification and do not depend as strongly as x^2on sample size would be considered (Hu and Bentler, 1999). The use of SRMR is recommended and further supplemented by NNFI, CFI, or RMSEA (Hu & Bentler, 1999). For the study, the fit indices; x^2, x^2/df test, Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), NFI, NNI, Parsimony Normed Fit Index (PNFI) and Parsimony Goodness-of-Fit Index (PGFI) are assessed simultaneously.

In general, a goodness-of-fit test refers to measuring how well the observed data corresponds to the fitted (assumed) framework (Mash, Balla, & McDonald., 1998). The result for Goodness of Fit of measurement

framework in this study was acceptable. Mulaik et al., (1989) explained that SEM's goodness of fit is indicated by how well the observed covariance matrix reproduces between the indicator items and can be divided into the following categories: i) Chi-square measures including chi-square result, degree of freedom (df), and probability. Based on the result, CMIN (χ^2)/DF ≤ 3 is 1.631, GFI is 0.868 which is slightly less than 0.9 that is acceptable. For RMSEA is 0.048 and RMR is 0.044, that score ≤ 0.005 which is good.

Reliability Test Findings

Further reliability test is carried out after the unidimensionality has been established. The values of the reliability coefficient for all the eight (8) factors are computed. All the values are well above the suggested threshold (Nunally, 1978) of 0.7, ranging from 0.823 to 0.911 which fulfilled the prerequisite, thereby demonstrating that all the eight (8) factors are internally consistent and in their original form have satisfactory reliability values.

Validity Test Findings

Content validity, convergent validity, discriminant validity and criterion-related validity are the validity tests used in this study to determine the validity of the measurement. The questionnaire was designed through a careful and comprehensive exercise involving a review of relevant literature, suggestions and inputs from experts in performance and performance measures, and subsequently fine-tuned by the researchers. The content validity of the instrument was ensured (Kaizer, 1974). The result reveals that all the factors show relatively significant correlations with performance ranging from 0.621 to 0.721. Hence, criterion-related validity is established for all the factors.

Multiple Regression Analysis Findings

Regression analysis is performed to determine the most important performance factor among Capabilities, Resources, Environment, Strategy, Process, Measure Analysis, Innovation and Learning, and Emphasize Measure. From the summary, the prediction framework was statistically significant, $F(41, 230) = 65.049$, $p < .005$, and the weighted combination of the predictor variables for approximately 92% of the variance of

performance (R^2 = .921, Adjusted R^2 = .906). The Adjusted R Square value, the small difference in strength in computing, can be explained by the relatively large sample size combined with a relatively small set of predictors. The significance test for the model using an ANOVA reveals that there are 271 (N-1) total degrees of freedom. The regression effect has 41 degrees of freedom with eight predictors. The effect is statistically significant.

The regression output of the framework is shown in Table 1. Predictors for Innovations and Learning, Capabilities, Resources and Environment are statistically significant. Innovations and Learning factor command the highest score, followed by Capabilities, Resources, and Environment that generate a larger contribution to the prediction framework.

Table 1: Regression Output

Factors	Unstandar-dized Beta	Coeffi-cients Std. Error	Standd. Coeffi. Beta	t	Sig.	Rank
Innovation and Learning	0.003	0.032	0.281	7.021	0.000	1
Capability	0.020	0.029	0.176	4.848	0.000	2
Resources	0.026	0.028	0.163	4.099	0.000	3
Environment	0.029	0.026	0.131	3.022	0.000	4
Strategy	0.030	0.023	0.107	1.187	0.266	-
Process	0.035	0.014	0.088	0.924	0.356	-
Emphasize Measure	0.037	0.012	0.068	0.547	0.631	-
Measure Analysis	0.042	0.011	0.058	0.437	0.635	-

Based on the commonly adopted paradigm for scale development, eight (8) factors were identified. These are Capabilities, Resources, Environment, Strategy, Process, Measure Analysis, Innovation and Learning, and Emphasize Measure factors and are positively correlated, indicating that any positive performance of one factor would have a positive effect on the other factors. And based on the suggested threshold, the fit indices computed confirmed that the framework is credible. Further analysis has established that all predictors to the dependent variable, which is statistically significant, except for Strategy, Process, Emphasize Measure

and Measure Analysis. These factors which are obtained from research procedures, not only provide a new alternative to the insight of the performance and the performance management but is a potential development for future performance studies.

DISCUSSIONS

The most significant factor that influenced performance is Innovation and Learning. Each LA in Sarawak needs to invest in innovation and learning. Continual support from the management, emphasis on regular training to enhance performance is important. LAs' located at rural and remote areas do not have the latest technology and still manage daily operations using the basic method that is not user friendly and consume time. Innovation is important for the long-term sustainability of LA that contributes to competitive advantage (Edwards & Delbridge, 2005). However, innovation alone is not sufficient for LAs to operate. In order to manage everyday operations using the latest innovation, the LAs need to provide proper training for the employees. Capabilities are found to be the second important factor that influences performance. Capabilities attribute towards performance not only in leadership but also towards the employees who can objectively evaluate issues and formulate strategies. In order to manage capabilities, including customers and the employee, LAs should have good leadership and an effective management structure (Evans, 2012). LAs also should have adequate resources to realize the strategies because resources are important in LA operations (Pun & White, 2005). These include buildings, equipment, machinery, maintenance, contractors and employees. Resources are important factor that provides LAs to build their exclusive competitive advantages. The correct utilization and development of resources helps LAs to achieve an excellent performance. Environmental factors also strongly influence LAs' performance. Sarawak's geographical landscape is very vast and has a great impact on service delivery for LAs as the location and environment influence their performance. As such, LAs need to be alert and prepared to respond to the changes in the environment (Anderson, 2005). Now that everything is at the fingertips, actions need to be advance in order to keep up with solutions. LAs should be sensitive to changes and respond to changes in both external and internal environments.

RECOMMENDATIONS

The main theme of the implications from these studies focuses more on the factors that influenced performance. What can be derived from this study is that significant factors such as innovation and learning directly influenced performance. Whereas capabilities, resources and environment are also important factors that have great influence on LAs' performance (Fornell, 2006). Below are some recommendations for LAs to consider.

Innovation and Learning Flexibility. LAs should be able to adapt and embrace innovation and learning flexibility. As the world faces challenges with the Covid-19 pandemic, it is important to be agile and resilient. The new norm has taken over the traditional ways and shifted to new ways of handling things. The use of performance measures enables changes in the operations of the LAs set according to the current situation and the expectations of customers' need. A complete information technology system that provides and maintains the performance should be integrated within the existing operations in LAs.

Improving Organization Capabilities. The extent of relevant acquisition of expertise, organizational innovation, organizational culture and performance are all profoundly influenced by an organization's capabilities. Employee training is part of an organization's effort to equip employees with relevant skills and expertise. With proper skills and expertise, the operations of an organization can be controlled and the operations in processes can be delivered in time. LAs, apart from technology, should invest in human capital to deliver excellent services.

Optimize and Develop Resources. In LAs, resources are capital or funding, employee, organization culture and reputation. To continue providing its services, capital and funding are very important resources in all organization. LAs need to have enough capital or fund for operations. Most LAs in Sarawak resources come from the collection of revenue on services rendered such as assessment charges, licensing, and others. Thus, LAs need to optimize and develop resources effectively.

Adapting to Environment Changes. With the rapid technological advancement and the dynamic economic landscape, adapting to environmental changes has become a necessary and essential part of

enhancing organization competence. In this environment of rapid changes and uncertainty and new norms, where the demands keep changing, the only way for an organization to make a breakthrough and obtain competitive advantage is through adaptation to changes. Facing the unprecedented COVID-19 pandemic, dynamic global challenge, changes in the environment need an innovative organization. A higher level of adaptability and survival in the changing environment leads to higher performance. This is made possible as employees are ready to anticipate customers' need and want and eventually will create greater customer satisfaction.

CONCLUSION

The empirical study findings revealed that four (4) important factors greatly influenced LAs' performance. These factors are Innovations and Learning, Capabilities, Resources, and Environment whereas Strategies, Process, Measure Analysis, and Emphasis Measures have indirect influence on performance. The performance of LAs depends on whether they can respond to changes, are flexible in adapting innovations and providing learning, optimizing their organization capabilities, utilizing their resources diligently and embracing changes in the environment. In addition, the LAs are encouraged to use suitable strategies, manage processes systematically, report on measure analysis periodically and focusing on emphasize measures that align with the objectives of LAs. Findings also confirmed that competitive advantages in terms of innovation are important to LAs' performance. Response to technological change that providing innovation and learning, the capabilities in handling customers' response swiftly, the effective use of resources, and the flexibility with the changes in the environment have a greater impact on the performance of LAs in Sarawak.

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