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RESEARCH ARTICLE

5S ENRICHED AS A WORKPLACE ADVANTAGE TOWARD ADMINISTRATION PERFORMANCE

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Abstract

Purpose- The purpose is to study the examining of 5S's as an organizer of workplace advantage toward administration performance in education sector. Secondly, getting of this core objective of predictor directly and indirectly association estimate on administration performance. The design of this study was quantitative approach, where quantitative research predictable of important to recover the knowledge and measurement of important aspects regarding the characteristics of management tools into the test of hypotheses. The target populations were of private and public university in Kuala Lumpur, Malaysia and respondents were from officer to top management. Primary data was obtained from number of 19 universities with 93 respondents. There are three hypotheses developed through literature reviews tested using correlation and liner regression analysis executed by SPSS 20.V Software. Findings- While execution of survey data the mediating impact of workplace advantage, it was found that statistically significant and positive impacts on the relationship between 5S practices and administration performance has significantly increased. Recommendations- Further studies including with other locations can combine together to test and verifying the structural equation model.

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Introduction:-

5S is a systematic method that used by organizations originates from five Japanese words: Seiri (Sort), Seiton (Set in order), Seiso (Shine), Seiketsu (Standardize), and Shitsuke (Sustain) [1]. This method is encouraging organizing a workplace more efficiently, reducing waste, optimizes quality and productivity through monitoring a systemized environment. Therefore, it provides valuable visual indications to obtain more firm results having 5S concept goals that create an encouraging clean and tidy workstation fit can be increased of work quality and performance [2]. Whereas, the influence of 5S initiatives towards improving a workplace advantage of overall performance in the dimension of productivity, quality, reduce waste, lead time, and employee satisfaction [3]. Thus, It is a key driver in the process of which firms grow their competitive advantages internally and externally to achieve higher level of influence a brand performance, where capabilities in turn into positively associated with workplace advantage [4]. The indication of 5S implementation highlights the significant realizations from positioning of 5S initiatives for sustainable competitive performance of organizations like: quality, safety and effective utilization of workspace for the sustainable organizational improvement [5]. The effective tools of 5S is an improvement of performance in daily operation for the management what is needed and how is to continue by systematically whenever demand arise on

particular assessments to apply. It helps the sorting first to go in further step by step more important to less essential on techniques that would be strongly provision of the objectives of workstation to achieve continuous improvement and developing performance [6]. In contains of holding employees accountable for what they did last moment, at the cost of improving performance present and in the future. So, many administrations are moving more-frequently, development-focused dialogues among managers and employees, how performance management has changed over the periods and why running thinking has moved on: firstly, close-fitting labor market generates pressure to retain employee's satisfaction for advancement, secondly, quickly changing business environment needs alertness for regular check-ins with employees, and lastly ranking improvement over accountability promotes for the teamwork [7].

Therefore, the aim of this study is to test the relationships between 5S practice, workplace advantage, and administration performance. 5S practices can generate the performance both directly and indirectly, and study will be focused on mediating relationship role of workplace advantage between 5S practice and administration performance at education institutions in Kuala Lumpur of Malaysia.

Literature review:-

5S:-

Sort, Straighten, Shine, Standardized, and Sustain (5S) it is define to the steps of the workplace organization process that one of the two major's key points of less waste and reduce space for the storage. But 5S, basically a technique for shaping of the workplace in a factory floor or in an office floor that is more a practice than a technique used to create and keep quality environment in an institute by the industrial engineers of the 19th and mid-20th centuries, the Japanese who place a simple concepts to be seized simply by all levels of operations and effectively implement them [8]. Actually 5S is an organizer of facilitator performance into simple thoughts to be seized easily by all levels of operations and successfully implement actively [8].

Table 1:-5S Approach

5S definition	
• Sort	Sort out & separate that which is needed & not needed in the area.
• Straighten	Arrange items that are needed so that they are ready & easy to use. Clearly identify locations for all items so that anyone can find them & return them once the task is completed.
• Shine	Clean the workplace & equipment on a regular basis in order to maintain standards & identify defects.
• Standardize	Revisit the first three of the 5S on a frequent basis and confirm the condition of the Gemba using standard procedures.
• Sustain	Keep to the rules to maintain the standard & continue to improve every day.

Source: Kaizen Institute Consulting Group [9]

So, introducing the 5S and kaizen rules carries a big changes in the organization, in order to increase of effectiveness and efficiency, develop visibility of the method, develop of confidence and safety for the employees, and reduce spaces for the storage, where is an influential tools in any industry either it's micro, small, medium or large industry [10].

Sort- this is one of the most and first priority in working area that sort out and separate which is needed and not needed in the priority basis of the daily operations. 5S perceptions is sorting of any document or product in order to for the next use that anyone can identify easily of their task which is needed to execute.

Straighten-after the sorting to arrange items that are needed of clearly identify of the locations for the task which can find them easily and after finish the task to return them when is completed of task. For the office desk anyone can do smoothly of the workstation work without facing any problems.

Shine-this point is very important during the working hours that make sure clean the workplace with related equipment on the timely basis in order to maintain of certain standards for the next person or the next day working area. Although, it is warning about clean and tidy with shiny.

Standardized-it is very much important above three stages that make sure all are frequently basis and make confirm about standards are maintain of regularly. From this stage will be make sure that having all of this stage to bring on sustainability.

Sustain-it is also need to make sure about rules into maintain the standard and confirms to continue to every day operations.

Therefore, from the above literature review then it may recommend that hypothesis:

H1: There is a significant and positive relationship between 5S and administration performance.

Workplace advantages:-

The attention on business model innovation has increased to an intense degree over the past couple of years. Advantage into business model innovation is a foundation of sustainable competitive advantage because for the competing institutions copying a whole original process system is quite hard matched to copying a product or a service, where business model innovators can make four times more revenues compare to product and service modernizes [11]. Workplace advantage is the degree to which a business is able to generate a secure position over its competitors with two complementary models of business advantage [12]. So, the first model is to the market oriented emphases on the cost and differentiation and second one is to the internal of the business factors. The developing markets are struggling to gain sustainable competitive advantage where is one of the managerial tools and techniques to bring a strong relationship among such as 5S and workplace advantage [13].

Therefore, from the above literature review then it may recommend that hypothesis:

H2: There is a significant and positive relationship between 5S and workplace advantage.

Administration performance:-

Globally, organizations have long been worried with using employee performance management to improve organizational performance on the issue of compliance-based. However, where performance management is measured core business, more sustainable practices develop [14]. Anyway, leaders are important actors in administration performance improvement and organizational transformation [15]. The execution of performance measures with 5S is simplify to ensure significant improvement in overall organizational, productivity, quality, safety, employee morale values, effective workspace utilization, and cost optimizations [16]. It is also administration performance measures of 5S as a workplace organizer has more advantage and firms has more performed by reducing system problems such as delays, breakdown, depressed employees, declining profits, and dissatisfied customers. Therefore, 5S implementation method is significantly contributing the progress of workplace advantage diverse organizational performance in the term of quality, productivity, effective operation of space, safety and employees morale values [17].

Therefore, from the above literature review then it may recommend that hypothesis:

H3: There is a significant and positive relationship between workplace advantage and administration performance.

Methodology:-

This study has conducted to quantitative method. Quantitative research is estimating of essential to recover the knowledge base and measurement of vital aspects regarding the characteristics of management tools into test the hypotheses [18]. The data used that obtained from primary sources of survey questionnaire method. Sampling techniques used through stratified random sampling from Kuala Lumpur of Malaysia. The target population of private and public universities and respondents are from officer to top management, those who are involved in operations of daily working with administrative areas. Therefore, respondents were chosen of officer and top management and persons who are engaged and relevant in administrative work. The survey questionnaire was conducted physically and online to collect the data from total numbers of 19 universities were surveyed. So from the end of survey total 93 questionnaires collected. Regarding this study, there are three variables are namely-5S practice, workplace advantage, and administrative performance. 5S practice is exogenous variable and endogenous variables are workplace advantage and administration performance. 5S practice items measured based on by 5 key distinctions of 'S, workplace advantage and administration performance were measured with five modified items of each variable. All of the items measured by Likert scale 5 points from strongly disagree to strongly agree with middle point as a neutral scoring response.

So, at the very beginning were made to confirm all of the items are reliable and valid. In this research has performed a correlation analysis to examine the relationships between all variables and mean and standard deviation calculated for the variables. After that correlation determination has been estimated and liner regression analysis was performed to regulate the effect of features of companies concerning 5S practice and administration performance with mediating effect of workplace advantage.

Analysis and Discussions:-

Survey data has been explored for the reliability and validity performed because it is necessary to test before any examination conducted to confirm a desirable value of alpha (α) which is sign of internal consistency of any constructs. Alpha required be greater than or equal to 0.70 means just acceptable and alternatively if alpha is more than 0.80 then highly desirable [19]. The collected survey data verified bellow table 2 given values of all three variables of Cronbach's alpha, mean score, standard deviation, and correlation.

Table 2:- Reliability, mean, standard deviation, and correlation

Variables	Cronbach's alpha (α)	Mean Score	Standard deviation	1	2	3
1. 5S	0.84	3.68	0.81529	1.0		
2. Workplace advantage	0.82	3.63	0.81004	**.582	1.0	
3. Administration performance	0.83	3.91	0.66392	**.352	**.692	1.0

** Correlation is significant at the 0.01 level with 2-tailed.

Source: Author (2018), SPSS data analysis.

From table-2 reliability is more than desirable value of 0.70 and with accuracy by SPSS software which has highly reliable value of three parts survey questions such as consistence to each other and homogeneous. Assessment of the correlation analysis output results given that variables have positive and statistically significant associations at the level of 0.01 with 2-tailed Pearson correlation between predictors with administration performance. And on the other hand, calculation of liner regression models (summary model-1, model-2, and model-3) explores carried out in direction to get with measure concerning 5S standard as an independent variable and administration performance being as a dependent variable with mediating effect of workplace advantage variable are as follows accordingly:

Model-1:-Linear regression analysis between 5S (predictor) and dependent variable of administration performance.

Table 3:-Summary of model 1

Model Summary	R	R ²
Model 1	.352 ^a	.124
ANOVA^{a1}	F	Sig.
Regression	12.833	.001 ^b
Coefficients^{a2}	t	Sig.
Constant	8.608	.000
5S	3.582	.001

1. Predictor: (Constant), 5S.
2. Dependent Variable: administration performance.
3. Predictor: (Constant), 5S.
4. Dependent Variable: administration performance.

The best predictor's indicator in the explanatories degree of the regression analysis is to R² during hypotheses testing. In the above model summary tables provides two values of R and R². Where the value of R has given the simple correlation 0.352 and that indicates the degree of correlation between variables. Next value of R² is indicating the how much of total difference in the dependent variable, and in this result, the concept suggest that administration performance has influenced through 12.4% by predictor (5S), therefore, rest of the causes by others factors, (100% - 12.4% = 87.6%). In the line of ANOVA summary, which is indicates that how well the regression calculation fits the survey respondent's data between predicts to the dependent variable. So, the results indicate that the regression model predicts significantly well with the administration performance. The coefficient summary

actually provides the necessary information to predict dependent variable from independent variable and on the other hand, it determines whether independent variable (predicts) can contribute statistically significant to the model. Therefore, the value of this model were showed significance of 0.001 which is <0.05 . So, for the decision making we could conclude that the liner regression model-1 analyzed the 5S has statistically significant with positive effect on administration performance. Thus, increasing the 5S in the education sectors to adopt a management or others standards then it will also improve of administration performance.

So, the hypothesis H1: There is a significant and positive relationship between 5S standard and administration performance is accepted.

Model-2:-Linear regression analysis relationships between 5S and workplace advantage.

Table 4:-Summary of model 2

Model Summary	R	R ²
Model 2	.582 ^a	.338
ANOVA ^{a1}	F	Sig.
Regression	46.542	.000 ^b
Coefficients ^{a2}	t	Sig.
Constant	3.883	.000
Organizational innovation	6.822	.000

^a. Predictor: (Constant), 5S.

^{a1}. Dependent Variable: workplace advantage.

^b. Predictor: (Constant), 5S.

^{a2}. Dependent Variable: workplace advantage.

Above model-2 correlation degree stronger between variables in the value of R has showed simple correlation 0.582 and which is indicated the grade of correlation between 5S and workplace advantage. The value of R² is specified the total notion in the dependent variable result, the concept suggest that workplace advantage has influenced through 33.8% by 5S (predictor), and, rest of the 66.2% reasons might have by others factors, (100% - 33.8% = 66.2%). Therefore, the outcomes indicate that the regression model predicts significantly sound with the 5S. The coefficient summary provides the value in this model were showed significance of 0.000 which is <0.05 . So, for the assessment point the regression model-2 analyzed the 5S has statistically significant with positive effect on workplace advantage. This analysis suggest that, practicing the 5S in the education that improved workplace organizer more for the employee's satisfaction which is ultimately increased the productivity.

So, the hypothesis H2 output indicates that, there is a positive and significant relationship between 5S and workplace advantage is accepted.

Model-3:-Linear regression model summary between workplace advantage and administration performance.

Table 5:-Summary of model 3

Model Summary	R	R ²
Model 3	.690 ^a	.476
ANOVA ^{a1}	F	Sig.
Regression	82.648	.000 ^b
Coefficients ^{a2}	T	Sig.
Constant	8.092	.000
Workplace innovation	9.091	.000

^a. Predictor: (Constant), workplace advantage.

^{a1}. Dependent Variable: administration performance.

^b. Predictor: (Constant), workplace advantage.

^{a2}. Dependent Variable: administration performance.

From above model-3 degree of correlation is showed stronger between variables, the value of R has given simple correlation 0.690 and that is indicated the degree of correlation between workplace advantage and administration

performance. The value of R^2 is specified the total view in the dependent variable result, the concept suggest that administration performance has influenced through 47.6% by workplace advantage (predictor), and, rest of the 52.4% reasons might have by others factors, ($100\% - 47.6\% = 52.4\%$). Therefore, the results indicate that the regression model predicts significantly sound with administration performance. The coefficient summary also provides the value is significance of 0.000 which is <0.05 . So, for the calculation point of view the regression model-3 analyzed the workplace advantage has statistically significant with positive effect on administration performance. So in this analysis proposed that, make sure the workplace advantage organizer in the working area that improved for the employee's satisfaction which is ultimately increased administration performance.

So, therefore hypothesis H3 also indicates that, there is a significant and positive relationship between workplace advantage and administration performance is accepted. Bellow the table-6 shows that about research hypothesized relationships among latent variables and that relationship is statistically significant effects.

Table 6:-Summary of research hypothesized relationships

Hypotheses	Paths	Coefficients (β)	t-statistics	Results
H1	5S \rightarrow AP	.352**	8.608	Accepted
H2	5S \rightarrow WA	.582**	3.883	Accepted
H3	WA \rightarrow AP	.690**	8.092	Accepted

**Significant at level of 0.01

Above figure shows that the results of this three modeling analysis and tested of three hypotheses effects between latent variables. A coefficient (β) has showed for the each of path link that is standardized regression with statistically significant and positive effects with partially.

Conclusion:-

With a modern education environment is increasing the competition of situation becoming more and more from ranking demands to make sure the environments are safe and reliable from the internally and externally to reduce the waste. Where, the education sectors are the most vital factors to increase the competitiveness than others. This competitiveness is different than other and eventually improved the administration performance, such as workplace advantage organizer. From above analysis were showed that if 5S executed then level of performance also enlarged. In the modern world the administration performance not only is coming from stop the wasting of view as well as performance coming to implement such as management standards certify and make sure to continuously executing which were conducted 5S standard. So, the results displayed that there are statistically significant and positive partial associations among the predictors on performance. As a concern, the universities can make more returns by implementing of internal improvement such as workplace organizer. Because satisfaction of employee's impression is well then job intension strategy will be decreased. Therefore, 5S and workplace advantage contributed to the administration performance directly and indirectly can be improved.

So, the liner regression examination has approved that established the effect of 5S in education sectors on administration performance improved. It was also showed that 5S standard constructs affected with higher degree correlation on administration performance with mediating effect. From the view of the study results, it is likely to say that education sectors craving to progress their performance should perform more emphasis on 5S. Then, if the education sectors adopts of 5S at the workplace then the results would linear and desirable ahead headed excellent.

Limitations:-

The limitations in this study is examining showed that only one city of sampling data were observed for the measured of performance. Even there was other region which was same essential for the study on this particular area. It is also vital to explore in rest of the part in education sectors verifying further investigation. Further studies with other standards can be combined together to test and validating the structural equation model concerning of measurement model and structural model fits.

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