


**THE IMPACT OF OPERATION REVITALISATION STRATEGIES IN POWER GENERATION PLANTS ON CUSTOMER SATISFACTION**

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 20 February 2023</p> <p><b>Accepted</b> 08 May 2023</p>	<p><b>Purpose:</b> The purpose of this manuscript is to examine the influence of operation revitalization strategies and management reforms on customer satisfaction in the power plant industry.</p> <p><b>Theoretical framework:</b> The conceptual model for this study was developed based on previous research in the field of project management in Malaysia and globally. The conceptual model has three operations revitalization variables that affect customer satisfaction.</p> <p><b>Design/methodology/approach:</b> A survey instrument in the form of a structured questionnaire was designed based on a careful review of pertinent literature. This study collected empirical data from 196 respondents. Multiple regression analysis is used to test the significance of the research model.</p> <p><b>Findings:</b> The regression results reveals that business process reengineering, agile and lean manufacturing and reconfigurable manufacturing system effects customer satisfaction.</p> <p><b>Research, Practical &amp; Social implications:</b> The implication drawn from this study aids project managers in providing a focus on the key variables that affect customer satisfaction in the power plant industry.</p> <p><b>Originality/value:</b> The key value of this research lies in its findings of the key variables influencing customer satisfaction in the power plant industry in Malaysia which is currently under researched.</p>
<p><b>Keywords:</b></p> <p>Operation Management; Revitalisation Strategies; Customer Satisfaction; Strategic Management; Project Management; Business Process Reengineering; Agile Management; Lean Management; Reconfigurable Manufacturing System.</p> <div data-bbox="172 1189 480 1435" style="text-align: center;">  </div>	<p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i5.1500">https://doi.org/10.26668/businessreview/2023.v8i5.1500</a></p>

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## O IMPACTO DAS ESTRATÉGIAS DE REVITALIZAÇÃO DA OPERAÇÃO EM USINAS DE GERAÇÃO DE ENERGIA NA SATISFAÇÃO DO CLIENTE

### RESUMO

**Objetivo:** O objetivo deste manuscrito é examinar a influência das estratégias de revitalização da operação e reformas de gestão na satisfação do cliente na indústria de usinas de energia.

**Estrutura teórica:** O modelo conceitual para este estudo foi desenvolvido com base em pesquisas anteriores na área de gerenciamento de projetos na Malásia e no mundo. O modelo conceitual possui três variáveis de revitalização de operações que afetam a satisfação do cliente.

**Design/metodologia/abordagem:** Um instrumento de pesquisa na forma de um questionário estruturado foi projetado com base em uma revisão cuidadosa da literatura pertinente. Este estudo coletou dados empíricos de 196 entrevistados. A análise de regressão múltipla é usada para testar a significância do modelo de pesquisa.

**Resultados:** Os resultados da regressão revelam que a reengenharia de processos de negócios, a manufatura ágil e enxuta e o sistema de manufatura reconfigurável afetam a satisfação do cliente.

**Implicações de pesquisa, práticas e sociais:** A implicação extraída deste estudo ajuda os gerentes de projeto a fornecer um foco nas principais variáveis que afetam a satisfação do cliente na indústria de usinas de energia.

**Originalidade/valor:** O valor-chave desta pesquisa reside em suas descobertas sobre as principais variáveis que influenciam a satisfação do cliente na indústria de usinas de energia na Malásia, que está sendo pesquisada atualmente.

**Palavras-chave:** Gestão de Operações, Estratégias de Revitalização, Satisfação do Cliente, Gestão Estratégica, Gestão de Projetos, Reengenharia de Processos de Negócios, Gestão Ágil, Gestão Enxuta, Sistema de Manufatura Reconfigurável.

## EL IMPACTO DE LAS ESTRATEGIAS DE REVITALIZACIÓN DE LA OPERACIÓN EN LAS PLANTAS DE GENERACIÓN ELÉCTRICA EN LA SATISFACCIÓN DEL CLIENTE

### RESUMEN

**Propósito:** El propósito de este manuscrito es examinar la influencia de las estrategias de revitalización de operaciones y las reformas de gestión en la satisfacción del cliente en la industria de las centrales eléctricas.

**Marco teórico:** El modelo conceptual de este estudio se desarrolló en base a investigaciones previas en el campo de la gestión de proyectos en Malasia y en todo el mundo. El modelo conceptual tiene tres variables de dinamización de operaciones que inciden en la satisfacción del cliente.

**Diseño/metodología/enfoque:** Se diseñó un instrumento de encuesta en forma de cuestionario estructurado basado en una revisión cuidadosa de la literatura pertinente. Este estudio recopiló datos empíricos de 196 encuestados. El análisis de regresión múltiple se utiliza para probar la importancia del modelo de investigación.

**Hallazgos:** Los resultados de la regresión revelan que la reingeniería de procesos comerciales, la fabricación ágil y esbelta y el sistema de fabricación reconfigurable afectan la satisfacción del cliente.

**Implicaciones de investigación, prácticas y sociales:** la implicación extraída de este estudio ayuda a los gerentes de proyecto a enfocarse en las variables clave que afectan la satisfacción del cliente en la industria de las centrales eléctricas.

**Originalidad/valor:** El valor clave de esta investigación radica en sus hallazgos de las variables clave que influyen en la satisfacción del cliente en la industria de las centrales eléctricas en Malasia, que actualmente se está investigando.

**Palabras clave:** Gestión de Operaciones, Estrategias de Revitalización, Satisfacción del Cliente, Gestión Estratégica, Gestión de Proyectos, Reingeniería de Procesos de Negocio, Gestión Ágil, Gestión Ajustada, Sistema de Fabricación Reconfigurable.

## BACKGROUND

According to a survey by MarketLine, the Malaysian electricity generation was worth \$20.1 billion in 2019. This represented a growth of 24.1% from 2018. As a result, there is fierce competition in the sector. The importance of customer satisfaction increases as a result of the

fierce competition. The project managers handle client interactions and satisfaction. According to several studies, “project managers are responsible for a project's success” (Ahmed & Anantatmula, 2017)”.

Customer contentment is considered crucial to maintaining competitiveness in the contemporary, highly crowded industry (Mathew & Thomas, 2018). Customer satisfaction is related to the customer's expectations and real impression of the goods or services (Kotler, Armstrong, Saunders, and Wong (2001). If the performance meets or exceeds the customer's expectations, they will be satisfied; otherwise, they will be unsatisfied. If clients are happy with the services and products they receive, they may recommend the company to other potential customers or use it themselves to make more purchases (Kuo et al.,2018). Han and Ryu (2009) assert that it has been demonstrated that having committed customers will guarantee an organization's profitability. Haskett et al., (2008), analysed the current state of global business rivalry to show that organisations who develop innovative ways to meet customer needs will be able to compete better. Operation revitalisation strategies are recognised as a crucial element in sustaining customer loyalty. These are accomplished by cutting-edge methods like product innovation, service quality innovation, and by understanding customer expectations (Bassett,1992). Business process reengineering (BPR), Agile and Lean Manufacturing, and Reconfigurable Manufacturing System (RMS), which affect customer satisfaction and total service quality, are three particular operational management features that have been chosen for this study.

The current business environment for power generating in Malaysia is quite competitive. It is also a sector that demands a high level of availability and dependability. The power demand is from 2000 to 2018. In the last 20 years, the demand has grown by 2.5times. The capacity for generating the power also has risen. The reliability-based assessment for power plants is described by Nasir, Muhamad, and Maarof (2019). In addition to this, the power plants must undergo rigorous RBI to guarantee that all equipment is operated in accordance with DOSH regulations (Mohamed, Che Hassan & Hamid, 2018).

Customers are open to novel concepts and methods if they can save costs. Customers constantly express some level of discontent with the services, methods, and costs, it has been seen from the research findings of Huda 2009. The fundamentals of these plants' operation and maintenance are increasingly becoming important as the sector becomes more complicated (Velayutham, & Ismail, 2018). Internal customer surveys have revealed a decline in customer satisfaction with the services provided. The project managers are crucial in bridging the gap

between the owners of power plants and the manufacturers of the equipment and the endusers. The project manager's perspective is extremely significant because it includes information from both parties. This product's improvisation is the result of a number of factors, including market pressure, resource limitations, and cost-cutting innovation. The key goal is to keep clients happy and keep business coming which opens the doors for continuous improvement of the organization's operations to reach a competitive position that gives it success and sustainability (Bahia et al, 2023; Shanmugam & Chandran, 2022). Determinants of customer satisfaction have been studied in numerous research attesting to its importance (Faisal et al, 2020; Haque et al., 2020; Nellikunnel et al. 2017; Nellikunnel et al., 2015; Ogiemwonyi et al., 2018; Rahman et al., 2011; Rahman et al., 2017; Rahman et al., 2018; Yi et al.,2018)

Malaysia is expected to expand at a compound annual growth rate (CAGR) of 2.9 percent from 2018 to 2023 by the year 2030. The industry is likewise heavily dependent on fossil fuels, however by 2030, a variety of power generation methods is anticipated as fossil fuels, renewable energy sources, and nuclear technology will be used in combination.

Due to the three core operation management ideas chosen in the environment of the Malaysian power generation, this research differs from other researches that has been done. In this study, we'd also like to assess how these ideas might affect project managers' perceptions of whether client satisfaction is rising or falling. There is no clear parallel between the OEM and power generation industries. Thus this study aims to assess the direct effects of BPR, ALM, and RMS operation management modifications on customer satisfaction.

This study's goal is to examine three operational management ideas that affect customers' appiness in Malaysian power plants. The three ideas are reconfigurable manufacturing systems (RMS), agile and lean manufacturing (ALM), and business process reengineering (BPR) (RMS). The analysis of the complete study is done from the point of view of the project managers for the three main power plants in Malaysia's energy production, TNB, EDRA, and Pengerang Power. The study will be expanded to include project managers who oversee power producing facilities and project leaders from customers who are the end consumers. The study considers the problem statement from the viewpoint of project managers. The project managers have extensive experience and comprehension of client satisfaction. The influence of operation management changes on customer satisfaction is covered in the next section.

The three key objectives of this study are as follows

Objective 1: To examine the relationship between business process reengineering and customer satisfaction in the power plant industry.

Objective 2: To examine the relationship between agile and lean manufacturing and customer satisfaction in the power plant industry.

Objective 3: To examine the relationship between reconfigurable manufacturing system and customer satisfaction in the power plant industry.

## LITERATURE REVIEW

“A key or preferred way of operation management change tool has been identified as business process reengineering (BPR)” (Goksoy et al., 2012; Jamali et al., 2011; Jain et al., 2010; Grover & Malhotra, 1997); Basker LH (2018). For the best outcomes, the BPR process seeks to optimise resources. BPR has a broad perspective on technology-based OEM service-oriented businesses, nevertheless. BPR is regarded as the cornerstone for significantly enhancing an organization's product and service quality. Champy and Hammer (1993). Klun and Tirkman (2018) claim that “the execution of the BPR idea is tough and requires a lot of commitment from management”. Additionally, Abdullatif, Farhan, and Shehata (2018) pointed out that “BPR implementation has a high failure probability because the change is solely concentrated on the process itself and suggested using ontology-based knowledge mapping to integrate external surroundings and environment”.

The new manufacturing paradigm, known as "agile and lean manufacturing," is an integrated system that aims to produce as much as possible while wasting as little money and resources as possible in response to constantly shifting market demands (De Treville & Antonakis, 2006; Yang, Hong & Modi , 2011). The OEMs' efforts at technology sharing can be seen as a continuation of these. Agile systems enable flexibility in addressing needs now that the consumer is the primary focus (Jasti, Kodali, 2014; Martnez, Moyano, 2013). However, there is also research indicating that “obstacles to implementation exist, including a lack of commitment from the management, financial limitations, and resistance to organisational changes”, according to Singh, Sindhwani, Dua, Jamwa, Aggarwal, Iqbal, and Gautam (2019).

“Using reconfigurable manufacturing systems is a practical way to create a production system that is adaptable, effective, and capable of modifying capacity and capabilities based on demand” (Andersen, Brunoe & Nielsen, 2015). These systems' adaptability is their capacity to promptly respond to consumer requests. The RMS, according to Setch and Lagos (2004), enables the organisation to compete through any changes, such as those in market conditions,

social norms, and technological advancements. Due to its extreme complexity, RMS's safety is difficult to maintain. Koo, Vorderer, Junker, Schröck, and Verl (2018) cite this as one of the barrier's for RMS. The implementation of RMS requires careful resource selection, configuration, and operation plan execution, according to Xiabo, Jiancai, and Zhenbi (2000).

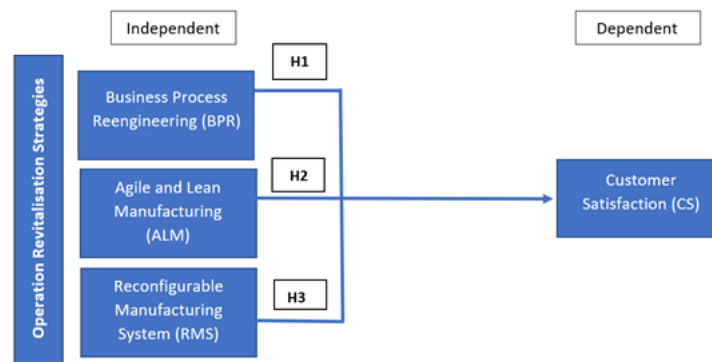
Customer satisfaction is closely tied to the individual's opinion of the product or service received. Gilbert and Veloutsou (2006) defined expectation as a preconceived notion used as a benchmark when evaluating a good or service. According to ISO10004, "Satisfaction is a judgement, an opinion stated by the customer." The level of satisfaction shows the discrepancy between the customer's impression of the supplied goods and their expectations for it. Customers' experiences and feelings are crucial to a company's ability to stay in business and are a key metric for assessing its performance. The perception of the consumer has a significant impact on brand loyalty (Joudeh & Dandis , 2018).

In the context of Malaysian power generation; there is little research on operation revitalisation strategies, customer happiness, or overall service quality. There are very few articles in this topic that analyse from the standpoint of the project manager. Thus, this study purpots to examine, from the project manager's perspective, how operation management revitalisation strategies affect customer satisfaction. The three aspects of operation revitalisation strategies are BPR, ALM, and RMS.

Now a days, a company's primary competitive advantage is derived from customer satisfaction. This has grown in importance in the power generation sector since it affects a nation's productivity, technology, and future OEM growth. OEMs are aware that it is more profitable to retain customers than to hunt for new ones. To earn the trust of their customers, OEMs would therefore want to satisfy all of their needs. Numerous studies and models have extensively experimented with customer satisfaction. According to the Kano model, product's qualities are explained in terms of how customers perceive them and how this affects their level of satisfaction. The model classifies "the features of the product into four groups: threshold, performance, excitement, and indifference" (Shyam,2015).

The conceptual framework is as shown below.

Figure 1.0 Conceptual Framework



Source: Prepared by the authors (2023)

## Hypothesis

- H1: BPR has a significant impact on customer satisfaction
- H2: ALM has a significant impact on customer satisfaction
- H3: RMS has a significant impact on customer satisfaction

## METHODOLOGY

In this study, a quantitative methodology was employed. The association between the variables and the research participants will be evaluated using the exploratory factor analysis (EFA). To confirm the data's normal distribution in terms of Skewness and Kurtosis, the received data is put to a test for normality. The Cronbach reliability test was conducted to assess the instruments inter item consistency. Regression is used to examine the relationship between the dependent variable and independent variables, while correlation is used to evaluate the link between the independent variables. The hypothesis is then put to the test and contrasted. The project managers were given a self-administered questionnaire to complete in order to gather their feedback.

## RESULTS AND DISCUSSION

203 replies in all were gathered. Seven (3.4%) respondents declined to complete the survey. A total of 196 people, or 96.6 percent, have responded.

The data were subjected to a normality test to examine the data's distribution. The second step in interpretation is to determine whether the range and skewness of the data collected are adequate.

Skewness values within the -2 to +2 and -3 to +3 ranges for the Kurtosis test are regarded as normal (Sekaran, 2003). According to the table above, the skewness ranges from -0.178 to

-0.054, which is fairly skewed, while the range for the kurtosis is from -0.178 to 1.432. The distribution sample was within bounds for both values. Consequently, we accept that the data is typically distributed across the respondents.

According to the data gathered, the BPR, ALM, RMS, and CS Cronbach's Alpha coefficients were significantly higher than 0.7, demonstrating the data's dependability (Bujang & Baharum, 2018; Kükürtcü, Erkan & Seyfeli, 2021).

The two methods employed to assess the statistical validity of the data were the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy. To demonstrate that the analysis is statistically significant, the Bartlett's statistic should be less than 0.05 and the KMO index should be greater than 0.6.

Based on the findings, the Bartlett's Test significant value is 0.01 and the KMO value is 0.700, both of which satisfy the test's conditions and validate the sufficiency of the data and factorability of the correlation matrix. The PCA was performed using SPSS on the 28 customer satisfaction items.

Table 1.0 Model Summary

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin Watson
						F Change	df1	df2		
1	.330 <sup>a</sup>	.109	.095	.51336	.109	7.816	3	192	<.001	2.049

a. Predictors: (Constant), Reconfigurable Manufacturing System, Business Process Reengineering, Agile Lean Manufacturing

b. Dependent Variable: Customer Satisfaction New

Source: Prepared by the authors (2023)

The outcome of regression is shown in the table above. The model explains 11% of the variance in the operation management improvements that could boost customer satisfaction, according to the R2 value of this model, which is at 0.109. As a summary, both the R2 and the adjusted R2 values show the model fitness. The findings show that only 9.5% of the model can adequately explain the variation in BPR, ALM, and RMS with respect to customer satisfaction. Low R2 values are typical for models that predict human interactions and behaviour. This does not illustrate the model's poor fit. The low R2 score may be a result of the variables' strong inherited characteristics. The correlation connection and coefficients have the same meaning even with low R2 values if the data is statistically significant with p values (Gupta, 2019).

According to the collinearity statistic test, all three predictor variables had values more than 0.1 and a VIF (Variance Inflation Factor) lower than 10. There is nearly no multicollinearity between the variables because the values are close to 1. Additionally



confirming that there is no autocorrelation in the residual is the Durbin Watson value of 2.049. This indicates that multiple regression is appropriate for the data set.

The F value of 7.816 is statistically significant (P 0.05), as is the value. This demonstrates how the separate roles played by the predictors BPR, ALM, and RMS significantly predict the rise in customer satisfaction.

Based on the findings, the model's estimated coefficients for 0 (constant), 1 (BPR), 2 (ALM), and 3 (RMS) are 0.140, 0.103, and 0.182, respectively. Based on the significance, it is determined that BPR and RMS are the only two variables significant because their p values are less than 0.05, 0.42 and 0.02, respectively. The value of 0.18 is considered significant because it is greater than the  $p > 0.05$  threshold.

## CONCLUSION

The three research questions have been answered through the testing of the three hypothesis.

Business Process Reengineering (BPR)-H1 was assessed to check the relationship of BPR is significant and able to increase customer satisfaction.

BPR had a considerable and favourable influence on raising customer satisfaction. BPR is a crucial component of changing operation management. Nearly every OEM supplier would wish to employ BPR procedures to meet the needs of the customers. Due to the fiercer rivalry in the sector, this is now essential. The BPR only displayed a weakly positive association based on the study's findings. The expected value was not met by this. This can be the result of a lack of comprehension of the precise BPR adjustments made to raise customer happiness. The respondents appear to have a mixed grasp of how the BPR was used with other elements to boost client satisfaction.

Agile and Lean Manufacturing (ALM)-H2 was assessed to examine the impact of ALM in increasing customer satisfaction.

The hypothesis was supported, albeit not significantly, according to table 5.1. The findings showed that ALM has a little impact on customer satisfaction. So, it was impossible to rule out the null hypothesis. The end user project manager has the least amount of knowledge about the actual effort because ALM approaches primarily depend on the OEM to plan and execute. There may have been instances where ALM managed to have a beneficial effect, but when the end result was viewed as a group effort, this was not substantial. The ALM techniques frequently had strong ties to green and zero waste technology. Despite the enormous effort

OEMs put into adopting this, the variable did not significantly increase customer happiness in the research data set.

Reconfigurable Manufacturing System (*RMS*)-H3 was assessed to examine the impact of *RMS* in increasing customer satisfaction.

The end user and the supplier are both aware of the *RMS* initiatives. On a component level, this guarantees that the components will be available when the consumer needs them. *RMS* and customer happiness exhibited the greatest association ( $r = 0.372$ ,  $p < 0.01$ ) among the three independent variables. The *RMS* output, which has a direct impact on customer satisfaction, is considered to include the availability of the components. Additionally, *RMS* helps OEMs build parts more quickly and inexpensively.

BPR, ALM, and *RMS*, three elements of operation management, were chosen to explore the relationship in growing customer satisfaction. As of right now, OEM businesses are concentrating on these to make sure they might boost client satisfaction and stay fiercely competitive in the sector. The industry is being taxed by the Carbon Net Zero effort and the global transition to renewable energy, so OEMs must act quickly to meet customer demand. Project managers' perceptions were gathered in the form of a questionnaire to help with the research's questions and answers. The study's objectives, which included analysing how changes in operation management impact customer satisfaction in the context of Malaysian Power Generation, analysing how changes in business process engineering (BPR) increase customer satisfaction, analysing how changes in agile and lean manufacturing (ALM) increase customer satisfaction, and analysing how changes in reconfigurable manufacturing system (*RMS*) increase customer satisfaction, were all achieved.

The implication of this study is as follows. First, a theory derived from research is put out with a focus on valuable, scarce, imperfectly imitable, and substitutable to gain an advantage (Barney, 1991). Studies on operation management adjustments, particularly BPR, ALM, and *RMS* in boosting customer satisfaction is a unique variable set, produced incredibly strong conclusions based on location. In Asian nations, the same could not be done. This study offers conclusions that are grounded in the nation's power generation sector and project managers' perspectives. The informatics for the particular client group are essential to sustain a significant competitive edge, according to Gupta et al. (2018).

Second, decision-making and acceptance may be strongly impacted by the respondents' different cultural perspectives from those of the west. As a result, depending on the circumstance, the customer satisfaction level may differ from one to the next. This study ties

distinctive factors to a distinctive industry, where the firm is primarily concerned with GLCs and the nation becomes a significant shareholder.

Previous research has concentrated on each variable and its subvariants, measuring the relationship to customer satisfaction. Although different observations have been examined through research, this research found a somewhat different link between the factors. Cost, waste, rapid response, and assuring reliability were the driving forces behind the ALM. However, ALM was tilting more toward the OEMs' side. According to Singh, Sindhwani, Dua, Jamwa, Aggarwal, Iqbal, and Gautam, customers see it in terms of machine dependability and perceived value (2019). ALM has no discernible impact in rising customer satisfaction.

The RMS was a significant initiative the OEMs made to keep up consumer satisfaction. They can now compete with an even greater competitive advantage thanks to this. RMS can navigate to the business, technological, and societal issues, as stated by Setch and Lagos in 2004. The results of this study support the previous research's conclusion that RMS is the most important factor in raising customer happiness. All three variables—BPR, ALM, and RMS—were incorporated as potential adjustments to operation management in this study. This gives the theory much more credence.

The managerial implications is as follows. This study has helped us better understand how BPR, ALM, and RMS affect customer satisfaction. In order to analyse the relationship between rising customer satisfaction and distinctive operation management variables, this research is expected to evaluate them. The results can serve as a roadmap for OEM businesses and project managers to direct their attention and resources toward the region that has the greatest potential to boost customer satisfaction. In comparison to ALM, RMS and BPR shown to have more of an impact out of the three factors considered. OEM companies spend a considerable amount of time and money trying to stay competitive in the market nowadays. The conclusions might provide new ways for businesses to significantly impact their clients. The earlier literature has shown that managing operations modifications is a constant process of improving one's goods or services.

There are several limitations on this research. First, let's consider Malaysia's electricity generation industry. The country's energy commission essentially controls the industry's central governance and influence. Given that Tenaga Nasional has been the largest investor, power generation in the nation may be considered a close market. This might have an impact on the viewpoints and views used to measure customer happiness. When an industry has a fixed set of opinions, it is impossible to have an independent viewpoint. This is changing; in the future,

when more independent power providers and renewable energy sources are introduced, the sector may have a balanced viewpoint. Malaysia's commitment to COP 26 has made the country's energy transformation a reality (Seah et al. ,2021). Second, since the research was restricted to Malaysia, it is possible that the results cannot be accurately applied to other nations. Malaysia has high power distance, masculinity, and indulgence values according to the Hofstede 6D model (Harun, Abdul Rahim, & Mohamad Salleh, M. ,2020) The third would be a variable restriction. In this study, the only operation management changes considered as a component were BPR, ALM, and RMS. It is possible to separate each BRP, ALM, and RMS component into its individual subcomponents. The outcomes could be different.

Future research can be facilitated by the research's limitations. First, the research can be expanded to include more countries. For example, it would be possible to aggregate multiple countries into clusters to see if the findings have any new implications. This will enable the power generation industry's stakeholders to vary their business models. Additionally, this might create a considerably wider stereoscopic image. Second, the inclusion of many nations may provide a new platform for comparing variations based on the Hofstede's 6d model. Each nation is distinctive because of its own unique set of ratings. The total service quality can be assessed using the dependent variable in more depth. Since it might be challenging for project managers to focus on operation management improvements that reflect customer satisfaction, this could provide a broad perspective on the efforts made to increase customer satisfaction. Another significant issue is separating customer satisfaction from total service quality or focusing on customer satisfaction solely based on operation management. A mediator or moderator variable may broaden the research dimension in addition to that viewpoint.

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