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## Total quality management practices in Indonesian local SME: Understanding the employees Role

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### Abstract

*Understanding the schemes of Small and Medium Enterprises (SME's) managerial capability is becoming important aspects today. Implementing proper strategies and internal policy may create a significant change in SME's performance. Total Quality Management (TQM) has been being a one of specific measurement on organizational performance. This research was proposed to understand the factor that can affect the TQM's performance in SME's by identifying the two factors that can change it. Based on the recent studies, the developed model was employed PLS-SEM to analyze the data by total respondent 95 respondent consist of owner and manager. The sample was taken in the area of Sasirangan SME's in Banjarmasin, Kalimantan Selatan province, Indonesia. Sasirangan is a local fabric developed by its ancestor. The population of Sasirangan SME's was huge in amount. The results of these studies indicate that both motivation and employee performance can increase the TQM in the SME's which one of them has a more significant effect. The complete description of finding in this research will be discussed in this research.*

*Keywords: TQM, job performance, SME, PLS, Sasirangan*

JEL Classification: D23; L20; L26; O15

### 1. Introduction

Small and Medium Enterprises (SME's) has positively contributed to evolving the Indonesian economy. Indonesia statistic council has the record that the total amount of SME's due to 2013 has reached 57,895,721 unit or about 99.99% of the total industry in Indonesia. The growth of the SME's also shows a greater number compared to the large firms which is 2.41% for SME's and 1.97% for large firms (Depkop, 2012). The Indonesian government has taken steps to

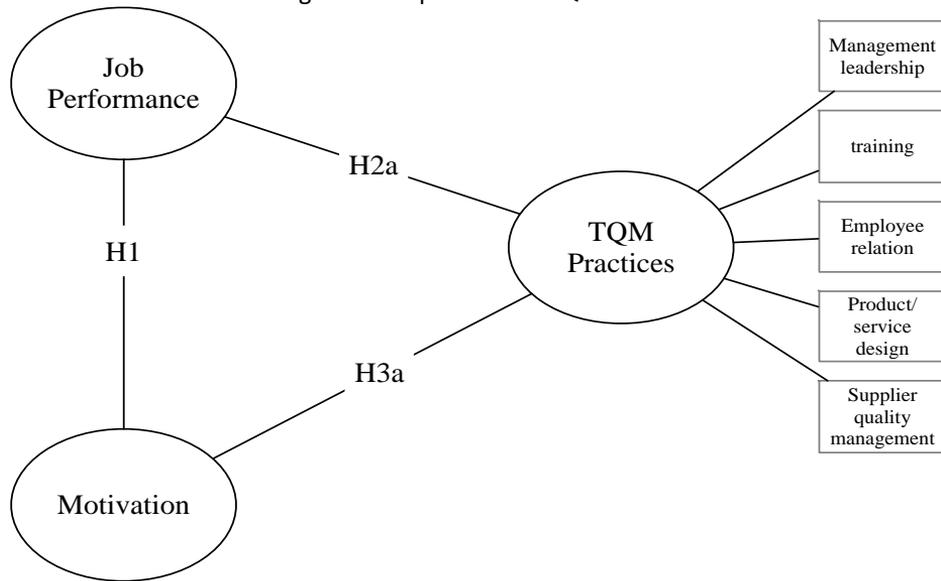
support this vision by establishing various programs such as soft loans program and SME's guidance program. The SME's success story shows that there is a great effort in maintaining the SME's performance both of the entrepreneur side and from government support. The arise of information and technology also becoming an essential factor to sustain the SME's business (Zamrudi & Wicaksono, 2018). Prior studies also demonstrated that the success of SME's has a direct impact on the development of economic growth both in developed and developing countries (Demirbag, Tatoglu, Tekinkus, & Zaim, 2006). Based on these findings, it becomes crucial to investigate the factor of SME's performance particularly those on local SME's (Yusof & Aspinwall, 2001).

The Implementation of TQM has shown a significant effect on increasing firm efficiency in managing its resources. A prior study indicates that the right policy in adopting TQM can improve employee motivation to work efficiently (Kaynak, 2003). On further implication, TQM was expected to enable the whole stakeholder to support the firm's mission in assessing the goals while increasing the work-efficiency rate (Ahire, Waller, & Golhar, 1996). Literature in TQM studies on SME's has developed since the SME's revolutionary phase in industrial revolution 3.0 (Kaur & Sharma, 2014). Understanding the factor that supporting SME's success factor may end up on many references assuring from internal to external factors (Abbasi, Wang, & Alsakarneh, 2018). This research tries to understand the inner element that may support SME's TQM implementation. TQM has been proven on many prior studies were able to improve the firm performance (Grant, 2008; Guay, Vallerand, & Blanchard, 2000; Kaynak, 2003).

In recent studies, TQM is not only supporting the large firms but also able to help the SME's Performance. (Ahmad & Yusof, 2010; Sahoo & Yadav, 2018; Walley, 2000; Yusof & Aspinwall, 2001). Based on this finding it is essential to understand what creates TQM implementation on SME's and how to manage it efficiently. Efficiently managing TQM requires a distinctive approach to SME's compared to those on a large firm. Prior studies were trying to analyze the effect of TQM on SME performance. This study trying to figure out the factors influencing TQM that is the Employee motivation and Employee Job performance (Irrjayanti & Azis, 2012).

Based on the description above, the current research proposed a TQM practices model borrowing existing literature. The proposed model is then analyzed by using a hypothetical model as shown by figure 1 below.

Figure 1. Proposed SME TQM Model



- H1: The employee motivation is positively influence job performance
- H2a: The job performance is positively influence the TQM practices
- H2b: The employee motivation is positively influence the TQM practices

**2. Research Method**

This study is explanatory-research by quantitative, which aimed to explain the characteristics of variable and the relationship among variables. A questionnaire is developed to measure the data built from related literature.

*2.1. Research Instrument development*

Instrument development in this research is built upon related study in the area of total quality management and employee job performance, particularly in the field of small and medium businesses. The construct consists of three latent variables namely employee motivation, job satisfaction, and TQM practices. The resulting questionnaire from the constructs consists of 26 questions. Then, the survey is sent for data collection purposes.

*2.2. Data collection and sample criteria*

InData collection in this research was using the questionnaire as a research instrument spread for three months from October 2018 to December 2018.

A pilot project was developed to ensure the question sentence is well understood using 30 surveys. The respondent response rate on this study shows an acceptable standard which 95 polls have coming back. The population involved in this study was the Sasirangan business owner in Banjarmasin. The sample was selected randomly among the business owner. The collected data is analyzed for further analysis using SEM-PLS.

### *2.3. Data Analysis*

Current studies employ structural equation modeling (SEM) as analytical tools as it offers many advantages over another method. It provides a confirmatory factor analysis, used to determine path and factor analysis at the same times (Schreiber, Nora, Stage, Barlow, & King, 2006; Straub, Boudreau, & Gefen, 2004; Suhr, 2006). Specifically, this research used partial least square SEM (SEM-PLS).

In this research, there will three steps of analysis. The first step is validity and reliability analysis to measure the internal consistency of the proposed questions. The internal consistency is measured by using alpha Cronbach and composite reliability for reliability, while validity measurement is using average variance extracted for discriminant validity and Fornell-Larcker criteria for convergent validity. The next step is assessing the model measurement using direct path analysis. This step measures the relationship and its significance between the endogenous latent variable and an exogenous latent variable. The third step is ensuring the path modeling by using indirect effect. The indirect impact will reveal any potential use of mediating interaction by intervening variables.

## **3. Results**

### *3.1 Research Finding*

#### *3.1.1 Construct reliability and validity*

In the instrument pilot test, there are two steps of analysis. The first is the reliability evaluation by using Cronbach alpha. The recommended reliability analysis result is between 0.7 - 0.98 (Bryman & Bell, 2015). Cronbach alpha shown on table 1 below indicate that Job Satisfaction was 0.880 by composite reliability for 0.907; Motivation was 0.906 by composite reliability for 0.929; Total Quality Management was 0.946 by Composite Reliability for 0.953. The second criteria were to identify the instrument validity by using Fornell-Larcker that define the square root of AVE (Average Variance Extracted) should greater than the maximum correlation value against another construct (Hair, Gabriel, &

Patel, 2014). From table 1 below, the diagonal-bold-value has a higher value than those off-diagonal. Thus the instrument employed in this study has met the validity criteria.

Table 1. Reliability and Validity Output

Composite Reliability	AVE	$\alpha$	Variable	Job Sats	Motiv	TQM
0.907	0.583	0.880	<b>Job Sats</b>	<b>0.764</b>		
0.929	0.687	0.906	<b>Motiv</b>	0.720	<b>0.829</b>	
0.953	0.591	0.946	<b>TQM</b>	0.719	0.697	<b>0.769</b>

### 3.1.2. Structural Model

Results estimation from SmartPLS software indicates in figure 2 below. According to the results, all paths among constructs means a positive and significant effect at the level of 0.05 (CR > 1.96). The R square in the figure indicates the variance explained of an exogenous variable by endogenous variable. The variance in TQM was 61.4% explained by job performance and motivation, which the rest could explain by another variable. Job performance explained by the motivation for 52%, which the rest could explain by an independent variable. Hence, the results of the analysis have shown satisfactory results. For model assessment amongst construct, the inner model has indicated that the direct effect for both exogenous variable that is Job satisfaction and Motivation has shown a significant impact on Total Quality Management, and Motivation also shows a significant effect on Job Satisfaction. For indirect effect, the proposed model that Employee Motivation can increase the Total Quality Management mediated by Job satisfaction has shown a significant effect. For total effect amongst construct, the most considerable effect has shown by motivation on job satisfaction for 0.720. The detailed depiction of that explanation can be seen in table 3. The following explanation will proceed with the model into a constricting relationship test. Also a direct effect of job performance, motivation and TQM practices is explained.

This study test the model empirically tested the TQM practices using the survey. To perform these steps, the study using the bootstrapping method to examine hypotheses testing. Figure 2 below shows the results of the model assessment which indicates that all of the hypothesis shows a positive and significant effect. The H1 is supported. The effect of employee motivation on job performance shows a positive and significant effect (0.720). The H2 and H3 are supported. The effect of employee motivation and job performance on TQM practices has shown a positive and significant influence. However, the effect of

job performance (0.431) indicates a more influence on TQM practices, than that of motivation (0.414). According to the direct effect, the influence of employee motivation on job performance (0.720) than that of motivation (0.414). However, the indirect effect of employee motivation on TQM practices mediated by job performance also shows a positive and significant effect. But, the indirect effect indicates a lower effect (0.310) than the direct effect (0.414).

Figure 2. PLS path analysis

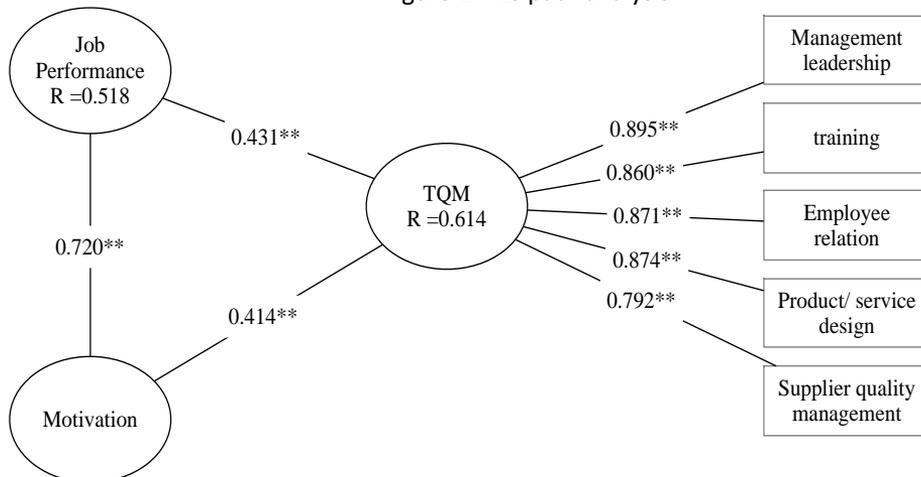


Table 3. Indirect effect

Indirect effect	Estimates	Standard Dev.	CR
Motivation -> Job performance -> TQM	0.310	0.072	4.30**

#### 4. Discussion and Conclusions

##### 4.1. Discussion

Total quality management has to become a popular topic for decades among organizational performance research. The emergence of TQM is starting from the organization desire to discover the holistic factor behind an optimal organization. This study intended to understand the TQM practices in SME’s area by carrying out the elements behind it borrowing the existing theories in TQM practices. The results of hypothesis testing show that along with the technology and information development, it brings SME’s behavior to be more planned and well evaluated. The study indicates that job performance is more important than employee motivation in supporting the TQM practices in SME’s context. The motivated employee may give a higher contribution to the employee job performance, but the indirect effect shows that it doesn’t give a greater contribution to TQM practices. The motivated employee may create a higher job performance; the job performance enhancement caused by motivation doesn’t merely create a greater influence with the TQM practices.

However, the employee motivation itself can give a greater influence on the TQM.

#### 4.2. Conclusion

This research was trying to study the TQM practices in SME's area. This study examines the factor behind the TQM practices including employee job performance and employee motivation. The results indicate that employee job performance is the main contributors to TQM practices in the area of SME. However, employee motivation can influence TQM performance both directly and indirectly.

#### 4.3. Limitation

This study is established without no limitation. The limitation in this study is on the amount of involved SME's into the survey. The full span of the sample in the area of SME's may give a higher degree of model generalization. There is another point that by using seven points Likert scale will give a greater span of answer choice that may give a different result.

### 5. Acknowledgement

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### References

- [1] Abbasi, W. A., Wang, Z., & Alsakarneh, A. (2018). Overcoming SMEs Financing and SupplyChain Obstacles by Introducing Supply Chain Finance. *HOLISTICA – Journal of Business andPublic Administration*, 9(1), 7–22. <https://doi.org/10.1515/hjbpa-2018-0001>
- [2] Ahire, S. L., Waller, M. A., & Golhar, D. Y. (1996). Quality management in TQM versus non-TQM firms: an empirical investigation. *The International Journal of Quality & Reliability Management*, 13(8), 8–27. Retrieved from [http://uprm.edu/library/relay.php?url=%7BtargetURL%7D/docview/197606505?accountid=28498%5Cnhttp://ur4bx6bg3x.search.serialssolutions.com/?ctx\\_ver=Z39.882004&ctx\\_enc=info:ofi/enc:UTF8&rfr\\_id=info:sid/ProQ%3Aabiglobal&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:jour](http://uprm.edu/library/relay.php?url=%7BtargetURL%7D/docview/197606505?accountid=28498%5Cnhttp://ur4bx6bg3x.search.serialssolutions.com/?ctx_ver=Z39.882004&ctx_enc=info:ofi/enc:UTF8&rfr_id=info:sid/ProQ%3Aabiglobal&rft_val_fmt=info:ofi/fmt:kev:mtx:jour)
- [3] Ahmad, M. F. Bin, & Yusof, S. M. (2010). Comparative study of TQM practices between Japanese and non-Japanese electrical and electronics companies in Malaysia: Survey results. *Total Quality Management and Business Excellence*, 21(1), 11–20. <https://doi.org/10.1080/14783360903492520>
- [4] Bryman & Bell. (2015). *Business Research Methods* - Alan Bryman, Emma Bell - Google Books. In *Business Research Method* (p. 777). Retrieved from [https://books.google.com.my/books?hl=en&lr=&id=l7u6BwAAQBAJ&oi=fnd&pg=PP1&dq=\(Bryman+%26+Bell,+2015\)&ots=AvRktdJUQI&sig=i1z0rJst1NPN8ISy7flARbOW6k&redir\\_esc=y#v=onepage&q=\(Bryman%26Bell%2C2015\)&f=false](https://books.google.com.my/books?hl=en&lr=&id=l7u6BwAAQBAJ&oi=fnd&pg=PP1&dq=(Bryman+%26+Bell,+2015)&ots=AvRktdJUQI&sig=i1z0rJst1NPN8ISy7flARbOW6k&redir_esc=y#v=onepage&q=(Bryman%26Bell%2C2015)&f=false)
- [5] Demirbag, M., Tatoglu, E., Tekinkus, M., & Zaim, S. (2006). An analysis of the relationship between TQM implementation and organizational performance. *Journal of Manufacturing Technology Management*, 17(6), 829–847. <https://doi.org/10.1108/17410380610678828>
- [6] Depkop. (2012). *Perkembangan Data Usaha Mikro , Kecil , Menengah ( Umkm ) Dan Usaha Besar ( Ub )* *Perkembangan Data Usaha Mikro , Kecil , Menengah ( Umkm ) Dan Usaha Besar (*

- Ub ). *Www.Depkop.Go.Id*, (1), 2011–2012. Retrieved from <http://www.depkop.go.id/berita-informasi/data-informasi/data-umkm/>
- [7] Grant, A. M. (2008). Does Intrinsic Motivation Fuel the Prosocial Fire? Motivational Synergy in Predicting Persistence, Performance, and Productivity. *Journal of Applied Psychology*, 93(1), 48–58. <https://doi.org/10.1037/0021-9010.93.1.48>
- [8] Guay, F., Vallerand, R. J., & Blanchard, C. (2000). On the Assessment of Situational Intrinsic and Extrinsic Motivation: The Situational Motivation Scale (SIMS). *Motivation and Emotion*, 24(3), 175–213. <https://doi.org/10.1023/A:1005614228250>
- [9] Hair, J. F., Gabriel, M. L. D. da S., & Patel, V. K. (2014). AMOS Covariance-Based Structural Equation Modeling (CB-SEM): Guidelines on its Application as a Marketing Research Tool. *Revista Brasileira de Marketing*, 13(02), 44–55. <https://doi.org/10.5585/remark.v13i2.2718>
- [10] Irjayanti, M., & Azis, A. M. (2012). Barrier Factors and Potential Solutions for Indonesian SMEs. *Procedia Economics and Finance*, 4, 3–12. [https://doi.org/10.1016/S2212-5671\(12\)00315-2](https://doi.org/10.1016/S2212-5671(12)00315-2)
- [11] Kaur, P., & Sharma, S. K. (2014). Evaluating the Relationship and Influence of Critical Success Factors of TQM on Business Performance: Evidence from SMEs of Manufacturing Sector. *IUP Journal of Operations Management*, 13(4), 17–30.
- [12] Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21(4), 405–435. [https://doi.org/10.1016/S0272-6963\(03\)00004-4](https://doi.org/10.1016/S0272-6963(03)00004-4)
- [13] Sahoo, S., & Yadav, S. (2018). Total Quality Management in Indian Manufacturing SMEs. *Procedia Manufacturing*, 21, 541–548. <https://doi.org/10.1016/J.PROMFG.2018.02.155>
- [14] Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting Structural Equation Modeling and Confirmatory Factor Analysis Results: A Review. *The Journal of Educational Research*, 99(6), 323–338. <https://doi.org/10.3200/JOER.99.6.323-338>
- [15] Straub, D., Boudreau, M.-C., & Gefen, D. (2004). Validation Guidelines for Is Positivist. *Communications of the Association for Information Systems*, 13(24), 380–427. <https://doi.org/Article>
- [16] Suhr, D. D. (2006). Exploratory or Confirmatory Factor Analysis [Paper 200-31]. *Proceedings of the Thirty-First Annual SAS Users Group International Conference*, 1–17. <https://doi.org/10.1002/da.20406>
- [17] Walley, K. (2000). TQM in Non-Manufacturing SMEs: Evidence from the UK Farming Sector. *International Small Business Journal*, 18(4), 46–61. <https://doi.org/10.1177/0266242600184003>
- [18] Yusof, S. M., & Aspinwall, E. (2001). Case studies on the implementation of TQM in the UK automotive SMEs. *International Journal of Quality & Reliability Management*, 18(7), 722–744. <https://doi.org/10.1108/02656710110396058>
- [19] Zamrudi, Z., & Wicaksono, T. (2018). Social Commerce Adoption in SME's. *JEMA: Jurnal Ilmiah Bidang Akuntansi Dan Manajemen*, 15(2), 60. <https://doi.org/10.31106/jema.v15i2.1125>