

approximation (RMSEA) for ‘tangibility’ shows the number 0.024, which is smaller than 0.08. This shows that it is still acceptable as a suitable model. The root mean square error of approximation (RMSEA) describes the residuals contained in the model. The Comparative Fit Index (CFI) is the comparative value of the model compiled with the ideal model. The CFI value for ‘tangibility’ is 0.978, a value greater than 0.90. The value of AGFI (Adjusted Goodness of Fit) is 0.923, a value greater than 0.90. This shows that the model is suitable. It can be concluded, based on the model parameters above, that the ‘tangibility’ factor is good.

Equivalent to ‘tangibility’, it can be stated that ‘reliability’, ‘responsiveness’, ‘assurance’ and ‘empathy’ are also good factors. The model parameters in feasibility test to build SEM model are qualified as good parameters because the feasibility test shows that the measurement of model parameters is fit. This can be seen from the measurement index of RMSEA, GFI, AGFI, CMIN / DF, TLI and CFI in the range of significant values.

3.4.2. SEM Analysis

After performing confirmatory factor analysis, the next step is to conduct SEM analysis using full model. Analysis of processed data at the stage of a full model SEM was conducted by conformation test and statistical test. SEM using modified – full model can be seen in Figure 2.

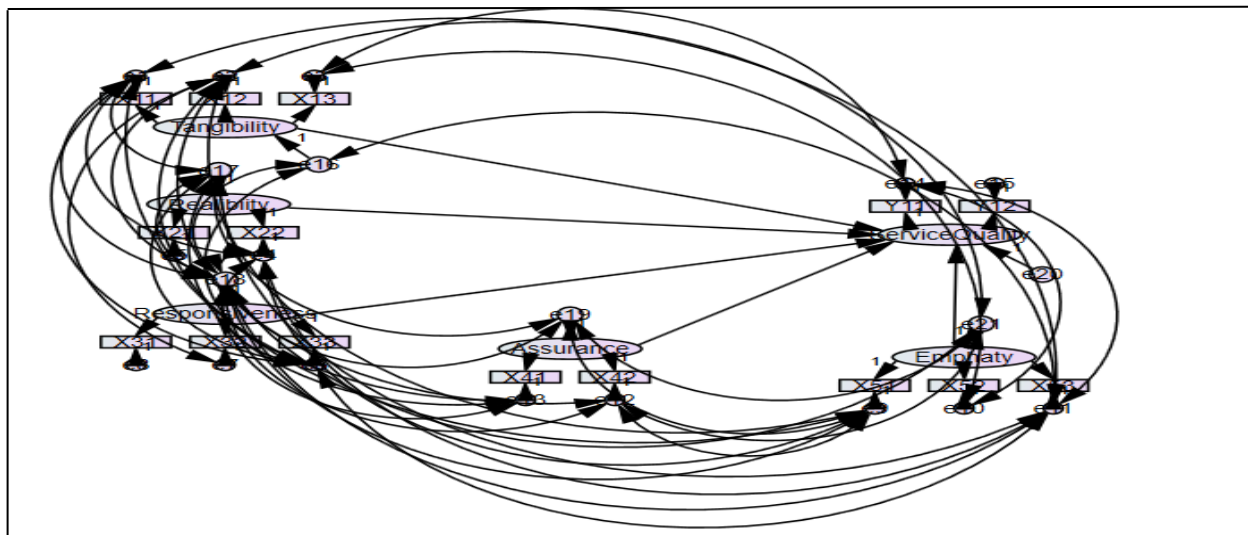


Figure 2. SEM - Using modified

Data processed using modified – full model SEM can be summarized in Table 4.

Table 4. SEM (Modified) Feasibility Test Result

Goodness of Fit Index	Cut-off Value	Analysis Result	Model Evaluation
Chi Square (X^2)		70,688	
Probability	$\geq 0,05$	0,511	Good
RMSEA	$\leq 0,08$	0,055	Good
GFI	$\geq 0,90$	0,952	Good
AGFI	$\geq 0,90$	0,974	Good
CMIN/DF	$\leq 2,00$	1,537	Good
TLI	$\geq 0,90$	0,946	Good
CFI	$\geq 0,90$	0,976	Good

Based on the results in Table 4, it can be seen that the model used was acceptable, since chi-square value obtained was 70,688 with probability value of 0.511. This show that structural equation model was good enough. Measurement index of RMSEA, GFI, AGFI, CMIN / DF, TLI and CFI indicated that the model tested had already met the required criteria.

3.4.3. Hypothesis Testing

Hypothesis testing to prove causality of relationship H1, H2, H3, H4, H5 based on the value critical ratio (CR) value of SEM analysis result, could be seen on Table 5.

Table 5. Hypothesis Testing Based on Critical Ratio Value

Variable	Estimate	S.E	C.R.	p-value
Service quality <--- Tangibility	1.333	.44	3.01	***
Service quality <--- Responsibility	-.646	1.09	-2.42	.034
Service quality <--- Responsiveness	-.453	5.37	-1.35	.045
Service quality <--- Assurance	1.341	.90	3.13	***
Service quality <--- Empathy	-.145	3.31	-5.44	.044

Hypothesis testing based on Table 5 shows that 'tangibility' and 'assurance' significantly affect service quality. Magnitude of the estimation coefficient for tangibility variable on service quality is 1,333. This indicates that if the tangibility variables increase by 1.0 then the service quality will increase by 1.333. Likewise, the magnitude of the estimation coefficient for assurance variable on service quality is 1,341. This indicates that if the assurance variables increase by the service quality will increase by 1,341.

While the other three variables, namely 'responsibility', 'responsiveness' and 'empathy' do not significantly affect service quality. The coefficient estimate of responsibility variable on service quality is approximately -2.42 (CR <1.96, not significant). This research also shows that responsiveness does not affect service quality. The coefficient estimate of responsiveness variables on service quality is approximately -1.35 (CR <1.96, not significant). Likewise with empathy, which is not significant effect on service quality, because the coefficient estimate of empathy variables on service quality is approximately -5.44 (CR <1.96, not significant).

4. Conclusion

The research findings indicate that two dimensions of SERVQUAL, namely 'tangibility' and 'assurance', are the most important factors in influencing the satisfaction of the patients at puskesmas in Tangerang. This shows that the aspects of 'tangibility' and 'assurance' are leverage factors to improve the quality of services at puskesmas in Tangerang.

The importance of 'tangibility' as an important factor influencing the perception of the patients at puskesmas in Tangerang is in line with the research on hospital service quality conducted in Turkey (Çeelik and Sehibanoglu, 2012) and also the research on hospitals conducted in Iran (Zarei et al., 2012). The 'tangibility' factor consists of physical appearance, cleanliness and comfort and appearance of employees which are important aspects for improving the quality of services at puskesmas in Tangerang.

In addition, the 'assurance' is also an important factor that influences the perception of patient at puskesmas in Tangerang. Managing human resource skills, is a leverage factor to improve the quality of Tangerang Public Health services. This is in line with the research on hospitals in Jordan conducted by Al-Hawary et al (2011). Therefore, a puskesmas, as the first level agent for health services for all the people who are administratively domiciled in its working area, should continuously improve the quality of its human resources.

References:

- Aagja, J. and Garg, R., Measuring perceived service quality for public hospitals (PubHosQual) in the Indian context", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 4, No. 1, pp. 60-83, 2010
- Akter, M.S., Upal, M. and Hani, U., "Service quality perception and satisfaction: a study over sub-urban public hospitals in Bangladesh", *Journal of Services Research*, Vol. 12 No. 1, pp. 125-146, 2008.
- Al-Hawary, S.I.S., Health care services quality at private hospitals, from patients' perspective: a comparative study between Jordan and Saudi Arabia, *African Journal of Business Management*, Vol. 6 No. 22, pp. 6516-6529, 2012.
- Ariffin, A.A.M. and Aziz, N.A. Determining the service quality dimensions and zone of tolerance for hospital services in Malaysia, *The Business Review*, Vol. 10 No. 2, pp. 164-169, 2008.
- Badan Perencanaan Pembangunan Nasional Republik Indonesia (Bapenas), 2009.

- Buyukozkan, G., Cifci, G. and Guleryuz, S., Strategic analysis of healthcare service quality using fuzzy AHP methodology, *Expert Systems with Applications*, Vol. 38 No. 8, pp. 9407-9424, 2011.
- Çelik, H.E. and Sehribanoglu, S., Partial least square (PLS) path modeling and its application: evaluation of patient satisfaction with service quality (SERVQUAL), *African Journal of Business Management*, Vol. 6 No. 12, pp. 4536-4542, 2012.
- Chaniotakis, I. and Lympelopoulou, C., Service quality effect on satisfaction and word of mouth in the health care industry, *Managing Service Quality: An International Journal*, Vol. 19 No. 2, pp. 229-242, 2009.
- Chen, I., Gupta, A. and Rom, W., A study of price and quality in service operations", *International Journal of Service Industry Management*, Vol. 5 No. 2, pp. 23-33, 1994.
- Dinas Kesehatan Kota Tangerang, *Profil Kesehatan Kota Tangerang*, 2015
- Hogston, R. Quality nursing care: a qualitative inquiry, *Journal of Advanced Nursing*, Vol. 21 No. 1, pp. 116-124, 1995.
- John, J., Improving quality through patient-provider communication", *Journal of Health Care Marketing*, Vol. 11 No. 4, pp. 51-60, 1991.
- Kalepu, Raghu Naga Prabhakar, Service Quality in Healthcare Sector: An Exploratory Study on Hospitals, *Journal of Marketing Management*, Vol. 13, Iss. 1, pp. 7-28, 2014.
- Ministry of Health, Number of Puskesmas per Desember, Available: <http://www.depkes.go.id/resources/download/info-terkini/Jumlah%20PKM%20per%20Desember%202017.pdf>, Desember 2017
- Khanchitpol Yousapronpaiboon; Johnson, William C., Measuring hospital out-patient service quality in Thailand, *Leadership in Health Services; Bradford*, Vol. 26, Iss. 4, pp: 338-355, 2013.
- Lagrosen, Y., Backstorm, I. and Lagreson, S., Quality management and health: a double connection, *International Journal of Quality & Reliability Management*, Vol. 24 No. 1, pp. 49-61, 2007.
- Lam, S.S.K., SERVQUAL: a tool for measuring patient's opinions of hospital service quality in Hong Kong, *Total Quality Management*, Vol. 8 No. 4, pp. 145-152, 1997.
- Lewis, B.R., Service quality measurement, *Marketing Intelligence & Planning*, Vol. 11 No. 4, pp. 4-12, 1993.
- Manjunatha, K. and Shivalingaiah, D., Customer's perception of service quality in libraries", *Annals of Library and Information Studies*, Vol. 51 No. 4, pp. 145-151, 2004.
- Miguel, P., Quality management through a National Quality Award Framework, *The TQM Magazine*, Vol. 18 No. 6, pp. 626-637, 2006.
- Nekoei-Monghadam, M. and Amiresmaili, M., Hospital services quality assessment, *International Journal of Health Care Quality Assurance*, Vol. 24 No. 1, pp. 57-66, 2011.
- Pai, Y. P., & Chary, S. T., Dimensions of hospital service quality: a critical review. *International Journal of Health Care Quality Assurance*, 26 (4), 308-340, 2013.
- Parasuraman et al., Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), SERVQUAL: a multiple-item scale for measuring customer perceptions of service quality, *Journal of Retailing*, Vol. 6 No. 41, pp. 12-40, 1988.
- Puay, C.L. and Nelson, K.H.T., Modified importance-performance analysis: an application to hospitals, *International Journal of Health Care Quality Assurance*, Vol. 14 No. 3, pp. 104-110, 2000.
- Qolipur, Assessing Medical Tourism Services Quality Using SERVQUAL Model: A Patient's Perspective, *Iran J Public Health*, Vol. 47, No.1, pp.103-110, 2018.
- Raposo, M., Alves, H. and Duarte, P., Dimensions of service quality and satisfaction in healthcare: a patient's satisfaction index, *Service Business*, Vol. 3 No. 1, pp. 85-100, 2009.
- Reeves, C.A. and Bednar, D.A., Defining quality: alternatives and implications, *Academy of Management Review*, Vol. 19 No. 4, pp. 419-445, 1994.
- Sadeh, Ehsan, Interrelationships among quality enablers, service quality, patients' satisfaction and loyalty in hospitals, *TQM Journal; Bingley*, Vol. 29, Iss. 1, pp. 101-117, 2017.
- Sheetal, B.S. and Harsh, V.V., Relative importance of service quality dimensions: a multisectoral study, *Journal of Services Research*, Vol. 4 No. 1, pp. 93-116, 2004.
- Snipes, R.L., Loughman, T. and Fleck, R.A., The effects of physicians' feelings of empowerment and service quality perceptions on hospital recommendations, *The Quality Management Journal*, Vol. 17 No. 4, pp. 51-61, 2010.
- Sohail, M.S., Service quality in hospitals: more favorable than you might think, *Managing Service Quality*, Vol. 13 No. 3, pp. 197-206, 2003.
- Yousapronpaiboon and Johnson, Measuring hospital out-patient service quality in Thailand, *Leadership in Health Services; Bradford* Vol. 26, Iss. 4, pp: 338-355, 2013

Zaim, H., Bayyurt, N. and Zaim, S., Service quality and determinants of customer satisfaction in hospitals: Turkish experience, *The International Business and Economics Research Journal*, Vol. 9 No. 5, pp. 51-58, 2010.

Zarei, A., et al., Service quality of private hospitals: the Iranian patients' perspective, *BMC Health Services Research*, Vol. 12 No. 31, 2012.

Zeithaml, V.A., Parasuraman, A. and Berry, L.L., *Delivering Quality Service: Balancing Customer Perceptions and Expectation*, the Free Press, New York, NY, 1990.

Acknowledgements

Thank you to the 2016 Industrial Engineering students who have helped in data collection.

Biographies

Linda Theresia is a lecturer in Department of Industrial Engineering, Institut Teknologi Indonesia, Indonesia. She received her Doctor in the field of Administrative Science from Universitas Indonesia in 2014. Her research interests are in the area of Strategic Management, Organization and Ergonomic.

Ramon Bangun retired from the Indonesia Ministry of Industry. He is part time lecturer in the Faculty of Administrative Science, Universitas Indonesia and Institut Teknologi Indonesia. He received his Doctor in the field of Administrative Science from Universitas Indonesia in 2017. His research interests are in the area of Strategic Management and Competitiveness.