European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.10, No.24, 2018

Six Sigma and Its Impact on the Organizational Performance of Dubai Police

Mohammed Alosani[1*] Prof. Rushami Yusoff[2]
1.School of Business Management, College of Business, Universiti Utara Malaysia, Kedah, Malaysia
2.School of Technology Management and Logistics, College of Business, Universiti Utara Malaysia, Kedah, Malaysia

Abstract
The primary goal of this study is to examine empirically the impact of Six Sigma on the organizational performance of Dubai Police. To examine the hypothesized model of the study, the survey questionnaire research design was employed. The data was collected from head section officers in Dubai Police. The total number of questionnaires distributed was 338 out of which only 252 usable questionnaires were returned and ready for analysis. The study employed PLS-SEM and SPSS for primary data analysis to test the research model. The statistical results confirm that Six Sigma is an important continuous improvement tool that has a positive and significant impact on organizational performance of Dubai Police. This study is subject to several limitations. First, the scope of this study was limited to Dubai Police and the unit of analysis in this study was head section officers in Dubai Police who replaced the role of managers. It would be difficult therefore to generalize the results to other public organizations and even private companies. There is scarce empirical research on the effects of Six Sigma implementation on organizational performance within police agencies. The study contributes by empirically researching on the relationship between Six Sigma and organizational performance to facilitate more quality improvement in police agencies. It provides empirical evidence to confirm that Six Sigma deployed by an organization can have a positive impact on its organizational performance.
Keywords Six Sigma, Organizational Performance, Dubai Police

1. Introduction

Police agencies face various obstacles and challenges from the internal and external environments (Chen, 2018), including social and political challenges as well as the difficulty in carrying out their traditional tasks and functions, such as fighting crime and terrorist activities (Yilmaz, 2013). These challenges and threats have been highlighted lately due to increasing terrorism activities and cross-border crimes, which require adopting efficient strategies to face these challeges and improve performance (Chen, 2018; Elias & Davis, 2018).

Applying continuous improvement strategies in an organization can help organizations to achieve the required results (Elias & Davis, 2018; Taniguchi & Onosato, 2018). This concept has attracted many practitioners to employ these strategies due to their positive impact and their role in achieving considerable success.

Six Sigma is one of the most popular continuous improvement strategies employed in many organizations (Spector, 2006). This tool can assist organizations to improve, measure and analyze their business processes to determine significant points that can enhance invention in customer satisfaction, quality assurance, market penetration, cycle time, business cost and product quality attributes. Several pieces of evidence have revealed that Six Sigma can assist organizations to obtain and sustain competitive advantage, enhance organizational commitment and improve organizational performance (Antony, Kumar, & Madu, 2005; Gunawan & Karimah, 2017; Patyal & Koilakuntla, 2017).

Investigating the history of continuous improvement strategies in Dubai Police shows that TQM, benchmarking, Kiazen and Six Sigma have been adopted broadly. Many research studies have been conducted to investigate the status of Six Sigma around the world, especially in manufacturing compaines. However, there is a lack of studies in the public sector (Antony, Rodgers, & Cudney, 2017; Antony, Snee, & Hoerl, 2017). Moreover, researchers have observed that there is a dearth of empirical studies on the use of Six Sigma in police agencies, which is the focus of this research paper. However some studies have been published on Six Sigma in policing (Doss, 2014), where most of these studies are case studies or conceptual frameworks (Antony, Rodgers, & Cudney, 2017). Therefore, this study is the first practical study to examine the impact of Six Sigma on organizational performance in the police agency.

2. Related Literature Review

2.1 Dubai Police

Dubai Police is responsible for enforcing the law within the border of the Emirate of Dubai as well as for following and executing strategies of the Dubai Government, specifically reinforcing safety and security and preparing to confront various challenges. This requires the adoption of a practical approach to meet these requirements.

Dubai Police has been using many continuous improvement tools for process improvement and Six Sigma was one of the first tools used. Dubai Police has implemented Six Sigma since 2007. Many Six Sigma projects were implemented during and achieved good results such as project to reduce jay walking deaths (Agarib, 2013) and other project to decrease the time of issue criminal report (Antony, Rodgers & Gijo, 2016) are examples of successful projects.

2.2 Six Sigma

Continuous improvement strategies give a chance to compete. In today's uncertain, competitive and dynamic business environment, improving products, processes and services, contributes to attaining and sustaining competitive advantage (Lai & Cheng, 2003; Miranda, Gomes, Filipe, & Lopes, 2014). Six Sigma is fundamentally an improvement technique that seeks to decrease defects in an organization's processes (Swain, Cao, & Gardner, 2018). It has been described as a business improvement strategy for greater customer satisfaction (Antony & Fergusson, 2004; Antony, Rodgers, & Cudney, 2017; Goh & Xie, 2004), and better organizational performance (Braunscheidel, Hamister, Suresh, & Star, 2011).

Six Sigma is a business management strategy and a data-driven methodology, which aims to reduce variation within a process that can result in defects or errors. It was first applied in the manufacturing industry and has widely commanded attention subsequently in police agencies.

According to Antony et al. (2017), police agencies can embrace Six Sigma to make processes more effective and efficient and to deliver value for customers at reduced operational costs. Many leading police agencies have successfully implemented Six Sigma which has brought about important outcomes (Antony et al., 2017; Barton, 2013; Antony, Rodgers, & Gijo, 2016; Doss, 2014; Fletcher, 2010; Richard & Kupferschmid, 2011). However, there are limited studies on the implementation of Six Sigma in this field (Antony et al., 2017; Barton, 2013; Doss, 2014).

2.3 Organizational Performance

Organizational performance is the critical factor for successful businesses (Ghadge, Kaklamanou, Choudhary, & Bourlakis, 2017; Randeree & Al Youha, 2009). It is considered as one of the most extensive dependent variable used in organizational research (Gomes & Romão, 2017; Fakhimi, Stergioulas, & Mustafee, 2017). Organizational performance depends on the coordination of efforts and assets to accomplish an organization's goal, and so long as those assets achieve value, the organization will continue to exist (Barney, 2001).

Measuring and evaluating organizations mainly depend on organizational performance, which makes researchers, managers and practitioners focus on it as an essential factor for an organization's success. According to Venkatraman and Ramanujam (1987), two approaches are used to measure organizational performance, i.e., financial and non-financial performance. Most research has concentrated on the financial approach alone, such as return on investment, profitability, market share, sales, revenues and costs (Murphy, Trailer, & Hill, 1996; O'Regan, Sims, & Gallear, 2007). Although measuring the performance of an organization via the financial perspective has been frequently utilized, it is inadequate to gauge the whole performance of the organization by focusing only on financial measures and ignoring non-financial measures. Therefore, both financial and non-financial measures must be combined to show the real performance of the organization (Murphy et al., 1996). Accordingly, the balanced scorecard (BSC) has been used as an alternative method to measure organizational performance (Kaplan & Norton, 1992, 1996). Kaplan and Norton claim that the BSC can handle issues related to old measurement models by combining traditional financial measures with some additional aspects. Since its introduction in 1992, the BSC Framework has been widely accepted and used by many enterprises in order to measure and improve organizational performance.

2.4 Relationship between Six Sigma and Organizational Performance

Six Sigma is a structured and systematic approach to improve an organization (Linderman, Schroeder, & Choo, 2006; Choo, Linderman, & Schroeder, 2007). Salah, Rahim, and Carretero (2010) assert that Six Sigma could assist organizations to eliminate defects in products, transactions and processes, which in turn, assist in the achievement of business excellence, enhance the quality of products and services and improve profitability and customer satisfaction (Shafer & Moeller, 2012; Tiwari, Antony, & Montgomery 2008).

Many studies have reported that Six Sigma has a positive and significant impact on organizational performance (Gunawan & Karimah, 2017; Hwang, Lee, & Seo, 2017; Patyal & Koilakuntla, 2017; Sin, Zailani, Iranmanesh, & Ramayah, 2015; Uluskan, Godfrey & Joines, 2017). However, the application of Six Sigma in the Middle East countries is still lagging behind (Albliwi, Antony, Arshed, & Ghadge, 2017). In addition, the use of Six Sigma in the public sector is still in its early stages (Antony et al., 2017; Antony, Antony, Antony, Kumar, & Rae, 2017), especially in police agencies (Antony et al., 2017). The manufacturing sector has taken a lead in applying Six Sigma, which has led to other sectors, such as the service industry being ignored (Shokri, 2017). Therefore, the following hypothesis is proposed:

H1: Six Sigma has a significant effect on organizational performance.

3. Methodology

The hypothesized model was examined using the data collected from officers in Dubai Police. This study employed the survey questionnaire which consisted of 44 questions for collecting data. A 5-point Likert scale was applied. The measures of organizational performance were based on the BSC and the Six Sigma was adopted from Zu, Robbins, and Fredendall (2010) and Desai, Antony, and Patel (2012).

4. Data Analysis

4.1 Data Description

A total of 338 officers participated in the study. The questionnaires were distributed via drop-off survey and online method over the period of two months from April 2018 to May 2018. Out of 338 questionnaires, only 252 questionnaires were returned. In total, 79.4 percent of the participants are male and 20.6 percent are female. Most of the participants have experience of over 10 years constituting 58.7 percent, which is an advantage in this study as responses from expert employees could be obtained. Further, the majority of respondents have a college degree and high school certificate as shown in Table 1.

Table 1. Participants' Demographic Information

Demographic Variable	Category	Frequency(N=252)	Percentage
Gender	Male	200	79.4%
	Female	52	20.6%
Qualification	Under High School	13	5.2%
	High School	115	45.6%
	College Degree	100	39.7%
	Graduate Studies	24	9.5%
Experience	0-5 Years	61	24.2%
	6-9 Years	43	17.1%
	10 Years or more	148	58.7%

4.2 Measurement and Structural Models

The study framework was tested by employing structural equation modelling (SEM) approach through SmartPls 3.0. The measurement and structural models were assessd using Confirmatory Factor Analysis (CFA) to establish the construct validity. Then, the structural model was investigated to test the proposed hypothesis.

4.2.1 Measurement Model

Before evaluating the nature of the relationship in the study model, the measures of the constructs were tested to ensure that they are valid and reliable. To do so, the reliability and content validity of the constructs was assessed. As for content validity, the reliability of the individual construct was evaluated by testing the loadings of related items, which should be 0.5 or higher as recommended by Hair, Ringle, and Sarstedt (2011). The Table in Appendix A illustrates that all items have sufficient construct validity (lowest factor loading of 0.635).

Construct reliability was determined by assessing convergent validity. To do so, some measures were employed, like Composite Reliability (CR), Cronbach's Alpha and the Average Variance Extracted (AVE), as recommended by Hair et al. (2011). The scales also demonstrate acceptable reliability, with composite reliability ranging from 0.956 to 0.966; Cronbach's αs ranging from 0.951 to 0.962; and AVE being above 0.50, as shown in Table 2.

Table 2. Convergent Validity Analysis

	Cronbach's Alpha	Composite Reliability (CR)	AVE
Organizational Performance	0.951	0.956	0.507
Six Sigma	0.962	0.966	0.585

While convergent validity refers to the link between a certain variable and other known variables to gauge the construct, discriminant validity refers to the weakness of the link between a certain variable and other known variables unrelated to that construct (Kaplan & Saccuzzo, 1982).

Discriminant validity was tested through the Fornell Larcker and Heterotrait-Monotrait (HTMT) criteria. The findings of the analysis show appropriate and sufficient properties of the measurement instrument and discriminant validity based on Fornell Larcker criterion while HTMT criterion has the cut-off values as recommended by Henseler, Ringle, and Sarstedt (2015), as shown in Tables 3 and Table 4.

Table 3 Discriminant Validity (Fornell Larcker)

Variable	Organizational Performance	Six Sigma
Organizational Performance	0.712	
Six Sigma	0.771	0.765

Table 4. Discriminant Validity (HTMT)

Variable	Organizational Performance
Organizational Performance	
Six Sigma	0.793

4.2.2 Structural Model

After confirming the measurement model, the next step was to examine the postulated hypothesis. To achieve that, PLS-SEM algorithm and bootstrapping were run to test the structural model. As illustrated in Table 5 and Figure 1, the relationship between Six Sigma and organizational performance is positive and significant at the 0.001 level of significance (β=0.412, t= 5.112, p<0.000); therefore, hypothesis H1 is supported.

Table 5. Result of Hypothesis Testing

H	Hypothesis	β	T-value	P-value
H1	Six Sigma ----> Organizational Performance	0.771	26.053	0.000

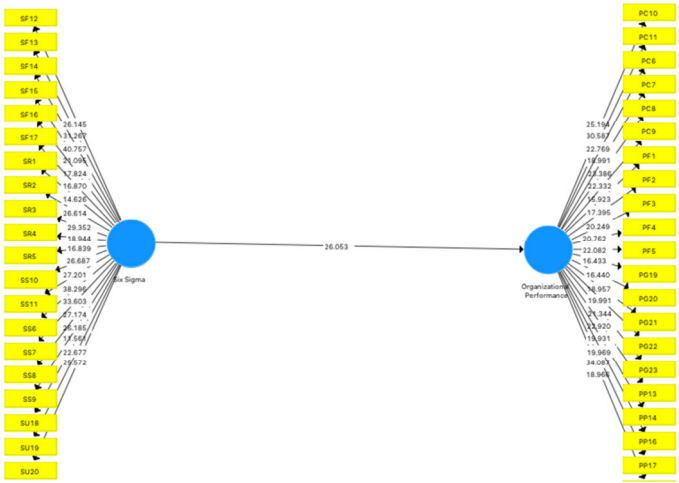

Figure 1. The proposed model

5. Discussion and Conclusion

The effect of Six Sigma on organizational performance is positive and significant at the 0.001 level of significance, and therefore, H1 is supported.

The finding on the positive and significant effect of Six Sigma on organizational performance is consistent with previous studies (Gunawan & Karimah, 2017; Hwang, Lee, & Seo, 2017; Patyal & Koilakuntla, 2017; Sin et al., 2015; Uluskan et al., 2017), which have found that Six Sigma has a positive and significant impact on organizational performance.

The result suggests that Six Sigma is critical for Dubai Police to attain its objectives and to achieve the intended performance. Without doubt, Dubai Police, with an effective and efficient Six Sigma implementation, would be able to reduce variation in its processes, address customers' and society complaints, increase their satisfaction, produce a good delivery system and increase performance (Abreu, Sousa, & Lopes, 2012; Al-Aomar & Chaudhry, 2018; Al Khamisi, Hernandez, & Khan, 2018; Braunscheidel et al., 2011; Raja Sreedharan, Raju, Rajkanth, & Nagaraj, 2018).

The result supports the positive and significant impact of Six Sigma on organizational performance which is widely reported in the literature, its importance as a modern model of excellence (Albeanu & Hunter, 2017) and an improvement tool for any organization to improve its performance (Al-Aomar & Chaudhry, 2018). Therefore, successful implementation of Six Sigma can help Dubai Police to improve the processes by handling defects in processes, which in turn, can lead to improving the services offered, increase employees' and customers' satisfaction, plan and design objectives and strategies and enhance the entire organization's performance.

6. Limitations and Recommendations

The scope of the current paper is limited to officers of Dubai Police only and does not include other police agencies in the United Arab Emirates (UAE) or other authorities of the Dubai Government, which therefore limits the generalizability of the results of the study.

Another limitation is in the methodology where a cross-sectional approach was followed in this study to investigate the hypothesized relationships at a single point of time. Psychological aspects of people can change from one time to another. Based on that, the conclusion generated from this study could be different if the

research design had been longitudinal rather than cross-sectional. A review of Six Sigma reveals that it is a long-term strategy by nature. Therefore, studying the relationship between the constructs at one point of time will lead to a lack the accuracy, and that is why it is strongly recommended that longitudinal studies be conducted to examine the effect of Six Sigma on organizational performance.

Lastly, as with the case of quantitative research methods, the respondents were requested to translate their perception based on the statement in the survey questionnaire into numbers of the Likert scale. These answers may be influenced by the biased perception of the situation (Macinati, 2008). Therefore, this study recommends that future research should consider a mixed research design. In other words, quantitative and qualitative research designs can be employed in future research to complement each other.

References

Abreu, P., Sousa, S., & Lopes, I. D. S. (2012). Using Six Sigma to improve complaints handling. In *World Congress on Engineering 2012 (WCE 2012)* (pp. 1363-1368). International Association of Engineers (IAENG).

Agarib, A. (2013). Close ties among police mean better security. *Khaleej Times*. [online] Available at: https://www.khaleejtimes.com/article/20130409/ARTICLE/304099839/1002 [Accessed 6 Jun. 2018].

Al-Aomar, R., & Chaudhry, S. (2018). Simulation-based Six Sigma value function for system-level performance assessment and improvement. *International Journal of Productivity and Performance Management*, *67*(1), 66-84.

Albeanu, M., & Hunter, I. (2017). *Six sigma in Hr Transformation: Achieving Excellence in service delivery*. Routledge.

Albliwi, S. A., Antony, J., Arshed, N. & Ghadge, A. (2017). Implementation of Lean Six Sigma in Saudi Arabian organisations: findings from a survey. *International Journal of Quality & Reliability Management*, *34*(4), 508-529.

Al-Khamisi, Y. N., Hernandez, E. M., & Khan, K. M. (2018). Developing a Knowledge-Based Lean Six Sigma Model to Improve Healthcare Leadership Performance. *World Academy of Science, Engineering and Technology, International Journal of Industrial and Manufacturing Engineering*, *5*(2).

Antony, J., Antony, J. F., Kumar, M., & Rae Cho, B. (2007). Six sigma in service organisations: Benefits, challenges and difficulties, common myths, empirical observations and success factors. *International journal of quality & reliability management*, *24*(3), 294-311.

Antony, J., & Fergusson, C. (2004). Six Sigma in the software industry: results from a pilot study. *Managerial Auditing Journal*, *19*(8), 1025-1032.

Antony, J., Kumar, M., & Madu, C. N. (2005). Six sigma in small-and medium-sized UK manufacturing enterprises: Some empirical observations. *International Journal of Quality & Reliability Management*, *22*(8), 860-874.

Antony, J., Rodgers, B., & Cudney, E. A. (2017). Lean Six Sigma in policing services: case examples, lessons learnt and directions for future research. *Total Quality Management & Business Excellence*, 1-13.

Antony, J., Rodgers, B., & Gijo, E. V. (2016). Can Lean Six Sigma make UK public sector organisations more efficient and effective?. *International Journal of Productivity and Performance Management*, *65*(7), 995-1002.

Antony, J., Snee, R. & Hoerl, R. (2017). Lean Six Sigma: yesterday, today and tomorrow. *International Journal of Quality & Reliability Management*, *34*(7), 1073-1093.

Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, *27*(6), 643-650.

Barton, H. (2013). 'Lean'policing? New approaches to business process improvement across the UK police service. *Public Money & Management*, *33*(3), 221-224.

Braunscheidel, M. J., Hamister, J. W., Suresh, N. C., & Star, H. (2011). An institutional theory perspective on Six Sigma adoption. *International Journal of Operations & Production Management*, *31*(4), 423-451.

Chen, Z. (2018). Job satisfaction among frontline police officers in China: the role of demographic, work-related, organizational and social factors. *Psychology, Crime & Law*, 1-20.

Choo, A. S., Linderman, K. W., & Schroeder, R. G. (2007). Method and context perspectives on learning and knowledge creation in quality management. *Journal of Operations Management*, *25*(4), 918-931.

Desai, D. A., Antony, J., & Patel, M. B. (2012). An assessment of the critical success factors for Six Sigma implementation in Indian industries. *International Journal of productivity and performance management*, *61*(4), 426-444.

Doss, D. A. (2014). *The capability maturity model as a criminal justice process improvement paradigm* (Doctoral dissertation).

Elias, A. A., & Davis, D. (2018). Analysing public sector continuous improvement: a systems approach. *International Journal of Public Sector Management*, *31*(1), 2-13

Goh, T. N., & Xie, M. (2004). Improving on the six sigma paradigm. *The TQM Magazine*, *16*(4), 235-240.

Gunawan, H., & Karimah, H. (2017). The Six Sigma Approach for the Development of Accounting Information System Performance. *Journal of Applied Accounting And Taxation*, *2*(1), 15-21.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*(1), 115-135.

Hwang, G. H., Lee, K. C., & Seo, Y. W. (2017). How does Six Sigma influence creativity and corporate performance through exploration and exploitation?. *Total Quality Management & Business Excellence*, 1-17.

Patyal, V. S., & Koilakuntla, M. (2017). The impact of quality management practices on performance: an empirical study. *Benchmarking: An International Journal, 24*(2), 511-535.

Kaplan, R. M., & Saccuzzo, D. P. (1982). *Psycholog ical Testing: Principles, Applications, and Issues*. Monterey, Calif.: Brooks.

Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: measures that drive performance. *Harvard business review*, *70*(1), 71-79.

Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: translating strategy into action*. Harvard Business Press.

Lai, K. H., & Cheng, T. C. E. (2003). Initiatives and outcomes of quality management implementation across industries. *Omega*, *31*(2), 141-154.

Linderman, K., Schroeder, R. G., & Choo, A. S. (2006). Six Sigma: the role of goals in improvement teams. *Journal of Operations Management*, *24*(6), 779-790.

Macinati, M. S. (2008). The relationship between quality management systems and organizational performance in the Italian National Health Service. *Health policy*, *85*(2), 228-2

Miranda Silva, G., J. Gomes, P., Filipe Lages, L., & Lopes Pereira, Z. (2014). The role of TQM in strategic product innovation: an empirical assessment. *International journal of operations & production management*, *34*(10), 1307-1337

Murphy, G. B., Trailer, J. W., & Hill, R. C. (1996). Measuring performance in entrepreneurship research. *Journal of business research*, *36*(1), 15-23.

O'Regan, N., Sims, M. A., & Gallear, D. (2007). Leaders, loungers, laggards: the strategic-planning-environment-performance relationship re-visited in manufacturing SMEs. *Journal of Manufacturing Technology Management*, *19*(1), 6-21.

Raja Sreedharan, V., Raju, R., Rajkanth, R., & Nagaraj, M. (2018). An empirical assessment of Lean Six Sigma Awareness in manufacturing industries: construct development and validation. *Total Quality Management & Business Excellence*, *29*(5-6), 686-703.

Richard, M. and Kupferschmid, T. (2011). *Increasing Efficiency of Forensic DNA Casework Using Lean Six Sigma Tools*. [online] Ncjrs.gov. Available at: https://www.ncjrs.gov/pdffiles1/nij/grants/235190.pdf [Accessed 6 Jun. 2018].

Salah, S., Rahim, A., & Carretero, J. A. (2010). The integration of Six Sigma and lean management. *International Journal of Lean Six Sigma*, *1*(3), 249-274.

Shafer, S. M., & Moeller, S. B. (2012). The effects of Six Sigma on corporate performance: An empirical investigation. *Journal of Operations Management*, *30*(7), 521-532.

Shokri, A. (2017). Quantitative analysis of Six Sigma, Lean and Lean Six Sigma research publications in last two decades. *International Journal of Quality & Reliability Management*, *34*(5), 598-625.

Sin, A. B., Zailani, S., Iranmanesh, M., & Ramayah, T. (2015). Structural equation modelling on knowledge creation in Six Sigma DMAIC project and its impact on organizational performance. *International Journal of Production Economics*, *168*, 105-117.

Spector, R. (2006). How constraints management enhances lean and six sigma. *Supply Chain Management Review*, 10 (1), 42-7.

Swain, A. K., Cao, Q. R., & Gardner, W. L. (2018). Six Sigma success: Looking through authentic leadership and behavioral integrity theoretical lenses. *Operations Research Perspectives*, *5*, 120-132.

Taniguchi, A., & Onosato, M. (2018). Effect of Continuous Improvement on the Reporting Quality of Project Management Information System for Project Management Success. *I.J. Information Technology and Computer Science*, 2018 (1), 1-15

Tiwari, M. K., Antony, J., & Montgomery, D. C. (2008). Editorial note for the special issue on 'Effective decision support to implement lean and six sigma methodologies in the manufacturing and service sectors'. *International Journal of Production Research*, 46 (23), 6563-6566.

Uluskan, M., Godfrey, A. B., & Joines, J. A. (2017). Integration of Six Sigma to traditional quality management theory: an empirical study on organizational performance. *Total Quality Management & Business*

Excellence, *28*(13-14), 1526-1543.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of management review*, *11*(4), 801-814.

Yilmaz, S. (2013). Tailoring model in reforming police organizations towards community policing. *Journal of Organizational Change Management*, *26*(5), 897-924.

Zu, X., Robbins, T. L., & Fredendall, L. D. (2010). Mapping the critical links between organizational culture and TQM/Six Sigma practices. *International journal of production economics*, *123*(1), 86-106.

Appendix

Table 6. Factor Loadings of the Proposed Model

Variable	Items	Loading	AVE
Organizational Performance	PC10	0.759	0.507
	PC11	0.792	
	PC6	0.723	
	PC7	0.692	
	PC8	0.731	
	PC9	0.718	
	PF1	0.663	
	PF2	0.638	
	PF3	0.688	
	PF4	0.707	
	PF5	0.731	
	PG19	0.702	
	PG20	0.668	
	PG21	0.704	
	PG22	0.707	
	PG23	0.704	
	PP13	0.719	
	PP14	0.712	
	PP16	0.715	
	PP17	0.785	
	PP18	0.677	
Six Sigma	SF12	0.781	0.585
	SF13	0.821	
	SF14	0.835	
	SF15	0.738	
	SF16	0.696	
	SF17	0.713	
	SR1	0.670	
	SR2	0.764	
	SR3	0.764	
	SR4	0.76	
	SR5	0.738	
	SS10	0.783	
	SS11	0.779	
	SS6	0.826	
	SS7	0.830	
	SS8	0.820	
	SS9	0.785	
	SU18	0.635	
	SU19	0.764	
	SU20	0.762	