International Journal of Engineering & Technology, 7 (3.25) (2018) 49-53

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper

Total Quality Management Planning Model to Increase Higher Education Performance and Competitiveness

Aftoni Sutanto [1]*, Widodo[2], Utik Bidayati[3]

[1]*Management Study Program, Post Graduate Program, Ahmad Dahlan University, Indonesia*
[2]*Educational Management Study Program , Post Graduate Program, Ahmad Dahlan University, Indonesia*
[3]*Management Study Program , Under Graduate Program, Ahmad Dahlan University, Indonesia*
** Corresponding author E-mail: aftoni@uad.ac.id*

Abstract

Improving higher education performance increases competitiveness and customer satisfaction. The purpose of this research is to design a Total Quality Management (TQM) planning model to increase higher education performance and competitiveness. The focus of this research are the formulation of strategic planning for the implementation of TQM, the formulation of the operational planning, the application of the quality management, and the system of quality control in private higher education. The results of this this research is demonstrates that a national standard and a quality assurance system for higher education are used as the basis for the formulation of a quality management strategy. The formulation of TQM planning model was directed by ISO 9001 instrument, the accreditation form of The National Accreditation Board for Higher Education, and The Independent Accreditation Institution. The significant components in the implementation of TQM planning model are: a quality assurance instrument and the implementation of quality management actors, an understanding of quality management by all parties in higher education, benchmarking, education and training in quality management, leadership, reward and punishment, evaluation process, and an Integrated Management Information System. There are two roles quality control systems in private HE. These are: internal and external quality control.

Keywords: *Total Quality Management; Performance; Competitiveness; Higher Education*

.

1. Introduction

The Circular Letter of The Directorate General of Higher Education No. 470 / D / T / 1996 stated that the accreditation status of Higher Education (HE) or Study Program is a reflection of HE performance quality that describes the quality, efficiency and relevance of the study program. Quality is the responsibility of management, so the leader must create a system and processes that produce quality.

The government's expectation in issuing this circular letter is that all universities in Indonesia in general, and in Yogyakarta Special Province in particular, will be of better quality. Better quality can lead to better HE productivity, which can in the long term, build competitiveness.

Quality and competitiveness are reflected in the levels of accreditation obtained by each university. However, based on data from the National Accreditation Board fro Higher Education (NABHE) at the end of March 2015, the accreditation results of 935 study programs in Yogyakarta Special Region were considered unsatisfactory. The results can be described as follows: 18.77% of study programs were accredited A, 49.30% of study programs were accredited B, 21.92% of study programs were accredited C, 2.13 % of study programs were outdated, 2.56 % of study programs had expired and 2,99% of study programs were re-accreditations. Also [1], described in the results of their research analysis that the number for Private Higher Education in 2000 was recorded at 134 which, by 2009 had reduced to 124. Many of the study programs were accredited C or had an expired status. It illustrated that the performance of the study program was still low. This was not in line with the government's expectations as stated in the circular letter, which was to encourage the improvement of performance and for this to be reflected by the accreditation of the institution and the accreditation of the study program.

The low performance of these universities showed a lack of resources, facilities and new study programs, weak curriculum design, unsuitable buildings, poor working environments, inappropriate systems and procedures, unplanned work schedules and inadequate quality management [2].

Total Quality Management (TQM) emphasizes the participation and cooperation of all employees in providing products and services to customers' satisfaction. Moreover, TQM is there to ensure that no party is harmed. TQM is a philosophy that emphasizes three principles, namely to achieve quality, process, and high-performance levels. These principles relate to customer satisfaction, employee engagement, and continuous improvement in performance [3], [4]. TQM is a way to improve the performance continuously at each level of operation or process of each functional area of the organization using available resources and capital [2].

In TQM litrature previously explained that there are still variations in results that indicate the influence of TQM on the performance of the company. The benefits of TQM are for improvement: quality, employee participation, teamwork, employment relationships, customer satisfaction, employee satisfaction, productivity, communication, and market share [5]. The commitment of top management is the most important variable affecting the implementation of TQM which then directly affects the business performance [6]. TQM assists universities in determining the following obstacles, fears and barriers to change,

Copyright © 2018 Authors. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

expensive and long-term assessments, less government commitments, inconsistent top management commitments, lack of competent management, poor quality quality consultants, poor understanding of TQM, poor planning, it is not easy to develop a company-specific model, TQM implementation takes a long time because it requires big organizational change, limited resources, little TQM training, workers do not want to be involved in decision making, employees do not care about TQM , less inter-departmental coordination [7]. Most previous studies show a positive relationship between TQM practice and business performance [8]; [9]; [10]. In addition, there are several studies that show a positive influence between TQM practices on the performance of service companies [11]; [12]; [13]; [1]. However, there is research showing that TQM has no effect on business performance [14]; [15]; [16]. In addition, there are studies that show that TQM has no effect on financial performance on service firms [17]. Although there has been plenty of guidance for improving efficiency and operational effectiveness in HE through the application of accreditation ratings by NABHE, many HE establishments have been unable to follow the guidance and coaching given by NABHE. This circumstance is indicated by a weak managerial system and a lack of college resources. Also, a great deal of research has been conducted to improve the performance of HE in Indonesia and improve the competitiveness of HE in general. However, many study programs were still accredited C and had an expired accreditation status, which indicated that the performance and quality standards of HE were still low. This infirmity has become a formidable challenge for every program manager. This phenomenon illustrates that the ability of HE to be competitive is weak, and in general the management of the quality of the study program is ineffective. This is a severe problem and the need to overcome it is very urgent. The Obstacles to increasing the competitiveness of HE are: (1) a deficiency in the managerial ability of HE, (2) low resources and limited facilities, (3) the unclear orientation of the curriculum, (4) inadequate human resource quality improvement system, (5) weak quality management and (6) weakness of facilities and infrastructures that support the operation of HE.

With these facts in mind, the research specifically aimed to investigate the importance of increasing the competitiveness of HE through total quality management. Also, if measurement of TQM produced can be implemented well, then the research should also come up with an implementation method.

Good quality can lead to HE productivity achieving a better level of competitiveness in the future. TQM is the most appropriate method of measuring performance, customer satisfaction, and HE competitiveness. These measurements are carried out continuously at each level of operation or process of each functional area in an organization using available resources and capital. Good quality management can make a real contribution to the continuous improvement of all activities with Plan, Do, Check and Action (PDCA) methods at every level of management.

Successful implementation of TQM in HE will improve the performance of HE, improve internal and external customer satisfaction and be able to improve competitiveness in the future. The TQM practice should involve all employees at all levels of an organization. The implementation of TQM should be supported by the commitment of HE leaders and a quality assurance unit. The better the quality improvement process undertaken by the quality assurance unit, the better the TQM practice. If this condition can be maintained in the long term, then the TQM concept will establish a quality culture at all levels in HE [18]. Based on the description, it is necessary to research TQM model design to realize the competitiveness of HE. The problem of this research is how to develop TQM model that can improve the performance and competitiveness of HE in the Province of The Special Region of Yogyakarta, Indonesia. The purpose of research is to design a quality management system using a total quality management model is expected to improve performance and realize the competitiveness of HE.

2. Literature Review

Chain Reaction Theory by [19] describes how better quality can lead to higher productivity, which in turn can build long-term competitiveness [20]. This theory says that quality improvement can reduce costs because it can eliminate waste in the system and in the process of an organization [21]. A company can reach success [22] through larger markets, divisions of the business field and the provision of more job opportunities. TQM is a management method that depends on individuals and work procedures. The utmost concern is to improve organizational performance and to enhance client satisfaction [23]. Thus, the practice of TQM has proven can improve the efficiency, productivity, and performance of the organization or company to enhance customer satisfaction.

TQM is a way to improve performance continuously at each level of operation or process in each functional area of the organization using available resources and capital [2]. TQM is a philosophy of continuous improvement that can provide a set of practical tools to every educational institution to meet the needs, wishes, and expectations of its current and future customers [24]. Competitive advantage describes rival performance in a particular market environment [25]. Competitiveness at the enterprise level is the company's ability to lead, improve and maintain a market position. Competitiveness is the company's ability to design and produce a product superior to those offered by competitors [26] in order to enlarge and sustain its profits, market share, business size, and the profitable selling capacity of products. There is a positive relationship between employee performance and TQM, the relationship between employee performance and feedback, followed by training, development, and communication [27]. Thus, companies or organizations to improve productivity and performance should provide a set of quality management system practice tools and continuous success factors in the application of TQM.

The principles that should underlie the mindset and pattern of action of all TQM actors are [28]: (1) Quality first. All thoughts and actions of HE managers must prioritize quality, (2) Stakeholders to be in on all managerial thoughts and actions (3) The next process is for our stakeholders. Everyone who carries out a task in the HE process should consider other people who use the results of their duties as stakeholders to be satisfied. (4) Speak using data. Every person implementing higher education must first take action and make decisions based on the analysis of data and information obtained, not based on presuppositions or engineering and (5) Upstream management. All decision-making in the HE process to be conducted in a participative, not authoritative manner.

Strong leadership commitment, customer-oriented company, enterprise conducting education and training, leaders who have initiatives to make continuous and innovative improvements, companies that manage suppliers and lead efforts to encourage employees to participate fully in the development of the quality required in the practice of running TQM has an important role in improving organizational performance [29]. In fact, TQM's basic philosophy applies to all types of organizations. However, the successful implementation of TQM relies on organizational culture, as the practice and application of TQM often requires long-term effort and a lot of energy, money, patience, and management attention.

Improvements to the quality of HE are based on the three pillars of the National Education Department Strategic Plan: (1) Equity and expansion of educational access. (2) Quality improvement, relevance, competitiveness. (3) Strengthening governance, accountability, and public image. It also refers to the Long-Term Strategy of Higher Education by establishing 3 (three) strategic steps, namely: (1) autonomy of HE (2) organizational health, and (3) competitiveness. Autonomy of HE provides flexibility and space for the acceleration of HE to the dynamics of development and competition in the future. Organizational health is a key pre-

requisite for contributing to academic freedom, innovation, and creativity, encouraging efficiency, effectiveness, organizational responsibility and making college an asset, not a burden. Increased competitiveness is carried out to provide support and encouragement of universities to raise the ability of worldwide competitiveness [30]. The TQM conceptual model and organizational performance help managers to decision makers, improve understanding of TQM practices, and focus on TQM practices in companies.

3. Methods

The subject of this research is Private Universities in the Province of The Special Region of Yogyakarta, Indonesia. The selection of universities in this study is based on the quality assurance unit that has unique characteristics and can represent every type of HE. The School of Economic Sciences of Nusa Megar Kencana was chosen because it was considered to represent the type of college in the form of high school general economics in Yogyakarta. Hamfara Islamic High School was chosen to represent Islamic High School of Economics in Yogyakarta. PGRI University was chosen because it has a uniqueness and characteristics distinct from other names in the PGRI Foundation. Aisyiyah University of Yogyakarta was chosen because, in addition to the having the uniqueness of an Islamic university, it also has a background in health. The University of Sarjanawiyata Tamansiswa was selected because it has unique values, which are 'tamansiswa' characteristics, created by Ki Hajar Dewantara, with the concept of education "Among". This type research type is descriptive research with a qualitative approach. Data analysis was done using the interactive model of analysis developed by [31] through three stages of data reduction, data presentation, and verification.

4. Results and Findings

4.1. Formulation of a Quality Management Strategy Plan

Based on the National Education System Act of the year 2012, Indonesian HE establishments are encouraged to have autonomy or independence of HE in managing their institutions. They have to start implementing the quality assurance system through three pillars, namely: an internal quality assurance system implemented by each university, an external quality assurance system or accreditation conducted by the National Accreditation Board for Higher Education or Independent Accreditation Institution, and a higher education database at the higher education level and also at the Ministry of Research, Technology and Higher Education [32].

The development of HE establishments in Indonesia is regulated in Ristekdikti no. 44 of 2015 National Standards of HE, consisting of National Standards of Education, National Standards of Research, and National Standards of Community Service which constitute an integral part of the implementation of HE tri dharma [33].

The objectives of the National Standards of HE are: (1) to ensure the achievement of the HE goals that play a strategic role in the intellectual life of the nation by advancing science and technology and by applying the values of humanity, as well as the sustainable culture and empowerment of the Indonesian nation, (2) research and community service organized by universities in all jurisdictions of the Unitary State of the Republic of Indonesia to achieve quality in accordance with the criteria set forth in the National Standards of Higher Education and (3) to encourage HE in all jurisdictions of the Unitary State of the Republic of Indonesia to achieve quality learning, research and community service beyond the criteria set out in the National Standards of HE.

The National Standard of HE and the quality system of HE are the basis for formulating a strategic plan for HE which is in line with the national education strategic plan of 2015-2019 that has been adjusted to the national long-term strategic plan of 2005-2025. Improvement of the quality of HE starts with the structuring of the core business processes of HE, namely: the teaching and learning processes, research and dedication to the community whose implementation is supported by management tools, namely: strategic planning, strong leadership, and Total Quality Management instruments.

4.2. Formulation of Operational Plans

The implementation of the latest version of the ISO 9001 quality management system of 2015 focuses on customer satisfaction, continuous improvement, and targets risk management. Implementation of the ISO 9001 quality management system is the basis for the implementation of an organizational system for organization and improvement of organizational competitiveness before implementing any other quality assurance system [34]

The purpose of the implementation of ISO 9001 quality management system is to manage the administration system and documents within the organization, to manage risks and build with regulatory processes to ensure that each process and stage has been carried out in accordance with established rules and standard rules, and for control over top management to be more focused and consistent in achieving the organization's quality objectives.

Accreditation is an assessment of activity to determine the feasibility of study programs and HE. The accreditation process of higher education (HE) is the process of assessing the institution as a whole to understand the institution's commitment to the academic and institutional management NABHE to all HE in Indonesia. Evaluation of the quality of institutional performance of an HE is done through assessment of accreditation forms and self-evaluation reports of the HE by assessor teams possessing a variety of related expertise, experience and an understanding of the nature of the organization of universities in both academic and management fields.

Accreditation standards are the benchmarks to measure and establish the quality and eligibility of an HE. The accreditation standard consists of several assessment elements that are used as a basis for measuring and determining the quality and feasibility of a HE performance. The accreditation standards of HE institutions consist of seven standards. Standard 1, vision, mission, goals and objectives, and strategies of achievement; Standard 2, Tata governance, leadership, management system, and quality assurance; Standard 3, students and graduates; Standard 4, human resources; Standard 5, curriculum, learning, and academic atmosphere; Standard 6, financing, facilities and infrastructure, and information system and Standard 7, research, service or community service, and co-operation.

HE prepares comprehensive and integrated institutional documents that describe the results of the analysis and evaluation conducted by the HE concerned. Assessment of accreditation is intended to provide an overview of the quality level of an institution and study program based on the accreditation criteria established.

An independent accreditation institution is an institution established by the Government or the community to provide an independent accreditation of study programs. Independent accreditation aims to determine the feasibility of study programs and HE based on the criteria referred to by the National Standards of HE and to ensure the quality of study programs and HE externally, both academic and non-academic, to protect the interests of students and society.

The realization of the operational plan, which is implemented in the form of institutional co-ordination with an independent accreditation institution and NABHE, aims to provide accreditation of study programs and HE, to contribute harmoniously to a system of HE quality and to enable the building and development of a high-quality education culture. The operational framework is used as a guide for carrying out all activities that include the establishment of vision, mission, goals, and objectives. To support the success of quality improvement, account must be taken of the internal envi-

ronment, local and regional content, national situation and international environment.

4.3. Quality Management Implementation

There are three important components in the implementation of quality management of HE that play a role in the success of a quality management system. First, a quality assurance instrument consisting of: (1) Implementation of standards of investigation, research standards and standards of service. Tri Dharma Higher education that cannot be separated from one another, because Tri Dharma is a manifestation of HE performance in Indonesia which has already been established in Ristekdikti No. 44, the year 2015, on National Standards of Education, (2) Establishment of a unit of Quality Assurance Agency. The Quality Assurance Agency is responsible for the successful implementation of quality management in the HE concerned, so it must have a solid team to oversee the implementation of quality management systems in an HE. Second, to have quality management implementation actors consisting of all levels of leadership, lecturers, and employees. (3) The leadership and all staff of the Quality Assurance Board play a very important role in the successful implementation of a quality management system. Third, the important factor of quality management that will accelerate the success of quality management systems at universities, consisting of (1) Understanding of quality management by all leaders, (2) Lecturers and employees, (3) Team Quality Assurance Agency, (4) Benchmarking, (5) Education and training on quality management, (6) Leadership, (7) Employee empowerment, (8) Reward and punishment, (9) Evaluation of leadership, lecturers and employees, (10) Student satisfaction, and (11) Integrated TQM.

4.4. Quality Control System

A quality control system has two roles. First, internal quality control that focuses on: ISO 9001 quality audit, national accreditation body quality audit, and an independent accreditation institution. Internal quality audits are conducted independently by the concerned institutions to ensure that all quality processes are carried out in accordance with quality management system guidelines. Second, external quality control is from the ISO 9001 and NABHE and independent accreditation agency. The results of this external audit quality assessment will determine the level of accreditation that describes the real condition of the implementation of quality management in the relevant HE (Table 1).

Table 1: Total Quality Management Planning Model

Strategic Plan	**Operational Plan**	**Quality Implementation**			**Quality Control Management System**	
Ministry of higher education	**External groups**	**Quality assurance instrument**	**Important Actors of Quality Management Implementation**	**The success factor of quality management**	**Internal Quality Control**	**External Quality Control**
National Standards of Higher Education	Instrument ISO 9000	Implementation of Education Standards, Research Standards and Standards of Community Service	All Levels of Leaders, Lecturers and employees	Understanding of the quality management of all leaders, lecturers and employees	Implementation of Quality Internal Audit for ISO 9000	Implementation of Quality External Audit for ISO 9000
Quality Assurance System for Higher Education	Instrument The National Accreditation Board for Higher Education and The Independent Accreditation Institution.	Quality Assurance unit	Leader and all staff of Quality Assurance unit	Commitment of Quality Assurance unit	Implementation of Quality Internal Audit for The National Accreditation Board for Higher Education and The Independent Accreditation Institution	Instrument The National Accreditation Board for Higher Education and The Independent Accreditation Institution.
				Benchmarking		
				Education and training		
				Leadership		
				Empowerment		
				Reward and punishment		
				Evaluation of leadership, lecturers, and integrated employees		
				Student Satisfaction		
				MIS		

5. Conclusions

The purpose of this study is to develop and propose the design of TQM model at private universities, especially in the province of Yogyakarta Special Region. The development of the TQM model requires a strong quality culture, beginning with the formulation of strategic planning and operational planning of quality management. This conceptual model was developed to assist in bridging TQM practices and private university performance. Implementation of the quality management model using quality management instruments and supported by all levels of leadership with a high commitment to the implementation of the important factors of quality management has to be undertaken. To ensure the quality process is carried out properly there needs to be a quality control system that conducts quality audits both internally and externally of the quality audit so that the design of a total quality management model can improve the performance and competitiveness of an HE. The successful implementation of this quality management strategy is fully supported by the quality assurance unit in each HE. The contribution made by the existence of a quality assurance unit in an HE will facilitate the implementation of TQM practice, which is expected to improve the performance and realize the

competitiveness of the HE so that in the long run the implementation of a quality management system will create a good quality culture.

In the next research will be collected primary data to test the hypothesis about the influence of TQM implementation on the performance and competitiveness of private universities in Yogyakarta Special Province using SEM. This study examines the extent to which the influence of the TQM practice model on the performance of private universities.

Acknowledgement

Thank you very much to The Indonesia Goverment that have supported and financed this research. Thank you so much to Reseaarch and Community Service Institute, Ahmad Dahlan University, Indonesia that has facilitated this research.

References

[1] A. Sutanto, H. Djumilah, Solimun, and Djumahir, "The Effect Of The Implementation Of Total Quality Management On The Satisfaction Of Students And Its Impact On The Performance Of Management Department," *Sci.Int. (Lahore)*, vol. 27, no. 6, pp. 6297–6305, 2015.

[2] V. Gaspersz, "Penerapan Total Quality Management in Education (TQME) pada Perguruan Tinggi di Indonesia : Suatu Upaya untuk Memenuhi Kebutuhan Sistem Industri Modern," *J. Pendidik. dan Kebud.*, vol. 7, no. 029, pp. 1–9, 2001.

[3] M. I. Qureshi, S. Y. Janjua, K. Zaman, M. S. Lodhi, and Y. Bin Tariq, "Internationalization of higher education institutions: Implementation of DMAIC cycle," *Scientometrics*, vol. 98, no. 3, pp. 2295–2310, 2014.

[4] L. J. Krajewski, L. P. Ritzman, and M. K. Mallhotra, *Operations Management: Processes and Supply Chains*. 2013.

[5] D. H. Besterfield, *Quality Control*, 8th ed. New Jersey: Pearson Prentice Hall, 2009.

[6] M. W. Raja, M. A. Bodla, and S. A. Malik, "Evaluating the Effect of Total Quality Management Practices on Business Performance : A Study of Manufacturing Firms of Pakistan," *Int. J. Bus. Soc. Sci.*, vol. 2, no. 9, pp. 110–117, 2011.

[7] A. P. Anil and K. P. Satish, "Investigating the relationship between TQM practices and Firm ' s performance : A conceptual framework for Indian organizations," *Procedia Technol.*, vol. 24, pp. 554–561, 2016.

[8] C. Valmohammadi, "The impact of TQM implementation on the organizational performance of Iranian manufacturing SMEs," *TQM J.*, vol. 23, no. 5, pp. 496–509, 2011.

[9] Ramlawati, Surachman, Djumilah, and Djumahir, "The Implication of Total Quality Management Practice on Competitiveness, Customer satisfaction, and Performace Business of Manufacture of Makassar," *J. Apl. Manaj. (Journal Appl. Manaj.*, vol. 9, no. 3, pp. 818–825, 2011.

[10] S. A. Malik, M. Z. Iqbal, R. Shaukat, and J. Yong, "TQM Practices and Organizational Performance: Evidence From Pakistani SMEs," *Int. J. Eng. Technol.*, vol. 10, no. 04, pp. 20–25, 2010.

[11] M. A. Khan, "Total Quality Management And Organizational Performance-Moderating Role of Managerial Competencies," *Int. J. Acad. Res.*, vol. 3, no. 5, pp. 453–458, 2011.

[12] F. Sajjad and S. Amjad, "Assessment of Total Quality Management Practices and Organizational Development (The case of Telecom Service Sector of Pakistan)," *Mediterr. J. Soc. Sci.*, vol. 2, no. 2, pp. 321–330, 2011.

[13] C. H. Wang, K. Y. Chen, and S. C. Chen, "Total quality management, market orientation and hotel performance: The moderating effects of external environmental factors," *Int. J. Hosp. Manag.*, vol. 31, no. 1, pp. 119–129, 2012.

[14] P. Corredor and S. Goñi, "TQM and performance: Is the relationship so obvious?," *J. Bus. Res.*, vol. 64, no. 8, pp. 830–838, 2011.

[15] S. B. Han, S. K. Chen, and M. Ebrahimpour, "The Impact of ISO 9000 on TQM and Business Performance," *J. Bus. Econ. Stud.*, vol. 13, no. 2, pp. 1–24, 2007.

[16] M. Demirbag, E. Tatoglu, M. Tekinkus, and S. Zaim, "An analysis of the relationship between TQM implementation and organizational performance," *J. Manuf. Technol. Manag.*, vol. 17, no. 6, pp. 829–847, 2006.

[17] C. C. Enrique, P. M. Jorge, J. T. Juan, and M. A. . José F, "TQM, managerial factors and performance in the Spanish hotel industry," *Ind. Manag. Data Syst.*, vol. 108, no. 2, pp. 228–244, 2008.

[18] A. Sutanto, D. Hadiwidjojo, Solimun, and Djumahir, "Student Satisfaction as Mediation Relationship Between Total Quality Management Practices and Performance of Management Study Program," *Int. J. Bus. Manag. Invent.*, vol. 3, no. 9, pp. 22–31, 2014.

[19] W. . Deming, "(Summery) Out of the Crisis." p. 10, 1986.

[20] V. B. Wayhan, B. M. Khumawala, and E. L. Balderson, "An empirical test of Deming's chain reaction model," *Total Qual. Manag. Bus. Excell.*, vol. 21, no. 7, pp. 779–789, 2010.

[21] N. Bhuiyan and N. Alam, "A case study of a quality system implementation in a small manufacturing firm," *Int. J. Product. Perform. Manag.*, vol. 54, no. 3, pp. 172–186, 2005.

[22] P. Trkman, "The critical success factors of business process management," *Int. J. Inf. Manage.*, vol. 30, no. 2, pp. 125–134, 2010.

[23] M. T. Al Nahyan and S. F. Abdel All, "Key Enablers of Effective Implementation of TQM in Royal Jet Airways.," *Adv. Decis. Sci.*, vol. 2017, pp. 1–10, 2017.

[24] E. Sallis, *Total Quality Management in education*, Third. Taylor & Francis e-Library, 2012.

[25] S. Poth, "Competitive Advantage in the Service Industry. The Importance of Strategic Congruence, Integrated Control and Coherent Organisational Structure," Doctoral thesis / Företagsekonomiska institutionen, Uppsala universitet, 2014.

[26] A. Ambastha and K. Momaya, "Competitiveness of Firms : Review of theory, frameworks and models," *Singapore Manag. Rev.*, vol. 26, no. 1, pp. 45–61, 2004.

[27] S. H. Nasab, Y. Hemmati, and S. H. Kia, "An investigation on how TQM influences employee performance: A case study of banking industry," *Manag. Sci. Lett.*, vol. 4, pp. 31–36, 2014.

[28] F. I. Arza, "Faktor-Faktor Kritis Dalam Kesuksesan Penerapan Total Quality Management Pada Sektor Publik," Yogyakarta, 2008.

[29] Y. T. Ardianto and M. Natsir, "Hybrid Strategies Study : Total Quality Management Practices and Supply Chain Management as a New Antesenden to Improve the Performance of Manufacturing in East Java," *Eur. J. Bus. Manag.*, vol. 6, no. 30, pp. 1–11, 2014.

[30] Kemendikbud RI, "Rencana Strategis Kementrian Pendidikan dan Kebudayaan 2015-2019," pp. 1–205, 2015.

[31] M. B. Miles, M. a Huberman, and J. Saldana, *Qualitative Data Analysis*, Third. SAGE Publishing, 2014.

[32] Ristekdikti, *Pedoman Sistem Penjaminan Mutu Pendidikan Tinggi*. Jakarta: Direktorat Penjaminan Mutu, 2016.

[33] N. M. Dawi, A. Jusoh, K. M. Nor, and M. I. Qureshi, "International Review of Management and Marketing Service Quality Dimensions in Pay TV Industry: A Preliminary Study," *Int. Rev. Manag. Mark. Asia Int. Conf.*, 2016.

[34] ISO, "ISO 9001:2015," *Iso*, p. 16, 2016.