Total Quality Management and Its Impact on The Effectiveness of the Academic System in Higher Education

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Abstract:
This paper describes total quality management and its impact on the effectiveness of the academic system at KH Achmad Siddiq State Islamic University Jember. This research uses a qualitative case study approach, using interviews, observation, and documentation as data collection techniques. Participants in it are leaders, lecturers, staff, and students with the purposive sampling technique. The data analysis uses Milles and Huberman's concepts, namely data reduction, data presentation, and conclusions. The results showed that the impact of total quality management and the effectiveness of the academic system was; 1) Using friendly, namely students and lecturers as users in this research, it becomes easier to use technology-based information systems, not complicated in using and getting services regarding academic matters; 2) Ease of access to information, namely making it easier for students to access information about academics; 3) Faster use, due to managerial processes that get more attention, students and lecturers feel faster in digging up information through accounts that have been provided with accurate results; 4) Public services faster, managerial processes that run more effectively and consistently as well as the presence of experts who manage them make students feel satisfied with college academic services.

Keywords: Total Quality Management, Academic System, Service

Abstrak:
Tulisan ini menjelaskan tentang total quality management dan dampaknya terhadap efektivitas sistem akademik di Universitas Islam Negeri KH Achmad Siddiq Jember. Penelitian ini menggunakan pendekatan kualitatif jenis studi kasus, dengan menjadikan wawancara, observasi dan dokumentasi sebagai teknik pengumpulan datanya. Informan di dalamnya ialah pimpinan, dosen, staff, serta mahasiswa dengan teknik purposive sampling. Analisis datanya menggunakan konsep milik Milles dan Huberman yakni yaitu reduksi data, penyajian data dan kesimpulan. Hasil penelitian menunjukkan bahwa dampak total quality management dan terhadap efektivitas sistem akademik adalah; 1) Using friendly, yakni mahasiswa dan dosen selaku users dalam penelitian ini menjadi lebih mudah dalam menggunakan sistem informasi berbasis teknologi, tidak ribet dalam menggunakan dan mendapatkan pelayanan perihal akademiknya; 2) Kemudahan akses informasi, yakni memudahkan mahasiswa
dalam mengakses informasi seputar akademik; 3) Penggunaan lebih cepat, dikarenakan proses manajerial yang mendapatkan perhatian lebih, maka mahasiswa dan dosen merasa lebih cepat dalam menggali informasi melalui akun yang telah disediakan dengan hasil yang akurat; 4) Public services faster, proses manajerial yang berjalan lebih efektif dan konsisten serta juga adanya tenaga ahli yang mengelolanya menjadikan mahasiswa merasa puas dengan pelayanan akademik perguruan tinggi.

Kata Kunci: Total Quality Management, Sistem Akademik, Servis

INTRODUCTION

Management in an educational institution is undoubtedly inseparable from an exemplary process of planning, organizing, and controlling for optimizing resources for effectively and efficiently implementing the institution's goals (Maisaro, 2018; Sugilar, 2020; Shimazoe, 2021). This process is then referred to as the managerial process (Mohamed & Yusoff, 2021). However, in reality, in the field, not all the plans that have been formulated can always be realized in their implementation (Akkermans et al., 2021). Sometimes it is only a written plan or implemented but cannot be carried out continuously. This is like what happened at KH Achmad Siddiq State Islamic University (UIN KHAS) Jember, said one of his academic staff, he said that to be able to get effectiveness in a process, consistent efforts were needed. The previous academic management of students at UIN KHAS Jember was ineffective due to a lack of consistency in carrying out step by step. This then impacts student satisfaction as customers at the university, which is decreasing. This statement is based on the increasing level of student complaints.

For this reason, considering the importance of a managerial process in educational institutions, UIN Khas Jember then seeks to implement total quality management (TQM) in its management. This is evident in academic services that continue to strive to provide the best service for students. Academic services at UIN Khas Jember are designed into a web called SISTER (integrated information system at UIN Khas Jember), where the SISTER provides convenience and satisfaction for its students. Using this service, students do not need to come to campus to see grades, enter online attendance, and choose courses to take.

TQM is a system used by management to improve performance within the institution or organization, and continuous improvement will be carried out by the institution in all its functions (Jabbar & Hussin, 2019), so that the institution's goals can be achieved (Azeez, 2016). Another definition also says that TQM combines all the functions of an institution into a holistic philosophy that is built on the concepts of quality, teamwork, productivity and understanding, and customer satisfaction (Zamroni, 2017; Babatunde & Victor, 2018; Samsinar, 2021). The principles in Total Quality Management (TQM), namely; 1) The customer is king, (2) Everyone participates in TQM; 3) Quality measurement is essential; 4) Align the corporate system to support TQM; 5) Constantly strive for improvement (Hanoum & Kusumaningrum, 2021).

TQM is then carried out on a philosophical basis, namely as a tool or instrument in improving quality by considering the needs and satisfaction of customers and stakeholders (Sonia, 2021). The customer is the party that
determines whether the quality of the product or service produced by the organization meets the needs or the level of quality he wants (Pokrovskai et al., 2019; Osman et al., 2020). Whatever is done by an organization or company, such as process improvement, employee training, use of advanced machines, or the adoption of the latest technology, in the end, the customer will determine whether the various efforts made are beneficial or not (Tumiwa, 2016; Kuswanto & Anderson, 2021).

However, the application of TQM at UIN Khas Jember is carried out as a series of concepts in welcoming quality and creating effectiveness in the managerial process. The effectiveness of this managerial process can then be seen from the aftermath of the impacts. This includes customer satisfaction. As it is known, prioritizing customers' interests has become a familiar thing today. The basic philosophy of TQM is the idea of defect prevention versus disability detection. The essential elements of this philosophy are the prevention of defects and the emphasis on design quality. Quality management adheres to the concept of zero defects by doing the job right from the start (Snowden, 2008; Agrawal, 2019). This then became the focus of this research; as previously explained, at UIN Khas Jember, there were increasing complaints from students as customers in the university. After being analyzed, it turns out that this is caused by the lack of effectiveness of the managerial process in it. For this reason, TQM is then used to streamline the managerial process in the hope that customers or students can get commensurate satisfaction.

Managerial effectiveness is understood as one of the essential things in an organization. As mentioned in the research of Fauzi (2020) and Haekal et al., (2022), managerial effectiveness can maintain the existence of an institution. The indicators of managerial effectiveness, as revealed in research conducted by Muljani (2017), are goal attainment, resource allocation (allocation of resources), providing motivation (motivation), doing work correctly (doing the right things), performing cooperation (coordination), monitoring (monitoring), and evaluation of work results (evaluation).

A study with a similar theme was conducted by Khurniawan et al., (2021), who said that TQM (total quality management) had a significant effect on the effectiveness of school management. Influence in increasing the effectiveness of management in schools or educational institutions. Gumus (2020) said that TQM had been used as an implementation tool to produce efficiency and productivity in schools; this research can then be used as a guide that TQM can create efficiency and productivity, which also affects managerial effectiveness as the focus of this research. Furthermore, Ismail & Ali (2016) explained that TQM impacts the performance of employees and the organization as a whole and will motivate them to take serious steps in making policies to create a positive and healthy work environment.

Some of these studies can also be understood and used as a basis that TQM can create motivation for employees whose role in this research is to be consistent in carrying out managerial processes. The research only focuses on the role of TQM in school management, and no one has conducted any research. About the effectiveness of the managerial process at state Islamic
religious universities by using total quality management education. Therefore, this research is present as a complement to several previous studies through different backgrounds and contexts within the scope of education. The research focuses on efforts to understand total quality management and its impact on the effectiveness of the academic system at KH Achmad Siddiq State Islamic University (UIN KHAS) Jember.

RESEARCH METHODS

The method used in this research is a qualitative approach, a single instrumental case study. This research focuses on the impact of TQM implementation on managerial effectiveness at KH Achmad Siddiq State Islamic University (UIN KHAS) Jember. The data was obtained through interviews, observation, and documentation. This activity was carried out since the researcher determined the focus of the research, described the research problem before going to the field and continued until the research report. The data obtained by the researcher while in the field has been written down systematically, then reduced according to the research focus so that researchers can quickly draw a research conclusion. The researcher conducted interviews with several informants using the purposive sampling technique to obtain valid and accountable data, namely university leaders, lecturers, staff, and students as users who would provide responses and assessments. In this case, according to facts, the researcher provides a structured description and can be measured about the existing conditions at the research location, both in the form of the object being studied and facts related to these conditions and to conclude later. The data analysis used is Miles and Huberman, namely data reduction, data presentation, and conclusions or data verification.

RESULTS AND DISCUSSION

Using Friendly

The first impact felt by students as users caused by the effectiveness of the managerial process at UIN Khas is the ease of using campus academic services. In this case, it refers to SISTER as one of the web-based educational service systems at UIN Khas. SISTER is a web-based application that contains integrated information related to the student concerned, such as grades, lecture program designs, data for supervisors, etc. The description of SISTER UIN Typical Jember is shown below:

![Figure 1: SISTER UIN Khas Jember Display](image-url)
SISTER is available in student academic data and available for e-learning. The procurement of SISTER certainly gives a friendly impression for the students of UIN KHAS Jember; this was expressed by one student at the Arabic Language Education Study Program who said that "SISTER provides easy use and is certainly friendly for students. With SISTER, we no longer need to wait for long information updates; have a look on the SISTER web periodically."

Based on this expression, an understanding can be drawn that the existence of SISTER is one of the reasons students are satisfied with academic services at UIN KHAS Jember. A study reveals that service quality has a long-term effect on shaping consumer satisfaction and making consumers loyal to the organization (Calista, 2022).

The same thing was also conveyed by one of the Islamic education management study programs, which said that "One of the facilities available in SISTER is e-learning, e-learning lately, especially during the Covid-19 pandemic, which is very much done both at the school and university level. For me, SISTER provides more than enough convenience, this is because it is enough to check the e-learning link in SISTER, it is complete with the schedule and the lecturer, so there is no need to ask again today what the link is and what application you use because it is from UIN KHAS Jember itself the use of e-learning has been facilitated with the Microsoft Team".

Based on the explanation, it can be understood that academic services in the form of SISTER at UIN KHAS provide convenience to students in their application. In addition, the SISTER coordinator, UIN KHAS Jember, has facilitated every online lecture with the team's Microsoft account. This is in line with research conducted by Prahesti et al., (2021) states that the pandemic requires universities to provide and improve services to meet student satisfaction; this student satisfaction will indirectly shape the image of universities. In higher education, e-learning has changed the concept of conventional learning, which is always described through face-to-face meetings between lecturers and students in the classroom. However, this concept is starting to be replaced with information technology, which allows lecturers and students to interact separately, but the transfer of knowledge process can still run well (Hakim et al., 2021). The explanation given by the student implies more enthusiasm than the use of conventional learning. This is in line with research conducted by Kim & Choi (2016) states that students are more receptive to being innovators or early adopters, which means they are more eager to use technology as a teaching tool. This implies that lecturers' perceptions and learning styles can be potential, ongoing, and possibly altered variables for meaningful teaching with technology.

Talking about the quality and student satisfaction cannot be separated from the managerial process, which is managed quite effectively in the university, which in this case, UIN KHAS uses the TQM concept in its implementation. This was conveyed by one of the leaders of UIN Khas through his narrative: "Every university is certainly required to be able to compete in various national and international arenas, right, for that the first thing that
needs to be built is a good image of UIN KHAS. The main target in building this image is students. One of the strategies is to provide services that make it easier for them and, most importantly, satisfy them with the services here. One of them is also with SISTER or the Integrated Information System, an application on the web that all residents of UIN Khas can use. In managing it all, we apply the TQM concept by involving various parties, planning carefully, then implementing and evaluating it; the process is repeated continuously. This section is also the most important part, why is that because sometimes this process is ignored by several parties, feeling that they are mature enough in planning but then neglecting the next process that must be followed”.

The existence of SISTER is intertwined with a successful managerial process and the TQM idea. Providing convenience in service is one of UIN Khas's planned goals to improve its global image. The managerial process is also crucial, which some parties overlook. Quality has two dimensions: consistency and ability. Consistency refers to the product's continuing conformance to the customer's specifications, SISTER. This refers to a product or service's ability to suit customers' needs, mainly pupils (Wahyudi, 2016). Service quality is an endeavor to meet needs, consumer wishes, and delivery accuracy (Surianti et al., 2020). Quality in education does not arise by accident. The desired quality must be planned. Quality must be part of an institution's strategy, and this requires a methodical approach and a mature planning process (Wathoni, 2021).

Accessibility of Information

The subsequent impact that is felt from the effectiveness of the managerial process is the ease of students in accessing academic services in the form of SISTER at UIN Khas Jember. The ease of accessing this service was conveyed by one of the students of UIN KHAS Jember who said: "What is most felt is the ease of accessing it, if it is SISTER, it can be opened anywhere under any circumstances, and it does not have to be stuck on a laptop on a cellphone, and at what time just. From that, we can request services through SISTER at any time. For example, you do not need to go to campus to program courses or check grades and supervisors. Besides that, SISTER is complete; various menus can be explored to access the data."

![SISTER display on the wrong student's account](image_url)
Based on this explanation, it can be understood that SISTER then makes it easier for students to access information about UIN KHAS academics or program courses. SISTER utilizes technological sophistication and aligns with the principles of a pandemic that is currently shaking the world. The era of globalization, known as the loss of territorial boundaries, the loss of time limits, the loss of communication boundaries, and the loss of information boundaries, can all be accessed easily and quickly. The right technology can bring goodness and convenience to its users. So that in, this digital era forces academics to recognize and use technology to keep up with the needs of the times (Mildawati, 2021).

Technology is increasingly sophisticated and proliferating; all circles have followed this development, including lecturers and students, academic services for students; UIN KHAS Jember provides policies to carry out academic activities and services online through the SISTER web application. A study said that student satisfaction is when their expectations for the services of employees the ability of lecturers who are supported by various means become easy to obtain and easily accessible. If these indicators can be met, this will provide a high level of satisfaction to all students. They will be satisfied with all forms of service received (Sugiarti, 2021).

The ease of access is inseparable from the effectiveness of the managerial processes that take part in it. One of the UIN KHAS staff conveyed this, who said, "Some of the students I mentored gave pretty good and fast feedback. I initially assumed that this was because the facilities could be accessed anytime and anywhere. Then I asked some of my students; it turned out to be true because they said it was easy to access the web application to give pretty good feedback. Of course, this has been planned since the beginning, and the choice of web-based academic service options such as SISTER was chosen."

The same thing was conveyed by one of the leaders of UIN KHAS Jember, who said; "Yes, behind the comfort felt by users or students, there is a plan that has been implemented, stakeholders who play an active role and good cooperation between the leadership and staff as well as an evaluation that is realized in a sustainable way as the TQM principle. Because here we adopt the concept of TQM to be then applied in the management or managerial process".

From this, it is clear that the leadership and staff created SISTER's aims. Planning is vital in the management process (Park, 2021). One of the goals stated in the discussion between the leadership and staff to develop the SISTER plan is the satisfaction of users or students. Student satisfaction is tested in an academic service called SISTER. When students are satisfied, they will be loyal to the college; the ease students evidence this satisfaction access campus information. When students are satisfied, then UIN KHAS can defend itself amid competition. This is as research conducted by which states that the development of management information systems also needs to be applied in educational institutions because in facing global competition, educational institutions are required to provide information more quickly, accurately, and conveniently which is part of service quality so that it will become a competitive advantage (Haq et al., 2021).
Service quality can be defined as how far the difference between reality and customers' expectations for the services they receive. Service quality is the last link in the chain of activities for the TQM system. Service quality is also an essential element of TQM to influence decisions. Service quality can be known by comparing customers' perceptions of the services they receive. This can be seen from students' responses as users or service users at UIN KHAS Jember. Service Quality of Service Quality is a method of measuring service quality, meaning whether the services carried out in an organization provide satisfaction to users. Service quality here is evaluated whether it provides user satisfaction. Implementing quality services is very important in this era of competition (Nuraeni et al., 2021).

To achieve this goal, UIN Khas focuses on the effectiveness of the ongoing managerial processes. The effectiveness of the managerial process is a concept that is being developed in stages that will lead to the achievement of academic goals and the needs of the students themselves (Phuengrod et al., 2021). The managerial effectiveness of an organization lies in the managers. The more qualified the manager of an organization, the more qualified the organization (Uğurlu, 2018). As explained by one of the staff, the UIN Khas leadership firmly adheres to the consistency of the performance of the managerial process.

Public Services Faster

A fast and accurate service process is obtained and felt by UIN KHAS Jember students regarding their academic services; in this case, the Islamic state university uses technology assistance, namely a web-based application in the form of SISTER. This was conveyed by one of the postgraduate students who said that "With SISTER, it makes it easier and faster for us to get the data or information we want to know. For example, an announcement regarding an exam schedule or a proposal seminar that will take place. So it does not take long; if the leadership has determined it, the information will appear on our SISTER dashboard, and even then, the results are accurate, not just "says."

Based on this explanation, it can be understood that students get a good response from users with the help of information technology academic services. Namely, students feel faster in digging up information through SISTER, with accurate results. This is in line with research that states that universities have good academic service quality because they have human resources and the availability of application and information systems that rely on technological sophistication to collect and disseminate information more quickly, easily, and accurately. Good interactions between service providers and service recipients, namely students, will create trust credibility with mutual respect, respect, responsiveness, and attention (Harahap et al., 2019).

The speed of service felt by UIN Khas students cannot be separated from the role of staff and employees who carry out their performance with total commitment, sensitivity, and responsibility. One of the UIN KHAS staff conveyed this, saying, "Not directly like that; there is still a process that we as employees go through here. Like complaints from students, which we try to fix
regularly, then try to be sensitive by responding quickly to the obstacles in student academic services at this university. Thankfully, behind our efforts to be sensitive to student responses and complaints, it finally yielded results, namely the ease and speed felt by students in obtaining data or information about campus academics."

Students feel comfortable because they quickly get information about campus academics; they are not immediately felt. There is still a stage where UIN KHAS's staff tries to understand and accept complaints from students, which are then used as material in improving their services in the future. In a study, it was said that the better the response, the higher the student satisfaction. The ability of reaction (responsiveness) is the potential of higher education which is implemented in serving quickly and sensitively. Sensitivity can produce a good view of the quality of the services provided (Sarbina et al., 2021). The process is also the impact of an effective managerial process.

**Users Satisfaction**

The appearance and expertise of physical facilities and infrastructure in educational institutions that can be relied on in the surrounding area is an indisputable fact of the services provided by service providers. The bond between physical facts and student satisfaction is a biological fact that positively and significantly influences student satisfaction. SISTER is one of the ways used by students in accessing the information or data needed regarding academic data. The ease and speed felt by students have formed a satisfaction in every student who uses the SISTER. This was conveyed by one of the students of UIN KHAS Jember, who said: "SISTER is not only easy to use but also can be used anytime, saves energy, does not need to go to campus. SISTER is complete in class schedules, exam schedules, and event information related to supervisors and grades can be accessed there. Quite satisfied with SISTER's service which is getting better day by day".

From the explanation, it can be understood that the response or expression is a picture of the satisfaction felt by students because of academic services through SISTER. A study stated that the impact between responsiveness and student satisfaction was due to the excellent quality of service provided to service users, which was meaningful and manifested in communication and consultation, providing solutions and encouragement to the problems experienced (Teisnajaya, 2021).

To respond to complaints from students with full responsibility and agility, adequate human resources are needed in their fields. This was conveyed by one of the leaders of UIN KHAS in his interview: "With this managerial process that has been running quite effectively and of course consistently, SISTER can then provide the best service for students to create a sense of satisfaction for students. However, to respond to complaints that used to exist, there must be experts in this matter; for example, the SISTER management division staff must already understand the ins and outs of SISTER. Thus, when a student complains, he or she can immediately make corrections properly."
The current SISTER achievement is the result of a managerial process that is consistently carried out and the presence of experts who manage it. A study stated that expertise could build reliability and affect customer satisfaction. Reliability (reliability) is a management skill or service in realizing distributing services according to what has been promised. A kind of accuracy in providing prices, protecting records of accuracy that have been achieved on time (Badar & Karsiwan, 2021). Student satisfaction implies service maximization (Pangaribuan & Ginting, 2021).

Tighter competition and demands from society and industry for quality-oriented to customer value ultimately pressure institutions to respond quickly (responsiveness). Facing this condition, the main thing that universities must prioritize is student satisfaction. Student satisfaction is determined by the quality students desire so that quality assurance is a top priority for every tertiary institution, which is currently used as a benchmark for the competitiveness of higher education institutions (Sidik & Marcellinus Logahan, 2021).

CONCLUSION
From the data exposure, it can be concluded that UIN KHAS Jember, as one of the universities that applies the TQM concept in its management, can achieve effectiveness in its managerial process. This research focuses on SISTER as one of the web applications used by UIN Khas to monitor its students' academic services. This, of course, will impact the response of students as service users. Some of the impacts are; 1) Using Friendly, namely the use of a friendly SISTER; 2) Ease of accessing information through SISTER; 3) Takes a relatively faster time; and 4) Users Satisfaction. This research is only limited to TQM to streamline the managerial process of student academic services at a university. For this reason, it then provides opportunities for further research on the application of TQM in other segments in universities, such as the curriculum, teaching, and so on.

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