

Determinants of Quality Management System (QMS) Adoption in Nepal's Handicraft Sector: A UTAUT and Institutional Perspective

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Abstract

Quality Management Systems (QMS) are required to improve performance and competitiveness, especially in export-oriented industries. The study examined the determinants of QMS adoption in the Nepalese handicraft industry and the moderation of this by regulatory requirements.

According to the data of 222 firms and correlation, regression, and PROCESS Macro analysis, it is possible to state that performance expectancy ($\beta = 0.517$, $p < 0.001$), social influence ($\beta = 0.446$, $p < 0.001$), and export orientation ($\beta = 0.482$, $p < 0.001$) significantly influence QMS adoption. Accordingly, other constructs like effort expectancy and facilitating conditions are not significant because their p-value is greater than 0.001.

Moderation analysis indicates that regulatory requirements do not significantly affect most of the relationships, but they do increase the effects of social influence on QMS adoption ($\beta = 0.194$, $p = 0.004$).

The findings show that the performance expectancy, social influence, and export orientation are the main factors that contribute to the adoption of QMS, rather than regulatory pressure. The research offers empirical evidence on the influence of performance expectations, social influence, and export orientation on quality management practices in a developing country setting.

Keywords: Quality Management System, UTAUT, Export Orientation, Regulatory Requirements, Handicraft Industry, Nepal.

1. Introduction

Quality Management System (QMS) adoption has gained more significance in organizations wishing to be competitive in the global markets. Systematically integrated QMS in organizational process assists companies in making work efficient, improved process resulting in enhancement of quality of final outputs, making them viable to comply with international standards[1]. However, there is dearth of

research focusing on the implementation of QMS in low technology industries especially SMEs from developing countries with its high concentration in the large and technology intensive industries [2].

Handicraft sector in Nepal is one of the major contributors in the sector of employment and export revenue contributing in economy of country. Besides this this sector is still traditional, functioning in small scales, with limited resources and technology hindering implementation of formal quality management practices[3]. This highlights the need of exploring the motivating factors for QMS adoption in Nepalese Handicraft industries to enhance their competitiveness, standardization of products, and sustainability.

This paper will discuss the major factors that drive the adoption of QMS and also evaluate the extent to which regulatory requirements reinforce or undermine these relationships. The study combines organizational perceptions with external pressures to explain adoption behavior by drawing on the Unified Theory of Acceptance and Use of Technology (UTAUT) and institutional perspectives [4]. The research offers empirical evidence on the role of performance expectations, social influence, and export orientation in influencing quality management practices in a developing country setting.

2. Objective of the study

Research Objectives

1. To determine the effect of performance expectancy, social influence, and export orientation on the adoption of QMS in the Nepalese handicraft industry.
2. To establish the moderating role of regulatory requirements in the relationship between key determinants and QMS adoption.

3. Literature Review

3.1 Adoption of Quality Management System (QMS)

Quality Management Systems (QMS) are organized systems that help organizations enhance the quality of products, efficiency in their operations, and customer satisfaction. Like ISO 9001, QMS assists in standardizing the operations in an organization and improving its performance [5]. Application of QMS is usually seen as a requirement to be competitive and be able to stay in the market in international markets, mainly in industries that rely on exports.

Previous studies indicate that internal organizational and external environmental forces influence the adoption of QMS. Small and medium enterprises (SMEs) will probably face the lack of resources, expertise, and institutional support, even though formal quality systems are easier to implement in large companies [6]. Such problems are more severe in developing nations, particularly in the traditional industries such as handicrafts, where informal practices are prevalent.

3.2 Theoretical Background: UTAUT and Institutional Perspective.

The data is founded on the Unified Theory of Acceptance and Use of Technology (UTAUT) that states the implementation of new systems by individuals and organizations because of the determinants of significance among them, such as performance expectancy, effort expectancy, social influence, and facilitating conditions [7]. UTAUT was originally designed to be applied in technology adoption, but has been widely applied in organizational and management contexts to explain the adoption of systems such as QMS.

Additionally, an institutional approach is also part of the research, as it is concerned with how external forces, including regulatory demands, norms, and industry expectations, impact organizational behavior [8]. UTAUT and institutional theory combination provides a comprehensive method to understand internal motivation and external influences on the adoption of QMS.

3.3 Performance Expectancy

Performance expectancy refers to how an organization believes that the adoption of a system will improve its performance. This is in terms of product quality, efficiency, and customer satisfaction as far as QMS is concerned. The performance expectancy has always been a strong predictor of adoption behavior in previous studies since organizations are more likely to adopt systems with clear benefits [9].

Performance improvements in export-oriented industries are closely related to market competitiveness. Firms that consider QMS as a tool of enhancing productivity and international standards tend to adopt it.

3.4 Effort Expectancy

Effort expectancy refers to the perceived ease of use or implementation of a system. In theory, the simpler systems are more likely to be adopted [10]. However, effort expectancy may not be a significant variable in the organizational context, especially in the traditional industries where other forces such as market demand or competition pressure are more pronounced.

Studies have shown that even when a system is perceived to be complex, organizations can still adopt it when the perceived benefits are greater than the perceived implementation challenges [1].

3.5 Social Influence

Social influence refers to the extent to which stakeholders such as customers, competitors, industry associations, and business networks affect organizations. Companies adopt QMS in most cases due to external pressures or to meet industry standards.

Previous research suggests that social influence is a significant determinant of adoption, particularly in industries where reputation, trust, and compliance are important [11]. The competitive forces and peer pressure can make companies adopt quality standards to remain legitimate and in the market.

3.6 Facilitating Conditions

Facilitating conditions are the resources, infrastructure, and support required to implement the system. These include financial resources, technical skills, and organizational skills [12].

Facilitating conditions are expected to support adoption, yet their impacts may vary across contexts. In the emerging economies, adoption may be hindered by the scarcity of resources, yet it can still be done when the companies are driven by strong market forces or external forces.

3.7 Export Orientation

Export orientation is a scale of the degree of participation of firms in the global markets. Export-oriented businesses tend to have higher quality standards and are more likely to adopt QMS to meet international standards and customer requirements.

Studies indicate that export orientation is a strong motivation to adopt quality management practices since compliance with international standards enhances credibility and foreign market access [13]. Export demand can be a significant source of modernization and standardization in the traditional industries such as handicrafts.

3.8 Moderating Factor: Regulatory Requirements.

Government policies, standards, and compliance requirements are regulatory requirements that influence organizational decisions. Regulatory pressure can either encourage or discourage adoption behavior, institutionally.

The former study suggests that regulatory frameworks have the potential to improve the adoption of quality systems by creating mandatory standards and incentives [14]. Regulatory power may be limited, but in cases where enforcement is lax or intermittent.

3.9 Research Gap

Despite the growing importance of the role of QMS in the international markets, there is a dearth of empirical research that has examined the adoption of QMS in the traditional industries in the developing world, particularly in the Nepal handicraft industry. The literature has largely focused on manufacturing or service industries, and there is a knowledge gap on how cultural, institutional, and market factors influence adoption in informal or semi-formal sectors.

In addition, the combined impact of UTAUT variables and institutional pressures, especially regulatory requirements, has not been sufficiently explored in this respect. This study bridges this gap by providing empirical evidence on what influences the adoption of QMS and the moderating role of regulatory variables in the Nepalese handicraft industry.

4. Methodology

4.1 Research Design

The proposed research is founded on a mixed-method research design, which implies the application of both quantitative and qualitative research methods to explore the implementation of QMS in the Nepalese handicraft sector. Quantitative stage is applied to test the hypothesis about the relationship between variables, and the qualitative stage provides the contextual information about the practices and challenges in the industry. The design adopted a cross-sectional design whereby the data were gathered at a single point in time.

4.2 Sample and Data Collection.

The target population will consist of handicraft firms that are members of the Federation of Handicraft Associations of Nepal (FHAN). Given that purposive sampling was employed, the sample size was estimated through the Cochran approach with an effective population of 500 active and accessible firms. The 222 valid responses collected through a structured questionnaire were from the owners, managers, and decision-makers.

In the qualitative dimension, seven (7) industry professionals were selected purposely based on experience and involvement in quality management practices. Open-ended questions were used to capture practical insights.

4.3 Measurement of Variables

Multi-item scales were conducted in the form of adoptions of previous studies in order to measure all constructs and evaluate them based on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

- Performance Expectancy (PE)
- Effort Expectancy (EE)
- Social Influence (SI)
- Facilitating Conditions (FC)
- Export Orientation (EO)
- Regulatory Requirements (RR) (moderator)
- QMS Adoption (*dependent variable*)

4.4 Data Analysis Techniques

The analysis of quantitative data was done by using SPSS (Version 25). The analysis included:

- Descriptive statistics
- Reliability analysis (Cronbach's alpha)
- Correlation analysis

- Multiple regression analysis

For the moderation test, PROCESS Macro (Model 1), developed by Hayes (2022), was applied with 5,000 bootstrap samples and a 95% confidence interval. Before analysis, mean-centering was done on all continuous variables.

4.5 Qualitative Analysis

Thematic analysis was used to analyze qualitative data. Carefully measured responses were coded and sorted into sub-themes/ broader themes. The process assisted in identifying the important factors that are institutional support, training, motivation, and external influence, which verify the quantitative results.

4.6 Integration of Methods

Results of the analysis were triangulated with the quantitative and the qualitative analyses. Quantitative findings indicate the important predictors of QMS adoption, and the causes and implications are clarified by qualitative data. This combination will help add validity and depth to the study.

5. Results and Analysis

5.1 Descriptive Statistics and Reliability.

The study gathered information on 222 respondents who were the representatives of handicraft companies in Nepal. The descriptive statistics indicated that more respondents were more inclined to positively perceive QMS adoption and its factors.

Cronbach's alpha was used to analyze the reliability, and the internal consistency of all constructs was satisfactory with an acceptable value of 0.70. It confirms the fact that the used measurement scales could be applied in further analysis.

5.2 Correlation Analysis

Correlation analysis was conducted to test the relationships between the study variables. The findings show that performance expectancy, social influence, and export orientation have a positive and significant relationship with QMS adoption.

Conversely, effort expectancy and facilitating conditions exhibit less significant and non-significant relationships with QMS adoption. These findings are initial indications that perceived benefits, social pressure, and market orientation are stronger factors than ease of use or availability of resources in influencing adoption decisions.

5.3 Regression Analysis

The direct effects of independent variables on QMS adoption were tested using multiple regression analysis.

The findings indicate that:

Performance Expectancy ($\beta = 0.517$, $p < 0.001$) is a strong and significant positive predictor of QMS adoption. This implies that organizations will be more inclined to implement QMS when they see evident performance, quality, and efficiency improvements.

Social influence and regulatory needs are positively and statistically significantly related ($\beta=0.1941$, $p = 0.0044$). This means that regulatory requirements increase the effect of the social influence on the adoption of QMS.

Another important predictor is **Export Orientation** ($\beta = 0.482$, $p < 0.001$). Companies that are involved in export business tend to embrace QMS in order to comply with international standards and increase their competitiveness in the market.

On the other hand:

There is no significant evidence of **Effort Expectancy** at ($\beta= 0.091$, $p = 0.174$).

It means that the extent of ease felt in the implementation is not a strong predictor of the adoption of QMS in this study.

Facilitating Conditions ($\beta = 0.058$, $p = 0.389$) do not have significance as well, since the resources and infrastructure are not a significant determinant of adoption.

In general, the regression findings reveal that the perceived benefits and external pressures have stronger effects, compared to the operational convenience, on the QMS adoption.

5.4 Moderation Analysis

The role of regulatory requirements in mediating the relationships between independent variables and QMS adoption was analyzed with the help of the PROCESS Macro (Model 1).

The findings show that:

The relationship between **performance expectancy and regulatory requirements** is not significant ($p = 0.0524$), but it demonstrates a marginal effect.

The relationship between **effort expectancy and regulatory requirements** is not significant ($p = 0.8718$), which means that there is no moderating effect.

The relationship between **facilitating conditions and regulatory requirements** is also not important ($p = 0.7891$).

Likewise, the relationship between **export orientation and regulatory requirements** is not meaningful ($p = 0.4158$).

However:

The **social influence** has a positive and statistically significant relationship with regulatory needs ($\beta = 0.1941$, $p = 0.0044$). This implies that social influence has a greater impact on the adoption of QMS in the case of regulatory requirements. That is, the more regulatory pressure, the more the stakeholders and industry networks.

These results indicate that regulatory requirements are not the direct drivers of QMS adoption but can increase the effects of social and institutional pressures.

5.5 Summary of Findings

The general findings show that:

- a. The most important drivers of QMS adoption are performance expectancy, social influence, and export orientation.
- b. Facilitating conditions and effort expectancy are not significant in adoption decisions.
- c. Regulatory requirements play a minor moderating role, and a strong effect is only seen in the instance of social influence.
- d. These results indicate that the adoption of QMS in the Nepalese handicraft industry is largely market-oriented and perception-based, as opposed to being regulator-enforced or easy to implement.

6. Conclusion

This study has discussed the determinants of Quality Management System (QMS) adoption in the Nepalese handicraft industry and evaluated the moderating effect of regulatory requirements. The results give a clear indication that the most important drivers of QMS adoption are performance expectancy, social influence, and export orientation. When organizations feel that they are getting tangible performance benefits, when they feel that they are under pressure by stakeholders, and when they are operating in export markets that require quality standards, then they are more likely to implement QMS.

Conversely, effort expectancy and facilitating conditions were statistically insignificant, which means that the ease of implementation and the availability of resources are not decisive factors in adoption decisions

in this context. This implies that companies are ready to go through the hurdles of operation in case there are good market incentives and perceived benefits.

The moderation analysis also indicates that regulatory requirements do not play a significant role, and a significant moderating effect is only observed in the relationship between social influence and QMS adoption. This implies that regulatory pressure is not enough to stimulate adoption but can support the contribution of external stakeholders and industry expectations.

In general, the research finds that the adoption of QMS in the Nepalese handicraft industry is more of a market-based and perception-based approach than a regulation-based one. The findings are relevant to the current literature as they offer empirical evidence in a traditional industry setting in a developing country. The findings also provide useful information to policymakers and industry players to concentrate on awareness, market incentives, and export promotion strategies to improve the adoption of quality management practices.

7. Discussion

This paper has explored the determinants of Quality Management System (QMS) adoption in the Nepalese handicraft industry by combining the Unified Theory of Acceptance and Use of Technology (UTAUT) with an institutional approach. The results offer valuable information on the influence of organizational perceptions and external pressures on adoption behavior in a developing country setting.

The findings indicate that performance expectancy has a positive and significant impact on QMS adoption. This observation is in line with the UTAUT theory, which recognizes performance expectancy as a key predictor of adoption behavior [7]. It also coincides with the past research that indicates that organizations tend to implement quality systems more often when they see a tangible increase in efficiency, product quality, and competitiveness [1]. Within the framework of the handicraft industry in Nepal, it seems that companies are more focused on the tangible performance benefits than on other factors, which implies that they are results-oriented in their decision-making.

Likewise, social influence was also identified to have a significant influence on QMS adoption. This is in line with previous studies that have shown that stakeholders like customers, competitors, and industry networks are important in influencing organizational decisions [15]. Social and institutional pressures tend to replace formal regulatory mechanisms in traditional industries where formal structures might be constrained. The results indicate that peer practices, market expectations, and reputational concerns influence firms to implement QMS.

The research also established that export orientation is a significant factor in QMS adoption. This aligns with the existing literature, which emphasizes that companies operating in global markets have a higher probability of using standardized quality systems to address the global needs [16]. Export-oriented companies are subjected to more stringent quality requirements and thus implement QMS to increase credibility and retain access to the foreign markets. This observation helps to prove the thesis that market-based forces are influential in improving the quality management practices in emerging economies.

Conversely, effort expectancy was not significant. This implies that the perceived ease or difficulty of QMS implementation does not have a strong impact on adoption decisions. This finding contradicts the initial UTAUT assumption but is justified by the research that suggests that organizations can implement complex systems when the perceived benefits exceed the challenges [1]. In this instance, companies seem to be ready to address the challenges of implementation in case QMS can offer competitive benefits.

Likewise, facilitating conditions did not have a significant impact on QMS adoption. Although past studies indicate that resources and infrastructure are significant in system implementation [17], the results of this study show that these variables are not conclusive during the adoption stage. This could be a reality of the developing economies, where companies tend to work with limited resources yet still implement systems when there is a strong external or market incentive.

In terms of the moderating effect of regulatory requirements, the findings show that regulatory variables do not play a significant role in most of the relationships between the independent variables and QMS adoption. This result indicates that regulatory enforcement is not a powerful adoption driver, which is in line with the literature that indicates weak institutional enforcement in developing settings [18].

Nonetheless, the relationship between social influence and QMS adoption showed a significant moderating effect. This implies that the influence of stakeholders can be enhanced by regulatory pressure, which implies that there is a complementary relationship between formal regulations and informal social mechanisms.

In general, the results indicate that the adoption of QMS in the Nepalese handicraft industry is mainly motivated by the perceived performance advantages, social pressures, and export market requirements, but not by the simplicity of implementation or enforcement of regulations. This observation substantiates the thesis that market-based forces are important in improving quality management practices in emerging economies.

8. Practical Implications

The findings of this study have great implications for policymakers, industry players, and handicraft businesses in Nepal. Since performance expectancy, social influence, and export orientation are the main determinants of QMS adoption, the focus should be on raising awareness of the practical advantages of QMS. Government agencies and industry associations like FHAN can be instrumental in this by arranging training programs, workshops, and awareness campaigns to show the practical benefits of quality management practices.

The high impact of social influence implies that adoption can be promoted by peer learning, networking, and collaboration with the industry. Effective companies that have adopted QMS can act as role models, which will have a demonstration effect on others.

Moreover, the high impact of export orientation shows that the policies that encourage international trade and market access can indirectly facilitate the adoption of QMS. The adoption rates can be enhanced by incentives to export-oriented companies and linking quality certification to export promotion programs.

Since the regulatory requirements were found to have a minimal direct effect, the policymakers should focus less on enforcement and more on supportive policies such as capacity building, financial assistance, and simplified certification processes.

9. Theoretical Contributions

This research adds to the existing literature in a number of ways. First, it generalizes the application of the Unified Theory of Acceptance and Use of Technology (UTAUT) to the context of QMS adoption in a traditional industry in a developing country. Despite the wide use of UTAUT in technology adoption studies, it has been used very little in quality management systems.

Second, the study is a combination of UTAUT and an institutional approach, as the regulatory requirements are examined as a moderating factor. The findings show that regulatory pressure does not have a direct effect on adoption but can enhance the effect of social influence, a more specific understanding of the dynamics of institutions.

Third, the study provides empirical evidence on the handicraft sector in Nepal, which has not received a lot of attention in past research. This adds to the larger body of literature on quality management and organizational behavior in developing economies.

10. Study Limitations.

This study has several limitations despite its contributions. To begin with, the cross-sectional design restricts the possibility of tracking the changes in QMS adoption over time. Future research may take a longitudinal design to gain a better insight into the dynamics of adoption.

Second, the research is based on purposive sampling, which can restrict the extrapolation of the results to the population sampled. The sample size is sufficient, but in future studies, probability sampling methods can be employed to increase representativeness.

Third, the research concentrates on the chosen variables according to UTAUT and institutional theory. Organizational culture, leadership, and financial capability are other factors that might affect QMS adoption and should be investigated in future research.

11. Future Research Directions

This study can be developed in future research in several ways. First, the researchers will have the opportunity to investigate the application of QMS to other sectors, such as manufacturing or services in order to compare the outcomes across the industries.

Second, additional moderating or mediating factors, such as organizational preparedness, digital transformation, or innovation capacity, could be explored in future research to learn more about the adoption behavior.

Third, the institutional settings can be identified using cross-country comparative research to establish how institutional settings influence the adoption of QMS. This would give a wider perspective of quality management practices in developing and developed economies.

Lastly, the implementation issues can be examined in greater detail with the help of qualitative or case study methods, which will offer practical information on how companies can successfully implement and maintain QMS.

12. Policy Recommendations

To encourage the use of QMS in the Nepalese handicraft industry, the following recommendations can be made:

- Create specific awareness campaigns on the advantages of QMS.
- Offer certification, financial incentives, and subsidies.
- Enhance industry networks and peer learning platforms.
- Streamline regulatory processes and minimize bureaucracy.
- Combine QMS requirements and export promotion policies.

References

1. P. F. S. Siltori et al., “Analysis of the motivations for ISO 9001:2015 adoption in the Brazilian business context,” *Qual. Manag. J.*, vol. 28, no. 2, pp. 76–85, 2021, doi: 10.1080/10686967.2021.1886025.
2. P. Greasley, *Quantitative Data Analysis: Using SPSS*. 2016. doi: 10.4135/9781473957695.n23.
3. H. S. Jenatabadi et al., “No An Overview of Organizational Performance Index: Definitions and Measurements,” *Syria Stud.*, vol. 7, no. 1, pp. 37–72, 2015, [Online]. Available: https://www.researchgate.net/publication/269107473_What_is_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civilwars_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625
4. T. Hussain, J. K. Eskildsen, and R. Edgeman, “The intellectual structure of research in ISO 9000 standard series (1987–2015): a Bibliometric analysis,” *Total Qual. Manag. Bus. Excell.*, vol. 31, no. 11–12, pp. 1195–1224, 2020, doi: 10.1080/14783363.2018.1469977.
5. M. Ngambi and A. Nkemkifu, “The Impact of Total Quality Management on Financial Performance,” *Am. J. Manag.*, vol. 15, no. 4, pp. 69–85, 2015.
6. E. Walsh and H. Lenihan, “Accountability and effectiveness of NGOs: Adapting business tools successfully,” *Dev. Pract.*, vol. 16, no. 5, pp. 412–424, 2006, doi: 10.1080/09614520600792309.
7. V. Bagodi, S. Thimmappa Venkatesh, and D. Sinha, “A study of performance measures and

- quality management system in small and medium enterprises in India,” *Benchmarking*, vol. 28, no. 4, pp. 1356–1389, 2020, doi: 10.1108/BIJ-08-2020-0444.
8. S. K. Jain and I. S. Ahuja, “Strategies and success factors for overcoming challenges in ISO 9000 implementation in Indian manufacturing industry,” *Int. J. Technol. Policy Manag.*, vol. 13, no. 2, pp. 121–139, 2013, doi: 10.1504/IJTPM.2013.053084.
 9. G. Zanello, X. Fu, P. Mohnen, and M. Ventresca, “the Creation and Diffusion of Innovation in Developing Countries: a Systematic Literature Review,” *J. Econ. Surv.*, vol. 30, no. 5, pp. 884–912, 2016, doi: 10.1111/joes.12126.
 10. A. M. Aamer, M. A. Al-Awlaqi, and N. Mandahawi, “Insights into the reasons behind the limited implementation of ISO 9001 certification: empirical evidence from Yemen,” *TQM J.*, vol. 33, no. 2, pp. 358–378, 2021, doi: 10.1108/TQM-04-2020-0068.
 11. A. Sthapit, “Seminar on Nepal’s Graduation from Least Developed Country to Developing Country by 2026: Challenges for Handicraft Sector MSMEs Seminar theme paper Nepal’s Graduation from Least Developed Country to Developing Country by 2026: Challenges for Handicraft Sector MSMEs,” 2022. [Online]. Available: <https://ssrn.com/abstract=4152739>
 12. Z. Guo, X. Chen, and Y. Zhang, “Impact of environmental regulation perception on farmers’ agricultural green production technology adoption: A new perspective of social capital,” *Technol. Soc.*, vol. 71, Nov. 2022, doi: 10.1016/j.techsoc.2022.102085.
 13. Luis Miguel FONSECA, “ISO 9001 Quality Management Systems through the Lens of Organizational Culture,” *Qual. Access to success*, vol. 16, no. 353, p. 16, 2015, [Online]. Available: https://www.researchgate.net/profile/Luis-Fonseca-12/publication/288182627_ISO_9001_Quality_Management_Systems_through_the_lens_of_Organizational_Culture/links/567efc5308ae1e63f1e7f36e/ISO-9001-Quality-Management-Systems-through-the-lens-of-Organizational
 14. P. L. Bhandari, R. R. Kattel, Y. B. Thapa, and R. Baral, “Value Chain Alliance and Financing of Sikki Craft in Nepal,” *Int. J. Soc. Sci. Manag.*, vol. 7, no. 3, pp. 131–151, 2020, doi: 10.3126/ijssm.v7i3.29960.
 15. A. Al-mijrab and A. Elwalda, “An investigation into de barriers affecting the adopting of ISO 9001:2015 certification in Arabic countries: A case study of Libyan service and manufacturing industries (LSMI),” *J. Econ. Bus. Organ. Res.*, pp. 1–19, 2020.
 16. M. D. Williams, N. P. Rana, and Y. K. Dwivedi, “The unified theory of acceptance and use of technology (UTAUT): a literature review,” 2015.
 17. M. I. Alhojailan and M. Ibrahim, “Thematic Analysis : A Critical Review of Its Process and Evaluation,” *WEI Int. Eur. Acad. Proc.*, vol. 1, no. 2011, pp. 8–21, 2012.
 18. T. H. Tseng, S. Lin, Y. S. Wang, and H. X. Liu, “Investigating teachers’ adoption of MOOCs: the perspective of UTAUT2,” *Interact. Learn. Environ.*, vol. 30, no. 4, pp. 635–650, 2022, doi: 10.1080/10494820.2019.1674888.