

TOTAL QUALITY MANAGEMENT SYSTEM AND ORGANIZATION
PERFORMANCE: MEDIATING EFFECT OF ORGANIZATION LEARNING IN
NEPALI SERVICE SECTOR

A Research dissertation submitted to
Kathmandu University School of Management
in partial fulfilment of the requirements for the
Degree of Master of Philosophy (MPhil) in Management

Teena Meen Rawal

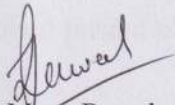
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October, 2018

DECLARATION

I hereby declare that this dissertation on *Total Quality Management System and Organization Performance: Mediating Effect of Organization Learning in Nepali Service Sector* is an original research work and has been carried out in partial fulfillment of the requirements for the degree of Master of Philosophy (MPhil) in Management of Kathmandu University and this dissertation has not been submitted for candidature for any other degree.



Teena Meen Rawal

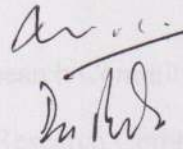
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RECOMMENDATION

This is to certify that Ms. Teena Meen Rawal has completed her dissertation on *Total Quality Management System and Organization Performance: Mediating Effect of Organization Learning in Nepali Service Sector* under my supervision and her dissertation is purely the result of her investigation conducted during the period she worked as an MPhil candidate for Kathmandu School of Management (KUSOM). The dissertation is for the fulfillment of the requirements for the degree of Master of Philosophy (MPhil) in Management of Kathmandu University and has been prepared in the prescribed format of the school of management. The dissertation is forwarded for evaluation.

Dissertation Advisory Committee

- | | |
|-----------|-------------------|
| 1. Chair | Prof. Subas KC |
| 2. Member | Prof. Devi Bedari |



October, 2018



KATHMANDU UNIVERSITY SCHOOL OF MANAGEMENT

APPROVAL

We have conducted the viva-voce examination of the dissertation *Total Quality Management System and Organization Performance: Mediating Effect of Organization Learning in Nepali Service Sector* by Teena Meen Rawal and found the dissertation to be original work of the candidate and written according to the prescribed format of the School of Management. We approve the dissertation as the partial fulfillment of the requirements for the degree of Master of Philosophy (MPhil) in Management.

Evaluation Committee

1. Prof. Bijay K.C.

Chair, Research Committee

2. Prof. Binod K. Shrestha

Member, Research Committee

3. Prof. Devi Bedari

Member, Research Committee

4. Prof. Surya P. Shrestha

External Examiner

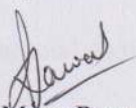
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ABSTRACT

The main objective of this study was to examine the effect of total quality management system (TQM) on organization performance along with the mediating effect of organization learning on this relationship in Nepali Service sector. Further the mean differences in the level of organization performance and organization learning between the two groups i.e. ISO certified and non-ISO certified organizations was also carried examined using t-test analysis. The relationship between the TQM system, organization learning and organization performance was examined using Pearson correlation coefficient and regression analysis was conducted to test the hypotheses.

In this study convenience sampling method was used to collect the data and the final sample for this study comprised of 240 responses (i.e. 118 from the ISO certified and 122 from non-ISO certified organizations). The findings of this study suggested that total quality management system had a significant positive effect on organization performance and organization learning mediated the relationship between total quality management system and organization performance. Out of the seven dimensions of TQM system only top management support, workforce management, customer relations, supplier quality management and process flow management had a significant positive effect on organization performance. However top management support and quality data reporting didn't have any effect on organization learning. The results of the independent sample t-test further confirmed the high level of organization performance and organization learning in ISO certified organizations.

Key Words: total quality management system (TQM), organization learning, organization performance, international organization for standardization (ISO)

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LIST OF ABBREVIATIONS

ANOVA	One Way Analysis of Variance
AVE	Average Variance Explained
CA	Cronbach's Alpha
CBS	Central Bureau of Statistics
CEO	Chief Executive Officer
GDP	Gross Domestic Product
ISO	International Organization for Standardization
ITC	International Trade Centre
KUSOM	Kathmandu University School of Management
LDC	Least Developed Country
M	Mean
MOF	Ministry of Finance
NRB	Nepal Rastra Bank
OL	Organization Learning
OP	Organization Performance
ROA	Return on Assets
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
TQM	Total Quality Management
UNCTAD	United Nations Conference on Trade and Development

CHAPTER I

INTRODUCTION

In today's competitive environment continuous performance remains one of the top most priorities of any organization as the organization can grow and progress only if it performs effectively and efficiently. Through performance organizations can achieve their strategic and financial objectives (Lee, Ooi, Tan, & Chong, 2010). In the past research organization performance was largely neglected (Katou, 2008). Some research studies evaluated organizational performance on the basis of their financial performance only (Al- Qahtani, Alshehri, & Aziz, 2015) whereas other studies examined organization performance by taking into account the financial and marketing perspective by evaluating the return on investments, sales profit, growth rate and market share (Stock, Greis, & Kasarda, 2000). But besides focusing only on the financial and marketing perspective it is also very important to evaluate the organization performance depending on the operational performance of the organizations' including the whole performance of an organization i.e. financial performance, customer satisfaction and effectiveness of the quality product (Brah, Tee, & Rao, 2002).

Successful organizations play a vital role in the social, political and economic progress and are important for any developing nation (Gavrea, Ilies, & Stegorean, 2011) and continuous organization performance further ensures organization success. Even in academia there are numerous empirical evidences available but still there exists lack of consensus regarding the universal definition of organization performance and their indicators (Venkatraman & Ramanujam, 1986). Strategy, leadership, structure, quality, innovation and development, information technology,

employees and corporate governance are the few indicators that have been identified to have a significant relationship with organization performance (Gavrea et al., 2011). On the other hand Nafarrete (2003) identified process improvements, energetic leadership, flattened communication, workflow structures with a well-defined direction as important factors affecting organization performance. Due to globalization and technological advancement there is tough competition and the business environment is also changing faster than ever due to the digital transformation. So in this changing environment the organizations need to be well equipped by using the right strategies, which will help them achieve their desired goals and boost their performances in the long run.

Researches have been conducted in the past to identify the important determinants of organization performances such as leadership competencies, strategy, structure, quality, innovation and development (Almatrooshi, Singh, & Farouk, 2016; Gavrea et al., 2011). Total quality management (TQM) remains one of the most important factors, which affects an organization's performance (Mahmood, Qadeer, & Ahmad, 2015). In order to perform better the top management should incorporate "quality vision" into the goals and objectives of their organization as TQM and quality circles have been identified as an important intervention in the socio-technical system (Mahmood et al., 2015). Though the term TQM has virtually disappeared but it still remains the underlying foundation for the high-performing management system and competitive success (Evans, 2005). It has also been found that for effective management and achieving business success the fundamental principles of TQM play a very important role. So, the real challenge with today's manager is to keep track of the basic principles on which quality management and performance excellence are based. As there is rise in the local and international competition quality remains as

one of the important elements for the success and survival of organizations (Evans, 2005).

Besides this TQM has been found to play a major role in the continuous improvement process and is considered as the most suitable approach in bringing organizational improvement (Aljaffan, 2017). The success of TQM is based on several contingent organizational factors and one such factor is “learning organization”. According to scholars in the 1990’s the concept of learning is associated with continuous improvement and has gained popularity (Mahmood et al., 2015). Senge, Kleiner, Roberts, Ross, Roth, & Smith (1999) have explained organization learning as the capability of the individuals to learn, reflect and unlearn the old ways of doing things by discarding old ways (as cited in Mahmood et al., 2015). This further highlight that both TQM and organizational learning are related concepts as they focus on continuous improvement and competitive advantage. Popper and Lipshitz (2000) in their study also found that in an organization where TQM culture prevails productive learning takes place and the integration of both in an organization further boosts the organizational performance (Irani, Beskese, & Love, 2004).

Regardless the nature of business, organization performance plays a very important role in diagnosing the success of any organization. Even in management field organizational performance remains the most researched topic as it plays an important role and is an essential element in the survival and success of any business (Richard, Devinney, Yip, & Johnson, 2009). The contribution of different management functions such as marketing, human resources, operational performance and strategies are all ultimately evaluated on the basis of organizational performance (Richard et al., 2009). The measurement of organizational performance helps in

evaluating the actions of the managers and the organization, the market position of the particular organization as compared to their competitors and also to evaluate the organization's progress over time (Richard et al., 2009). In today's context the increasing competition and technological innovation has led the organizations towards the challenge of gaining competitive advantage (Baker & Sinkula, 1999) which further has created a need for the organizations to keep on evaluating their business strategies to gain competitive advantage by becoming more creative and innovative and increase their performance (Mahmood et al., 2015).

The current scenario of different sectors and their performance impact on the economy of Nepal cannot be neglected. According to the report presented by the Ministry of Labour and Employment (2016) Nepal is considered as one of the least developed countries (LDC) in the world due to its slow economic growth rate, less human development and poor socio-economic development but with the help of the sustainable development goals set by the government, Nepal can progress into a middle-income country by 2030. If we look into the history of Nepal's economy agricultural sector was considered as the dominant sector that contributed 35% of GDP and generated 75% employment (Central Bureau of Statistics, 2012) and is still a dominant sector as compared to its south-Asian counterparts (as cited in National Planning Commission of Nepal, 2016). But recently despite the agricultural dominance the other sectors such as the manufacturing and the service sectors have been rising. According to Nepal growth diagnostic report the GDP distribution across the different sectors, it was found that the agricultural sector contributed around 33%, the manufacturing industry contributed around 15.44% and the service sector dominated by contributing 51.55% in Nepal's GDP (Ministry of Finance, 2016).

mind, the performance of the organizations with ISO certification and Non-ISO certification were also compared in this study.

Further, given the above facts and figures the current important and dominant role of service sector in the socio-economic development of Nepal cannot be neglected. Hence it becomes very important to identify the ways in which the organizational performance of these service sectors can be enhanced and by not only focusing on the financial aspect but also taking into account other stakeholder's measure i.e. the employees, the customers, the supplier's and the shareholders of the organization which further can make a remarkable contribution in increasing the GDP of Nepal. Thus, given the important role of TQM on organization performance and organization learning this study focused on examining the effect of total quality management system on organization performance along with the mediating effect of organization learning. Further the comparison of the performance of organizations with ISO certification and without certification was also conducted in this study.

Problem Statement

In low-income countries like Nepal service sector plays a very important role than the agriculture and manufacturing sector, but despite this very few studies have analyzed this sector in Nepal (Dahal, 2018). As compared to its South-Asian counterparts the economic performance of Nepal is still behind i.e. in 2017 the GDP of Nepal was only 24.47 billion USD as compared to that of Thailand i.e. 455.2 billion USD (United Nations, 2017). Over the past few decades the combined export of goods and the services showed an upward trend, but the exports of services have decreased from \$679 million to \$386 million (United Nations, 2011). These figures highlight the decreasing demand of services in the foreign market and poor performance of the organizations within the country.

As per the reports by Industrial statistics there has been rise in the registration of service rendering organizations and in the fiscal year 2015/16 the total number of employment generated were 9,062 (Ministry of Industry, 2072/73) but besides the structural changes and the sector- wide contribution to GDP none of the service sectors have achieved high growth as expected and the substantial positive change is still yet to come (MoF, 2016). For example if we look into the overall performance of one of the dominant service sector of Nepal i.e. the Travel and Tourism Industry, the performance is not very satisfactory. According to the World Travel and Tourism Council report, in Nepal the total contribution to GDP by the Travel and Tourism Industry in 2017 was 1.9 billion US\$ as compared to Thailand's total contribution to the GDP in 2017, that was 95 billion US\$ (World Travel and Tourism Council, 2018). This further highlights the current poor performance of Nepal's Travel and Tourism industry.

Measuring organization performance is of utmost importance as it indicates how well the organizations have achieved its pre-stated goals (Venkatraman & Ramanujam, 1986). But focusing only on the financial measure of the organization alone cannot define the overall performance of the organization and it is important to take multi-stakeholders perspective i.e. employee and the customer's perspective (Hernaus, Skerlavaj, & Dimovski, 2008). If we look into the current scenario of the service sector organizations in Nepal, one of the biggest challenges faced by them is of employee retention (www.merjob.com). Today's young generation look for growth opportunities and challenging tasks and the data on labor migration further confirms the existence of this problem. According to the report on labor migration for employment, in the year 2014/15 out of 50,582 labor permits issued the largest proportion of migrants belonged to the age group 26-35 years (47.2%), whereas

25.9% belonged to the age group 36-45 years, and 5.9% were 46 years and older (Ministry of Labor and Employment, 2014/15) and brain drain is not new to Nepal. However to mitigate this problem it is important that the organizations focus on creating attractive job opportunities and it is possible only when the organizations perform well.

From the above discussions it becomes clear that the performance of service sector organizations in Nepal is not satisfactory and is lagging behind in the international platform as well. So there is a high need to improve the performance of these organizations in order to boost up their contribution to the GDP of Nepal and compete in the international market. Despite the dominance of service sector in the overall economy of Nepal, the performance of these service sectors needs to be improved in order to bring more positive changes in the economy as expected. In order to increase the organizational performance of these service sectors UNCTAD have recommended different strategies and TQM is one of them (United Nations, 2011). Thus, this highlights the need for TQM implementation in service sector organizations.

There has been an increase in the implementation of TQM system in the service sector of Nepal (Biswakarma, 2017), however the management consultancies operating in Nepal have a different outlook towards this scenario.

In this context Mr. Pant Stated that, there has been rise in the ISO certification process in Nepali organizations, but still there is lack of knowledge regarding the actual benefits of TQM and is regarded as a 'burden' or 'extra cost' for the organizations. This mindset has created hurdle in the TQM implementation process in organizations. So further academic knowledge and practical implications regarding the benefits of TQM might help change this perspective and help understand the

benefits of ISO certification in organizations (personal communication, 21st November, 2017).

TQM is in practice since mid 1980's and has been found to play a vital role in improving organization performance inconsistent and mixed results have been derived from different studies. The inconsistency in the results is due to the usage of different dimensions of TQM by the researchers (Mahmood et al., 2015). For example Dean and Bowen (1994) took teamwork, continuous improvement and customer focus as the important dimensions of TQM in their study, whereas Mahmood et al. (2015) examined leadership, strategic planning, customer focus, information and analysis as four critical elements of TQM system. This further highlights the gap or inconsistency in the usage of TQM dimensions and further highlights the need for this study.

Besides this though initially the TQM system was focused towards manufacturing sector the universality of the TQM concept attracted many scholars and practicing managers to adopt TQM practices in the service sector as well (Issac, Rajendran, & Anantharaman, 2004). This further indicates that TQM practices can both be implemented in the manufacturing and the service sector as these both sector focus on using the facilities as their inputs and satisfy customer needs (Talib, Rahman, & Qureshi, 2012).

In order to be creative and innovative the organizations need to incorporate 'quality vision' in their goals and objectives. TQM is identified as an important antecedent of organizational performance but still there is lack of consensus regarding the process, through which TQM helps in improving the organizational performance (Mahmood et al., 2015). Many researchers have concluded that in order to gain competitive advantage the organizations should focus on TQM process (Terziovski & Samson, 1999). Similarly, Spencer (1994) also identified TQM as an ultimate weapon

to improve the quality of products/services and increase the overall organization performance. Though TQM system is in practice from the mid 1980's the term TQM has virtually disappeared from the organizations but it has also been found that the underlying foundations of TQM is still used for the high-performing management system and competitive success (Evans, 2005). It has also been found that for effective management and achieving business success the fundamental principles of TQM play a very important role.

Besides the organization performance TQM has also been found playing an important role in creating an environment of learning as both the concepts of TQM and organization learning are interrelated concepts and focus on continuous improvement and competitive advantage in organizations (Mahmood et al., 2015). According to a study conducted by Popper and Lipshitz (2000) TQM culture promotes learning in organization. And given the important role of organization learning there is still lack of studies regarding the mediating role of organization learning in the relationship between TQM process and organizational performance and has been examined by only few researchers (Mahmood et al., 2015). Also meta-analysis on TQM and organization performance relationship conducted by Ahmad, Zakuan, Jusoh, Tasir, and Takala (2013) indicated that there are very few empirical evidences available that have examined the role of any moderator or mediator in the study of relationship between TQM and organization performance. This further highlighted the gap in literature; hence TQM and organization performance relationship was examined along with the mediating effect of organization learning in this study.

Regardless the importance of quality in improving organization performance, the current scenario in Nepal related to quality maintenance is very weak, as only one

Department under the Ministry of Industry i.e. the Nepal Bureau of standards and Metrology (NBSM) is given the responsibility to look into the quality related services to the consumers and the suppliers (International Trade Center, 2015). However, having only one governing body to inspect quality is not enough and the policy makers need to understand the importance of quality if they want to increase their presence in the international market.

From the above discussion it becomes clear that the service sector is one of the dominating sector and is playing an important role in boosting the overall economy of Nepal, however the growth of this sector is not as expected hence it becomes important to understand and take necessary steps to improve the performance of these service sector organizations in Nepal. As implementing TQM system in organization is found to be beneficial in boosting the performance of organizations (Terziovski & Samson, 1999), the performance of service sector organizations in Nepal can be further enhanced. Thus, looking at the empirical gap regarding the usage of TQM dimensions and the current given scenario of the performance of the service sector organizations in Nepal the following research issue was identified in this study and is discussed below:

- How does TQM system influence organizational performance of Nepali service organizations and what is the role of organization learning in this relationship?
- Is there any significant difference in the level of organization performance and organization learning in organizations that are ISO certified as compared to the Non-ISO certified organizations?

Objective of the Study

The main objective of this study was to examine the effect of TQM system on organization performance while testing the mediating role of organization learning and to compare the organization performance on the basis of their certification (i.e. ISO certified and Non-ISO certified). As the empirical evidences suggest that TQM process plays a major role in improving the organization performance and also helps in creating a culture of learning (Mahmood et al., 2015), the main objective of this study is discussed below:

- To examine the effect of total quality management (TQM) system on organization performance and organization learning in Nepali service organizations.
- To examine the mediating effect of organization learning on the relationship between total quality management (TQM) system and organizational performance in Nepali service organizations
- To compare the performance of organizations and organization learning that are ISO certified with the Non-ISO certified organizations.

Significance of the Study

As discussed in the preceding paragraphs it has been evident that the service sector dominates the overall economy of Nepal as compared to the agricultural and the manufacturing sector. Given the importance of the service sector the organizational performance of these service-oriented organizations cannot be neglected. By using the right strategies and tools, such TQM system implementation the organizations can further enhance their performances. Keeping this perspective in mind this study intends to examine the effect of TQM system on organization performance while testing the mediating effect of organization learning on this

relationship. The study findings will be of importance to the practitioners and policy makers, as through this study the importance of implementing TQM system in organizations and the role it plays in enhancing the organization performance and organization learning would be highlighted. This study would further fill in the gap in the literature related to the application of TQM system dimensions in Nepali service rendering organizations and contribute to the few available literatures in Nepali context.

Also, the lack of knowledge and information related to the benefits of TQM in Nepali organizations that has created hindrances in the implementation of TQM system could be mitigated through this study. The results of this study would be beneficial for practicing managers as this study undertook a multi-stake holder perspective in examining the organization performance. The study findings would help understand that through implementation of TQM system, along with financial performance the relationship with its suppliers, employees and customers could further be improved. Also the mediating role of organization learning on TQM system and organization performance relationship would contribute positively to the few available literature, as there are only limited studies that have explored TQM system and organization performance along with any moderators or mediators (Ahmad et al., 2013). Further in this study the comparative analysis of the level of organization learning and organizations performance between the ISO certified and Non-ISO certified organizations would provide all the good reasons of implementing ISO certification in organizations.

Besides this from the research point of view this study contributed positively towards the existing literature, as there has been a gap in the literature in Nepali context. Till now no studies have been conducted that have examined the effect of

TQM system on organization performance with the mediating effect of organization learning. In Nepal only, few studies have examined TQM for example one study examined the effect of TQM in education sector and found positive impact of TQM on quality of education (Thapa, 2011). Another study was conducted by Kothari, Shrimali and Pradhan (2017) but used different dimensions of TQM. Further this study also confirmed the reliability and validity of the measurement scales that were developed in the western context and could be used in Nepali context. Along with this the universality and applicability of the TQM system dimensions in Nepali organizational context was confirmed with this study.

Organization of the Report

This study report is presented in five different chapters. The first chapter deals with the introduction of the theme and along with it the statement of the problem and the significance of this study are presented.

In the second chapter the relevant literature that present the overall concept of the variables under study i.e. the dependent variable (organization performance), independent variable (total quality management system), mediating variable (organization learning) is presented. This chapter also presents the finding of the previous research studies related to the study variables and the possible gap in the literature has been identified. The third chapter is research methodology and describes about the research approach, research design and the research procedure in detail. The information regarding the used instruments and the description about the study samples have been explained in detail. This chapter also highlights the administration of the questionnaire, data processing and analysis techniques.

In the fourth chapter the results obtained from this study have been discussed. The descriptive statistics and the regression analysis models are presented along with

the hypotheses testing table. At last chapter five deals with the summary of the findings, discussions, practical and research implications along with the critique of this study.

CHAPTER II

LITERATURE REVIEW

This chapter presents the overview of the past literatures related to the study variables. On the basis of literature review theoretical framework and hypotheses have been presented in this chapter, which has further helped in understanding the conceptual and theoretical understanding in a detailed manner.

Organization Performance

Performance being one of the most recurring themes in the field of management has attracted the attention of both academicians and practicing managers. Though there are many empirical evidences available related to the improvement and management of organizational performances (Venkatraman & Ramanujam, 1986), still there is lack of consensus regarding the usage of terminology, level of analysis and conceptual basis for performance evaluation (Ford & Schellenberg, 1982). Different studies have examined performance by focusing on various aspects such as financial performance, innovation, market performance, business performance and organizational performance (Mahmood et al., 2015). In strategic management literature it is important to differentiate between organizational performance and organizational effectiveness, as performance is one of the type of effectiveness with both advantages and disadvantages (Venkatraman & Ramanujam, 1986).

According to Richard et al. (2009) organizational performance “encompasses three specific areas of firm outcomes namely a) financial performance (profits, return on assets, return on investment etc.) b) product market performance (sales, market share etc.) and c) shareholder return (total shareholder return, economic value added

etc.)”, whereas organizational effectiveness, “ is a broader concept that captures organizational performance including the internal performance outcomes associated with the efficient and effective operational outcomes and the external measures that are broader in nature and associated with economic valuation (either by shareholders, managers, or customers) such as corporate social responsibility” (Richard et al., 2009). Venkatraman and Ramanujam (1986) have also explained that business performance consists of three domains i.e. financial, operational and organizational effectiveness. The financial performance includes the sales growth and profitability aspect; operational performance includes market share, product quality, new product introduction and market effectiveness aspect and lastly organizational effectiveness indicates the achievement of goals and objectives. Agarwal, Erramilli, and Dev (2003) have also classified organizational performance into two dimensions i.e. the objective and the judgmental performance. The objective performance includes the financial market and the market based evaluation i.e. sales growth, profit, market share and cost reduction whereas the judgmental performance comprises of customers and the employees perception regarding service quality, customer satisfaction and retention.

According to Kaplan and Norton (2001) the organizations that invest in acquiring new capabilities through innovation, improvement of products and services, advanced information technology and reskilled employees the measurement of their success or failure cannot be measured in the short run by using the traditional financial measures alone. If we look into the measuring organizational performance it is a much broader concept and cannot be measured only on the basis of financial performance measures and Cyert and March (1963) and in today’s dynamic business environment a multi-goal oriented approach is required to measure organizational

performance (as cited in Hernaus et al., 2008). There is a paradigm shift in management field related to the evaluation of organization performance and the stakeholder perspective is considered equally important (Lukviarman, 2008).

So keeping this perspective in mind in this study organization performance was evaluated on the basis of the organizational performance construct developed by Dimovski and Skerlavaj (2004). The organization performance construct is based on one of the most widely used balanced scorecard approach developed by Kaplan and Norton (2001), which includes the financial perspective, the customer perspective, the internal business process perspective and the learning and growth perspective. However instead of using the internal business process perspective the supplier's view was considered and employees view was also examined instead of learning and growth perspective, which was successfully developed, by Dimovski and Skerlavaj (2004) and was also used by Hernaus et al. (2008) in their study. Further the organization learning dimension was replaced by suppliers and employees measure to get insightful knowledge regarding the performance of organizations, as the organization learning construct was already being examined as mediating variable in this study.

Total Quality Management System

Total quality management also popularly known as TQM is most widely implemented in organizations for effective growth and performance. TQM is one of the most important antecedents of organizational performance (Mahmood et al., 2015). There are many benefits of TQM implementation in organizations that has helped the organizations to gain competitive advantage both in the local as well as international market by being able to meet customer requirements at low cost and increasing their profit and market share (Goh, 2000). TQM is both philosophy and

guiding principle which acts as foundation for continuous improvement in organizations (e.g., Besterfield, Besterfield- Michna, Besterfield, Besterfield- Sacre, Urdhwareshe, & Urdhwareshe, 2010). Many researchers have defined quality management as both guiding principle and management style that helps organizations in improving organizational performance and gain competitive advantage (Jaafreh & Al-Abedallat, 2013). Besides this many researchers have also claimed that TQM can be implemented in organizations varying in nature such as manufacturing, service, public and private sector (Dean & Bowen, 1994). Deming, Juran, Cosby and Feigenbaum some of the pioneers of TQM have also highlighted quality as an essential weapon for gaining competitive advantage and transforming the organization (Jaafreh & Al-Abedallat, 2013). After world war II Deming and Juran introduced statistical quality control for Japanese workers as a part of rebuilding program (Evans, 2005). Different philosophers have given different theories to gain an understanding regarding quality and though their approaches differ in the ways of enhancing *organizational effectiveness the key elements remain the same (Summers, 2005).*

Armand Feigenbaum (1920) is regarded as the pioneer of the total quality movement and has defined quality on the basis of the customer's actual experience with the product or the service (as cited in Summers, 2005). Dr. Walter Shewhart (1891-1967) took into account two aspects of quality i.e. the subjective aspect (what the customer wants) and the other objective aspect (based on the physical properties of the goods and services and also the value received after buying the goods and services (as cited in Summer, 2005). Dr. Demings (1900-1993) encourages top - level management involvement in the process of creating continuous improvement environment in organizations (as cited in Besterfield et al., 2010). Juran (1924-1941) also emphasized on creating awareness at all levels in organization to be committed

towards quality and insisted on three interrelated process of planning, controlling and improvement also known as “Juran trilogy” (as cited in Besterfield et al., 2010).

Kaoru Ishikawa studied under Deming, Juran and Feigenbaum and borrowed and adapted the concept of total quality management in Japan and is well known for the development of cause and effect diagram. He also developed the concept of quality circle concept in Japan (as cited in Summer, 2005). Crosby further developed the “zero defect” concept whereas Taguchi believed in the philosophy of simplification and in the usage of traditional design for performing activities (as cited in Besterfield et al., 2010).

Earlier the quality initiatives were based on measurement, statistics and problem-solving techniques and focused on reducing defects and errors in the products and services, however the organizations later recognized that for a long-term improvement the focus should be on the quality of the management practices on a daily basis (Evans, 2005). Further the managers also realized that by using approaches such as listening to customers and developing a long-term relationship with them, developing strategy, measuring performance and analyzing data, by rewarding and training employees, designing and delivering products and services and leaders in the organization as the main factors that influence quality, customer satisfaction and business results (Evans, 2005). This further influenced organizations to integrate quality principles in their management systems and thus the concept of TQM became popular.

Many researchers have examined various dimensions of TQM in their study for example Dean and Bowen (1994) examined TQM by using teamwork, continuous improvement and customer focus as the basic components in their quality framework. Besides this many researchers have examined TQM using the components such as

leadership, strategic planning, customer focus, information and analysis, people management and process management (e.g., Terziovski & Samson, 1999; Prajogo & Sohal, 2003). Fuentes, Montes & Fernandez (2006) used customer focus, continuous improvement, teamwork, management commitment and leadership, employee's participation and involvement, training and education and management process as TQM dimensions in their study. Jaafreh et al. (2013) used top management support, strategic planning, customer focus, employee relations, supplier quality management and process quality management as TQM dimensions to examine the relationship with organization performance. Similarly Montes, Jover and Fernandez (2003) also examined TQM using dimensions such as leadership commitment, human resource management, relationship with customers and suppliers, internal organization culture and process management.

Along with the understanding of TQM dimensions it is also very important to understand the unique characteristics of service sector and keeping this perspective in mind Talib et al., (2012) on the basis of extensive literature identified top management commitment, customer focus, process management, quality systems, teamwork, communication, training and education, continuous improvement and innovation, employee involvement, supplier management, quality culture, human resource management and product and service design as important TQM dimensions. And the successful implementation of TQM in service industries along with its positive impact on the organization performance, customer satisfaction, employee relation and financial results has been identified by Kumar, Garg and Garg (2011) in their study. However only few studies have examined the TQM concept in Nepali organizational context, for example the study conducted by Biswakarma (2017) in the hospitality sector of Nepal used top management commitment and leadership,

continuous improvement, service design, customer focus, employee management and supplier relationship as TQM dimensions. The study results suggested the positive impact of overall effectiveness of TQM in Nepali hospitality sector and among all the dimensions customer focus was of great importance and given more priority in TQM in Nepali context. Despite studies been conducted on TQM system dimensions the lack of consensus and inconsistency in previous research has created chaos among practitioners and academicians regarding the usage of exact TQM dimensions (Montes et al., 2003).

Most of the researchers have agreed upon the major dimensions of TQM that includes top management support, employee involvement, continuous improvement and customer focus (e.g., McAdam & Armstrong, 2001; Prajogo & Sohal, 2003) however in this study the TQM dimensions included elements such as top management support, training, workforce management, quality data reporting, customer relations, supplier quality management and process flow management. The TQM construct used in this study was based on the model developed by Dale, Wu, Zairi, Williams and Wiele (2001). This construct of TQM dimension was used because it was based on the perspectives of TQM dimensions developed by the quality gurus such as Deming, Crosby, Feigenbaum, Juran, Ishikawa, Shingo and Taguchi (Koc, 2011). Besides the usage of Dale et al. (2001) model the TQM construct was also based on the empirical work of Samson and Terziovski (1999) and Ahire, Golhar, and Waller (1996).

Besides this as compared to the manufacturing sector only limited studies have been conducted in the service sector related to the TQM implementation process (Evans, 2005) and on the basis of literature review analysis conducted by Karuppusami and Gandhinathan (2007), in the context of developing countries like

India there is a high need to examine the applicability of TQM system in the Indian service sector for better understanding and implementation of TQM as it is regarded as an important factor for bringing prosperity, stability and achieving growth. This scenario is very similar to the Nepali context, as due to the changing environmental factors and competition, service industries in Nepal need to constantly put effort and find right strategies if they want to gain competitive advantage in the international market. This can be made possible through the proper understanding of the TQM dimensions and proper implementation of TQM system in the service sector of Nepal, as the service sector has been found to play an important role in the economic growth and development of the country.

Though TQM system still continues to represent as one of the best approaches to achieve business success (Evans, 2005) but the lack of consensus regarding the elements of TQM system dimensions and its effect on organizational performance and organizational learning still remains unexplored in Nepali organizational further creating need for this study.

Organization Learning

Organization learning is the process where the organizations develop new knowledge from the experiences of employees working in the organization further influencing organizational effectiveness and employee behavior (Senge, 1990). Organization learning consists of three sub-processes namely creating, retaining and transferring knowledge (Argote, 2011). Organizations learn from experiences and that further helps in creating new knowledge in the organization (Argote, 2011). Organization learning helps in gaining competitive advantage and improving performance by transforming the knowledge of employees into structures, systems

and strategies (Slater & Narver, 1995). The continuous learning of the employees further ensures continuous improvement in organizations (Mahmood et al., 2015).

Kurt and March (1963) were the first to introduce organization learning. They believed that by matching the efforts of organization with the new environmental conditions often leads towards identifying new procedures with the help of which the organizations can become more effective (as cited in Saadat & Saadat, 2016). Peter Senge through his book "fifth command" has explained the importance of organization learning and is considered as one of the greatest pioneers to introduce organization learning in management sciences (Mahmood et al., 2015). Management and leadership, culture, knowledge, information and communication system along with organizational structure and system are found to be effective elements of organization learning (Saadat & Saadat, 2016). In today's changing environment in order to survive the competition it is very important for the organizations to adapt to the changing environment. And through organization learning the organizations can achieve this where instead of only focusing on traditional methods and behaviors the organizations can change and create a learning culture (Saadat & Saadat, 2016).

In the field of modern management organization learning is a strategical tool that can be used by the organizations to gain competitive advantage and organizational success (Mahmood et al., 2015). Despite many researches carried out in the field of management and development still there is a lack of consensus regarding the conceptualization of organizational learning and this can be due to its multidisciplinary nature, level of analysis and its application in various fields such as information processing, product innovation, organizational change, organizational culture and strategy (Crossan, Lane, & White, 1999). However according to Alvani (2008) organization learning can be defined as, "the process of finding errors and

mistakes and trying to resolve and correct them. It is the process, which happens by achieving science and improving the performance during that period of time” (as cited in Saadat & Saadat, 2016). According to Argyris and Schon (1978) “organization learning occurs when the members of the organization act as a learning agent by responding to changes in the internal and external environment and by detecting and correcting errors” (as cited in Kocoglu, Imamoglu, & Ince, 2011). Kocoglu et al. (2011) in their study examined the four dimensions of organization learning i.e. intra-organizational knowledge sharing, shared vision, open-mindedness and commitment to learning as important elements that play vital role in improving the organizational performance. However in this study the unidimensional construct of organization learning was used.

Total Quality Management System (TQM) and Organization Performance Relationship

TQM is a well-known management philosophy that focuses on continuously improving the quality of products and services to satisfy customer needs and wants as per their requirement and also improves organizational performance (Sadikoglu & Olcay, 2014). It has been found that proper implementation of TQM practices helps organizations in gaining competitive advantage and also improves their performance (Evans, 2005). Terziovski and Samson (1999) also suggested that organizations that adopt TQM system are found to perform better with respect to employee relations, customer satisfaction, operational performance and business performance as compared to the organizations without TQM practices. Juran (1992) also highlighted the important role of TQM practices in enhancing the organization performance and has been established in many business practices and management research (as cited in

Mahmood et al., 2015). This further explains the important role of implementing TQM process in organizations in achieving the desired goals and objectives.

Besides this the applicability and universality of TQM process has been identified in different researches. For example many researchers have agreed upon the significant positive effect of TQM practices on organizational performance of service-oriented firms (e.g., Jaafreh et al., 2013; Agus, 2004; Brah, Tee & Rao, 2002) also in the case of small and medium enterprises (e.g., Huarng & Chen, 2002; Pinho, 2008) and in manufacturing firms as well (e.g., Mahmood et al., 2015; Koc, 2011; Al-Qahtani et al., 2015; Dubey & Chakrabarty, 2011; Prajogo & Sohal, 2003; Sadikoglu & Olcay, 2014). It has also been found that TQM helps in improving the quality of management, adds customer value, increases competitiveness and helps in gaining competitive edge (Lee et al., 2010).

Though many researchers have identified a significant and positive relationship between TQM practices and organization performance some studies fail to identify this relationship and have found a positive but non-significant relationship between TQM practices and organizational performance (e.g., Hendricks & Singhal, 1997, Lemak, Reed,& Satish, 1997) and the reason can be due to the differences in the industry type or organization size (Terziovski & Samson, 1999) and also due to the differences in usage of different TQM dimensions, different performance measures and contextual differences (Sadikoglu & Olcay, 2014). This further highlights the lack of consensus and demands the need for investigating the relationship between TQM system and organization performance. Besides this in most of the studies the researchers have examined the relationship between TQM practices and organization performance by taking into account only the financial aspect of organizational performance (Mahmood et al., 2015) which further indicates the lack

of studies that take into account the multiple stakeholder's perspective while evaluating organizational performance.

Also in Nepali organizational context the relationship between TQM system and organization performance still remains unexplored. However few researchers have examined TQM practices in a different context using variables not relevant with this study. For example Thapa (2011) examined the impact of TQM practices in educational sector and concluded that TQM practices could play a major role in improving the overall quality of education in Nepal. Another study carried out by Kothari et al. (2017) identified nine key factors for TQM implementation and four factors of TQM outcome in Nepal. The nine TQM factors required for implementation were top management commitment and involvement, process improvement and control, policy deployment, research and development, training and education, maintaining supplier's relationship and empowering them, employee involvement and empowerment, evaluation and assessment. Whereas the key TQM outcomes were excellent performance, customer satisfaction, employee satisfaction, product quality and product performance.

Thus the above empirical evidences highlighted a gap related to the relationship between TQM system and organization performance and also the dimensions related to the TQM system. So further detailed investigation was required to fill this gap in the literature.

TQM System and Organization Learning Relationship

The importance of TQM and its positive relationship with improved productivity and reduced costs is a well-known fact (Lee & Lee, 2015) but despite this only a few empirical evidences are available related to the relationship between TQM and organizational learning (Kocoglu et al., 2011). Sisnuhadi and Nasir (2013)

in their study confirmed the mediating role of organization learning in the relationship between quality management practices and organizational performance. Successful implementation of TQM in organizations promotes learning and thus creating a culture of sharing and transfer of knowledge. The employees promote organization learning with the support of top management and further initiate TQM practices in organization (Hung, Lien, Yang, Wu, & Kuo (2011). This has further made some researchers believe that organization learning is a possible and expected outcome of TQM (e.g., Yusr, Mokhtar, & Othman, 2013; Kocoglu et al., 2011).

Besides this many researchers have investigated the role and importance of TQM in enhancing organization learning. For example one such study conducted by Yusr et al. (2013) in Malaysian manufacturing firm identified the significant and positive relationship between TQM and organization learning and was also confirmed by Akgun, Ince, Imamoglu, Keskin, and Kocoglu, (2014) in their study. Along with this Iyer, Saranga, and Seshadri (2013) in their study also proposed that successful implementation of core practices of TQM in organization will induce learning, which further results into improved productivity and quality. It has also been found that TQM helps in creating a culture of trust in organization, which further motivates employees in organization learning (Hung et al., 2011).

Organization culture that promotes learning in organization and enables the employees' contribution in decision-making is possible with the proper implementation of TQM (Love, Li, Irani, & Faniran, 2000). Martinez – Costa and Jimenez – Jimenez (2008) in their study, which was conducted in Spanish organizations', also found that TQM structure positively related and promoted organization learning. Similarly Lam, Lee, Ooi, & Lin (2011) found that TQM practice promotes learning culture in Malaysian service firms. Thus the above

reviewed studies indicate that through TQM process culture of learning can be created in organizations and further have also confirmed the positive relationship between the TQM process and organization learning.

Though some studies have examined TQM as a unidimensional construct that influences organization learning, there is a need for a more comprehensive study to be carried out for examining the TQM dimensions and its relationship with organization learning (Hsein, 2016). Also the lack of empirical evidences in the field of organization learning in Nepali organizational context and academia further demands a comprehensive examination of the relationship between TQM and organization learning.

Organization Learning and Organization Performance

Organization learning creates a culture of learning in organization, which further helps in improving the individual performance and organization performance (Kropp, Lindsay, & Shoham, 2006). Many researchers have identified the positive relationship between organization learning and organization performance (e.g., Mahmood et al., 2015; Argote, 2011; Saadat & Saadat, 2016; Hussein, Mohamad, Noordin, & Ishak, 2014; Snyder, 1996; Hernaus et al., (2008); Kocoglu et al., 2011; Ratna, Khanna, Jogishwar, Khattar, & Agarwal, 2014). Some researchers have identified a positive and direct relationship between organization learning and organization performance (e.g., Baker & Sinkula, 1999; Tippins & Sohi, 2003), whereas some researchers have identified the important role of TQM, innovation and organizational knowledge as mediators in the relationship between organization learning and organizational performance (e.g., Hussein et al., 2013; Kocoglu et al., 2011; Snyder, 1996).

Besides organization performance organization learning also acts as a basis in gaining competitive advantage, which further enhances the performance of an organization (Martinez-Costa & Jimenez – Jimenez, 2008). So from this it can be further concluded that firms that learn continuously can gain competitive advantage and further enhance their performance as learning is found to be one of the important component in gaining organizational success (Mahmood et al., 2015).

Also organizations that implement strategies that promote learning in organization are found to achieve high level of performance (Ellinger, Ellinger, Yang, & Howton, 2003). The study conducted by Ellinger et al. (2003) examined the relationship between organization learning and organization performance and found a positive relationship between the two variables. In their study they examined the effects of continuous learning, inquiry and dialogue, collaboration and team learning, employees empowerment towards collective vision, relationship of organization with its environment and top management support on the organizational performance (financial measures).

Organization learning also facilitates learning in organization that further leads to innovation in the organization and also influences the organization performance indirectly by market information generation and dissemination (Baker & Sinkula, 1999). It has also been found that organizations that learn have a better capability of detecting the on-going events in the market place which further helps in enhancing their sales and increase their market share (Martinez-Costa & Jimenez-Jimenez, 2008). Organization learning also helps the organizations by providing a more flexible structure that can respond quickly towards the market changes and

Thus from the above empirical evidences it can be concluded that there exists a positive relationship between organization learning and organizational performance. However in Nepali organizational context and in academia organization performance still covers a dominant place, however the role of organizational learning and its positive effect on organization performance still remains neglected. So it was interesting to examine the relationship between organization learning and organization performance in Nepali organizational context, which further added information to the available literature and found beneficial for practitioners as they can implement and promote organization learning in their organizations for consistent organization performance.

Organization Learning as a Mediator

The mediating role of organization learning on TQM system and organization performance relationship has been examined by only few researchers (Mahmood et al., 2015). The mediating role of organization learning was identified in the study conducted by Hung, Lien, Yang, Wu, and Kuo (2011) where organization learning mediated the TQM and innovation performance relationship. This further indicated the important role of organization learning i.e. through proper implementation of TQM system in organizations a culture of learning can be created that further enhances the performance of organizations. Organization learning also positively influenced innovation performance in their study. Besides this the mediating effect of organization learning was identified but with different variables for example Raj and Srivastava (2013) identified the mediating effect of organization learning in the relationship between organization culture, HRM practices and innovativeness. Siavashpouri, Hosseingolizadeh, and Maharati (2015) also identified the mediating

effect of organization learning and knowledge integration in the relationship between knowledge characteristics and organizational innovation.

Thus the availability of only few empirical evidences that have examined the role of organizational learning as mediator between the TQM system and organization performance relationship further highlighted the need for this study.

Comparison of the Organization Performance on the Basis of Certification (ISO certified and Non-ISO Certified)

Researches have highlighted that TQM takes place in organizations where the formal tools such as ISO certification has been implemented (Evans, 2005). Further to analyze the performance of the organizations in the ISO registered companies as compared to Non-ISO registered companies research was conducted and the results indicated that the performance of the organizations in terms of their return on assets (ROA), return on equity (ROE), working capital (WC), return on sales (ROS), economic value added (EVA) along with the size of the company, age of the company, growth of the company and industry growth were high in ISO certified companies as compared to their counterpart i.e. the Non-ISO certified companies (Mokhtar & Muda, 2012). In another study conducted in Tehran by Forough and Valmohammadi (2015) also revealed the fact that the hospitals and health centers with ISO 9001 certifications outperformed the non-certified one's with regards to employee's operation, quality design, responding to customers and customer satisfaction and the study further recommended that in order to achieve superior performance the hospitals and the health centers should obtain the ISO 9001 certification.

Another comparative study of quality management practice of ISO and Non-ISO certified companies in the case of Indian industry also revealed that there existed

a statistical significant difference between the two in regards with training, quality in strategic planning, product design and team building Gupta (2000). Heras et al., (2002) on comparing the audited financial performance of the organizations also confirmed the significant differences between the ISO certified and Non-ISO certified organizations further confirming the important role of ISO certified companies in increasing the performance of the organizations. Siougle, Economidou, Drivas; Dimelis (2018); Priyanka, Anil, and Satish (2016) also further confirmed the positive effect of ISO certification on performance in their studies. Thus all the above studies have highlighted the positive effect of implementing TQM system in organizations by comparing the organization performance of the organizations that have implemented TQM system in organizations as compared to those organizations that have not implemented it.

The implementation of ISO certification in Nepali organizational context has increased in recent years. According to Kripa Devkota Pant, Chief Operating Officer of Greentick Management Consultancy (personal communication, November 20, 2017), recently in Nepal there has been increase in ISO certification, but despite the increase in the certification process still there exists a gap in the knowledge regarding the benefits of implementing TQM system and most of the organizations use it as a marketing gimmick to attract the customers. And until the leaders/top level management don't understand the conceptual and practical knowledge of implementing ISO certification in organizations they cannot achieve the long-term success.

Thus keeping the benefits of implementing TQM system in organization and support from the above empirical studies, this study examined the differences in the

level of organization learning and performance of organizations based on their certification (i.e. organizations with ISO certification and Non-ISO certification).

Lastly on the basis of the above empirical evidences the effect of TQM system on organization performance with the mediating effect of organization learning has been conceptualized in Nepali context and the theoretical model is presented below:

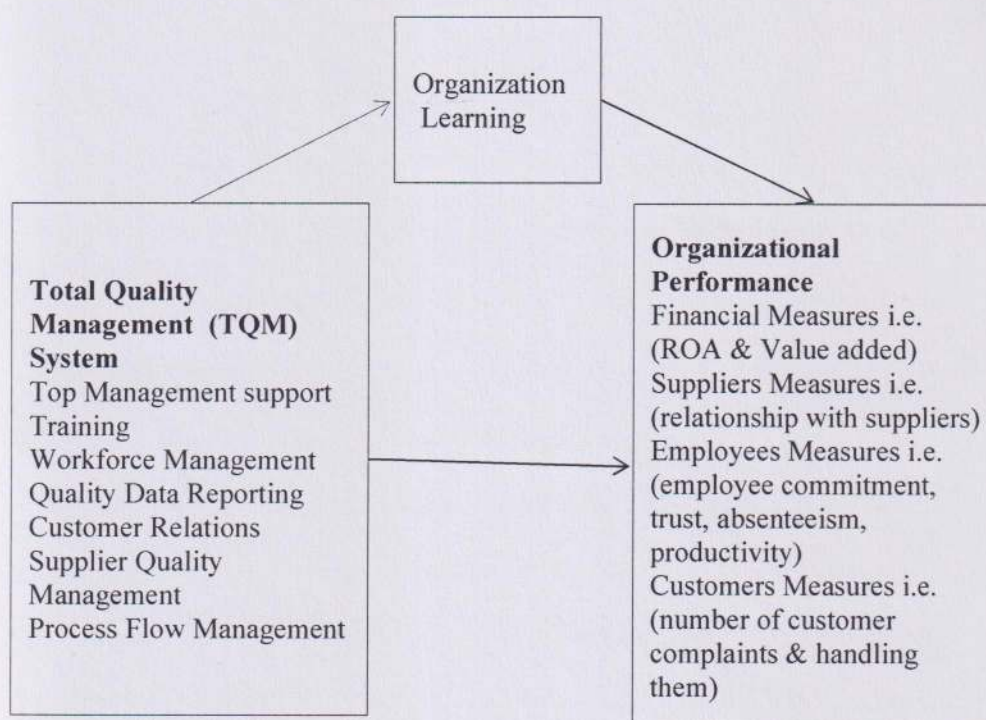


Figure 2.1. Theoretical framework

The above theoretical framework highlights the main objective of this study i.e. the effect of TQM system on organization performance, with the mediating role of organization learning. The framework highlights the dimensions of TQM system used in this study i.e. top management support, training, workforce management, quality data reporting, customer relations, supplier quality management and process flow management and its effect on organization performance with dimensions focusing on financial measure, supplier's measure, employees and the customer measure. Organization learning in the framework further highlights the mediating role of

organization learning on TQM system and organization performance relationship. The theoretical framework further suggests that through TQM system learning environment can be created which will further help in boosting the performance of organizations.

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CHAPTER III

RESEARCH METHODOLOGY

In this chapter the overall research methodology that was adopted for doing this research has been described in detail. This chapter highlights the research approach, research design, population sample, sampling design along the unit of analysis, the measures of the instruments along with their validity, data collection methods, administration of the questionnaire and data processing. Towards the end the data analysis technique that was carried out to examine the effect of TQM system on organization performance with the mediating effect of organization learning has been described.

Research Approach

The main intent of quantitative techniques is to test theories by deductively searching for evidences to either support or reject the hypotheses (Creswell, 2003) and this study also involved collecting and interpreting the data. This study followed a deductive approach as this approach often helps in translating the relationship between the variables with the help of statistical tools (Soiferman, 2010). The basic aim of this study was to examine the effect of TQM system on organization performance with the mediating effect of organization learning in Nepali context as no studies have been carried out till now. Also as this study intended towards identifying the relationship between the identified variables i.e. total quality management system, organization learning and organization performance and provide definite answers in Nepali organizational setting, quantitative approach was found more appropriate. This study was cross-sectional in nature that further helped in providing answers that were more generalizable in nature.

Variables and their Operationalization

The variables of this study were total quality management system, organization learning and organizational performance. Total quality management system (top management support, training, workforce management, quality data reporting, customer relations, supplier quality management and process flow management) was studied as independent variable (predictor variable) whereas organizational performance (financial measures, suppliers' measures, employees' measures and customers') was studied as dependent variable (outcome variable). Further to create deeper understanding regarding the phenomenon between the total quality management system and organization performance relationship organization learning was used as a mediating variable. Lastly to examine if there exists any difference in the level of organization learning and organization performance, comparative analysis was done between ISO certified and Non-ISO certified organizations. And the meaning and definitions of study the variables are described below:

Total Quality Management System

According to Evans (2005) TQM focuses on the improvement of quality and organizational effectiveness. The six basic concepts of TQM system involves a committed involved top management, focus on customer, effective involvement and utilization of employees, continuous process improvement and establishing performance measures (Besterfield et al., 2010). So keeping this perspective in mind the dimensions of TQM system that were examined in this study are top management support, training, workforce management, quality data reporting, customer relations, supplier quality management and process flow management based on the model developed by Dale et al. (2001) and are operationalized as following:

- Top management support: This refers to the degree to which there is involvement of the top level management in the organization in implementing quality improvement projects and frequently reviewing quality related issues of the organization.
- Training: It is the degree to which the employees receive training to improve their problem solving skills, enhance teamwork performance and implement quality principles in the organization.
- Workforce management: This refers to the degree of feedback the employees receive to improve their quality performance and enhance their quality related decision-making. It also involves the continuous measurement of employee satisfaction to support quality programs.
- Quality data reporting: This refers to the degree to which there is periodic evaluation of the quality data reports related to scrap, defects, errors and rework along with the evaluation of quality report data from all the functional departments.
- Customer relations: It is the degree to which the organizations collect information related to customers to know their current and future requirements by taking care of customer complaints, continuously collecting information and finding effective ways to solve the customer problems.
- Supplier quality management: This refers to the degree to which the relationship with suppliers are periodically evaluated based on quality and also by involving them in the product and process development by providing them technical assistance and training.

- Process flow management: This refers to the degree to which the process and work instructions are described in the organization to improve and control the processes by forming quality circles and evaluating them (Koc, 2011).

Organization Learning

According to Fiol and Lyles (1985) organizational learning is “the process of improving actions through better knowledge and understanding”. It is a process where the organizations plan strategies and structures to enhance and maximize (Fiol & Lyles, 1985). In this study a unidimensional construct of organization learning was used that refers to the degree to which the organization creates a continuous learning environment by focusing on increasing the level of knowledge and skills of the employees in the organization (Garcia-Morales, Llorens-Montes, & Verdu-Jover, 2006).

Organization Performance

According to Richard et al. (2009), “organizational performance is the result of an organization as measured against its intended outputs (goals & objectives)”. In this study organizational performance is operationalized as following:

- Financial measures: It is the degree to which the organizations benefit from return on assets (ROA) and the value added per employee in the company.
- Supplier’s measures: This refers to the degree to which the relationships with the suppliers are strong and stable.
- Employees measures: This refers to the degree to which the commitment of employees, work costs per employee, absenteeism, satisfaction of employees, learning and risk taking ability of employees are evaluated in comparison of its competitors.
- Customers’ measures: This refers to the extent to which the customers are

dealt by reviewing the customer complaints and solving it in order to enhance the reputation of organization (Hernaes et al., 2008).

Research Hypotheses

On the basis of above reviewed literature to examine the relationship among the study variables and address the research question the following hypotheses was formulated in this study.

Hypotheses 1a: There is a significant positive effect of total quality management system on organization performance of service organizations.

Hypotheses 1b: There is a significant positive effect of top management support of total quality management system on the performance of organizations.

Hypotheses 1c: There is a significant positive effect of training of total quality management system on the performance of organizations.

Hypotheses 1d: There is a significant positive effect of workforce management of total quality management system on the performance of organizations.

Hypotheses 1e: There is a significant positive effect of quality data reporting of total quality management system on the performance of organizations.

Hypotheses 1f: There is a significant positive effect of customer relations of total quality management system on the performance of organizations.

Hypotheses 1g: There is a significant positive effect of supplier quality management of total quality management system on the performance of organizations.

Hypotheses 1h: There is a significant positive effect of process flow management of total quality management system on the performance of organizations.

Hypotheses 2a: There is a significant positive effect of total quality management system on organization learning.

Hypotheses 2b: There is a significant positive effect of top management support of total quality management system on organization learning.

Hypotheses 2c: There is a significant positive effect of training of total quality management system on organization learning.

Hypotheses 2d: There is a significant positive effect of workforce management of total quality management system on organization learning.

Hypotheses 2e: There is a significant positive effect of quality data reporting of total quality management system on organization learning.

Hypotheses 2f: There is a significant positive effect of customer relations of total quality management system on organization learning.

Hypotheses 2g: There is a significant positive effect of supplier quality management of total quality management system on organization learning.

Hypotheses 2h: There is a significant positive effect of process flow management of total quality management system on organization learning.

Hypotheses 3: There is a significant positive effect of organizational learning on organization performance.

Hypotheses 4: Organizational learning mediates the relationship between total quality management system and organization performance.

Hypotheses 5: There is a significant difference in the performance of organizations and organization learning in ISO certified organizations as compared to the organizations without ISO certification i.e. the performance and organization learning is higher in ISO certified organizations than the Non-ISO certified organizations.

Research Design

After identifying the variables, theoretical framework development and hypotheses formulation the next step is to design the research highlighting the

management and process flow management. So in this study these TQM dimensions were used which was based upon the model developed by (Dale et al., 2001) including the empirical work of Samson and Terziovski (1999). The responses for TQM dimensions were captured using a 5- point Likert scale where 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree and 5= strongly agree. Altogether there were 27 items under TQM system. The cronbach alpha of this scale ranged between 0.73 to 0.81 (Koc, 2011) further indicating the reliability of this scale.

Organization Learning Scale

To measure organizational learning in this study 9-item scale was used. In this study organization learning was based on two dimensions i.e. learning culture and learning strategy. This scale was previously used by Hung et al. (2011) in their study and the cronbach alpha of this scale ranged between 0.84 - 0.85. The responses for organizational learning was captured using a 5- point Likert scale where 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree. The five items in this scale captured the learning culture dimension and the remaining four items captured the learning strategy dimension.

Organizational Performance Scale

To measure organizational performance a 19- item scale developed by Dimovski and Skerlavaj (2004) was used as this scale has taken into account various stakeholders' measure rather than only focusing on profit. In this scale organizational performance was measured by focusing on four perspectives i.e. the financial measure, employees measure, suppliers measure and customers measure. Besides this in contrast to the items used in the original questionnaire the items were positively rephrased in this study only for the convenience of the participants. For example instead of using 'employees trust into leadership is low' (original item) the item was

rephrased positively i.e. 'employees trust into leadership is high'.

The cronbach alpha value for this scale was found to 0.90, which further ensured the reliability of this scale (Hernaus et al., 2008). The responses for organizational performance dimensions was captured using a 5- point Likert scale where 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree and 5= strongly agree.

Population and Sample

As this study intended to include sample population from two different nature of organizations i.e. ISO certified and Non-ISO certified in the service sector it was difficult to get the exact information on the number of companies that were ISO certified. Also the data related to the total number of organizations in the service sector couldn't be obtained, as in Nepal businesses are registered by various government agencies i.e. the Department of Industry, Department of Small and Cottage Industry, Department of Commerce, Office of Municipalities and Village Communities etc., making it difficult to get the exact number of registered service sector organizations. Only limited data could be extracted from the Industrial Statistics (Ministry of Industry, 2072/73) report on the total number of registered companies in the service sector from the fiscal year 2046/47 to 2072/73 which indicated the rise in the number of service sector organizations in Nepal (Non-ISO certified service sector organizations only). The report indicated the total number of organizations in the service sector which were registered in Kathmandu from the fiscal year 2046/47 to 2072/73 were 3,373 companies in total. Regarding the information on ISO certified organizations there is no such initiative taken by the Government of Nepal which classifies the organizations on the basis of ISO certification and hence the data related to the organizations with ISO certifications

were obtained with the help of Greentick Management Consultancy operating in Kathmandu. Thus one of the major limitations of this study was the lack of the total sampling frame.

Sample Design and Justification

The population sample of this study included 118 ISO certified and 122 Non-ISO certified service sector organizations. These organizations were selected using convenience sampling method. Though in quantitative studies it is advisable to use random sampling technique to ensure generalizability and representativeness (Sekaran, 2003) the convenient sampling technique was used in this study, as there are only limited number of ISO certified organizations in the service sector and using other sampling procedures were not found feasible. The sample population included service rendering organizations such as the Internet Service Providers, IT consulting firms, software companies, banks, hotels, hospitals, polyclinics, human resource consultancies and energy/solar companies. And according to the industry statistics report -2072/2073 there has been rise in the registration of the number of service rendering organizations and also the number of energy based companies were on a rise from the beginning of the fiscal year 2054/55 further indicating that the sample population included almost all the important organizations in the service sector that are majorly contributing in the economy of Nepal (Ministry of Industry, 2072/2073).

Regarding the total sample size estimation as per the rule of thumb the ratio of statement to the respondents should not be less than 1: 5 (Hair, Black, Babin,& Anderson, 2010). In this research survey instrument there were 3 latent variables (i.e. TQM system, organization learning and organization performance) with altogether 55 items excluding the demographic variables and as per the rule of thumb depending on the items the minimum sample requirement was found to be 275. So based on this,

altogether 400 questionnaire samples were distributed out of which the total responses obtained were 277 (69.25%) which was considered good for the generalization of the result. However after scrutinizing the responses the final sample size comprised of 240 responses that were found to be valid and were further analyzed in this study.

Administration of the Questionnaire

The questionnaires were administered to the leaders of the organization in Kathmandu valley and the sample population also included few organizations from outside Kathmandu valley as limiting the collection of data within the Valley would not justify the sample size of ISO certified organizations and the detailed information about the ISO certified organizations (118 ISO certified organizations) are described in the appendix section. The selection of the ISO certified organizations was done from the available websites of management consultancies responsible for ISO certification operating in Kathmandu valley and non-ISO certified organizations were selected using convenience sampling method, as there was no sampling frame available random sampling method couldn't be used in this study. To further collect the responses paper questionnaires were developed and distributed and for the organizations outside the valley the responses were collected through e-mail. As the unit analysis was at organization level the leaders of the organizations under study were selected as the leaders have more insight knowledge related to the organization's performance.

Out of 400 questionnaires that were distributed the total responses obtained were 277 (69.25%) and after scrutinizing the responses the final sample size comprised of 240 (60%) responses that were found to be valid and were further analyzed in this study.

Research Procedure and Data Analysis

Before administering the survey questionnaire to the participants the questionnaire was pre-tested with 10 potential participants to check the clarity of the items used in the questionnaire. The questionnaire comprised of five demographic variables, one dummy variable related to the type of organization and the remaining fifty-five items in the questionnaire were related to other variables (i.e. TQM system, organization learning and organization performance) used in this study. To compare the organization performance between the ISO and Non-ISO certified organizations dummy variable was created and the responses were collected as 1 = ISO certified and 0 = Non-ISO certified. Paper based questionnaires were distributed to the participants personally as well as through e-mail and the confidentiality of there responses were maintained. Details of the questionnaire are in the appendix section. The total number of responses which were found valid i.e. 240 were further analyzed using SPSS version 21. The step-by-step process of this analysis is described below:

Validity and Reliability of the Data

To examine the reliability of each instrument Cronbach's Alpha value was calculated and the items with the high alpha value i.e. more than 0.70 were selected for further analysis in this study.

Descriptive Analysis of Demographic Variables

Descriptive analysis of the socio-demographic variables i.e. gender, age, education level, tenure in the organization and type of service sector obtained from the questionnaire was carried out. Along with this the information about the type of organization was also collected as dummy variable (1= ISO certified; 0 = Non – ISO certified) and further analyzed in this study.

CHAPTER IV

RESULTS

This chapter presents the data analysis technique mentioned in the preceding chapter in detail. Before proceeding with the hypotheses testing the results of the reliability analysis, demographic characteristics, descriptive statistics and correlation matrix has been discussed. The summary of hypotheses testing is also explained in detail in this chapter.

Reliability Analysis

The Cronbach alpha value was computed to measure internal consistency among the items of each section of the instrument. The Cronbach alpha value for total quality management system (TQM) was found to be 0.96, for organization learning the alpha consistency was 0.95 and the Cronbach alpha value for organization performance was found to be 0.94 respectively. The Cronbach alpha values of all the variables along with their dimensions are presented in the Table 4.1 given below:

*Table 4.1***Reliability Analysis**

Variables/Instrument	No of Items	Cronbach's Alpha Value
Total Quality Management (TQM) System	27	.96
Top Management Support	3	.85
Training	3	.91
Workforce Management	4	.86
Quality Report	3	.80
Customer Relations	5	.86
Supplier Quality Management	5	.89
Process Flow Management	4	.84
Organization Learning	9	.95
Organization Performance	19	.94

As per the rule of thumb the Cronbach alpha value should be more than 0.70 to be used for further analysis (Sekaran, 2003), and the results presented in the Table 4.1 showed that the Cronbach alpha value for TQM system (along with its dimensions), organization learning and organization performance were higher than 0.70. Thus further indicating the internal consistency of the instruments and were further used in this study.

Demographics Characteristics

This section presents the participants' demographic characteristics of the organization under study i.e. the type of service sector and organization type. The data presented the contribution of different service sector organizations in this study such as there were more number of consultancies and IT companies (25.8%) in Kathmandu and bank/Insurance comprised of (17.1%), Hospitals/Pathlabs comprised of (15.4%) and the hotels, logistic companies, solar/energy companies and different service rendering companies comprised of (15.8%). The data also presented that 118 organizations were ISO certified (49.2%), whereas 122 organizations were non-ISO certified (50.8%) from the total number of organizations (n=240) in the given sample. The detailed description of the demographic characteristics has been presented in the Table 4.2 given below:

Table 4.2

Socio-Demographic of Respondents

Characteristics	Frequency	Percentage (%)
Type of Service Sector		
Bank/Insurance/Investment	41	17.1%
IT/Software Companies	62	25.8%
Consultancies/HR Services	62	25.8%
Hospitals/Polyclinics	37	15.4%
Others (Energy/solar companies, Logistics, Hotels, Travel Agencies)	38	15.8%
Type of Organization		
ISO Certified	118	49.2%
Non-ISO Certified	122	50.8%

Descriptive Analysis

The descriptive analysis in Table 4.3 indicated that the overall mean score of all the items and out of which the mean score of organization learning was the highest i.e. 3.65 (S.D. = 0.75) as compared to other items indicating that organization learning was considered as an important variable by the top level management in Nepali context. Similarly the mean score of total quality management process (TQM) had the mean score 3.53 (S.D. = 0.62) and for organization performance the mean score was 3.53 (S.D. = 0.54) respectively. The mean values for TQM system and organization performance further indicated that TQM system and organization performance were also perceived valuable and given more importance by the top-level management. Similarly the mean value of different dimensions of TQM system were also found to have the mean score above average and the details are described in the Table 4.3 given below:

Table 4.3

Descriptive Analysis of Study Variables (N=240)

Variables	N	Minimum	Maximum	Mean	Std. Deviation
TQM System	240	2.19	5.00	3.53	0.62
Top Management Support	240	1.67	5.00	3.55	0.71
Training	240	2.00	5.00	3.40	0.89
Workforce Management	240	1.75	5.00	3.55	0.72
Quality Data Reporting	240	1.00	5.00	3.61	0.71
Customer Relations	240	1.60	5.00	3.60	0.65
Supplier Quality Management	240	1.60	5.00	3.39	0.76
Process Flow Management	240	1.75	5.00	3.63	0.64
Organization Learning	240	2.00	5.00	3.65	0.75
Organization Performance	240	2.26	5.00	3.53	0.54

Nature and Strength of Relationships between Study Variables

To examine the nature and strength of relationship between the study variables (i.e. TQM system, organization learning & organization performance) correlations coefficient was calculated using Pearson correlation matrix. The correlation matrix in the Table 4.4 indicated that there was a significant positive correlation ($P < 0.01$) between total quality management system (TQM), organization learning and organization performance. The details of the correlation matrix are presented in the Table 4.4 given below:

Table 4.4

Pearson's Correlation Matrix for Study Variables

	1	2	3	4	5	6	7	8
1 Top Management	1							
2 Training	0.76**	1						
3 Workforce Management	0.71**	0.73**	1					
4 Quality Data Reporting	0.66**	0.62**	0.72**	1				
5 Customer Relations	0.67**	0.65**	0.76**	0.72**	1			
6 Supplier Quality Management	0.69**	0.82**	0.73**	0.62**	0.68**	1		
7 Process Flow Management	0.65**	0.65**	0.67**	0.66**	0.71**	0.68**	1	
8 Organization Performance	0.76**	0.74**	0.79**	0.70**	0.76**	0.81**	0.73**	1
9 Organization Learning	0.70**	0.79**	0.73**	0.64**	0.72**	0.79**	0.74**	0.830**

Notes. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Thus the correlation coefficients presented in the Table 4.4 indicated the following:

- There was a significant positive relationship between total quality management system dimensions and organization performance.
- There exist a statistically significant positive relationship between total quality management system dimensions and organization learning.
- There was a significant and positive relationship between organization learning and organization performance.

Thus the results indicated that the relationship between the study variables

were in the intended direction but not robust enough to test the hypotheses, so further regression analysis was carried out to test the relationship between the predicted variables (total quality management system & organization learning) and outcome variable (organization performance).

Hypotheses Testing

The results of the correlation coefficient indicated that the relationship between the TQM system, organization learning and organization performance were *significant and in the intended direction. To further test the hypotheses regression* analysis was carried out to further confirm the relationships as indicated by the correlation coefficient. To examine the relationship the dependent variable (organization performance) was regressed on independent variables of each hypotheses i.e. TQM system and organization learning.

Further to test the mediating effect of organization learning on the TQM system and organization performance relationship Barron and Kenny's (1986) four-step approach was followed. Lastly t-test was also carried out to compare the differences between organization performance of the two samples i.e. ISO certified and Non-ISO certified organizations. The findings of the regression analysis for hypotheses testing are presented below.

Total Quality Management System and Organization Performance

Hypotheses 1 proposed that there is a significant positive effect of total quality management system on organization performance. In order to examine the significant positive effect of total quality management system on organization performance the following model was adopted.

Step1: Regression model for hypotheses 1 (two-variable case) is as following:

$$\text{Organization Performance (Y)} = \beta_0 + \beta_1 (\text{Total Quality Management System}) + \text{Error}$$

(U)

Here Y represented organization performance, β_0 represented the intercept (constant), β_1 represented the beta coefficient (parameters) for total quality management system and U represented the error term.

Table 4.5

Linear Regression for Examining the Effect of Total Quality Management System on Organization Performance

Predictors	Standardized Beta Coefficient	Unstandardized Beta Coefficient
Total Quality Management System	0.885***	0.770***
R ²	0.783	
F	861.281	

Notes. *p<0.10, **p<0.05, ***p<0.01, Organization Performance - Dependent Variable

The results from the above Table 4.5 indicated that the regression model for total quality management system and organization performance was positively significant ($F = 861.281$, $p = 0.000$). The results also indicated that the total quality management system explained the variances in organization performance by 78% further indicating the good fit of the model and further supporting hypotheses 1a. The estimation of the proposed regression model along with the unstandardized beta coefficient value is given below:

$$\text{Organizational performance (Y)} = 0.816 + 0.770 (\text{Total Quality Management System})$$

Further to examine the effect of different dimensions of TQM system on organization performance the following regression model was proposed:

$$\begin{aligned} \text{Organization Performance (Y)} = & \beta_0 + \beta_1 (\text{Top Management Support}) + \beta_2 (\text{Training}) + \\ & \beta_3 (\text{Workforce Management}) + \beta_4 (\text{Quality Data Reporting}) + \beta_5 (\text{Customer Relations}) \\ & + \beta_6 (\text{Supplier Quality Management}) + \beta_7 (\text{Process Flow Management}) + \text{Error (U)} \end{aligned}$$

management, customer relations, supplier quality management and process flow management had a significant positive effect on organization performance further supporting hypotheses 1b, 1d, 1f, 1g and 1h respectively.

Total Quality Management System and Organization Learning

To test the second hypotheses that there is a significant positive effect of total quality management system on organization learning regression analysis the following model was adopted.

Regression model for hypotheses 2 (two-variable case) is as following:

$$\text{Organization Learning (Y)} = \beta_0 + \beta_1 (\text{Total Quality Management System}) + \text{Error (U)}$$

In this model Y represented organization learning, β_0 represented the intercept (constant), β_1 represented the beta coefficient (parameters) for total quality management system and U represented the error term.

Table 4.7

Linear Regression for Examining the Effect of Total Quality Management System on Organization Learning

Predictors	Standardized Beta Coefficient	Unstandardized Beta Coefficient
Total Quality Management System	0.858***	1.029***
R ²	0.736	
F	664.679	

Notes. *p<0.10, p** <0.05, p***<0.01, Organization Learning - Dependent Variable

The results from the above Table 4.7 indicated that total quality management system explained the variances in organization learning by 73% indicating the good fit of the model. The results also highlighted that the effect of total quality management system and organization learning was positively significant (F = 664.679, p = 0.000). The estimation of the proposed regression model with the

unstandardized beta coefficient value is presented below:

$$\text{Organization Learning (Y)} = 0.019 + 1.029 (\text{Total Quality Management System})$$

Thus the results indicated the significant positive effect of TQM system on organization learning and further supporting hypotheses 2a of this study.

Further the regression model to examine the effect of different dimensions of TQM system on organization learning has been presented below:

$$\begin{aligned} \text{Organization Learning (Y)} = & \beta_0 + \beta_1 (\text{Top Management Support}) + \beta_2 (\text{Training}) + \beta_3 \\ & (\text{Workforce Management}) + \beta_4 (\text{Quality Data Reporting}) + \beta_5 (\text{Customer Relations}) + \\ & \beta_6 (\text{Supplier Quality Management}) + \beta_7 (\text{Process Flow Management}) + \text{Error (U)} \end{aligned}$$

Table 4.8

Linear Regression for Examining the Effect of Different Dimensions of TQM System on Organization Learning

Predictors	Standardized Beta Coefficient	Unstandardized Beta Coefficient
Top Management Support	0.017	0.018
Training	0.280***	0.235***
Workforce Management	0.099*	0.102*
Quality Data Reporting	0.000	0.000
Customer Relations	0.130**	0.149**
Supplier Quality Management	0.240***	0.236***
Process Flow Management	0.222***	0.258***
R ²	0.75	
F	102.975	

Notes. *p<0.10, **p<0.05, ***p<0.01, Organization Learning - Dependent Variable

The results from the above Table 4.8 indicated that the multiple regression model using seven different dimensions of TQM system only five dimensions of TQM system were found to have a significant effect on organization performance (F = 102.975; p = 0.000). However the seven dimensions of TQM system explained the

variances in organization learning by 75% further justifying the significance of the regression model and the estimation of the regression model using the multivariable case has been presented below:

Organization Learning (Y) = 0.157 + 0.018 (Top Management Support) + 0.235 (Training) + 0.102 (Workforce Management) + 0.000 (Quality Data Reporting) + 0.149 (Customer Relations) + 0.236 (Supplier Quality Management) + 0.258 (Process Flow Management).

Thus the results given in the Table 4.8 indicated that form the seven dimensions of TQM system only five dimensions (i.e. training, workforce management, customer relations, supplier quality management and process flow management) were found to have a significant effect on organization learning further supporting hypotheses 2c, 2d, 2f, 2g and 2h of this study.

Organization Learning and Organization Performance

To examine the significant positive effect of organization learning on organization performance again linear regression was conducted and the following regression model was adapted to test the hypotheses 3.

Organization Performance (Y) = $\beta_0 + \beta_1$ (Organization Learning) + Error (U)

In this model Y represented organization performance, β_0 represented the intercept (constant), β_1 represented the beta coefficient (parameters) for organization learning and U represented the error term. The details of the standardized coefficient are explained in the Table 4.9 given below:

Table 4.9

Linear Regression for Examining the Effect of Organization Learning on Organization performance

Predictors	Standardized Beta Coefficient	Unstandardized Beta Coefficient
Organization Learning	0.830***	0.602***
R ²	0.688	
F	525.3	

Notes. *p<0.10, ** <0.05, ***<0.01, Organization Performance - Dependent Variable

The results given in the Table 4.9 highlight the standardized beta coefficient for organization learning (0.830, p=0.000) and unstandardized beta coefficient was 0.602 further indicating that organization learning had a significant positive effect on organization performance. The R² value also suggested that the variance in organization performance was explained by organization learning by 68 % further indicating the model fit. And the estimation of the proposed model is explained below:

$$\text{Organization Performance} = 1.337 + 0.602 (\text{Organization Learning})$$

Thus the results indicated the significant positive effect of organization learning on organization performance and further supporting hypotheses 3 of this study.

Mediation Effect of Organization Learning

To further test the mediating effect of organization learning Barron and Kenny's (1986) model for mediation was conducted. According to Barron and Kenny (1986) model to establish the mediation effect the independent variable must show the effect on the dependent variable as well as the mediating variable and the mediator must affect the dependent variable. If the above-mentioned conditions are met then the effect of the independent variable on dependent variable must be less after

controlling for independent variable. As explained in the Table 4.5 the standardized beta coefficient value was found to be 0.885*** further confirming the positive effect of TQM system on organization performance. The results as given in the Table 4.7 confirmed the positive effect of TQM system on organization learning and Table 4.9 further confirmed the positive effect of organization learning on organization performance. The results from the Table 4.5, 4.7 and 4.9 further satisfy the first three steps of Barron and Kenny's mediation model. The fourth step further highlighting the indirect effect of organization learning is explained in the Table 4.10 given below:

Table 4.10

Indirect Effect of Organization Learning on Organization Performance

Predictors	Standardized Beta Coefficient	Unstandardized Beta Coefficient
TQM	0.657***	0.572***
Organization Learning	0.266***	0.193***
F	480.264	
R ²	0.802	
Adjusted R ²	0.800	

Notes. *p<0.10, ** <0.05, ***<0.01, Organization Performance-Dependent Variable; TQM-Total Quality Management System

The results from the above Table 4.10 highlighted the F-value and R² value further indicating the good fit of the model. The positive significant effect of total quality management system on organization performance is evident as given in the Table 4.5 (standardized beta coefficient = 0.885***). The standardized beta coefficient on organization learning (0.858***) as given in the Table 4.7 further confirmed the significant positive effect of total quality management system on organization learning. The effect of organization learning on organization performance was also confirmed as given in the Table 4.9. Later on when total quality

management system variable was controlled the effect of organization learning on organization performance was also found significantly positive (standardized beta coefficient = 0.266***). However the effect of total quality management system on organization performance is non-zero indicating that there is partial mediation due to organization learning. It can be seen that after introducing organization learning in the model the effect of total quality management system on organization performance is reduced to 0.657*** (standardized beta coefficient) from (standardized beta coefficient = 0.885***) further confirming the partial mediating effect of organization learning on the relationship between total quality management system and organization performance and thus supporting hypotheses 4 of this study.

Mean Differences between Groups (ISO Certified and Non-ISO Certified)

To test the hypotheses 5 of this study i.e. there is a significant difference in the organization performance and organization learning of the ISO certified organizations as compared to Non-ISO certified t-test (independent sample t-test) was carried out and the mean values of the t-table indicated that there was a significant difference in the level of organization performance of the ISO certified organizations as compared to its counterpart i.e. the Non-ISO certified organizations. The level of organization learning was also found significantly high in the ISO certified organizations as compared to the Non-ISO certified ones. Thus further supporting hypotheses 5 in this study and the details of the t-test (independent sample t-test) is explained in the Table 4.11 given below:

Table 4.11

Mean differences in Organization performance and Organization Learning in ISO Certified and Non-ISO Certified Organizations

	Organization Type	N	Mean	Std. Deviation	Std. Error Mean	F	Sig (2-tailed)
Organization Learning	ISO	118	4.3136	.36015	.03315	.304	.000
	Non-ISO	122	3.0255	.40145	.03635		.000
Organization Performance	ISO	118	3.9723	.29818	.02745	8.420	.000
	Non-ISO	122	3.1186	.36861	.03337		.000

Thus the results of the t-test (independent sample t-test) given in the table 4.11 highlighted the mean difference in the organization performance of ISO certified organizations which is found to be 3.97 as compared to the Non-ISO certified organizations which is 3.11 further confirming that ISO certified organizations have high organization performance and is found to be highly significant at $p < 0.01$. Along with organization performance organization learning was also significantly high in ISO certified organizations (i.e. 4.31) as compared to Non-ISO certified organizations (i.e. 3) further confirming that the ISO certified organizations were successful in creating an environment of organization learning which was significantly high as compared to the non-certified ones further supporting hypotheses 5 in this study.

Summary of Hypotheses Testing Results

To test the hypotheses formulated in this study Pearson's correlation and linear regression was conducted to examine the direct relationship between total quality management system, organization learning and organization performance. To test the mediating effect of organization learning on TQM system and organization performance relationship Barron and Kenny's (1986) four-step approach was followed. Lastly to find out the significant difference in the organization performance and organization learning of ISO certified organizations as compared to non-ISO

certified ones independent sample t-test was also conducted and the findings of all the above analysis have been presented in the Table 4.12 given below:

Table 4.12

Summary of Hypotheses Testing Results

Hypotheses	Independent Variable	Dependent Variable	Hypothesized Relationship	Result
Hypotheses 1a	Total Quality Management System	Organization Performance	Positive	Supported
Hypotheses 1b	Top Management Support (TQM system dimension)	Organization Performance	Positive	Supported
Hypotheses 1c	Training (TQM system dimension)	Organization Performance	Positive	Not Supported
Hypotheses 1d	Workforce Management (TQM system dimension)	Organization Performance	Positive	Supported
Hypotheses 1e	Quality Data Reporting (TQM system dimension)	Organization Performance	Positive	Not Supported
Hypotheses 1f	Customer Relations (TQM system dimension)	Organization Performance	Positive	Supported
Hypotheses 1g	Supplier Quality Management (TQM system dimension)	Organization Performance	Positive	Supported
Hypotheses 1h	Process Flow Management (TQM system dimension)	Organization Performance	Positive	Supported
Hypotheses 2a	Total Quality Management System	Organization Learning	Positive	Supported

Hypotheses 2b	Top Management Support (TQM system dimension)	Organization Learning	Positive	Not Supported
Hypotheses 2c	Training (TQM system dimension)	Organization Learning	Positive	Supported
Hypotheses 2d	Workforce Management (TQM system dimension)	Organization Learning	Positive	Supported
Hypotheses 2e	Quality Data Reporting (TQM system dimension)	Organization Learning	Positive	Not Supported
Hypotheses 2f	Customer Relations (TQM system dimension)	Organization Learning	Positive	Supported
Hypotheses 2g	Supplier Quality Management (TQM system dimension)	Organization Learning	Positive	Supported
Hypotheses 2h	Process Flow Management (TQM system dimension)	Organization Learning	Positive	Supported
Hypotheses 3	Organization Learning	Organization Performance	Positive	Supported
Hypotheses 4	Total Quality Management System	Organization Performance	Partial Mediation by Organization Learning	Supported
Hypotheses 5	Type of organization (ISO certified and Non-ISO certified)	Organization Performance	Positive	Supported

CHAPTER V

SUMMARY, DISCUSSIONS AND IMPLICATIONS

This chapter presents the summary of findings and the discussions. The results of this study are compared with the results of other relevant studies and justified in the Nepali context. Along with this the practical and research implication of this study are also discussed. Later the critique of this study highlighting the limitations/delimitations is discussed.

Summary of Findings

The main objective of this study was to examine the effect of total quality management system on organization performance along with the mediating effect of organization learning. Along with this the effect of different dimensions of TQM system on organization performance was also carried out. Also to find out if there exists any significant difference in the organization performance of the ISO certified and Non-ISO certified organizations independent sample t-test was carried out. To check the normality of the data and the multicollinearity between the independent variables normality test and VIF were calculated which indicated that the data was normally distributed and there was no multicollinearity issue between the independent variables. Further CFA results also indicated the model was fit for hypotheses testing and correlation matrix. The results of the descriptive analysis of the demographic variables indicated that there were more number of males in the leadership position (65.4%) belonging to the age group of 35-45 years (59.2%). Most of the leader's (40.4%) had worked in the organization for more than five years and had completed their masters degree (52.9%). The mean score of the study variables also revealed that the highest mean score was for organization learning (3.65) and among the TQM

system dimensions the highest mean score was for training (0.89).

Further to examine the relationship between TQM system, organization learning and organization performance correlation coefficient was calculated using Pearson's correlation matrix which indicated there existed a significant positive relationship between TQM system organization learning and organization performance. Along with this the different dimensions of total quality management system were also found to be positively correlated with organization learning and organization performance.

The results of regression analysis indicated that there was a significant positive effect of total quality management system on organization performance and on further examining the effect of different dimensions of TQM system on organization performance out of seven dimensions of TQM system only five dimensions (top management support, workforce management, customer relations, supplier quality management and process flow management) had a significant positive effect on organization performance, whereas training and quality data reporting were found to have no significant effect on organization performance. Further the regression analysis results indicated a significant positive effect of TQM system on organization learning and the results of the effect of different dimensions of TQM system on organization learning also indicated that out of seven dimensions of TQM system only five dimensions (training, workforce management, customer relations, supplier quality management and process flow management) had a significant positive effect on organization learning and remaining two dimensions had no significant effect (top management support and quality data reporting) on organization learning. Further the positive results of linear regression analysis also confirmed the significant effect of organization learning on organization performance.

The mediating effect of organization learning on total quality management system and organization performance was also confirmed by using Barron and Kenny's (1986) four-step approach. Further, the results of independent sample t-test also confirmed that there was significant difference in the level of organization learning and organization performance in the ISO certified organizations as compared to Non-ISO certified organizations.

Discussion

The study findings as discussed in the preceding chapter confirmed the positive effect of total quality management system on organization performance along with the mediating effect of organization learning on TQM system and organization performance relationship. The study domain included the service sector of Nepal, as it occupies an important role in the economy of Nepal and plays a major role in creating employment opportunities (Ministry of Industry, 2072/73). Hence it becomes important to focus on the organization performance of these service sector organizations and the results of this study have highlighted that through ISO certification and implementing the total quality management system in organizations the performance of the organizations can be enhanced. The study report by UNCTAD has also highlighted the important role of ISO certification and recommended as an important strategy that should be adopted by the organizations (United Nations, 2011). Thus through this study the important role of total quality management system responsible for creating an environment of organization learning in organizations further leading towards enhancing the performance of organizations has been identified in Nepali context.

The significant positive effect of TQM system on organization performance in this study is in line with the previous studies (e.g., Sadikoglu & Olcay, 2013;

Terziovski & Samson, 1999; Mahmood et al., 2015; Jaafreh et al., 2013; Agus, 2004; Brah, Tee & Rao, 2002) and hence it can be concluded that through TQM system implementation the organizations have been successful in improving their overall performance. On further examining the TQM system as multidimensional construct from the seven dimensions only five dimensions were found to have a positive significant effect on organization performance i.e. top management support, workforce management, customer relations, supplier quality management and process flow management showed a significant positive effect on organization performance which further confirms that in Nepali ISO certified organizations top leaders of the organization played an active role in supporting activities that boosted the performance of organizations. It has been found that with top management support the performance of the organizations can be improved at all levels (e.g., Pham, Pham, & Pham, 2016; Jitpaiboon & Kalaian, 2005). As leaders play an important role by establishing unity of purpose, direction and creating conditions which further helps in engaging people to achieve the organizations overall objectives (International Organization for Standardization, 2015), in this study as well the top management of the ISO certified organizations in Nepal were found to be playing similar roles in enhancing the performance of their organizations. The results indicate that the top level management in Nepali organizations (with certification) are successful in enhancing their organization performance by coordinating the organization processes, improving the communication at all the levels in the organization and by developing and improving the capability of the organization and its people to deliver positive results.

Besides top management support workforce management was also found to have a significant effect on organization performance in this study. This further

indicates that the competent employees were involved at all levels and by empowering and engaging them the overall quality objective was achieved further leading towards the enhancement of the organization performance (service sector). As per the quality guidelines of (International Organization for Standardization, 2015) the quality objective can be achieved only when there is enhancement in the involvement of people to create and deliver value further leading towards their satisfaction and also creating a culture of trust and collaboration in the organization.

According to policy guidelines of ISO the primary focus of quality management is to meet the customer's requirements and keep on working to exceed the customer expectations (International Organization for Standardization, 2015) and the positive effect of customer focus on organization performance indicated that service sector organizations in Nepal were able to attract and retain their customers confidence, loyalty and satisfaction. Through customer feedback and interaction the organizations were also successful in creating more value for the customers and strived to understand the customers current and future needs contributing towards success of the organization.

Another dimension of TQM system that was found to have a significant effect on performance was supplier quality management. Supplier quality management is a set of activities that includes measuring and keeping track of the cost of supplier quality, supplier performance and establishing effective communication channels with suppliers (Chibba, 2017) and is found to influence organizational performance and management plays an important role in initiating this process (Samson, Jonathan, Muli, Ruth,& Tabby, 2013). It has also been found that there is a direct and huge impact of supplier quality on organizations performance. The quality performance of organization i.e. output depends on the quality performance of its suppliers that acts

an important input (Forker, 1997). Hence the positive results of this study suggested that the Nepali service sector organizations took initiative in establishing an effective communication channel with suppliers and keeping the customer requirements and quality in mind, the organizations initiated and maintained the quality of suppliers further leading towards enhancement of organization performance and the study results were in line with the study conducted by Samson et al. (2013); Ali and Mimeche (2014).

Along with this process flow management was also found to have a significant effect on organization performance. Process management involves proper design, control and improvement of processes (Evans, 2005). Deming and Juran have also emphasized on the important role of process management in achieving the overall organizational goals (Janine, Jones, & Linderman, 2014). According to the quality guidelines given by International Organization for Standardization (2015) desirable results can only be achieved when the activities are understood and managed as a part of the coherent system, as quality management consists of inter-related processes it becomes very important for the organizations to understand this process to further optimize their performance. Ahire and Dreyfus (2000) in their study have confirmed the positive role of process management on performance improvement and the findings of this study also suggest the important role of process flow management that has led the organizations in Nepal towards enhancing their performances.

However the remaining two dimensions of TQM system i.e. training and quality data reporting were not found to have any significant effect on organization performance further indicating that the organizations somewhere lacked in providing appropriate training as per the needs of its employees or failed in evaluating the

training effectiveness through employee feedback. In today's competitive environment in order to gain competitive advantage the employees need to be competent and that can be achieved through training and development and the organizations need to invest in the training process (Engetou, 2017). However training can vary from organization to organization in terms of how training is given (quality) and the frequency of training (quantity) and also depends on the internal and external environmental changes and also how much importance does the management gives to training and sees as an important motivating factor (Rowley, Bunker, & Cole, 2002).

Thus in this study the negative result of training on organization performance indicate that the organizations need to plan the training programme as per the needs of the employees and also keep track of the changes in the external and internal environment. Further the findings suggest that training programs in several organizations in Nepal are addressed in an unplanned and indiscriminate manner and the organizations needs to plan systematically and design the training as per the needs of the employees i.e. through job analysis, organizational analysis, performance appraisal and employee survey; lastly implementing and evaluating the training effectiveness through employee feedbacks which will create more satisfied and competent workforce and further enhancing the organization performance.

Another dimension i.e. the quality data reporting also didn't show any significant effect on organization performance and in quality management system managing data plays a very important role in improving performance. Managing data is a process that involves collecting the data, tracking it, analyzing, interpreting and acting on the available data for specific purposes and also includes ongoing measurement and improvements (U.S. Department of Health and Human Services, Health Resources and Services Administration, 2011). However the findings suggest

that though an important step in maintaining quality, organizations in Nepal somewhere are lacking in managing and reporting the data related to quality and has influenced their level of performance and the organizations need to focus more on their documentations and quality data reporting if they want to succeed in the long run. Thus even though out of seven dimensions only five dimensions showed a significant effect on organization performance the unidimensional construct of TQM system showed a significant positive effect on organization performance further indicating that by implementing TQM system in organizations the performance of the organizations can further be enhanced.

Besides this the effect of TQM system on organization learning was also examined in this study and the findings suggested that TQM system had a significant positive effect on organization learning. Organizations can achieve competitive advantage through organization learning and the organizations that learn fast are more successful as compared to their competitors (Saadat & Saadat, 2016) hence this highlights the important role of organization learning. Also learning culture in organization further encourages the employees' participation in decision-making and is possible with the proper implementation of TQM (e.g., Love, Li, Irani, & Faniran, 2000). On examining the unidimensional construct of TQM system the findings of this study suggested that the organizations by implementing TQM system created a culture of learning and that further enhanced the performance of organizations. Existing literature suggested the significant effect of TQM on organization learning (e.g., Yusr, Mokhtar, & Othman, 2013; Kocoglu et al., 2011) and the findings of this study further contributed to the available literature.

Along with the unidimensional construct the effect of multidimensional construct of TQM system on organization learning was also examined and out of the

seven dimensions of TQM system only five dimensions (training, workforce management, customer relations, supplier quality management and process flow management) were found to have a significant effect on organization learning whereas the remaining two dimensions of TQM system (top management support and quality data reporting) didn't show any significant effect on organization learning.

The significant effect of five TQM system dimensions indicated that TQM implementation in organizations were successful in creating a culture of organization learning. It has been found that training improves not only the performance of organizations but also play an important role in creating an environment of organization learning (Aragon, Jimenez, & Valle, 2014) and the findings of this study further suggest that organizations by providing training to their employees are able to reduce deviant behaviors such as absenteeism and turnover. Along with this the employees are also getting the opportunity to learn and transfer the newly learned skills and knowledge further creating learning culture in organization.

Along with training, managing the workforce effectively also gives the opportunity to the employees to learn and grow which further enhances the learning process in organization and the study findings have supported the positive effect of workforce management on organization learning. Organizations can fully utilize the capabilities/skills of the employees when they are managed effectively and using the right tools of job designing (job rotation, job enlargement and job enrichment) the employees get the opportunity to acquire knowledge and new skills/capabilities in their job, they are motivated and experience achievement, growth and recognition which further enhances the productivity of the employees (Dessler, 2013). Thus in this study it was found that through proper utilization of the workforce the employees were getting the opportunity to learn and acquire new skills which they later

transferred in their work activities further creating an environment of learning and transfer of knowledge.

The study findings also suggested the positive effect of customer relationship management on organization learning and research have indicated that the organizations with learning orientation play a very important role in maintaining and enhancing the relationship with their customers (e.g., Boulding, Staelin, Ehret, & Johnston, 2005; Jayachandran, Sharma, Kaufman, & Raman, 2005). As the customers needs, tastes and preferences keep on changing along with the suppliers offerings (Dickson, 1996) the firms need to keep a track of this changing behavior and manage their relationship with their customers effectively and this can be achieved through the learning and organizations that have learning orientation are found to be more successful (Battor & Battour, 2013) and through TQM implementation the learning culture can be created in organizations further ensuring organizational success (e.g., Jaafreh et al., 2013; Agus, 2004; Brah, Tee, & Rao, 2002). The findings of this study also indicated that organizations through TQM implementation were successful in creating a culture of learning and organizations were able to maintain a more effective customer relationship.

Many studies have identified the positive effect of organization learning on organization performance (e.g., Mahmood et al., 2015; Argote, 2011; Saadat & Saadat, 2016; Hussein, Mohamad, Noordin, & Ishak, 2014). The study findings also showed positive effect of organization learning on organization performance in Nepali service sector organizations. Thus it can be concluded that the Nepali organizations through organization learning enhanced their learning capability and were trying to adapt with the new changing environment. The organizations were further able to gain competitive advantage and increase their level of organizational

competitiveness and performance.

Similarly the study results also suggested the positive effect of suppliers quality management and process flow management on organization learning further indicating that the organizations that adapted TQM system were more inclined towards learning and keeping updated information about the supplier's and gave more importance to quality rather than cost further ensuring organizational success (Samson et al., 2013). Also with effective Process flow management the organizations can enhance their performances (Ahire & Dreyfus, 2000) and the supplier-manufacturer relationship and the process of product development has been found to increase short-term efficiency and long-term learning enhancement (Sobrero & Roberts, 2001). The study findings also suggested that organizations with effective process flow management were able to improve their efficiency and that led to learning enhancement in organizations.

Although five dimensions (training, workforce management, customer relations, supplier quality management and process flow management) of TQM dimensions were found to have a significant effect on organization learning the other two dimensions i.e. top management support and quality data reporting didn't have any effect on organization learning. The study findings suggest that in Nepali organizations the top management still follows exploitative/authoritative style of leadership based on punishment, fear and follow a top-down approach in communication and in order to develop a culture of organization learning the leaders in the organization need to change their leadership style. As it has been found that consultative and participative styles of leadership encourages the employees to communicate freely and allows them to participate in decision-making further enhancing the learning environment in organization (Dzinic, 2015). Thus to further

enhance organization learning there is a need that the top management should review their leadership style and make the necessary changes in the organization design that will encourage participation of employees in the organizations decision-making and give them more opportunities to communicate and learn from each other in the organization further enhancing organization learning culture.

Also for bringing organizational change and enhance performance there has to be a long-term commitment towards learning, as learning helps in gaining competitive advantage and has been recommended by many management experts as the universal medicine for all organizational problems (Saadat & Saadat, 2016). Thus this further suggests that the top management in Nepali service sector organizations need to focus more on creating a learning environment at all levels in the organization. Along with this changes in their leadership style would further ensure competitive advantage and long-term profit. Besides this the quality data reporting dimension of TQM system was also found to have insignificant effect on organization learning so the organizations need to focus more on managing data by collecting the data, tracking it, analyzing, interpreting and acting on the available data for specific purposes and also include ongoing measurement and improvements (U.S Department of Health and Human Services, Health Resources and Services Administration, 2011) which will further ensure that the environment of learning is created in organizations. Thus the significant positive effect of TQM dimensions (only five dimensions) on organization learning suggest that through the implementation of TQM system in organizations culture of learning has been created but not strong enough and the organizations should focus more on creating systems and processes that enhances learning in organizations to reap the benefits in the long run.

This study also examined the effect of organization learning on organization

performance its findings supported the available literature (e.g., Mahmood et al., 2015; Argote, 2011; Saadat & Saadat, 2016; Hussein et al., 2013; Snyder, 1996; Hernaus et al., (2008); Kocoglu et al., 2011; Ratna et al., 2014). The positive study findings also further suggest that the organizations through organization learning are capable of adapting towards the rapidly changing environment and gain competitive advantage that further accelerate their performance. As learning helps in not only enhancing employee's knowledge and skills but also helps the organizations to grow and develop into an effective learning organization (Saadat & Saadat, 2016) the service organizations in Nepal through implementation of TQM system are capable of transforming the organizations into a learning organization which has further accelerated their performances. So this study identifies the important role of organization learning and can be concluded that by creating an environment of learning the organizations can overcome the challenges created due to rapidly changing environment; and hence the organizations should pay attention towards implementing the process of learning permanently as an important part of the daily organizational activities at all levels in the organization to enjoy continuous organizational success.

The above identified important role of organization learning was further confirmed by examining the mediating role of organization learning on TQM system and organization performance relationship. It has been found that learning plays an important role in organization and without learning there is a high possibility that the employees will follow old practices (Yusr et al., 2013), and through TQM system the environment of continuous improvement, change and learning can be created that further contributes towards the enhancement of employee competencies related to communication, group work, interpersonal and organizational skills and problem

solving skills (Garcia-Morales et al., 2006). According to Martinez-Costa and Jimenez-Jimenez (2008) in order to foster organization learning process in organizations TQM practices should be implemented so that a learning culture can be created that can give opportunities to the employees to enhance their skills. Thus the mediating effect of organization learning in this study further confirmed that by implementing TQM system in organizations, learning environment can be created that can help the organizations adapt to the environmental changes and gain competitive advantage along with organizational success. However the mediating effect of organization learning further indicate that the organizations in Nepal should focus more on creating a learning culture to reap the overall benefits of organization learning.

Lastly in this study the level of organization performance and organization learning of the ISO certified and Non-ISO certified organizations was compared. The results indicated that organizations with ISO certification were performing better and the level of organization learning was also high as compared to the organizations without any certification. Thus the study findings contributed positively to the available literature (e.g., Mokhtar & Muda, 2012; Forough & Valmohammadi, 2015; Siougle et al., 2018 and Priyanka et al., 2016). The study findings further indicated that organizations without certification somewhere lack in maintaining the overall quality of their services. The non-ISO certified organizations have failed in creating an environment of learning in the organization that has led towards their lower level of organization performance.

So the organizations should think of different measures and strategies that can further help them improve their level of organization performance and by implementing TQM system in organizations the long term benefits can be achieved,

as there are evidences that suggest that through TQM system implementation the organization performance can be improved (e.g., Sadikoglu & Olcay, 2014; Terziovski & Samson, 1999; Mahmood et al., 2015; Jaafreh et al., 2013; Agus, 2004; Brah, Tee, & Rao, 2002).

Implications

As discussed in the preceding paragraphs it has been evident that the service sector dominates the overall economy of Nepal as compared to the agricultural and the manufacturing sector. Given the importance of the service sector the organizational performance of these service-oriented organizations cannot be neglected. By using the right strategies and tools such as by implementing TQM system in organizations the performance of these service organizations can be enhanced. Keeping this perspective in mind the practical and research implications are discussed below.

Practical Implication

As this study intended to examine the effect of TQM system on organization performance along with the mediating role of organization learning, the study findings were beneficial in identifying the important role of TQM system along with organization learning and organization performances, as this domain still remains unexplored in the Nepali organizational context. The study findings would benefit the practitioners/top-level management in many ways. First if we look into the role of TQM system, there is a lack of consensus regarding the usage of TQM dimensions as different researches have used different TQM dimensions. So the findings of this study have identified the important TQM dimensions that are applicable in Nepali organizational context. Besides this the implementation of TQM system is found to be more prevalent in manufacturing sector as compared to the service sector (Evans,

2005). So the study findings have filled in this gap by identifying the TQM system dimensions applicable in Nepali service rendering organizations and has also contributed positively to the few available literature in Nepali context.

Second contribution of this study is that practitioners/top-level management can apply the knowledge regarding TQM system into practice to gain the long-term benefits. As identified in this study, there exists a gap in the knowledge and information regarding the benefits of TQM in Nepali organizational context and many organizations are hesitant to implement TQM system and they take it as extra burden and extra cost to the organization (cost due to certification). So the positive benefits of TQM system implementation highlighted in this study can help the practitioners promote implementation of TQM system in organizations.

Also to compete in the international market today the organizations need to focus more on productivity and quality, further to achieve this the organizations need to meet the standards and the technical requirements. According to International Trade Center report the exporters in Nepal face many challenges and among them non-tariff measures, quality related regulations, sanitary and phytosanitary (SPS) measures and conformity assessment procedures are the most significant ones (International Trade Centre, 2015). The organizations can overcome the domestic as well as international market challenges if they start focusing on delivering quality products/services. So the third contribution of this study is that the practitioners can prepare themselves to face the challenges in the domestic as well as international market through the implementation of TQM system and enhance their organization performance.

As this study also identified the positive effect of different dimensions of TQM system on organization performance by highlighting the important role of top-

level management, training, proper workforce management, quality data reporting, customer relations, supplier quality management and process flow management. So the practitioners should further think of implementing and improving these different dimensions of TQM system, which will further encourage continuous learning in organization and enhance their performance.

The study results also highlighted the mediating role of organization learning on the TQM system and organization performance relationship further indicating the important role of organization learning. Through organization learning organizational structure can be developed that helps in creating a culture of adaptation and further allowing innovativeness (Fiol & Lyles, 1985). Thus the fourth contribution of this study is that the practitioners/leaders should focus more on developing a culture of learning in organization, in the process the employees will get the chance to learn, grow and adapt to the dynamic environment and this can be achieved through implementation of TQM system in organizations.

Fifth, the policy makers can benefit from this study, as in Nepal there is no national level policy on quality that clearly defines the roles and responsibilities related to quality infrastructure that should be implemented by the organizations (International Trade Center, 2015), and as this study has identified the benefits of implementing TQM system, the policy makers should think of developing policies related to quality at national level so that the organizations and its stakeholders are in a win-win situation. The government should take initiatives on improving the quality in the value chain process so that quality goods /services can be produced that can further help in gaining competitive advantage in the international market.

The sixth contribution of this study is that it can help the practitioners/leaders not only to increase their financial problems, but also solve the problems or

challenges related to employees and customers. In Nepal, along with financial performance the employee related issues such as turnover intention is also a biggest challenge faced by the organizations in Nepal. As per reported in the Kurakani discussion conducted by Real Solutions Pvt. Ltd. (www.merjob.com) on the topic, "Challenges and Problems faced in Employee Retention", the employees behavior related to turnover in Nepali organizations has changed over the past few years.

According to Krishna Bahadur Singh of Reliance Trade there has been changes in the needs and wants of the new generation as compared to that of the older generation. Besides financial security and high pay scale the new generation seek challenging tasks and growth opportunities. Also there is a difference in the job description and actual job/tasks assigned to the employees that further highlights the gap in developing proper job description.

Thus the problem of turnover intention can be solved to a larger extent by implementing TQM system in organizations. As the study findings suggest that through TQM system learning culture can be developed in organizations, which will further give the employees, chance to grow and prepare themselves to face challenges. Besides this TQM system focuses on proper documentation of work and systematic work allocation, which further can be beneficial in solving the problem related to job description and actual job tasks allocated to the employees.

As the competition is increasing organizations are looking for different strategies through which they can increase their customer base and gain competitive advantage. According to "Value disciplines Model" given by Wieserma and Treacy (1996) in order to achieve competitive advantage right strategic framework is required that consists of operational excellency, product leadership and customer intimacy. They further also have stated that in order to earn profit it is very important to

establish a co-operative customer relationship (as cited in Pokharel, 2011). This can be achieved through proper implementation of TQM system in organization, as one of the major dimensions of TQM system focuses on maintaining a strong customer relationship.

So the organizations in Nepal can gain competitive advantage and earn long-term profit by establishing a strong relationship with their customers and this is possible through the implementation of TQM system. Also some of the challenges that are identified in implementing customer relationship management in Nepal are getting top management support, maintaining quality of customer data, alignment of people and processes, determining customer needs, using customer data more logically, getting feedback from customers frequently and incorporating them and having a 360-degree view of customers (Pokharel, 2011). So in the process of maintaining a healthy customer relationship management most of these challenges can be mitigated through the implementation of TQM system in Nepali organizations.

Thus from the above discussions it becomes clear that the study findings can be helpful for the practitioners of Nepal in many ways, as the effect of TQM system on organization performance using a multi-stakeholder perspective has been found positive. Further this study is of equal importance for the service sector organizations as well as organizations from the manufacturing sector which are found to play an important role in the economic development of Nepal and through proper implementation of TQM system and organization learning the organization performance of these organizations can be enhanced which will further boost up the economic growth rate of the country.

Research Implications

Besides this from the research point of view this study has contributed towards the existing body of knowledge by examining the positive effect of TQM system on organization learning and organization performance, as there are only few available literature related to these variables in Nepali context. This study also further confirmed the reliability and validity of the measurement scales developed in the foreign context to be used in Nepali context and also confirming the universality of the TQM system dimensions along with organization performance and organization learning. From theoretical perspective this study has provided a better understanding of the TQM system and the role it plays in creating the learning environment that further boosts the performance of the organizations.

Along with the unidimensional construct of TQM the multidimensional construct of TQM system was also examined and the out of the seven dimensions training, top management support and quality data reporting showed no significant effect on organization performance and organization learning thus this demands further investigation. And the reason behind this can be the usage of the measurement scale developed in the western context and there is a high need for developing measurement scales to be used in Nepali context. This research followed a quantitative approach by obtaining responses through questionnaires and for better understanding of the quality system further studies can be conducted using both qualitative and quantitative approach.

Though the multidimensional construct of TQM system was examined in this study but in-depth study related to the effect of these different dimensions of TQM system on all the different dimensions of organization performance i.e. financial performance, suppliers measure, employees measure and customer measure would

have given a more clear picture. So further investigation on this relationship would be an added advantage.

This study only did comparative analysis between the two types of organizations i.e. one with ISO certification and without ISO certification. However future research work focusing on examining the moderating effect of this kind of certification on TQM system and organization performance relationship would give a more stronger evidence regarding the interaction effect of the moderating variable on TQM system and organization performance relationship.

Besides this in this study the sample participants were only the leaders of the organization and future studies can be conducted by including the middle-level managers as well for better understanding of the TQM system at all levels in the organization. Also this study only focused on the service sector organizations and further research can be conducted by including manufacturing sector to compare the differences in their level of organization performance.

Thus this study was one of the first studies to be conducted taking TQM system as an important variable and examining its effect on organization learning and organization performance in the Nepali service sector. And by doing so this study has also set ground for further research to be conducted in the Nepali organizational context.

Critique of the Study

This study was successful in identifying the important role of TQM system in increasing the performance of the organizations in Nepali service sector along with the mediating role of organization learning. Along with this the study also positively contributed to the literature as no research had been conducted till now in Nepali organizational context focusing on the important role of TQM system. Despite the

positive outcomes and support from the past research studies there were certain limitations in this study.

Some of the limitations of this study were the usage of convenient sampling technique, small sample size, selection of participants and use of self-report bias that may restrict the validity and generalizability of the study findings. Though random sampling technique is effective in research but due to lack of availability of the respondents and ISO certified organizations convenient sampling technique was used. Also there are only limited numbers of ISO certified organizations in the service sector that contributed towards the small sample size and acted as a limitation in this study. Another limitation was added due to the self-report bias as the main participants of this study were the leader's the situation of self-report biasness couldn't be ignored. For example the mean value for TQM system, organization learning and organization performance was above 3.2 for both the ISO certified and Non-ISO certified organizations further indicating the problem of self-report biasness. Thus besides getting responses from only top level management the responses could have been collected from middle level managers so that the data could be further triangulated and reduce the problem of self-report biasness to some extent.

This study was cross-sectional in nature, so the causal relationship between the study variables couldn't be established in this study and using longitudinal research design would have given more detailed information (i.e. causal effect) regarding the relationship between the study variables. Besides this though the sample of this study comprised of different organizations (banks, insurance, hospitals, hotels, IT companies, Solar companies, manpower and different management consultancies) from service sector, the organizations from manufacturing sector were not included and further including them in the study would have given a clear picture about the

role of the TQM system on organization performance. So the study findings cannot be generalized in other organizational context. Also this study was conducted using quantitative techniques and using a mixed approach i.e. using qualitative approach would have helped in understanding the perception of the quality and further analyzing the results using a quantitative technique would have further enriched the quality of this research. Besides this in this study though the unit of analysis was at organizational level the leader's of the organization were the main respondents and only the leader's perspective was highlighted in this study, however including the different stakeholders such as the employees, customers and the suppliers would have added value in further triangulating the data and at the same time analyzing the research issue from a multi-stakeholder's perspective.

Thus it can be concluded that the study findings to some extent has provided answers for solving the problem related to the performance of organizations by providing in-depth theoretical understanding of the TQM system that can be beneficial for the practitioners and also for the policy makers. As Collins (2001) in his book "Good to Great" has mentioned that good is the enemy of great and explained why some companies take a leap and others don't, similarly the organizations by understanding the benefits of implementing TQM system in organizations can take a leap and become great.

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APPENDIX I

Questionnaire

This questionnaire survey is a part of the study to examine the relationship between total quality management system and organizational performance along with the mediating effect of organization learning. This questionnaire consists of four sections. Section A consists of personal information questions whereas section B, C and D are related to quality management process, organization learning and organizational performance.

Please read the questions carefully and provide your response as honestly and clearly as possible. The researcher assures to maintain confidentiality of your response and the information provided by you will purely be used for academic purpose. The correct responses provided by you will enhance the quality of this survey. It will take you about 10 minutes to complete this questionnaire. Please feel free to ask your queries.

Thank you for your cooperation.

Section A: Basic information

1	Type of Service sector	1. Bank/Insurance 2. IT/Software company 3. HR consultant/Security 4. Hospital/Polyclinic 5. Others	
2	Type of organization	1. ISO certified 2. Non-ISO certified	

Section A: Please circle/choose the correct option for the following questions with respect to your understanding of quality management in your organization, please indicate the degree of your agreement or disagreement with each statement by checking one of the five alternatives below each statement

Strongly Disagree	Disagree	Neither Agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

1	All major department heads within the organization accept their responsibility for quality	1	2	3	4	5
2	Top management is personally involved in quality improvement projects	1	2	3	4	5
3	Quality issues are frequently reviewed in the organizational top management meetings	1	2	3	4	5
4	In this organization employees have received training in quality principles	1	2	3	4	5
5	In this organization employees have received training in problem solving skills	1	2	3	4	5
6	In this organization employees have received training to work in a team	1	2	3	4	5
7	In this organization employees receive feedback for their quality performance	1	2	3	4	5
8	In this organization employees fully participate in quality related decisions	1	2	3	4	5
9	In this organization employees' performance is measured and recognized to support quality programs	1	2	3	4	5
10	In this organization employees' satisfaction is continuously measured	1	2	3	4	5
11	Quality performance data (defects, error, scrap, rework etc.) are collected and evaluated periodically in the organization	1	2	3	4	5
12	There is a written quality policy and quality goals in this organization	1	2	3	4	5

13	The organization obtains/reports quality data on/from all functions and departments	1	2	3	4	5
14	Customers' current and future requirements are known by the organization	1	2	3	4	5
15	Customer complaints are used as a method to initiate improvements in current process	1	2	3	4	5
16	In this organization information is continuously collected from customers to measure customer satisfaction	1	2	3	4	5
17	This organization has an effective process to solve customer complaints	1	2	3	4	5
18	In this organization customer requirements are used as a basis for quality improvement	1	2	3	4	5
19	In this organization long term relationship is arranged with suppliers	1	2	3	4	5
20	In this organization suppliers are evaluated periodically according to quality	1	2	3	4	5
21	In this organization suppliers are selected based on quality rather than price and delivery performance	1	2	3	4	5
22	Suppliers are trained and technical assistance is given by the organization	1	2	3	4	5
23	Suppliers are involved in product and process development process	1	2	3	4	5
24	In this organization work and process instructions are clearly described	1	2	3	4	5
25	Processes are continuously controlled and improved in this organization	1	2	3	4	5
26	There are organizational structures like Quality circle/teams for continuous quality improvement	1	2	3	4	5
27	Best practices of other organizations are examined for continuous improvement	1	2	3	4	5

1	This organization appreciates employees contribution and affect	1	2	3	4	5
2	The senior managers of this organization support employees when suggesting alternative perspective	1	2	3	4	5
3	This organization encourages employee learning and tolerates employee mistakes	1	2	3	4	5
4	The supervisor trusts the abilities of his/her employees	1	2	3	4	5
5	The atmosphere of this organization encourages employees to trust each other	1	2	3	4	5
6	In this organization employees help each other to learn	1	2	3	4	5
7	This organization encourages employee discussion and team learning	1	2	3	4	5
8	This organization offers a good learning environment for innovation development	1	2	3	4	5
9	Continuous learning is an important strategy of this organization	1	2	3	4	5

	Financial Measures:	1	2	3	4	5
1	Return on assets (ROA, %) in this organization is well above the industry average					
2	Value added per employee in this organization is well above the industry average (i.e. value-added' per employee is an outstanding measure of the extent to which you are utilizing your employee's strengths)	1	2	3	4	5
3	Suppliers' Measures: Relations with suppliers are very strong and stable and usually long-term	1	2	3	4	5
4	Employees' Measures The net fluctuation of employees (number of staff replaced due to dissatisfaction with pay, relationships in the workplace and chances for career advances etc – internal reasons) is very low within our company	1	2	3	4	5
5	Productivity of employees is much higher than industry average	1	2	3	4	5
6	Employees' trust into leadership is high in this organization	1	2	3	4	5

7	Trust among employees themselves is strong in this organization	1	2	3	4	5
8	Work organization i.e. the control of work and division of labor is efficient	1	2	3	4	5
9	Employees do feel special commitment to the organization	1	2	3	4	5
10	Employees are prepared to go an extra mile for the company	1	2	3	4	5
11	Works costs per employee is below the industry average	1	2	3	4	5
12	Absenteeism (relative to competition) is very low in this organization	1	2	3	4	5
13	Employees are very satisfied with the situation within the organization	1	2	3	4	5
14	Learning ability and adaptability of employees is high (in comparison to competition).	1	2	3	4	5
15	Risk-taking within the organization is better than it is by our competitors	1	2	3	4	5
16	Customers' Measures: The number of customer complaints within the last period has decreased strongly	1	2	3	4	5
17	Speed of dealing with customer complaints (comparatively to competition) is high	1	2	3	4	5
18	We do not loose existing clients and manage to attract new-ones	1	2	3	4	5
19	Reputation of our company has been increased in the eyes of the customer	1	2	3	4	5

			Lalitpur	
72	National Kidney Centre	Hospital	Vanasthali, Balaju	9001:2008
73	Green Manipal	Hospital	Deep Heights, Pokhara - 16	9001:2008
74	OM Hospital	Hospital	Chabahil, Kathmandu	9001:2015
75	Norvic Hospital	Hospital	Thapathali, Kathmandu	9001:2008
76	Harati Software	IT	BabarMahal, Kathmandu	9001:2000
77	Young Minds	Software	Shanti Nagar, Kathmandu	9001:2008
78	Pathway Technology Service	Software	Thapathali, Kathmandu	9001:2008
79	Marriott Hotel	Hotel	Thamel Kathmandu	14001/50001
80	United Shipping and Forwarding Service	Logistic	Babarmahal, Kathmandu	9001:2015
81	Tick Nepal Pvt. Ltd	Management Consultant	Minbhavan, Kathmandu	9001:2015
82	ABMS	Consulting	Baneswor, Ktm	9001:2008
83	Nepal Bayern Electric (NBE)	export	Patan	14001
84	Titanic Manpower Pvt .Ltd	Human Resource	Chakrapath, Kathmandu	9001:2015
85	Gulf Overseas Consultant (GOC)	Human Resource	Thamel, Kathmandu,	9001:2000
86	YACCA Overseas Employment Consultant Pvt. Ltd	Human Resource	Maharajgunj, Kathmandu	9001:2008
87	Asha International Pvt. Ltd	Human Resource	Kathmandu	9001:2008
88	Paradise International (P.) Ltd.	Human Resource	Bakhundol, Kathmandu	9001:2008
89	Pioneer Overseas Services (P) Ltd.	Human Resource	Dhumbarahi, Kathmandu	9001:2008
90	Oxford International Pvt. Ltd	Human Resource	Jawalakhel, Lalitpur	9001:2008
91	Goodwill International Pvt. Ltd.	Human Resource	Basundhara, Kathmandu	9001:2015
92	Professional Manpower Services Pvt. Ltd	Human Resource	Dhapasi, Kathmandu	9001:2008
93	Noor Opportunities Overseas Pvt. Ltd.	Human Resource	Anamnagar, Kathmandu	9001:2000
94	Pangeni Human Resource Pvt. Ltd	Human Resource	Samakhushi, K athmandu	9001:2015
95	Amity Global Employment Services Pvt. Ltd.	Human Resource	Basundhara, Kathmandu	9001:2008
96	Mahad Manpower	Human Resource	Khatmandu	9001:2008
97	Sky Overseas Services P. Ltd.	Human Resource	Maharajgunj, Kathmandu	9001:2008
98	Sanima Hydro & Engineering Private Limited (SHEPL)	Consulting	Dhumbarahi, Kathmandu	9001:2008
99	Computer Point Nepal	IT	Ghantaghar,	9001:2000

			Kathmandu	
100	Cosmic Electrical	Energy	Sanepa, Lalitpur	9001:2008
101	Hitechvalley iNet	IT	Kathmandu	9001:2000
102	Ohm Data center (OHM DC)	IT	Newplaza, Kathmandu	9001:2015/27001
103	Starlight Express Pvt. Ltd.	Logistic/freight	Kathmandu	9001:2000
104	Swacon International Hospital Pvt	Hospital	Battisputali, Kathmandu	9001:2015
105	Suvekchya International Hospital And Research Center	Hospital	Sitapaila, Kathmandu	9001:2008
106	Advanced Polyclinic	Polyclinic	Lazimpat, Kathmandu	9001:2008
107	Vayodha Hospital	Hospital	Balkhu, Kathmandu	9001:2008
108	Vision concern	Eye Clinic	Lazimpat, Kathmandu	9001:2008
109	Total Management Services (TMS) Pvt. Ltd.	Consulting	Kamalpokhari, Kathmandu	9001:2015
110	Professional Manpower Service Pvt. Ltd.	Manpower	Basundhara, Kathmandu	9001:2008
111	Great Nepal Pvt. Ltd.	Consulting	Patan, Lalitpur	9001:2008
112	Connect Nepal IT Solution Pvt. Ltd	IT	Lazimpat, Kathmandu	9001:2008
113	Graphica International pvt. Ltd.	IT	Itahari-6, West Line, Itahari	9001:2008
114	Subisu Cablenet Pvt. Ltd.	IT	Baluwatar, Kathmandu	9001:2008
115	Manakamana Darshan P. Ltd	Transport	Naxal, Kathmandu,	9001:2008
116	K B Chitracar & Co Chartard Accountants	Consulting	Baneswor Height, Ktm	9001:2008
117	Dolphin Education Consultancy Centre Pvt. Ltd. (DECC)	Consulting	Exhibition Road, Kathmandu	9001:2008
118	HOPE International College	Education	Satdobato, Lalitpur	9001:2008
119	Sero Lab Nepal.	Medical	Sanepa, Lalitpur	9001:2008
120	Naukri Nepal Pvt. Ltd	Human Resource	Gongabu, Kathmandu	9001:2008
121	Ashiyana Vehicle Service Pvt. Ltd.	Vehical Rental	Jwagal, Lalitpur	9001:2015
122	G.P. Rajbahak 7 Co., Chartered Accountants	CA Firm	Naxal, Kathmandu,	9001:2008