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KEYWORDS	ABSTRACT
Total Quality Management, Organizational Performance, Knowledge Transfer, Manufacturing SME's	In today's dynamic and competitive business environment, the organizations strive to attain superior performance by executing effective management strategies. One such strategy that has gained significant attention is Total Quality Management (TQM). This study aims to delve into the relationship between TQM and organizational performance, with a specific focus on the mediating effects of knowledge transfer. Drawing on comprehensive review of literature and empirical analysis, this research investigates the impact of TQM practices upon organizational performance, considering the crucial role played by knowledge transfer mechanisms. The study employs quantitative research design, collecting data from a manufacturing SME's operating in Lahore, Pakistan. SEM is used to analyze data and test proposed hypotheses. The findings shed light on the significant positive relationship amid TQM & organizational performance, highlighting vital role of knowledge transfer as a mediating mechanism. The organizations that aim to improve performance should focus not only on implementing TQM practices but on establishing effective knowledge transfer mechanisms.
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## INTRODUCTION

Over the past few years, organizations worldwide have faced the challenge of adapting to a rapidly changing business climate. In this dynamic environment, executives are increasingly expected to be astute and innovative in order to maintain or gain competitive advantage (Deng, Duan & Wibowo, 2023). Thus, many manufacturing companies have embraced new approaches such as concurrent engineering, lean production, just-in-time (JIT) strategies, total quality management (TQM), and

business process re-engineering (BPR) to enhance their operational efficiency and effectiveness. These methodologies have been adopted to overcome the emerging global challenges and drive performance improvements both internally and externally in specific market targets (Nkemkiafu, 2015). The business climate has witnessed significant changes and a growing emphasis on quality, making it crucial element for organizations seeking a competitive edge. In recent years, continuous improvements in the quality have become paramount, driven by the ever-expanding global labor market. Businesses now face the imperative of enhancing the quality of their products and services to compete with many competitors (Al-Zoubi, Qablan, Issa, Bataineh & Kaabi, 2023). Inclusive quality management practices are implemented to enhance the desired organizational performance and customer satisfaction.

Total Quality Management (TQM) is based on the idea that all members of an organization should collaborate to produce high-quality goods and services that meet customer requirements (Deng et al., 2023). Intensified competition resulting from rising input costs, high interest rates, substantial research and development expenses, and heightened customer expectations further motivates the manufacturing companies to continuously improve quality while remaining the cost-effective (Ho, Cavacece, Tartaglione & Douglas, 2023). Several scholars have suggested that implementation of Total Quality Management (TQM) can foster learning and provide organizations with competitive advantage. Still, it is crucial to understand how to effectively implement TQM in order to derive its maximum benefits (Nguyen, Tucek & Pham, 2023). A "one-size-fits-all" approach towards quality management may not yield optimal outcomes, as diverse organizations require tailored approaches to TQM. The relevance of contingency theory in field of operations management, acknowledging that diverse contexts may demand diverse TQM approaches (Lawrence & Lorsch, 1967; Thompson, 1967). As research on quantitative methodology (QM) progresses, it is important for researchers to move beyond merely supporting practices and instead appreciate the influence of contextual factors on QM practices.

With evolution of QM research, a selected group of scholars have started to develop more nuanced understanding of the field using the concepts from contingency theory. For instance, Foster (2006) emphasizes the need for adopting a contingency theory approach when implementing the quality management. In specific context of small and medium-sized manufacturing firms in Pakistan, there is critical need to explore potential of Total Quality Management (TQM) in enhancing performance (Deng et al., 2023). In recent years, continuous improvements in quality have become paramount, driven by the ever-expanding global labor market. However, mediating influence of knowledge transfer in this relationship remains unclear (Nguyen et al., 2023). This knowledge gap hinders a comprehensive understanding of how TQM practices can effectively contribute to performance improvements in these firms. Knowledge transfer is a term that may be used to describe the process through which one authority unit obtains information from another. However, it is crucial towards understand how to effectively implement TQM in order to derive its maximum benefits (Nguyen et al., 2023). Therefore, it is imperative to uncover the mediating influence of knowledge transfer to identify the mechanisms through which TQM can augment and enhance the performance in SMEs manufacturing firms in Pakistan.

### LITERATURE REVIEW

According to [Lethal et al. \(2006\)](#), total quality management is a system that can be characterized as one that strives to develop and move administrations that are more effective and unsurpassed. It accomplishes this goal by establishing cooperation amongst individuals that work in organization. Quality management is a strategy of dealing with the board that is composed of a "set of commonly building up standards, each of which is upheld by a bunch of practices and procedures," according to [Dean and Bowen \(1994\)](#). This definition was provided by authors Dean and Bowen. According to [Hackman and Wageman \(1995\)](#), this particular definition of quality management has acquired discriminatory validity as for a variety of approaches for working on the performance of association ([Nguyen, Tucek & Pham, 2023](#)). According to findings of the research, quality management (QM) is comprised of development practices that have an impact not only on the internal environment of organization but also on its interaction with the situation that already exists ([Nguyen et al., 2023](#)). It includes exercises that concentrate on both the social and the professional sides of the firm that they work for. QM is agent that drives the act of participation with both customers and suppliers within the framework of the interaction between firm and its current scenario. This is because QM is the present scenario's scenario.

In the context of this discussion, "collaboration with providers and clients" refers to the associations' predisposition to participate in lighter activities with both clients and providers, as well as to build and maintain an open connection with both groups ([Flynn et al., 1994](#)). In addition, "collaboration with providers and clients" refers to associations' desire to establish and maintain open relationship with both the groups ([Nguyen, Tucek & Pham, 2023](#)). In the highly internalized field of the quality management, QM includes practices that are particularly centered on social aspect of organization, on areas such as independence and cooperation as well as on others of a more specialized character, such as process control ([Dean & Bowen, 1994](#)). When we talk about collaboration, we're referring to tendency to do errands together rather than on an individual basis. Independence refers to the ability of groups of individuals or organizations to carry out tasks automatically in at least partially finished projects ([Nguyen et al., 2023](#)). The connections between TQM and Authoritative execution have been upheld in writing to a large extent; however, the effect of logical elements on execution and mediation associated with this relationship by knowledge transfer and advancement abilities of representatives would be an unprecedented expansion to the writing that is already in existence in different circumstances.

Knowledge transfer is a term that may be used to describe the process through which one authority unit obtains information from another. According to [Hansen \(2002\)](#) and [Simoni \(1999\)](#), the term "internal knowledge transfer" (IKT) describes the process through which one part of an organization shares information with another part of same organization. ([Gupta & Govindarajan, 2000](#); [Simoni, 1999](#); [Szubanski, 1996](#)) The factors that are associated with the source unit, those that are associated with the collector, those that are associated with the connection between the two, and those that are associated with actual information can all be categorized as variables that influence how easily/ how difficultly knowledge is transferred ([Nguyen, Tucek & Pham, 2023](#)). According to [Amundson \(1998\)](#) and [Poole \(1995\)](#), management theory provides a useful focal point from which to identify

the myriad of diverse quality management practises that may be put into action. Through the use of concepts drawn from Walk's (1991) exploration and exploitation models, this study draws merits amid variety of QM approaches (Nguyen, Tucek & Pham, 2023). Exploitation relates to activities consistent with expressions like refining, determining, generating, becoming competent & carrying out, while exploration refers to activities that are described via search, revelation, experimentation, variety, and invention.

The exploration refers to activities that are described through search, revelation, experimentation, variety, and creation. This comparable sensible focal point is able to be of assistance with grouping QM practices. One point of view maintains that organizations have a duty to maintain stable and natural cycles while also increasing their level of output (Nguyen, Tucek & Pham, 2023). As a consequence, Quality Exploitation integrates QM practices that are designed to ensure reliability and efficiency of outputs (Deng, Duan & Wibowo, 2023). As a consequence, Quality management research encompasses QM practices that are meant to examine ground-breaking ideas and discern fresh arrangements, particularly for procedures and new products (Ho, Cavacece, Tartaglione & Douglas, 2023). According to the findings of certain studies, the process of knowledge transfer may have a role in mediating the connection between TQM practices and organizational performance (Nguyen, Tucek & Pham, 2023). The spread of best practices, tacit knowledge, and lessons learnt through TQM projects is facilitated by the process of knowledge transfer, which acts as a conduit for this information. In this connection, through the transmission of this information, organizations are given the skills and ability to incorporate TQM concepts into their processes, which ultimately leads to enhanced performance results.

There are a number of elements that contribute to whether or not knowledge transfer is successful in mediating connection between TQM and organizational performance. The transfer of knowledge is significantly influenced by number of important aspects, including organizational culture, support from leadership, communication methods and employee motivation (Gupta & Govindarajan, 2000). It is possible to encourage knowledge transfer processes by having strong leadership that is loyal to TQM and information sharing, having the supportive organizational culture that values learning, having good communication systems, and offering staff incentives (Nguyen, Tucek & Pham, 2023). There are large number of empirical studies that have investigated the mediating role of knowledge transfer amid TQM and OP in a variety of settings and fields of endeavor. According to the findings of the research, quality management (QM) is comprised of development practices that have an impact not only on the internal environment of the organization but on its interaction with situation that already exists (Deng, Duan & Wibowo, 2023). Results show useful influence that knowledge transfer has on increasing organization performance (Ho, Cavacece, Tartaglione & Douglas, 2023). This provides evidence for mediating function that knowledge transfer plays in the link between TQM and performance.

### RESEARCH METHODOLOGY

This study used the quantitative research technique to examine the relationships between TQM contextual variables, knowledge sharing, and organizational performance. Quantitative research has been completed; quantitative investigation begins with the testing of the hypothesis (Creswell,

2013). These studies make use of a wide variety of research approaches, such as questionnaires, case studies, and longitudinal examinations. It empirically examines the link between various aspects using various quantitative or factual systems and poses hypotheses or questions (Creswell, 2013). In this linking, quantitative research, reliability and validity requirements are crucial. Experiments and sociological surveys are evaluated as instances of quantitative research of the highest quality. The objective of quantitative research is theoretical analysis. In this connection, a population is a group of persons to whom research results are generalized, while a sample is a group of individuals from whom data is collected.

Nonetheless, the procedure used to choose items for testing from a population is known as sampling (Fraenkel and Wallen, 2003). In this regard, testing is a crucial step in the examination process since it determines how much delegate test you have enticed from the populace. The most frequent method of the sampling begins with identifying the group to whom the research's results will be applied. The third phase in investigating is identifying the population from the whole population available to the expert, and the last step is drawing tests (ARY et al., 2002). Data was collected from quality managers of Lahore based manufacturing SME's. 280 questionnaires were delivered to individuals who are well-versed in the technical aspects of TQM concepts. The final results from 241 returned surveys have been reviewed for further investigation. The researchers used structural equational model for testing the hypothesis through PLS-SEM. Further, the researchers adopted scale to collect data from respondents. The researchers also comply all the ethical responsibilities during ethics research.

## RESULTS OF STUDY

Table 1 Composite Reliability

Research Variables	Composite Reliability
Knowledge Transfer	0.824
Quality Management Exploration	0.754
Quality Management Exploitation	0.871
Organizational Performance	0.816

Outer model represents the internal consistency in two ways: Composite reliability and estimation of Cronbach alpha (Hair et al. 2011). It clarifies inter-relation of items used for measuring a construct. Resulting values of 0.7 or above are acceptable, however values of 0.6 or below shows unreliability (Nunnally & Bernstein 1994; Hair et al. 2013). Table 1 shows the values 0.754 to 0.871 are higher than minimum requirement of 0.70.

Table 2 Cronbach's Alpha

Research Variables	Cronbach's Alpha
Knowledge Transfer	0.806
Quality Management Exploration	0.721
Quality Management Exploitation	0.831
Organizational Performance	0.804



Estimation of reliability by Cronbach alpha is lower bounded (Fornelli & Larker 1981; Tenenbums, Vinz, Chatelain, & Laura, 2005). George and Mallery (2003) have stated the following criteria: Cronbach alpha > .9 – Excellent, Cronbach alpha > .8 – Good, Cronbach’s alpha > .7 – Acceptable, alpha > .6 – Questionable, our result in Table-2 shows all values are above than 0.70. Our results are showing consistency of construct.

Table 3 Convergent Validity

Research Variables	AVE
Knowledge Transfer	0.608
Quality Management Exploration	0.683
Quality Management Exploitation	0.532
Organizational Performance	0.520

The convergent validity means many procedures of a construct are inter-related with each other (Campbell & Fiske 1959). It is measured by AVE that give guarantee of change by its indicators (Fornelli & Larker 1981). The value of AVE should be at least 50%. It means indicator describes 50% of construct variance (Bragozzi & Yi 1988). Table-3 showed all constructs having the values between 0.535 and 0.708.

**Structural Model**

Table 4 presents the overall picture of structural model results. Positive or negative relation can examine by path coefficient that have statistical significance between constructs. In this connection, path coefficient is significance if the t-statistics is more than 1.96 and p-value should be less than 0.5 % (Wong, 2013).

Table 4 Direct Relationships

	OS	SM	SD	TS	P Values
TQM -> Performance	0.157	0.050	0.082	1.982	0.019
KT -> Performance	0.236	0.236	0.092	2.581	0.010
Mediating Effect					
TQM -> Kt->Performance	0.192	0.182	0.084	2.192	0.000

Table 5 Summary of Structural Model Results

H	Relationship	Statement of Hypothesis	Results
H1	TQM -> P	There is a significant relationship between TQM and organizational performance.	Accepted (p<0.05) t=1.982
H2	KT -> P	There is a significant relationship between quality management exploration and knowledge transfer.	Accepted (p<0.05) t=2.581
H3	TQM -> Kt-> >Performance	There is a significant mediating effect of knowledge transfer between TQM & OP	Accepted (p<0.05) t=2.192

**DISCUSSION & CONCLUSION**

Previous research analyzing relationship between quality management practices and performance has yielded the mixed results (Nair, 2006; Kayak, 2003). Thus, several researchers have found that modifying quality administration practices can result in better performance than implementing

standard or universal approaches (Westphal et al., 1997). In any case, scholars have provided scant guidance on optimal way to revamp quality practices. In this study, Amundson's (1998) contingency theory provides a theoretical focal point for understanding how associations can modify quality practises (Sit-in et al., 1994). This study empirically examines Quality Exploitation and Quality Exploration, two uncommon facets of Quality Management practices with distinct goals, using the theory of contingency. The significance of the study titled "enhancing performance through total quality management: unveiling mediating influence of knowledge transfer in SMEs manufacturing firms in Pakistan" deicits in its contribution to the understanding and practical implications of the organizational performance improvement in the context of small and medium-sized manufacturing firms (SMEs) in Pakistan.

Firstly, the study addresses importance of Total Quality Management (TQM) as strategic approach to improving organizational performance. By examining the impact of TQM on performance, the research sheds light on how SMEs can enhance their operational efficiency, customer satisfaction, and overall competitiveness. This knowledge is particularly valuable for SMEs in Pakistan, which often face resource limits and fierce market competition. Secondly, study introduces knowledge transfer as a mediating factor in relationship between total quality management and performance. By uncovering the role of knowledge transfer, research emphasizes significance of knowledge sharing and diffusion within SMEs. The total quality management and information sharing, having supportive culture that values learning, having good communication, and offering incentives. The result has practical implications, as it advises that fostering culture of knowledge exchange and creating mechanisms for effective knowledge transfer can amplify positive impact of total quality management on performance. Also, study's focus on small & medium enterprises in manufacturing sector in Pakistan is significant due to sector's economic importance in the country. SMEs are a major contributor to employment and economic growth, and their performance improvement is crucial for sustainable development.

By examining the specific context of the SMEs in Pakistan, the study provides tailored insights and recommendations that can directly benefit this important sector. Furthermore, the study contributes toward the existing body of the knowledge on TQM and knowledge transfer by emphasizing their interconnectedness and mutual influence on performance. This holistic perspective enhances our understanding of complex dynamics at play within organizations and underscores the importance of integrating TQM practices with knowledge management strategies. Study focuses exclusively on SMEs in manufacturing sector in Pakistan. In this linking, this study empirically examines Quality Exploitation and Quality Exploration, two uncommon facets of Quality Management practices with the distinct goals, using theory of contingency. Independence refers to the ability of groups of individuals or organizations to carry out tasks automatically in at least partially finished projects. This knowledge is particularly valuable for SMEs in Pakistan, which often face resource constraints and fierce market competition. Consequently, the findings of study may not be generalizable to other industries or larger organizations operating in different contexts. In this connection, it is crucial to consider the unique characteristics and challenges faced by SMEs in manufacturing when interpreting the results.

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