

The Mediating Role Of Total Quality Management In Relationship Between The Operations Management- Productivity And Long-Run Survival Of The Firm

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Abstract

Aim/Purpose:- The aim of the descriptive research study was to know the mediating role of Total Quality Management in relationship between the operations management and long-run survival of the firm. The list of TQM practices may show better results to enhance the productivity of the organization. **Outcome:-** The outcome of the research model may be witnessed with respect to direct and in-direct effect. The mediating variables will give better results as the continuous assessment, strategic plan, process centered, decision-making, systematic approach, employee safety, customer focused and other factors will give better results with respect to the dependent variable productivity-customer satisfaction and long-run survival of the firm. **Research Methodology/Design/Approach:-** The model can be better understood by taking the advantage of primary data sources by applying the descriptive and inferential statistics with the help of goodness of fit index measures like: GFI, AGFI, NFI, TLI, CFI should be $>.90$ and the RMSEA $<.08$. **Generalizability:-** The outcome of the research can be generalized under any phenomenon where need arises to assess the productivity of the organization with the help of total quality management practices.

Keywords:- TQM, Operations Management, Productivity, TQM in OM, Productivity and Operations Management, etc.

Introduction:-

The Total Quality Management practices and six sigma securities plays a crucial role to enhance the productivity and the long-run survival of the firm. There are various operations to be performed in the organizations like: production planning and control, quality control, material management, maintenance management, process/product design, inventory management, location facilities, job design, supply chain management, scheduling/sequencing operations are the various production and operations management practices in the organization. As per the literature it is witnessed that the TQM practices and the six sigma securities plays a crucial role to bring the continuous improvements, fact-based decision-making, employee involvement, workers safety, autonomy, decentralization, culture/values and quality standards are the various aspects of total quality

management practices in the organization which facilitates for firms productivity, high customer satisfaction and the long-run survival of the firm.

Literature review:-

There are various aspects like commitment, leadership qualities, employee empowerment and strategic planning should be integrated and supported by continuous improvement facilitates for TQM within an organization^[1]. To encourage constructive thoughts, creative mind, creative thinking among employees the employee empowerment plays a crucial role in the contemporary phenomenon^[3]. The are majorly six dimensional analysis will be used like: information analysis, customer focus, strategic planning, leadership, people and process management are the essential aspects of management of TQM practices in the organization^[4]. The organizational achievements shows the ability, processes and procedures included in the attainment of organizational objectives. The non-financial organizational performance include the assessment of share value of market, developing and implementing the new product, market effectiveness and financial quality shows the total quality management practices in the organizations^[5]. Ultimate customer satisfaction plays a crucial role as many companies judge the product/service quality based on the customer satisfaction, the highly satisfied targeted customers are the indicators for the high customer satisfaction^[6]. The customer retention and market share value enhancement depends up on the successful implementation of TQM practices in the organization. In turn, the customer loyalty can be increased by providing good quality with better service goods to the customers in the present scenario^[7]. The future success rate of the organization depends up on the ability of the organization to meet the customer requirements, expectations and aspirations in future. Therefore, it is evident from the concept that the TQM is a continuous process to satisfy all the category of people^[8]. The top management supervision, rules and regulations, policies and procedures which majorly influence the success rate of the organization. The top management should come-up with such kind of policies and procedures which facilitates to run the organization in the long-run. The organization processes should facilitate in such a manner should reach the organizational objectives^[9] the effective communication between the superior and subordinates and the communication among the employees which facilitates to maintain the employees in the long run. The better communications, free flow of information under transparent grounds explains about the employees are empowered to communicate with each other^[10].

Objectives of the Study:-

1. The aim of the present research is to investigate the mediating role of TQM practices in relationship between facilitating factors of production management and the organizational productivity.
2. To study the relationship between facilitating factors of production management with respect to productivity of the organization.
3. To study the relationship with and without mediation among the three category of variables.

Need and Importance of the Study:-

There is a need to study the role of total quality management practices in relationship between the factors of production management and the organizational productivity. In fact, the sophisticated six sigma securities and the TQM practice in between plays a crucial role. There is a need to study the direct and in-direct effect relationship between the factors of production and operations management and the TQM factors with respect to output organizational productivity, high customer satisfaction and long-run survival of the firm.

Scope of the Study:-

The scope of the research with respect to objectives to study the intermediary role of TQM practices in the organization in between the factors of production and operations management and the productivity followed by the high customer satisfaction, customer loyalty and the long-run survival of the firm.

Statement of the Problem:-

The title entitled to study “The intermediary role of TQM practices in relationship between the facilitating factors of production and operations management and the organizational productivity.

Hypothesis:-

H_a(1): There is a significant positive relationship between the facilitating factors of production and operations management with respect to productivity and long-run survival of a firm.

H_a(2): The Intermediary variable the Total Quality Management practices shows a significant positive relationship between facilitating factors of production and operations management and the organizational productivity and the long-run survival.

Research Methodology and Design:-

It is a descriptive research design. The model has been developed after rigorous study of various constructs of production and operations management and the TQM practices in the contemporary context.

Data Sources:- Taken the advantage of secondary data sources to design a model and studied various constructs facilitates to develop a model in the contemporary context.

Model development:- The models include three variables like: independent, mediating and the dependent variables. Assessment can be done with respect to direct and in-direct effect among the variables.

Reliability and Validity:- The model has been developed after rigorous study of the literature with valid constructs which include independent, mediating and dependent variables. The model also will give valid results

MODEL DEVELOPMENT

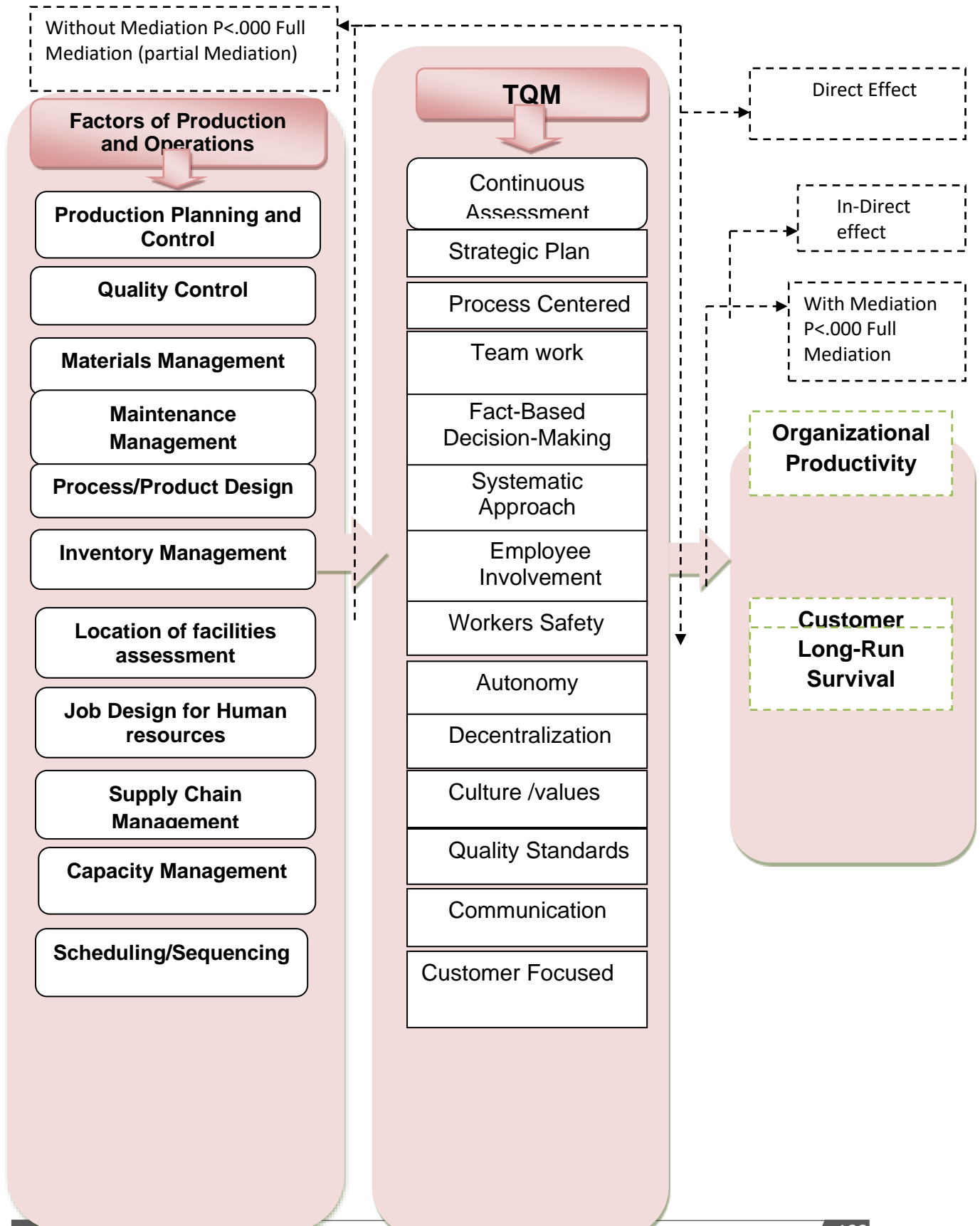
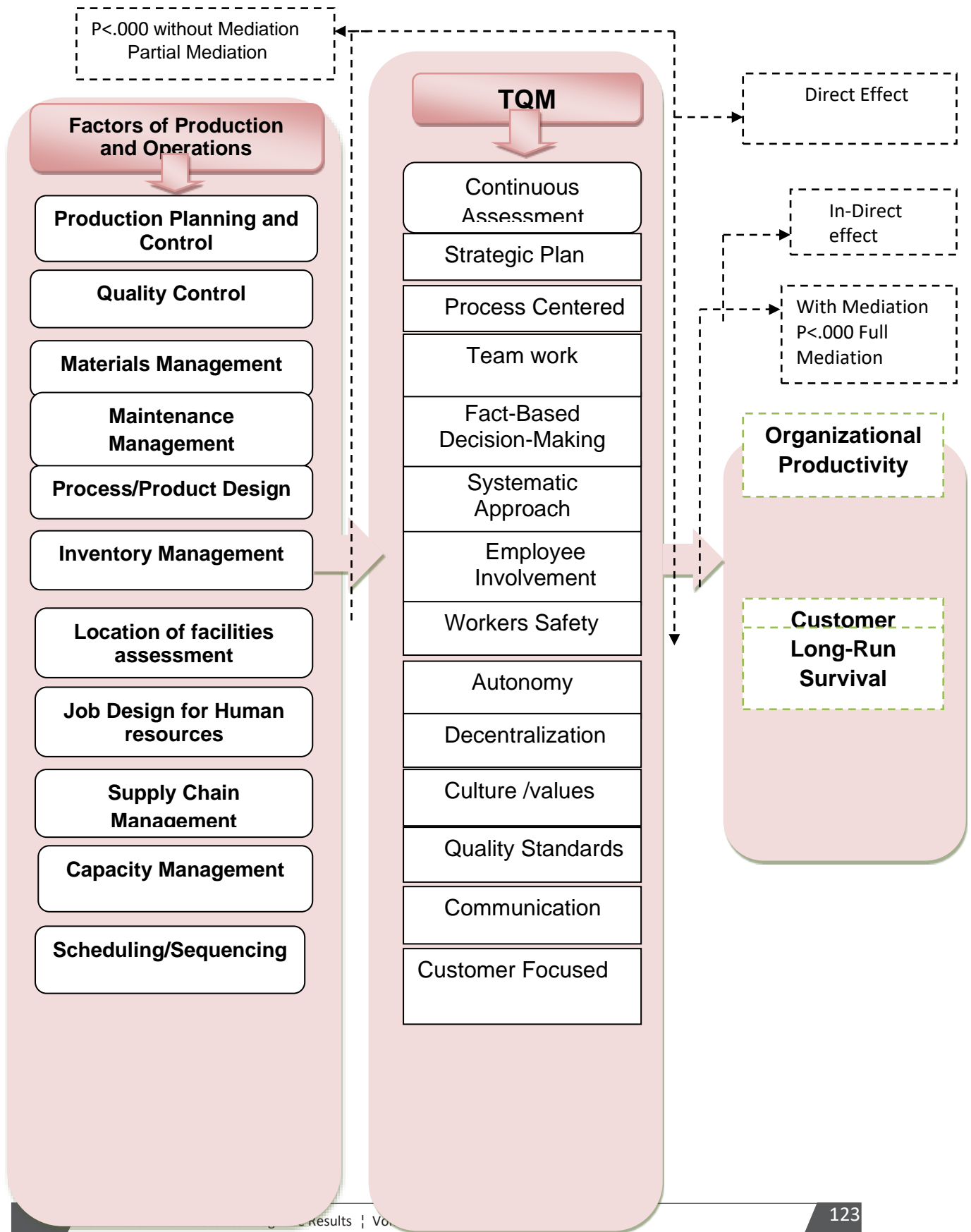


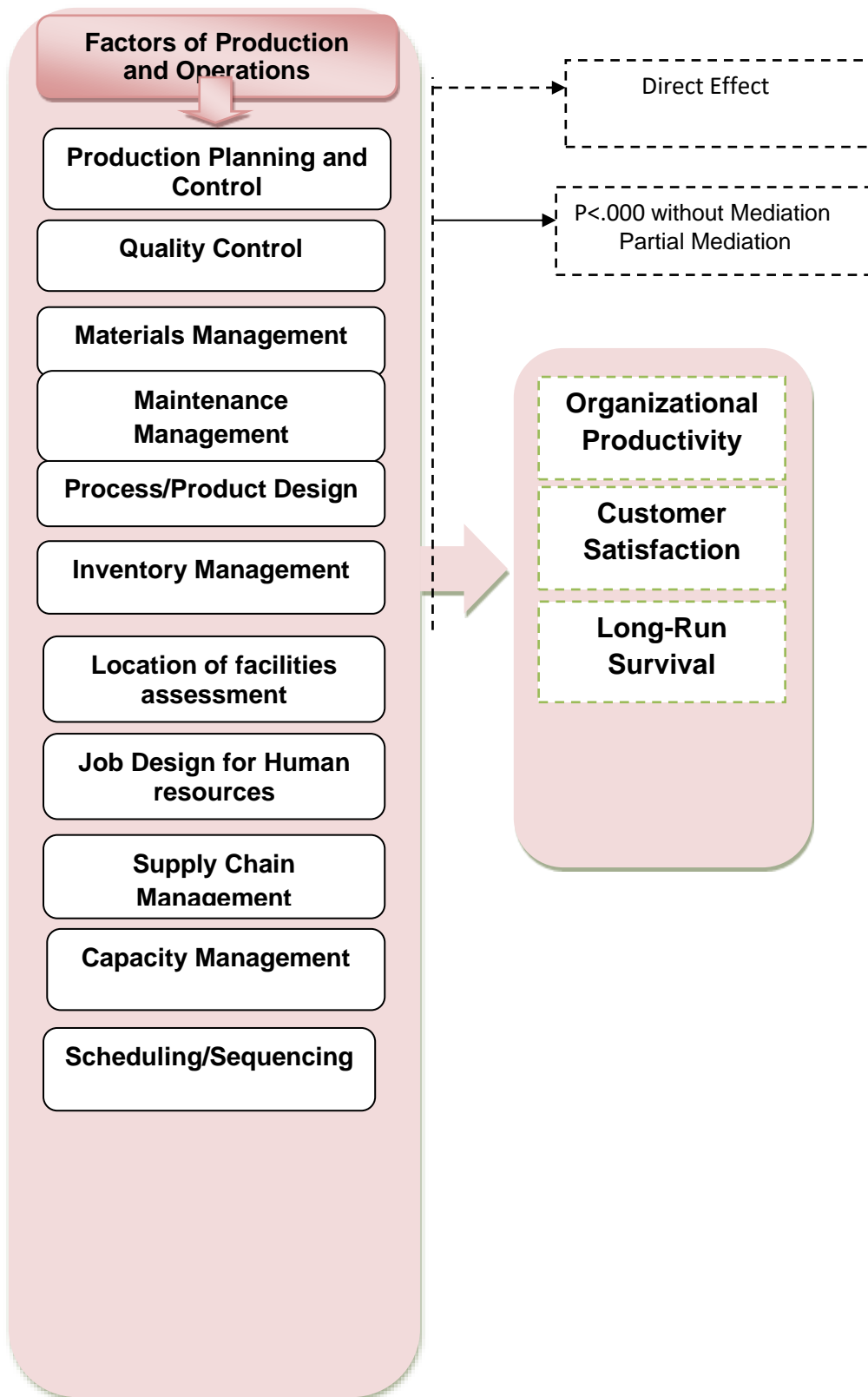
Figure1: The Mediating Role of TQM practices in between the Independent (factors of Production and Operations Management) and the dependent variable organizational productivity and the long-run survival of firm



The model has been developed with three different categories of variables namely independent, mediating and dependent variables. Without mediating variable, if the model shows significant relationship between Independent and dependent a variables then it will fall under partial mediation is model shows a significant relationship among three different categories of variables then it will fall under full mediation. Independent variables include production planning and control, quality control, materials management, maintenance management, product design, inventory management, location of facilities assessment, human resources, supply chain management, capacity management, scheduling or Sequencing and the total quality management practices include continuous assessment, strategic plan, process centered, teamwork, fact based decision-making, systematic approach, employees, environment, workers safety, autonomy, decentralization, quality standards, customer focused and communication and the list of dependent variables include organization productivity, high customer satisfaction and retention and long run survival of a form. If the model shows a significant relationship between Independent and dependent variables then it will fall under partial mediation, if model shows a significant relationship with mediating variable which is the total quality management then it will fall under full radiation. The model can be better understood by taking the advantage of SPSS and AMOS with the help of a goodness of a fit index the values like GFI, AGFI, NFI, TLI, CFI should be $>.90$ and the RMSEA values should be $<.08$ and the chi-square value should be $(P<.000)$ then it will be a good model in the contemporary context. Therefore, the model can be further better understood with different mediating variables like: six sigma securities and other mediating variables.

Validity:- The model validity can be estimated with the significant relationship between the independent, mediating and the dependent variables. If it shows a significant relationship among the all variables then the model is reliable and it is more valid. The analysis can be better understood with the help of primary data sources after all collecting data sources and performing the analysis. **Reliability:-** The reliability of the model can be better assed with the help of primary data sources by applying the cronebach's alpha test. In fact, the model validity can better understood with the help of descriptive and inferential statistics. The goodness of fit index model is the best way of measuring the model accuracy in the contemporary context.

Figure2: The Mediating Role of TQM practices in between the Independent (factors of Production and Operations Management) and the dependent variable organizational productivity and the long-run survival of firm.



The above figure to explain about the director relationship between the facilitating factors of a production and operations management with respect to the dependent variable organizational productivity customer satisfaction after form. This model Express about the director relationship between Independent and dependent variables the list of independent variables include production planning and control quality control materials management maintenance Management process or product design inventory management location of facilities assessment job design for human resources supply chain management capacity management and scheduling or Sequencing and the list of dependent variables include organisational productivity action and long run survival. Between dependent and independent variables if the modern shows a significant relationship then it will fall under partial mediation. The model can be better understood by taking the advantage of primary data sources and applying concept of a structure of equation modeling with the help of SPSS smart PLS and all programming language. The interaction of mediating variable, total quality management practices main create a strong relationship between Independent and dependent variables. The direct effect model may not be accurate as compared to indirect effect model, in the in-direct effect of the model the TQM practices will enhance the quality of the production and productivity. Therefore, the model will give better results to assess the organizational performance with the help of TQM practices as mediating variable in between independent and dependent variables.

Conclusion:-

Therefore, it can be conclude that the TQM (Total Quality Management Practices) plays a crucial role to enhance the productivity of the organization. There are various quality control techniques, among these TQM plays a crucial role to strengthen and develop the organizational productivity in the contemporary scenario.

Scope for Future Research:-

The scope of future research can be extended in such a manner by introducing various other quality control techniques and assessing the relative importance of each technique and can also be extended by doing comparative study among the different quality control techniques in the present scenario.

References:-

1. Shahin, A. (2011). An Investigation on the Influence of Total Quality Management on Financial Performance the Case of Boutan Industrial Corporation. *International Journal of Business and Social Science*, 2(15), 105-112.
2. Bullington, S., Easley, J., & Greenwood, A. (2002). Success Factors in Initiating Versus Maintaining a Quality Improvement Process. *Engineering Management Journal*, 14(3), 8-14.
3. Shanmuganathan, V., Haran, A., Ragavendran, S., & Gayathri, N. (2013). Aero-Engine Maintenance Cost Optimization by RCM. *Life science*, 10(1), 2891-2896.
4. Ramamoorthy, S. (2007). Lean Six Sigma Applications in Aircraft Assembly. Thesis Report.
5. Fini, E. (2010). The Effect of Productivity and Quality on Profitability in US Airline Industry: An Empirical Investigation. *Managing Service Quality: An International Journal*, 20(5), 458-474.
6. Haar, J., & Spell, C. (2008). Predicting Total Quality Management Adoption in New Zealand. *Journal of Enterprise Information*, 21(2), 162-178.
7. Sila, I. (2007). Examining the Effects of Contextual Factors on TQM and Performance through the Lens of Organizational Theories: An Empirical Study. *Journal of Operations Management*, 25(1), 83-109.snipp
8. Wang, S., & Noe, R. (2010). Knowledge Sharing: A Review and Directions for Future Research. *Human Resource Management Review*, 20(2), 115-131.
9. Vanichchinchai, A., & Igel, B. (2011). The Impact of Total Quality Management on Supply Chain Management and Firm's Supply Performance. *International Journal of Production Research*, 49(11), 3405-3424