



**TOTAL QUALITY MANAGEMENT THROUGH IMPLEMENTATION OF ISO
STANDARDISATION AS TURN AROUND STRATEGY FOR PROMOTION, GLOBAL
ECONOMIC ENVIRONMENT AND MANAGERIAL EFFECTIVENESS IN SHOE
INDUSTRY OF AGRA**

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ABSTRACT

This paper focus upon finding out the reasons of recent decline in agras share in world trade of footwear products, the problem and potentials analyzed regarding footwear industry of Agra. Implementation of ISO standardization is an innovative initiative for global economic environment and managerial effectiveness in shoe industry.

The global economy today centers around technology, quality improvement, international competitiveness, business promotion, waste minimization, and increase in managerial effectiveness. Standardization and quality management system plays a vital role in assimilation of technology, affecting economy in production and stimulating total quality management (TQM). This paper consists of six part i.e. Introduction, literature review, methodology, Approach, sampling, data collection (questionnaire) variable, analysis of data findings conclusions and suggestions. The aim of the paper is to analyze the difficulties, facilities and outcome of ISO Implementation in shoe manufacturing industry and to examine its global economic environment and growth dynamics in near future.

Key words: ISO, standardization, total quality management, difficulties, facilities and outcome of ISO Implementation, business promotion, waste minimization, global economic environment.

INTRODUCTION

Since 1987, when the ISO 9000 QMS was initiated by the internal organization for standardization (ISO) as part of the objective to standardize quality system, The ISO 9000 family standard has under gone major changes, yet regardless of these changes, study on the Difficulties &



Facilities on Implementation of ISO 9002 certification have remained in the lime light of research works in the field of Quality Manager. At the dawn of the new millennium the world is emerging with the new hopes, new aspirations, new opportunities and new challenges. The heritage acquired during the 20th century has been carried forward to the new millennium. Experiences gained and lessons learnt are providing avenues for new ventures to take humanity at greater heights of excellence, one such area is 'quality' quality of life, quality of goods and services and quality environment.

The global economy today centers around technology, quality and international competitiveness. Standardization and quality management system plays a vital role in assimilation of technology, affecting economy in production and stimulating total quality management (TQM). Standardization encapsulates technological results and becomes a vehicle for technology transfer while quality is the key for facilitating trade and satisfying customers. ISO-9000 is internationally recognized benchmark for measuring quality in trade context.

The industry has unlimited potentials in export trade but unorganized growth is proving to be hurdle in the path of knowing Agra not only because of Taj but also for its footwear products at international level. The quality is the essence of success in world trade however ISO standards can play a vital role in footwear industry in Agra to ensure the quality of product that can enable leather and footwear industry of India to survive in international market and comply with international quality norms.

1. Literature Review—

Some False Notions about ISO 9002:

Overall, the ISO 9000 family standards has become a main prerequisite for entering the global market (withers & Ebrahimpour, 2000; Heras- Saizarbitoria et al 2010) hence some of the previous research works on the reasons for obtaining ISO certification claim that the external factors are superior to the internal onew (Rayner & porter, 1991; Ebrahimpour et all 1997; Anderson, Daly & Johnson, 1999; Withers & Ebrahimpour, 2000 projogo & Sohal, 2006; Kadasah, 2012; McCrosson et al, 2013) the case of Japan provides strong evidence to the afore-mentioned statement in the 90s, ISO 9001 certification became a requirement for exports to Europe. Hence Japan was forced to



obtain ISO certifications in order to maintain and continue the expansion of its market share abroad (Pecht & Boulton, 1995 Hera Saizarbitoria et al. 2010).

Certainly, there are also those (Abraham, Crawford, Carter & Mazotta, 2000; Casadessus & Jimenez 2000 Gupta 2000; Sun, 2000 etc) who argue that the adoption of standards such as the ISO 9000 series is internally driven. In this case, as supported by Heras-Saizarbitoria et al. (2010) the adoption would most often depend on the company's specific organizational resources. For example, in the case of companies which aim for TQM implementation, ISO 9001 certification is a good starting ground for cost reduction and quality improvement (Martinez- Lorente & Martinez Costa, 2004) As sun (2000) asserts, ISO 9001 certification can be beneficial if it is seen as a way towards TQM. Nevertheless, for ISO implementation requires a substantial financial resource, which an very from as little as 10,000 USD to as much as 3000, 0000USD (Withers & Ebrahimpour, 2000) and because the improvements yielded by such certification are debatable (Casadesus & Karapetrovice, 2005) the so-called external motivations are somewhat overwhelming it seems see table.

Year	Country	Study Sample	Authors	Internal	External
2009	Brazil	45	Almeida, Caten & Gutterres	Improving processes and product quality	Improve competitiveness
2010	Italy	366	Cagnazzo, Taticchi & Fuiano	Improving processes, procedures and product/service quality	Corporate Image
2012	Saudi Arabia	129	Kadasah	-	Corporate Image
2012	Jordan	130	Al-Refaie, Ghanimat & Li	Business Performance	Customer Satisfaction
2013	Kuwait	98	Alolayan, Hashmi, Yilbas & Hamdy	Improve efficient	External image
2013	South Africa	110	Dongmo & Onojaefe	-	Customer Satisfaction and competitiveness
2013	U.K.	111	Mc-Crosson et	-	Customer



			all		Pressure
2013	Protugal	427	Santos & Millan	Improving product/service quality	Corporate image
2014	Sri Lanka	200	Thilakarathne & Chithrangani	Improving products/service quality	Customer pressure
2014	Portugal	426	Santos, Costa & Leal	Improving product/service quality	Corporate image

(Table Motivations for adoption of ISO 9000 family of standards- Review of Literature)

3. Methodology

1. Approach

Our study is based on survey method; qualitative research type, which employed Interview at the Exploratory survey at the descriptive Approach which employed Interview for Difficulties in Implementation of ISO standards, Facilities & outcomes of ISO Implementation on All options as consultants, suppliers, management, Manager/Supervisors & Employees of the Organisation.

2. Sampling

The study is predominantly of Descriptive Nature, in other words, cases that meet predetermine criteria: based on research objectives. The predetermined criteria are presented in table below.

Interview (In Context to Shoe Export Organization)

QMS Quality Management System Auditors (ISO 9002), Management Representative, Supervisor/Managers, Employees of ISO 9002 Certifying shoes Export Units/Organisations	QMS Quality Management System Auditors (ISO 9002), Management Representative, Supervisor/Managers, Employees of ISO 9002 Certified shoes Export Units/Organizations
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Interview is conducted between the two QMS consultants Mr. Shanti Swaroop, Mr. K.G. Gupta, Retired Director of Bureau Indian Standards, Mr. Sachin Nizawan, Managing Director Neelson



International, Shoe Export Limited, Agra., Mr. Arjun Singh Production Manager Nelson International, Shoe Export Limited, Agra., Mr. Sazid Purchase Manager Nelson International, Shoe Export Limited, Agra., Mr. Azad Quality Control Manager Dabur Shoes Export House Agra, Mr. Jaswant Yadav Chief Designer, Tez Shoes Export Unit Agra, Pradeep Singh Export Import Documentation Incharge Nelson International, Shoe Export Limited, Agra, Supervisor of Stores Incharge, Nelson International, Shoe Export Limited, Agra, 150 Number of Employees of various shoes Export Houses following are Nelson International, Shoe Export Limited, Agra, Dabur Footwear Export Ltd. Agra, Rozer Shoes Export Industry Agra, Dabur Export Ltd. Agra, Tej Shoes Export Ltd. Agra. Metro & Metro Shoes Export Ltd. Agra.

3. DATA COLLECTION

The face-to-face interviews were conducted in various shoe Export Units of Agra, Each Interview lasted between one and two, hours, was digitally noted, and followed a protocol jointly developed by the researcher.

All survey questions were presented in English and explained verbally in Hindi Local Language and employed a theoretical Interview based/multiple choice assessment method.

Questionnaire

1. What is you understand by ISO ?
2. What is written quality policy of your organization ?
3. What are the written quality objectives of your organization.
4. Does Quality Manual and Procedure assist the employees to achieve their self Targets, Objective of Deptt., and Goal of Organization.
5. Total Quality Management System is Strengthened of your organization.
6. Difficulties and Facilities faced by the Implementation of ISO 9002, Standards ?
7. Difficulties and Facilities faced by the cutting stage ?
8. Difficulties by Closing stage?
9. Difficulties and Facilities by lasting stage.
10. Difficulties and Facilities by Final Passing Stage.
11. Difficulties and Facilities by Packaging Stage.



12. Does Firm Seeks ISO 9002 Certification due to customer pressure ? **Yes/No**
13. Does Firm Seeks ISO 9002 Certification due to Enhance Company Image ? **Yes/No**
14. Does Firm Seeks ISO 9002 Standard Certification due to for process Improvement ? **Yes/No**
15. Does Firm Seeks ISO 9002 Standard Certification due to for Product Quality Improvement ?
Yes/No
16. Does Firm Seeks ISO 9002 Standard Certification due to for Product Quality Improvement ?
Yes/No
17. Does Impact of ISO 9002 Standards builds Relationship with Supplier and sub-contractor increases ? **Yes/No**
18. Does Impact of ISO 9002 Standards builds Relationship with Current and Potential Client ?
Yes/No
19. Does Impact of ISO 9002 Standards builds Relationship with State Administration ? **Yes/No**
20. Does ISO 9002 Standards Certification Increases Company Process and Systems ? **Yes/No**
21. Does ISO 9002 Standards Certification Increases Motivates Relations among employees ?
Yes/No
22. Does ISO 9002 Standards Certification Increases Company Product Quantity ? **Yes/No**

Hypothesis

Predetermined Hypothesis

H 1 – “There is lot of scope development in the quality as well as quantity of production, if ISO standard are applied in the Footwear Industry” Agra.

Variable

Based on review of literature and data gathered theory the in depth interviews two constructs become the Pillar of Survey.

- (i) Difficulties and facilities faced during the ISO certification in shoe industry.
- (ii) Procedural difficulties in the introduction and implementation of revised system in different department of shoe industry.



Analysis of Data

Difficulties and facilities of all levels of organization (Employee) based on Interview.

Difficulties of Management representative

- Implementation of ISO in Shoe Industry Agra Procedure is difficult because of Employees unwillingness, They Feel Extra burden, lack of education.
- Labour working is, skilled much more, labour of contractual in nature, thus each employee with in organization is not concern with ISO Procedure only Supervisors/Permanent Employees have awareness toward the ISO certification/Implementation.
- Off job training is not more effective because of unwillingness of Employee, off job training need Extra overtime of Employee, this demotivate them.

Facilities of Management representative

- Consultant visit is of non-period nature. Thus Implementation process suffers.
- Provides Quality System within the organization.
- Provides Monitoring/Controlling System within the organization at all level.
- Problem Identification record are maintained, this remove the bottle neck, through following corrective & Action Plan, Decided by Supervisor/Manager/or (MRC) Management review committee decision.
- Provide better work flow chart and work instruction within the organization.
- Provides Quality Manual & Quality Procedure at all level of organization as per to achieve organization goal,
- Provides Feedback Process of communication through production daily Report. This helps in setting daily Targets of Each dept.
- Training Procedure of ISO is conducted among the permanent Employees which in rich & build confidence among the top management, Supervisors & Employees, mostly when on job training is provided.



Difficulties of Purchase department

- If the Supplier turn's to be defaulter. The name of supplier is removed from the Supplier Approved list. As quality goods Supplier numbers are sufficient in Agra region; some time the easily goods availability of the raw material is not possible. Item is available at that black listed supplier, The ISO Implementation, Purchase delimits/Restrict to purchase the raw material item, This creates purchase barrier

Facilities of Purchase department

- Monitoring of Supplier's is easily done due to formation of Approved Supplier list by purchase manager & Top Management.
- The previous records also assist the purchase manager to evaluate the quality of product through grading system of items supplied by supplier. Thus it is easy to trace the items; as Raw-material, Rate, time availability, quality and the supplier to whom the new order should be placed.

Difficulties of Cutting Stage

- **Difficulties of Supervisor**—Found fed up of the righting work to maintain the record of the Daily Cutting Report, along Rejection report. They say that, without ISO-implementation also, we use to Receive the leather in according to the Average of Article Cutted according to the pattern received against Each Article the same is done, only the Record Making is increased, this leads to Extra burden.
- **Difficulties of Employee**—Minimize Rejection of leather in record's maintained, make to productivity & Quality Improvement. This result more time taking to treatment further stages this slow down the production process.
- **Difficulties of Store/Cutting Deptt**—Encharge of Store Cutting department Responded that the stock Registers were maintained in previous time before ISO 9002 Implementation also, was sufficient to calculate the sock in same manner work like Tag attachment of different clours, material issue slip, & material receipt slips are maintained, with this work pressure is increased.



Facilities of Cutting Stage

- **Facilities to Supervisor**—Leather issued by leather store with tag & Article specification thus has reduced confusion, Leather almost look like same, some times. Thus
- Product identification is easier now a days.
- **Facilities to Employee**—With daily production Rejection report formation and Recording, we are able to evaluate our performance, this build competitive Environment among the employees. The Employees l monitoring hear also result in lesser rejection of Leather.
- **Facilities to Store Cutting** (Leather issuing store)—With ISO procedures complementation one facility availed that the leather. Left against any article is marked with Tag and thus through, The Leather Identification for future time is Easy with specifications.

Difficulties of Fitter/Closing Department

- **Difficulties of Supervisor**—Fitter Department, claimed that ISO is merely a documentation process, our work is done on conveyer system. Each Row is arranged According to the Article no. process of work & Quality Sustainably is as on previous pattern by ours. Before ISO certification, merely Expensive Tool.
- **Difficulties of Worker Sitting**—Conveyer of closing deptt. Interview was not aware of ISO certification. This was because of the labour is not of routine basis, they work under contractor, and contractor arrange the labour, he says there is a labour shortage, unskilled labour, and also arranged as per the Article Produced.
- **Difficulties of Store Fitter/Closing Stage**
There was always the confusion between the filter & lasting department, lasting department blames that, the fitter department had supplied the less number of upper's to lasting department, and fitter department blames to the lasting department while molding the upper, there the Rejection (tear/wear) level is high, thus. They blame on us.



Facilities of Fitter or Closing Stage

- **Facilities to Supervisor**—Due to ISO Procedure Implementation we are receiving the Input raw material from cutting department in proper counting in cutting tray with tag along specification card, Article wise. This reduces the possibility of mistakes confusion in Articles of Components.
- **Facilities to Employees**—Article and components are received are well arrange. This makes easy working, output is up to mark/work proficiency in creased. This reduces The Rejection of components.
- **Facilities to Fitter Store**
- Article upper stitched are shorted and put in carry bags and supplied to lasting store with proper counting Article wise Identification card is attached.
- Thus facilities know in the form that the result of this facilitates that there was always shortage by lasting departement.
- The ISO Implementation help a lot while store documentation like, Issue & Receipt Slip is maintained. This has removed. The confusion among both the stores. Exact figure is provided, by the store Daily Lasting Report and No. of Issue pairs of Articles upper's to the lasting department.

Difficulties of Lasting Stage

- **Difficulties of Supervisor Responded that work Instruction**— Work instruction for lasting changes as per Article number changes, thus to provide the work Instruction to Each Employee in writing is very difficult the Employees are less Educated. They are unable to Read the work instructions charts, the instruction are passed verbally. Therefore to write the work instructions more them two article for Employees for each Article is difficult produced at same as number increase turns to be irrelevant.
- **Difficulties of Employee**—Standing on final passing of lasting stage, Asked about what is ISO? Replied Lot of Paper work, preparation of daily production Report has decrease my work efficiency work/production Efficiency because most of my time is use in report formation as Heel Attachment payment was made on his Report basis.



- **Difficulties of lasting Worker**—ISO Implementation has increased the paper work. At check points, the worker standing on check points, the worker standing on check point was uneducated thus to note down production record he use to make tally marks of sings (||||). This makes him to erreted says assign this duty, I passed/checked more pairs of shoes. Slow down wok efficiency
- **Difficulties of Lasting Material Store**—This is the main store for production consideration fitter/closing upper are received & distributed to lasting department, material purchased from purchased department also stored here, and Issued to the Lasting department.
- Problem faced by the store manager is that it's very difficult to manage the Records of Quality Procedure of ISO, Identification ages of Each them cannot mentioned because as the Article number (Production) changes in weak or days, Simon famously two-five, Articles are running in parallel, the material received yesterday, or same day there is a **shortage of time no Implement the ISO Procedure of stores** like Material Received Stock issue slip are not maintained, No flap or tag been issued, Due to production pressure be then are distributed as per In-charge lasting recommendation.

Facilities of Lasting Stage

- **Facilities to Supervisors**— At various stages like Heeling & Final Passing state & Lasting the Daily Production report is been marked and finally prepared by me, This Activity has definitely make some easy to achieve the daily target because before lunch how much target has been achieved and how much to be achieved is easily remarkable.
- Periodical Inspection of Machine by Calibration department, has solved our problem, sometime problem in machine turns to be bottle neck in productivity, this minimized the break down problem.
- **Facilities to Worker Lasting**— Due to Implementation of ISO working Environment of Condition has changed, due to periodic visit of ISO Consultants. The cleanness had come into priority. Time to time servicing of machines has increased my productivity.



- Employee working on a molding machine—Says time to time handling & Servicing of machine is done, as per machine handling card provides motivation to me, this has removed the breakdown of machine & work, due to break down of machine some time he was work over loaded, and over time duty in night was assigned, know a day's the problem is lesser.
- **Facilities to Production/Lasting (Material Store)**
- As the article is completed from lasting stage moves to the finishing stage, same time the raw-material left are matched with the stock register and balance raw material is managed in store. While Tags are put on & specifications are mentioned.
- This helps in Product Identification for future when required.
- Due to Implementation of ISO, the quality of raw material is maintained, because the product purchased are the supplier who are in the supplier approved list of the firm passed by the E.D. (Executive Direction of MR (Management Representative). This practice has sustain the quality of product as well as Raw-material Supplied.

Difficulties of Finishing stage

- **Difficulties of Supervisor**—there is always shortage of Employees, Therefore work pressure of work output is observed, day & night shifts are arranged very difficult to maintain the records.
- **Difficulties of Employee**—Employee were not Aware of ISO certification, Employees mostly are of contractual basic.

Facilities of Finishing

- **Facilities to Supervisor**—Due to ISO Implementation the written work instructions are passed for finishing particular Article No., by the Production Manager/Quality Controller.
- This removes the confusion regarding adaptation of the finishing process.
- **Facilities to Employee**—Build Company Image in the mind of the Employee, Company is ISO 9002 certified, this means that quality of finishing is not adjustable.
- That quality of Finishing is not compromise scale.



- **Facilities to Packaging**—Packaging is to be do as per the specification of the buyer but Daily Report Maintained assist top management to keep an eye on delivery of good's on time.

Difficulties of Final Passing / Packaging Stage

- **Difficulties of Final Passing**—Difference's between firms Q. C. & Bayer Q. C. in Final Passing same time creates confusion & Personal Interest. This create a very critical situation in passing the finished shoes.
- **Difficulties of Packaging supervisor**—Fear of wrong labeling is maintained supervisor because labour is not more educated thus quality controller or production manager have to keep an eye all the time, until the shoes are packed into the carton as per specification ISO-Implementation has increased there paper work in terms of preparing daily report of packing.

Facilities of Final Passing / Packaging Stage

- **Facilities of Employees**—That the firm is ISO certified, they have various quality check up stages and records are maintained this build positive perception, this result the maximum output Less Rejection.

FINDINGS CONCLUSIOS AND SUGGESTIONS

1. FINDINGS OF RESEARCH STUDY

(a) **Difficulties faced during the ISO certification in Shoe industry Agra**

- Lack of Information and Training
- Over Emphasis on Certification
- Inappropriate Document
- Lack of Top Management Commitment
- Inadequate internal audit.

(b) **Procedural Difficulties in an introduction and implementation of revised system in the different department of shoe industry.**

- Inadequate documentation
- Excessive procedures and records are created to maintain system.



(c) **Facilities of ISO Certification in shoe industry Agra**

- Quality system developed
- Quality procedure achieved
- Daily production targets are achieved
- Monitoring/Controlling System achieved
- Training provide confidence among employees

(d) **Benefits of ISO Certification in shoe industry in Agra**

- Cost Saving
- Enhance Customer Satisfaction
- Access to new market
- Increased market share
- Environmental benefits

2. OTHER FINDINGS OF RESEARCH STUDY

1. Findings

आई0एस0ओ 9002 इसका अर्थ है ।
बताओ तुम क्या कर रहे हो ।
लिखो जो तुम करते हो ।
वही करो जो तुमने लिखा है ।
जो कर रहे हो उसका रिकार्ड बनाओ ।
अवलोकन करें ।
जरूरत हो तो दुबारा उपरोक्त कार्य करो

Result in ISO 9002 implementation provides self evaluation of employees at all level of organization and assist to make corrective and preventative action where necessary, this creates perfections in work, which increase the quality and quantity of work productive this assist in achieving their (employees) target, departmental objectives and organizational goal.

2. Findings

कम्पनी गुणवत्ता नीति
ग्राहकों को पूर्ण संतुष्टि प्रदान करना ।
ग्राहकों की आवश्यकतानुसार सही गुणवत्ता का माल बनाकर देना ।
लगातार तौर पर सही गुणवत्ता का माल बनाना ।
कर्मचारियों, मशीनों और उपकरणों की क्षमता में लगातार सुधार करना ।
हमें आई0एस0ओ 9002 के निर्देशानुसार अपने प्रबंध तंत्र में गुणवत्ता को अपनाना है ।



Quality Policy Results In

By implementing quality policy of ISO 9002 standards, increase the potentiality of man and machine to reduce quality product and achieve the customer satisfaction on consistent basis and customer satisfaction will result to increase in productivity.

कम्पनी गुणवत्ता सिद्धान्त

जूता तथा जूता कम्पोनेन्ट्स के क्षेत्र में कम्पनी को एक गुणवत्ता निर्यात हाउस स्थापित करना ।
उत्पाद को शून्य दोष रहित बनाना ।

आवश्यकतानुसार उचित बदलाव करने के लिये तैयार रहना ।

Quality Objectives Results In

To move production rejection level towards zero, corrective and preventive action should be taken on consistent basis if necessary. This will increase the quality production, to establish organization as quality production export house of shoe and shoe components.

As the rejection level decreases or moves towards zero level, the productivity increases.

3. Findings

In totality the implementation of Quality Manual (QM) and Quality Procedure (QP) provides the strength in all the fields of management at all levels with in the organization.

Thus we can conclude that total Quality Management (QM) is strengthened by the implementation of ISO Standards.

CONCLUSIONS:

Predetermined Hypothesis

H-1, “There is a lot of scope development in the quality as well as quantity of production, if ISO standard are applied in the Footwear Industry” Agra.

Findings ‘A’ & ‘B’ of Research Study formulating IInd Hypothesis.

H-2, “Difficulties alongwith procedural difficulties faced during the ISO certification in shoes industry” Agra

Results in decrease of quality as well as quality of production.



H-2 does not coo-relates with H-1

Hence it is not accepted for purpose of Research.

Findings ‘C’ and ‘D’ of Research Study formulate IIIrd Hypothesis

H-3 “Facilities and benefits of ISO certification in shoe industry”. Agra

Results in increase of Quality of Quantity of Production.

H-3 coo-relates with H-1.

Hence it is accepted for Purpose.

Finally we can conclude that the predetermined hypothesis is correct/accepted.

Suggestions

➤ In context to Business Promotion

- ISO Certification build competitive image and confidence.
- Thus management should participate in various trade fairs and exhibitions.

➤ In context to Quality Improvement :

- Quality policy and quality objectives should be implemented effectively with in the organization by each Employees at all level.
- Each employee at all level an organization should be aware of the quality policy and quality objectives.
- ISO quality manual and procedure should be implemented effectively.

➤ In context to Wastage Minimization

- Corrective and preventive actions should be taken timely in production stages, on continuous basis.

➤ In context to Increase Managerial Effectiveness

- Training should be provided to employees at all levels of organization, regarding what is ISO, What are their requirements.
- Effectively implementation of Quality Manual and Procedure



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