

ABSTRACT

**THE EFFECTS OF ISO QUALITY CERTIFICATION
ON THE COMPANIES BY SECTORS
AND A STUDY OF 200 COMPANIES**

Çağıl ÇAĞLAR

Department of Management Engineering

Alanya Alaaddin Keykubat University, Graduate School of Science Institute

May, 2019 (137 Pages)

Supervisor: Dr. Gülin İdil SÖNMEZ BOLATAN

Since the dawn of humanity, quality has served as one of the fundamental pillars of human endeavors. Over time, this concept has evolved into what is now recognized as Total Quality Management (TQM), a comprehensive approach to quality management. The intensified competition brought about by globalization has compelled organizations to focus on process analysis, quality enhancement, efficiency, and customer satisfaction, thereby paving the way for the widespread adoption of TQM practices.

This study examines the role and benefits of the TQM ambassador—a figure of increasing significance for organizations—in the context of the impact of ISO Quality Certification on enterprises. The primary objective of the research is to elucidate how ISO Quality Certification positively influences business performance and to identify the advantages it confers.

The data collected were meticulously analyzed using the SPSS statistical analysis software. The findings indicate that possessing an ISO Quality Certification contributes significantly to the improvement of business processes, the enhancement of competitive strength, and the achievement of customer satisfaction. These results underscore that the implementation of international quality standards plays a crucial role in fostering the sustainable success of organizations.

In conclusion, the study reveals that the adoption of ISO standards is instrumental in generating competitive advantages both in internal processes and in the global market, serving as an important reference for shaping future strategic plans.

Key Words: ISO, Quality, TQM, Productivity, Quality Management.

CONTENTS

| | |
|--|------|
| ACKNOWLEDGEMENTS..... | i |
| SUMMARY..... | ii |
| ABSTRACT..... | iii |
| CONTENTS | iv |
| LIST OF TABLES | viii |
| LIST OF FIGURES..... | xii |
| SYMBOLS AND ABBREVIATIONS | xii |
| INTRODUCTION | 1 |
| CHAPTER ONE | |
| Quality..... | 2 |
| 1.1. Definition of Quality..... | 2 |
| 1.2. Fundamental Elements of Quality | 5 |
| 1.2.1. Design Quality | 5 |
| 1.2.2. Conformance Quality..... | 6 |
| 1.2.3. Usability Quality | 6 |
| 1.3. Dimensions of Quality | 7 |
| 1.3.1. Performance..... | 7 |
| 1.3.2. Features | 7 |
| 1.3.3. Reliability | 7 |
| 1.3.4. Conformance | 7 |
| 1.3.5. Durability..... | 7 |
| 1.3.6. Serviceability | 7 |
| 1.3.7. Aesthetics | 8 |
| 1.3.8. Perceived Quality..... | 8 |
| 1.4. History of Quality..... | 8 |
| CHAPTER TWO | |
| Total Quality Management (TQM) | 11 |
| 2.1. What is TQM?..... | 11 |
| 2.2. Basic Features of TQM..... | 13 |
| 2.2.1. Customer Focus | 13 |
| 2.2.2. Full Participation..... | 14 |
| 2.2.3. Leadership | 15 |
| 2.2.4. Continuous Education | 16 |

| | |
|--|----|
| 2.2.5. Continuous Improvement | 17 |
| 2.2.6. Error Prevention..... | 18 |
| 2.2.7. Management with Goals and Data | 19 |
| 2.2.8. Deming Cycle | 19 |
| 2.3. Quality Circles | 20 |
| 2.4. TQM Tools..... | 22 |
| 2.4.1. Flowcharts | 22 |
| 2.4.2. Pareto Diagram..... | 24 |
| 2.4.3. Cause and Effect | 26 |
| 2.4.4. Control Charts | 27 |
| 2.4.5. Scatter Diagram..... | 28 |
| 2.4.6. Histogram | 29 |
| 2.4.7. Check Sheet | 29 |
| 2.4.8. Relationship Diagram..... | 31 |
| 2.4.9. Force Field Analysis (SWOT) | 32 |
| 2.4.10. Cross Impact Analysis..... | 33 |
| 2.4.11. Brainstorming | 34 |
| 2.5. Challenges Encountered in TQM Implementation | 34 |
| 2.5.1. Lack of Belief in Quality | 34 |
| 2.5.2. Resistance to Change | 35 |
| 2.5.3. Management and Managerial Attitude | 35 |
| 2.5.4. Overemphasis on Total Quality Management | 35 |
| 2.5.5. Having Ordinary Expectations..... | 36 |
| 2.5.6. Insufficient Analysis of the Current Situation..... | 36 |
| 2.5.7. Insufficient Training and Development..... | 36 |
| 2.5.8. Being Focused on Tools | 36 |
| 2.5.9. Inconsistent Behavior | 36 |
| 2.5.10. Lack of Recognition for Achievements | 37 |
| 2.5.11. Other Issues | 37 |

CHAPTER THREE

| | |
|---|----|
| ISO Quality Certificate | 38 |
| 3.1. ISO Quality Management System | 38 |
| 3.2. History of ISO | 39 |
| 3.3. ISO 9000-9001 KYS..... | 41 |
| 3.4. Why Should One Have ISO Certification? | 42 |
| 3.5. Relationship Between TQM and ISO | 43 |

CHAPTER FOUR

| | |
|--|----|
| The Concept of Productivity | 45 |
| 4.1 Definition of Productivity | 45 |
| 4.2. Productivity in Businesses | 47 |
| 4.3. Productivity and Competitiveness..... | 47 |
| 4.4. Factors Affecting Productivity | 47 |
| 4.4.1. External Factors..... | 48 |
| 4.4.2. Internal Factors | 48 |
| 4.5. Productivity and Quality..... | 48 |
| 4.6. Performance and Quality | 50 |

CHAPTER FIVE

| | |
|---|-----|
| Effects of ISO Quality Certifications on Firms by Sector and a Survey Study with 200 Firms | 51 |
| 5.1. Purpose and Importance of the Research..... | 51 |
| 5.2. Scope of the Research..... | 51 |
| 5.3. Research Model and Hypotheses..... | 52 |
| 5.4. Data Collection Tools and Research Method | 53 |
| 5.5. Analysis and Findings | 54 |
| 5.5.1. Demographic Findings | 54 |
| 5.5.2. Data Analysis..... | 55 |
| 5.5.2.1. Hypothesis – 1 | 56 |
| 5.5.2.2. Hypothesis – 2..... | 60 |
| 5.5.2.3. Hypothesis – 3..... | 64 |
| 5.5.2.4. Hypothesis – 4..... | 67 |
| 5.5.2.5. Hypothesis – 5..... | 71 |
| 5.5.2.6. Hypothesis – 6..... | 74 |
| 5.5.2.7. Hypothesis – 7 | 78 |
| 5.5.2.8. Hypothesis – 8..... | 81 |
| 5.5.2.9. Hypothesis – 9..... | 85 |
| 5.5.2.10. Hypothesis – 10 | 89 |
| 5.5.2.11. Hypothesis – 11 | 92 |
| 5.5.2.12. Hypothesis – 12 | 96 |
| 5.5.2.13. Hypothesis – 13 | 99 |
| 5.5.2.14. Hypothesis – 14 | 103 |
| 5.5.2.15. Hypothesis – 15 | 104 |
| 5.5.2.16. Hypothesis – 16 | 105 |

| | |
|---------------------------------|-----|
| 5.5.2.17. Hypothesis – 17 | 108 |
| 5.5.2.18. Hypothesis – 18 | 112 |
| 5.5.2.19. Hypothesis – 19 | 116 |
| Conclusion and Evaluation | 120 |
| REFERENCES | 125 |
| APPENDICES | 131 |