

# A Comparative Study of Different Phases in Traditional It Management and ITIL-Based Service Management

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**Abstract** – Information Technology Service Management (ITSM) has become a critical component for organizations seeking to deliver high-quality IT services that align with business objectives. The Information Technology Infrastructure Library (ITIL) is one of the most widely adopted frameworks for IT service management, providing a structured approach to planning, delivering, operating, and improving IT services. This managerial study examines the role of ITIL in enhancing service quality, operational efficiency, customer satisfaction, and organizational performance. The study explores the key principles, processes, and lifecycle stages of ITIL, including Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement. It analyses how ITIL helps organizations standardize IT processes, optimize resource utilization, reduce service disruptions, and improve governance and risk management. Furthermore, the study investigates the managerial challenges associated with ITIL implementation, such as organizational resistance, training requirements, change management, and cost considerations. Through an evaluation of industry practices and case-based observations, the research highlights the benefits of ITIL adoption in achieving better service delivery, enhanced communication between IT and business units, and improved decision-making capabilities. The findings indicate that organizations implementing ITIL practices experience greater service reliability, increased customer confidence, and improved business alignment. The study concludes that ITIL serves as an effective managerial framework for establishing a customer-centric and process-oriented IT environment, enabling organizations to adapt to technological advancements and maintain competitive advantage in a rapidly evolving digital landscape.

**Keywords:** Information Technology Service Management (ITSM), Information Technology Infrastructure Library (ITIL), Service Management, IT Governance, Service Lifecycle, Continual Service Improvement, Customer Satisfaction, Business Alignment, IT Operations, Organizational Performance.

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## I. INTRODUCTION

In the modern digital era, organizations increasingly depend on Information Technology (IT) services to support business operations, improve productivity, and maintain competitive advantage. As businesses become more technology-driven, the effective management of IT services has become essential for ensuring reliability, efficiency, and customer satisfaction. Information Technology Service Management (ITSM) provides a systematic approach to designing, delivering, managing, and improving IT services to meet organizational objectives and user expectations. Among the various ITSM frameworks available, the Information Technology Infrastructure Library (ITIL) is recognized as one of the most widely adopted and comprehensive frameworks for IT service management. Developed as a collection of best practices, ITIL provides structured guidelines that help organizations align IT services with business needs while maintaining service quality and operational excellence. The framework emphasizes process standardization, service lifecycle management, risk reduction, resource optimization, and continuous improvement. ITIL is organized around a service lifecycle approach consisting of five key stages: Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement. These stages provide organizations with a systematic methodology for planning, implementing, operating, and enhancing IT services. Through the adoption of ITIL practices, organizations can improve service performance, reduce downtime, enhance communication between IT and business units, and deliver greater value to customers. The increasing complexity of IT environments, the rapid pace of technological innovation, and growing customer expectations have made ITIL implementation a strategic priority for many organizations. However, successful adoption requires strong managerial support, effective change management, employee training, and continuous monitoring of service performance. Managers

play a crucial role in ensuring that ITIL processes are effectively integrated into organizational operations and aligned with business goals. His study aims to examine the managerial aspects of ITIL-based IT service management, evaluate its benefits and challenges, and analyse its contribution to organizational performance. By understanding the principles and practices of ITIL, organizations can develop more efficient IT service delivery mechanisms and achieve sustainable business success in an increasingly competitive environment.

## II. PROBLEM STATEMENT

When an employee is well-cared for and given the opportunity to shine, he or she will flourish in the workplace. The majority of organizations encounter issues as a result of ineffective training programmers, making the effectiveness of training a crucial factor. An organization should priorities implementing ITIL training and certifications before launching the ITSM process. Earning an ITIL certification and training will help you stand out from the competition, increase your salary, boost your company's efficiency, and open doors to new prospects. From both the employee and employer points of view, this study titled "The Effectiveness of Information Technology Infrastructure Library (ITIL®) training and certifications" aims to assess how beneficial ITIL training and certifications are.

## III. RESEARCH OBJECTIVES TO BE STUDIED

The following are the four objectives of the study:

- To determine the extent of effectiveness of ITIL® training and certifications
- To determine the degree to which the training methodologies utilized during the training were effective in meeting the training objectives
- To compare the perceptions of employees and employers on the effectiveness of ITIL training and certifications
- To formulate suggestions for enhancing the effectiveness of ITIL training and certifications.

## IV. SHORT LITERATURE REVIEW FOR ON GOING RESEARCH

**Shidqi, Shafirina. (2023).** Information technology is developing at a quick pace, and everyone wants to use it to support their activities, make their work easier, and streamline their business operations. This includes organisations, institutions, and universities. An enterprise organization must change to keep up with the latest developments in information technology. The centralized approach of managing IT services focuses on how customers view IT services in relation to a company's operations.

**Esteves, Rui et.al. (2013).** The initial findings of a 2012 academic study on the application of the Information Technology Infrastructure Library (ITIL) method in the Culture, Tourism, and Transport Regional Department of Madeira Autonomous Region, a Portuguese public organization, are presented in this paper. We ran with opposition to ITIL and change resistance along the process. It's also true that additional factors, such changing economic circumstances or lack of resources, played a role in this endeavor.

**Jain, Vipul et.al (2018).** In order to comprehend the accepted practices, suggested fixes, and measurement models for Information Technology Service Management [ITSM] approaches, a thorough assessment of the literature has been conducted. By incorporating newly published research from 2010 to 2018, this work expands on previous literature reviews and existing research in this field.

**Kim, Sang-Gil et.al. (2014).** IT governance is defined in order to accomplish the leadership, organizational structure, and process goals of the organization. To establish IT governance, an efficient ITIL (Information Technology Infrastructure Library) management model is required, together with organizational structure, leadership for spindle formation, maintenance, and standardized processes. Research on service delivery and customer satisfaction through the effective information for ITSM (Information Technology Service Management, IT Service Management) building measures, information for business planning and performance management PMS (Project Management System, project Management System), survey on ICT service levels established through the process of planning and construction management models such as ITIL, and future research on the public portion of the proceeds from the ITIL m

**Shahsavarani, Narges et.al. (2014).** Due to market pressure and the growth and expansion of research in the service sciences, information technology service management, or ITSM, has become a popular research topic among IS and management scholars. From a scholarly standpoint, an increasing number of articles covering various facets of ITSM challenges have been published.

**Elfakharany, Essameldean. (2012).** The IT service management (ITSM) implementation methodology is based on the Information Technology Infrastructure Library (ITIL) Version 3. *Journal of Business and Management Research International*. 3: 113–132. This paper aims to explain the idea of IT Infrastructure Library Version 3 (ITIL v3) and how to apply it to any Egyptian IT company in order to boost productivity, make work easier for corporate staff, and let clients know what kind of services they are receiving. Nowadays, ITIL is regarded as the de facto industry standard framework for IT Service Management (ITSM) in companies whose operations rely

heavily on IT services and infrastructure.

**Elfakharany, Essameldean. (2012).** Although ITIL v3 was adopted by organisations in the West, it remains a novel framework tailored to the Egyptian and Arabian contexts. According to the APMG ISO/IEC 20000 website [1], the number of firms with ISO/IEC 20000 is less than 2% of all certified organisations worldwide, and as of right now, no company in Egypt has it.

## **V. PROPOSED COMPARITIVE RESEARCH METHODOLOGY**

### **5.1 RESEARCH DESIGN**

The research design, as per Babbie and Mouton (2012) and Clarke and Dawson (1999), is the study's strategy for conducting the study. The study evaluated results from obtaining an ITIL® certification or training using survey technique, with two surveys being used to gather the necessary data.

### **5.2 PHASE I: THE DETERMINATION OF ITIL'S EFFECTIVENESS FACTORS TRAINING AND CERTIFICATIONS**

The environment and various elements, including professional growth policies, directly or indirectly affect how well a company's training programs work. Haywood (1992) highlights that policies affecting professional development are crucial. Haslinda and Mahyuddin (2009) highlight several factors influencing training efficacy, including insufficient training practice, negative worker attitudes, and lack of support from upper management.

#### **5.2.1 Employees' Views on What Makes ITIL Training and Certification Effective**

The study identified seven indicators for evaluating the findings from the goals and literature study about the efficacy of ITIL training and certification from the viewpoint of the employees.

- Acquiring Information, Beliefs, and Competencies
- How Well I Did My Job
- Progression in One's Profession
- Effect on the Organization
- A System for Instruction
- Programme Distribution
- Improvements to Salary

#### **a) Development of skills, knowledge, and attitude**

Training is the process of systematically acquiring the information, abilities, and dispositions necessary to do a profession or activity, according to Michael (2000). Mukherjee (2007) emphasizes the importance of investing in staff training and development for a company's long-term success. As workers acquire new abilities, they become more flexible and adaptive, improving their job performance. Training provides employees with new skills and information that they can apply immediately, enabling them to excel in their present positions.

#### **b) Job performance**

Hersen (2004) suggests that work efficiency can be evaluated through behavioral dimensions like effective communication, sound decision-making, and problem-solving. Baldwin (2008) defines achievement as the timely completion of tasks to achieve work goals, while Brown (2008) defines it as the degree to which an individual achieves goals while maintaining a positive mindset during the process. Both definitions highlight the importance of evaluating work behaviors in various contexts.

#### **c) Advancement in career**

Employee happiness and retention are significantly influenced by the opportunity for professional growth. A successful career advancement plan should tailor each employee's strategy to their professional goals, offer increased responsibility, and reward their efforts with promotions and pay raises.

#### **e) Contribution to organization**

Human capital is crucial for organizational success, and training is essential to strengthen a firm's competitive position, as it has been widely recognized (Schultz, 1961; Taylor and Davies, 2004).

#### **f) Training methodologies**

Training techniques vary greatly, and trainers must be flexible and adapt to the learning environment, participants, and objectives. Research shows that trainees with better verbal comprehension capacity perform better post-test results using case study approaches. Tailoring training approaches to each trainee's learning style enhances motivation and learning outcomes.

#### **g) Program delivery**

Programme delivery assesses training's strengths, weaknesses, risks, and development opportunities by understanding an organization's training requirements and taking responsibility from start to finish. It seeks innovative teaching methods to assist clients in achieving business goals and overcoming challenges.

**h) Enhancement in compensation**

Employees often believe they are improving their work performance through successful training, leading to increased contributions to the organization and a desire for higher wages from the company (Mengjun, 2014).

**5.2.2 Employers' Views on What Makes ITIL Training and Certification Effective**

The study assessed employers' perceptions of ITIL training and certification efficacy using eight criteria derived from the study's objectives and literature review findings.

- The Production of the Organization
- The Climb of the Professional Ladder
- The Raising of Salaries
- Work Outcomes
- Approach to Instruction section
- Programme Outcomes section
- Networking and Knowledge Sharing section
- Support from Management

We covered career advancement, salary enhancement, and job performance in the last part. Below, we will go over some more aspects that companies find important.

**a) Organization's productivity**

Boosting an organization's output is as simple as motivating workers to give their all, equipping them with top-notch tools, and providing proper training. Factors influencing productivity include the environment, the organization itself, management, and employee-related aspects. Training is a crucial employee-related element, and competence and drive are equally important. Joseph Kennedy (2009) suggests that long-term goals and strategies should guide training and development programs. A well-planned training plan considering the company's objectives, customers, competitors, strengths and limitations, and the sector can benefit both organizations and their employees.

**b) Management support**

Mead et al. (1999) highlighted the importance of middle management's support in the success of training programs, citing a company that used skills-gap evaluations to develop specific training strategies.

**c)Networking and knowledge sharing**

Teams are more successful and businesses gain a competitive advantage when employees share what they know. Managers who foster a safe environment for employees to express opinions and suggestions, and publicly acknowledge their efforts, facilitate the dissemination of information within their teams, thereby gaining a competitive advantage and resulting in improved team performance.

**d)Programme outcomes**

Programme outcomes are influenced by various factors, including policy and economic climate, program characteristics, and individual student requirements. It is crucial that program results align with the educational needs of participants to encourage active engagement and produce marketable skill sets that contribute to positive employment outcomes. Both companies and workers have a stake in the success of ITIL training and certification. Crucial for both employees and employers, the study's data collection instruments were built on the principles of career progression, wage fairness, and job performance.

**5.3 PHASE II: ADVANCEMENTS IN DATA COLLECTION TOOLS**

The researcher utilized two questionnaires, with their instrument types and respondent types detailed in Table 1 for data collection.

**Table 1: Tools created and utilized for data collecting**

Instrument No.	Type of Instrument	Respondents	Purpose
1	Questionnaire for Employees	Participants who have completed ITIL training and certifications and working in different IT organization	The purpose of this survey is to get feedback from participants about their experiences with ITIL training and certifications in terms of career progress, personal competitive advantage, and skill and knowledge development. In order to find out how well Training Methodology worked In order to find out whether ITIL certification and training has increased productivity and the success rate of implementing IT service management In order to get recommendations for making ITIL certifications and training more effective
2	Questionnaire for Employers	Companies that have invested in ITIL training and certification and are now overseeing its	The goal is to find out whether the ITIL certifications and training have really enhanced efficiency by cutting costs.

		practitioners	With the goal of identifying concrete ways in which ITIL training and certifications have benefited the company In order to gather recommendations for making ITIL certifications and training more effective
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The researcher brainstormed with trainers, workers, and employers to determine the rating scales for two tools. Based on collected inputs and the blueprint of two surveys, two instruments were developed. The instruments include closed- and open-ended questions, rating scales, and rating scales. Appendices I and II include copies of the Employee Survey and Employer Survey, detailing their structures and total items.

### 5.3.1 Structure of questionnaire for employees

The survey consists of ten questions focusing on personal traits, training methodologies, program delivery, skill development, career advancement, compensation, job performance, employee contributions, overall outcomes, and an open-ended question. Each question is evaluated using a five-point Likert scale, with "Strongly Agree" receiving five points, "Agree" receiving four, "Neutral" receiving three, "Disagree" receiving two, and "Strongly Disagree" receiving one. The survey is designed to gather valuable insights into personal traits, career advancement, compensation, job performance, employee contributions, and overall outcomes.

### 5.3.2 Structure of questionnaire for employers

The survey consists of ten sections, each focusing on personal traits, organizational productivity, career advancement, pay enhancement, job performance, training strategy, management support, networking, knowledge sharing, program effectiveness, overall outcome, and an open-ended question. Each question is evaluated on a five-point Likert scale, with "Strongly Agree" receiving five points, "Agree" receiving four, "Neutral" receiving three, "Disagree" receiving two pints, and "Strongly Disagree" receiving one spot. The survey encourages participants to provide additional comments and feedback.

## 5.4 PHASE III: CONCLUSION ON THE INSTRUMENTS' VERACITY, PILOT STUDY AND TRUSTWORTH

### 5.4.1 Validity of the instruments

Validity and reliability of variable measurements are crucial for a study to yield valid conclusions, as per Cronbach (1951) and Nunnally (1978).

- The jury's verdict confirmed the surveys' content validity. For this reason, a jury panel of seven individuals was assembled.
- Three IT multinational corporation (MNC) employees
- Two upper-level managers from IT-related multinational corporations (N=2)
- There are two ITIL trainers.
- In order to improve the instruments' content validity, they were changed according to the Jury's input.

### 5.4.2 Pilot study

To make sure a plan will work and that research instruments are relevant, a pilot study is necessary.

A pilot study was conducted with 40 workers and 30 bosses, who were given two validated questionnaires. The questions were revised based on their comments, and the results suggest that the surveys are suitable for distribution to a broader population. This pilot study is crucial for ensuring the feasibility of large-scale research.

### 5.4.3 Reliability of the research instruments

A reliable research instrument is one that consistently produces the same findings, as per Santakos (2005). The reliability of the original findings can be determined by running them through a series of tests. The "Cronbach's alpha" coefficient of internal consistency is a useful metric for assessing the reliability of a survey instrument, with a Cronbach's alpha value of 0.7 or above. Extremely high Cronbach's alpha values were seen across all constructs in the pilot study, suggesting that items were highly consistent with one another. While the value for Enhancement in Compensation was the lowest and the value for Development of Skills, Knowledge & Attitude was the highest, indicating strong dependability for the employee questionnaire.

**Table 2 Value of Cronbach's alpha for ITIL certifications and training employee constructions**

S.No.	Constructs	Number Of Statements	Cronbach's Alpha
1	Training Methodologies	5	0.91
2	Development of Skills, Knowledge and Attitude	5	0.91

3	Advancement in Career	5	0.89
4	Enhancement in Compensation	4	0.72
5	Contribution to organization	6	0.88
6	Job performance	5	0.88
7	Program Delivery	5	0.81

In order to get a better idea of how reliable the poll was, we looked at Cronbach's alpha for each component in Table 3.

**Table 3: Cronbach's alpha value for the ITIL training and certifications constructs of employers**

S.No.	Constructs	Number Of Items	Cronbach's Alpha
1	Organization's Productivity	5	0.94
2	Advancement in Career	5	0.86
3	Enhancement in Compensation	4	0.75
4	Job Performance	5	0.89
5	Training Strategy	5	0.89
6	Management Support	4	0.87
7	Networking and Knowledge Sharing	5	0.77
8	Program Outcome	2	0.79

**Employer surveys** are quite reliable, with Cronbach's alpha values between 0.75 and 0.94. Enhancement in Compensation received the lowest possible grade, while the highest is for Organization's Productivity, indicating their trustworthiness.

### 5.5 PHASE IV: SELECTION OF SAMPLE FOR COLLECTING DATA

The study's population comprises ITIL certified individuals from ATOs in Chennai, Tamil Nadu, following Sharma's 1993 guidelines. Researchers used purposive sampling to select participants, with Table 3.4 detailing the population, invited sample, and data-producing sample.

**Table 4: Populace, Invited Sample, and Data-Generating Sample Specifics**

Instrument	Population	Invited Sample	Data Producing Sample
Questionnaire for Employees	1300 (Total No. of participants trained by the ATOs in Chennai)	750 (57.8%)	287 (22.08%)
Questionnaire for Employers	590 (Employers of trained participants)	400 (67.8%)	171 (28.98%)

#### 5.5.1 Sample for questionnaire for employees

The study involved 750 ITIL training and certification employees from an IT company, selected using a purposive selection approach. Out of a pool of 1300 participants, 287 completed the survey, and the data was collected through a questionnaire for employees. The purpose of the research was to determine how useful ITIL courses and credentials are.

#### 5.5.2 Sample for questionnaire for employers

The data was collected from IT Infrastructure Library (ITIL) certification and training for supervisors and managers via an employer-facing questionnaire. Purposive sampling was used to randomly choose 400 employers from a pool of 590.

After receiving the questionnaire, 171 employers provided feedback, indicating a significant level of participation in ITIL training and certifications.

## VI. RECOMMENDATIONS AND CONCLUSIONS

### 6. RECOMMENDATIONS

The study's conclusions led to the following suggestions. Organisations (Employers), Employees, depending on the required level of participation, they are classified into three groups: and Accredited Training Organizations (ATO).

### **6.1 Recommendations to the Organizations (Employers)**

- The following suggestions are offered to businesses that have employees that have received ITIL certification and training.
- Upper-level management should be aware of the significance of ITIL training and certification. It helps improve organizational personality and workers' mental health, among other things. To get the most out of the training plan, they need to become involved themselves and inspire their staff to do the same.
- Management, seeing the value in ITIL training, should get together to determine what the company needs in criteria for training and then set aside enough money to pay for it. As part of this, you should make sure the training team has competent people on staff.
- The higher-ups in charge should talk about their past ITIL projects and what they learnt from them.
- To reduce risk and maximize worker efficiency, organisations should include certifications into their IT staff development programmes.
- In order to do their jobs well, employees need to be encouraged to participate in training programmes on a regular basis so that they may acquire new skills and improve the ones they already have.
- A system should be in place within the training department to determine how much background knowledge each potential trainee will bring to the table for each session. In this way, it is possible to assess the participant's present skill level and experience level in relation to the course requirements. Additionally, they need to guarantee that the trainees are adequately prepared for the degree of training they are enrolling in.
- These days, it's impossible to further one's career in the information technology sector without access to cross-training options. Businesses should take stock of their workers' current ITIL skill sets, compare them to what's required, and then tailor training to fill in any gaps.
- All staff should have a detailed ITIL role-based competence skill map that outlines the knowledge, abilities, and skills needed to do their jobs well. Various target groups need distinct ITIL Training and Certifications.
- After receiving ITIL training, organisations are required to provide follow-up meetings where attendees may share stories of success and failure in putting the training into practice. Participants love this emphasis on applying what they've learned, and even a short mini-session of an hour may have a significant impact.
- ITIL training and certification programmes that seek to boost individual, team, and company performance should be evaluated using a well-established and regularly updated performance management system.

### **6.2 Recommendations to the Employees**

- Training should be seen as an investment in both personal and organizational growth, so participants should:
  - Be specific about what they hope to learn and how it will help with ITIL implementations
  - Have a positive outlook on training as a whole
  - Before attending the training course, participants should discuss their expectations with their supervisors.

## **VII SUGGESTIONS FOR FURTHER RESEARCH**

- From the viewpoint of the customer (end user), the effectiveness of ITIL training and certifications may be evaluated. The development of strong customer connections might be facilitated by this by providing clients with efficient services that fulfil their demands.
- The research for this study was place in the Indian state of Tamil Nadu. The research may be replicated in other Indian states.
- look at various IT service management (ITSM) certifications and training programmes, such as ISO 9001, COBIT, FitSM, and MOF, to see how successful they are.
- By collecting information from both workers and employers, the study approach was able to accomplish its goals. To further strengthen the validity of the findings, it would have been good to gather more data via focus group interviews with workers and employers. Keep in mind that the survey's sample size does not necessarily reflect the population at large. As a representative sample, its opinions could provide a fascinating foundation for research with a larger population in the future.

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