



Article

The Effective Role of Internal Factors on Reconstructing Telecom Companies: The Case of Yemen Telecom

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Abstract: **Background:** This paper highlights the effects of internal factors on restructuring state-owned enterprises (SOEs) and investigates how these factors have positive or negative effects on applying a new structure in SOEs companies. Yemen Telecom (YT) is an example of an SOE company that belongs to the government and has a social responsibility. By following scientific theories related to research's factors, we tried to tie our hypotheses to the theories applied to make our factors near reality and be applicable in the future. **Methods:** In this study, we used empirical research by making an investigation by distributing a questionnaire amongst people who have a relationship with Yemen Telecom. Moreover, the structural equation model (SEM) was used in the current study as the statistical technique for the collected data. **Results:** The results of this study indicate that illiteracy in using the computer (IIUC) and applying the IT Software (AIS) has adverse effects on reconstructing telecom companies (RTC); also, AIS has a causality effect between illiteracy in using computers (IIUC) and RTC. Moreover, support from top management (SFTM), infrastructure (INF), and efficiency and effectiveness of managerial operations (EaE) have positive effects on RTC. **Conclusions:** This study concluded that IIUC, TMS, INF, and EaE have an apparent effect on RTC, and AIS has a causality effect between IIUC and RTC. Moreover, the study declares that there is less significance between AIS and RTC.

Keywords: reconstructing companies; top management support; applying IT software; infrastructure; efficiency and effectiveness



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1. Introduction

The unprecedented acceleration of internationalization by state-owned multinational companies (MNCs) to date has received limited research attention [1]. State-owned MNCs have been defined as “legally independent firms with direct ownership by the state that have value-adding activities outside its home country” [2]. The telecommunication sector, which is considered one of the main pillars of any society and admitted as the most profitable industry globally, is going fast through many dramatic changes in producing services. According to the world bank report in 2004 [3], telecommunications is deemed one of the three primary utility industries (water, electricity, and telecommunication) and involves the most competition. Yemen Telecom is part of telecommunication, which has become the most crucial state owned enterprise (SOE) because of its vast infrastructure and social responsibility but is lagging in terms of competitiveness and lacks sustainability. For such firms to be deemed to exist, a government entity should own at least 10 percent of the capital, be the largest shareholder, or benefit from a golden share [4]. Developing countries have been in the process of considering transforming their infrastructure to be partially or fully liberalized as a means of economic and social development for some time [5]. However, in emerging markets, governments in these countries tend to be more involved in running state-owned firms than in advanced economies [6]. The number of state-owned multinational companies (MNCs) among the largest MNCs worldwide has grown, which has increased interest in studying SOEs in the international context [7].

Over the past decade, the global economy has seen a surge in SOEs' international activities [8]. Still, SOEs face many challenges in reconstructing, like trade liberalization, banking, and SOE reform. Although extant research has extended our understanding of how various aspects of the home context and extent of state control influence SOE internationalization, our knowledge regarding how SOEs simultaneously adapt to and influence changes in the home context is limited [9]. SOEs differ from privately owned firms in terms of their governance, attitude to risk, and access to resources, but still, they remain underexplored despite their increasing global role [10]. Therefore, reforming SOEs admits the solution to any government that wants to achieve the global economy's integration and succeed Foreign Direct Investment (FDI) for their country [11].

Concerning the emerging markets, they propose that different state ownership levels modify the relationship between state ownership and the international expansion of SOEs, as relevant private owners can correct or mitigate some of the state dysfunctions in pursuing profit-oriented foreign investments [12]. Other scholars have argued that the way state ownership influences SOEs' willingness and ability to internationalize depends on the institutional settings in which they are embedded [13]. On the contrary, for most SOE companies, many problems make shareholders or decision-makers make revisions in organizational operations. Moreover, conflicts amongst management transactions cause significant SOE losses in recent years, which led many groups and corporations to bankruptcy, resulting in losses for the whole country. Therefore, this terrible situation makes SOEs restructure, and development is critical [14].

Although there is a lot of research that analyzed and investigated the influential factors that directly reflect reforming companies, this research investigates this issue. Additionally, the wave of telecommunications reform shaped to make full emergence in many developing economies spread quickly and became like a new phenomenon worldwide [15]. According to McCaig [16], growth so far has been driven by factor accumulation and structural change. Because of the telecommunications sector's speed improvement, which has increased incredibly, it gives researchers incentives to do various research to study and analyze its performance, mainly from the financial perspective. Additionally, the growth that has happened until now in a business environment has been stressed. It leads to reforming as soon as possible [17]: 150 national agencies need to reform and reconstruct their process; around 40 percent have increased since the 1990s [18]. In total, this value increased to 75 percent and more of 191 International Telecommunication Union (ITU) member countries [19]. For instance, Bortolotti has observed that the companies' financial side partially privatizes those who do full privatization. He recognized from the 31 national companies that their performance improved by making regulatory changes and following privatization policy [20]. Agiakloglou and Bloutsos (2011) studied these policies by observing the financial risk faced in several European telecommunications companies and compared their estimates with the market risk obtained by their home countries [21]. However, this SOE is suffering from various problems related to the routine and slow transaction approved by the government, which creates lots of conflicts in duties that hinder the telecommunication sector's sustainability.

The study's focus is Yemeni telecom, a public sector that belongs to the government and is known as a state-owned enterprise (SOE). The paper analyses the influence of many internal factors as mentioned below and their roles in negatively affecting restructuring telecom companies. Restructuring companies means "reconstructing or reforming current structure", such as illiteracy's role in using computers (IIUC), which many companies suffer from, and how it contributes to reconstructing telecom companies (RTC). We tried to tie this factor with scientific illiteracy and democratic theory. Another factor is investigating the role of infrastructure (INFRA) in RTC and how it fits an economic theory of infrastructure. Another factor is the role of applying information technology system (AIS) and its influence on RTC in any organization. Additionally, how is it related to the concept theory of information systems theory? The factor of efficiency and effectiveness in managerial operations (EaE) has an essential effect on RTC and how it matches with the theory of

efficiency and effectiveness, the company's top management support (TMS), and how this factor relates to RTC and its relationship with top management support (TMS) theory.

Additionally, investigating AIS's causality relation as a mediator between IIUC and RTC can apply the information systems theory (IST). This research tries to answer the questions of whether the following factors have a significant role in RTC: applying information technology (IT) systems, illiteracy in using the computer, infrastructure, top management support, and efficiency in organizational operations. Additionally, this research tries to find an answer to the question investigating the relationship between applying IT software and computer illiteracy and RTC.

Organizations cannot remain competitive with workers who merely obey orders and do not contribute to the organization through feedback mechanisms. Instead, organizational sustainability is enhanced by employees who go beyond their formal job descriptions (Mohamad 2014). One example of such proactive behavior is employee voice behavior. An organization is said to be more sustainable when its employees are highly involved in continuous change processes [22]. We discuss organizational sustainability in the following section; then, the section that follows discusses the theoretical approach of the study.

1.1. Organizational Sustainability

Sustainability is not a new concern, because since the introduction of the concept in 1987, there has been a proliferation of competing notions of it to the extent that it has become an empty box, a fragmented concept [23]. Sustainable development is considered the most desirable development in economic, environmental, and social development [24]. The concept of sustainability appeared simultaneously as sustainable development [25]. Nowadays, a large volume of documentary references is available on sustainability. Many researchers are currently developing multiple aspects within this framework that should be studied, and, academically, the discourse is clear, concise, and increasingly rigorous [26]. Sustainability has a historical development. From the original accepted use of "sustainable development", it follows that sustainability is assessing the robustness of a system over time ("without compromising future generations' ability to meet their own needs") [27]. This global experience clearly shows that the profession needs to respond to new factors, such as social, ecological, and economic sustainability [28]. After that, sustainability has often been a fundamental part of the composition of both tangible and intangible cultural resources [29].

The concepts of sustainability share several attributes with other studies' fields [30]. It is broad and complex notions used by various scientific disciplines and lay groups such as non-governmental organizations and governments, which often coin their definitions. It has been designed to frame and constitute common objectives for the international community, and, as such, it has been developed by international negotiations, although in different areas [31]. For example, Arnott argued that environmental assessments generated through some form of interaction between research and practice were more likely to be used [32]. According to Makram and abou Ouf, design for sustainability considers the impact of the environmental, social, and economic aspects on the design, which is the green design that addresses the pressing problems of environmental degradation, excessive use of scarce materials, and lack of respect for social rights [33]. This is done through (1) environmental management and conservation of resources, (2) improved wellbeing of human beings in the long term and quality of life and social cohesion, and (3) all economic benefits resulting from this and others [34]. Work environments are changing in response to rapid innovation, competition, and long-term sustainability. Due to the increasingly globalized work environment, organizations have encouraged organizations to continuously adapt, learn, and innovate for long-term survival and better organizational performance [35]. However, the transmission of this approach to professionals who must implement it or to society is still scarce [36]. Nowadays, organizations want to ensure their long-term viability to keep ahead of their competitors [37].

1.2. Theories and Hypotheses

1.2.1. Reconstructing Telecom

The word restructuring or reconstructing means in the oxford dictionary “to give a new structure to, rebuild, or rearrange”. Another dictionary defines reconstructing as a change in an organization’s business strategy resulting in diversification, closing parts of the business to increase its long-term profitability (Collins English dictionary). The institute of company secretaries of India defined corporate restructuring as changing a business’s organization. Additionally, the institute of company secretaries gave a general definition of reconstructing a company as “the process of significantly changing a company’s business model, management team, or financial structure to address challenges and increase shareholder value” [38].

In sociology and organizational studies, the institutional theory is a theory of the deeper and more resilient social structure aspects. It considers the processes by which structures, including schemes, rules, norms, and routines, become established as authoritative guidelines for social behavior. Company structure is considered as the prominent appearance that most investors may judge. Supportive of that, researchers proposed that any enterprise could be classified into three main factors: structure, process, and outcome. Each of the three elements will be divided into other activities, divided into sub-activities and functions related to their functions [39]. Reforming companies or reconstructing companies are two faces of the same coin. The reconstructing company can be expressed in many scenarios or faces. For example, others classified reforming companies into four main types of reform measures as (1) regulatory reform, (2) public-sector reform, (3) market liberalization, and (4) private sector participation [40].

Furthermore, different theories investigated creating organizational structures; one of them is the institutional theory, which aims to consider the process that followed in establishing structures and norms, followed by rules. Mohamad indicated that telecommunication is one of the most dynamic and active sectors in any country supported by the revaluation of the technology and market power [41]. Therefore, it is crucial to make it liberalized or privatized. Reconstructing telecom companies has recently become a global trend around the world. For example, in the early 1990s, many countries had partially privatized their current telecom operator (less than 40). Nevertheless, by the first of 2000, approximately half of the world had wholly or partly privatized their telecommunications entities operators. As of 2008, more than 123 out of 191 countries had a private or privatized national fixed-line incumbent.

Moreover, reconstructing a company is not only change on many sides like merging, creating new departments, etc., but it has consequences on many sides like competition, technology, people, the service of the product, markets, etc. Additionally, companies cannot accept doing restructuring without keeping developing their services, because competition will be wild. They may continue fighting to maximize shareholder value. Additionally, companies need to redesign their structures to guarantee their long-term continuity. Owners or stakeholders may try to obligate the companies to do reconstructing if they notice that the revenues are too low or the performance is not so good. Furthermore, reconstructing companies has many goals that compete to be achieved such as:

- Arranging and organizing the company’s movements.
- The excellency of using the extra money that is gained to increase profit.
- Utilizing mutual dependence between the current and the future kinds of business inside the company.
- Decreasing the risk that must be taken.
- Working on the basic workforce to become more experienced.

1.2.2. Applying Information Technology Software

The technology revolution affects many sides of our life. It has consequences that affect digital electronic culture and many different social life sides, using information technology software in organizational operations. For any entity belonging to the government's activities (SOE), which produces services to society (like Yemen Telecom), whenever you need to apply strategic management, apply several theories in planning and other activities to this concept. In this study, we will investigate the theory of information systems (technology acceptance model (TAM)) and how this theory contributes to reconstructing telecom companies. In addition to that, related to the importance of applying IT software in SOEs companies, many certain benefits could be achieved by applying the concept of using technology or applying IT software in public sides [42] as follows:

- Improving the delivery of services to both citizens and businesses by reducing cost, effort, and bureaucracy and providing several types of delivery: over-the-counter, call center, or online.
- Creating new jobs in both the public and private sectors.
- Reducing illiteracy.
- Improving the transparency of government.
- Empowering citizens and employees through better access to information.
- Enhancing the government's internal activities and processes.
- Decreasing the "digital divide" (the disparity that exists between different sectors of society and their subsequent ability or inability to access digital and information technologies).
- Affecting the growth of the knowledge-based economy.
- Making the users' feedback and the government response easier and including them in service improvements.
- Enabling information sharing between public organizations.
- Facilitating information collection used to assist individuals in making decisions concerning the government and citizens.
- Centralizing some activities, thereby reducing redundancy and cost.

Furthermore, Goksoy stressed the concept because of many criteria like the speed of rapid changes in the markets, the shorter product life cycles, and consumer's high expectations and demands, which need necessary changes within an organization's hierarchy structures, culture, and other management processes [43]. Accordingly, applying information technology software and believing in and accepting technology can be described as two faces of the same coin, which drives us to mention the literature of accepting applying technology that focuses on accepting and applying information technology software.

Different instruments have been utilized during any business, such as the perceived usefulness of technology (PU), perceived ease of use (PEOU), attitudes toward technology (ATT), technology self-efficacy (TSE), subjective norms (SN), and facilitating conditions (FC) [44]. We selected this factor regarding the importance of this factor and its effect in reconstructing any company and how it contributes to restructuring, as well as due to Yemen Telecom company's dependence on this factor and its contribution to the new hierarchy image. Furthermore, it refers to the expansion of using information technology (IT) applications in daily transactions and the consequences of the quality of services that are produced to the community.

Furthermore, the concept of computerization comes through many aspects and has become more and more popular in most companies. Most companies are trying to computerize their services and tasks. This action has many consequences on the efficiency and effectiveness inside any company through many faces like reducing the percentage of error in transactions, eliminating the percentage of corruption, and making robust monitoring systems inside the company. For instance, according to many interviews with Yemen Telecom, Yemen Telecom recently tried to make its activities automated by increasing technology consumption by applying much software purchased from external resources or made by the Yemen Telecom technical team. This policy presents Yemen Telecom's

awareness of the importance of applying information technology software and how it is crucial to make applications integrated amongst the company's departments.

Based on the importance of using the latest systems and considering it as one of the necessities in any business, any company cannot reach its goals without utilizing technology and software. According to D'Ascenzo, an organization's primary target aims to increase the quality service rate and satisfy the final customer by expanding its use of integrated systems [45].

1.2.3. Illiteracy in Using Computers

Livingstone defined media literacy as the ability to reach, investigate, study, assess, and form different messages in various fields. On the contrary, work illiteracy means the opposite of literacy, through various types like illiteracy in reading, writing, speaking foreign languages, illiteracy in using the computer, etc. Illiteracy in using a computer means a lack of knowledge in dealing with the computer. Hence, illiteracy is contrary to this literacy, which we mean by the lack of knowledge under investigation [46].

Illiteracy in using the computer has been selected for this study, because it is considered one of the practical tools that impact reconstructing any company's current structure. Additionally, this factor considers a community that suffers from a significant percentage of illiteracy in using a computer, including several Yemen telecoms companies who cannot use computer applications.

Furthermore, one of the widespread problems toward achieving automation in any enterprise is the lack of skill levels and unclear objectives [47]. There are many illiterates of its staff, even primary illiterates, or illiterate people among any organization. This kind of factor leads us to investigate the psychological elements of human beings. According to Ardila, many factors cause illiteracy in using the computer or any field of science or skills such as social circumstances including poverty, child labor, lack of schools, and disapproval of literacy in the country of origin [48]. Suppose we apply these social reasons and compare them with the spread of illiteracy in Yemen and companies like Yemen Telecom in particular. In that case, we will notice the environment with functional illiterates, and amongst its staff, illiteracy exists. Those illiterates who are staff belong to the company and cannot use computers and related applications.

1.2.4. Top Management Support

A qualified top manager has to determine a strategic vision that arranges the organization's priorities, his view for future work, a full comprehension of project developments, and predictions of potential actions during project construction and the ability to decide the right decision from alternative options between the short- and long-term benefits of the company's project and economic and social environment benefits [49]. Further, Sharma and Yetton highlighted the need for what they call "management meta-structuration" [50]. According to Sharma and Yetton, when increasing task interdependence in a project, the institutional context presents high barriers that can only be overcome by smart mechanisms such as new support structures, new performance control systems, new coordination mechanisms, and changing a performance goal [51]. In SOE companies, any modification cannot be achieved without support by top management. Yemen Telecom is one of those companies, so we selected this factor, and it is considered one of the major factors because of its direct impact on reconstructing companies. Many scholars also expressed the vital role of top management support [52,53]. Due to the political situation, Yemen Telecom is managed following a policy of risk management. As a result of this, many scientists consider that top management is a critical factor for the effective implementation of risk management (ERM). One of the crucial issues that can be taken in this type of control is reforming the current structure.

Furthermore, many research types have exceeded the effects of top management support as a variable in different contexts. Hence, they reached the conclusion that "without support, commitment, capabilities, and knowledge of the top management, and the effec-

tive implementation of risk, a management program cannot be considered as a successful business" [54,55]. It has been clarified that the concept of organizational structure and the hierarchical chain of command are logically expressed structure elements, but they are considered part of the fundamental components. It reflects the real personnel, a rank they are considered responsible for, and the file through senior management [56].

1.2.5. Company Infrastructure

Harmon and Collins mentioned how ignoring the infrastructure and capital investments will lead to many problems for any organization and may hurt process and output. Infrastructure is considered one of the main pillars of any company [57]. It contributes to any company succeeding in its activities according to management that utilizes it with the companies' management. Furthermore, it is considered one of the leading indicators or criteria of successful companies. Additionally, many studies by economists concluded that a modern telecom infrastructure impacts economic growth.

We selected this factor regarding the clearance effect of company infrastructure and its contribution to companies' improvements and the critical role of changing the current hierarchy because of the enormous size of Yemen Telecom's infrastructure and its expandability around Yemen. Therefore, we discuss that because of these reasons, researchers selected company infrastructure and tried to investigate if it affects reforming the current structure or not. The degree of domination of the performance of state-owned infrastructure is different amongst nations. In many developing and transition economies, these entities suffered from low labor productivity, deteriorating fixed facilities and equipment, poor service quality, chronic revenue shortages and inadequate investment, and severe theft and nonpayment [58]. Therefore, it is assumed that infrastructure directly affects reconstructing companies in general and telecom ones in particular.

1.2.6. Efficiency and Effectiveness of Managerial Operations

Many researchers pointed to the influential role of efficiency in service provided to final customers and its relationship with reforming companies. Many types of research implied that the concept of reconstructing companies is reforming or privatization or liberalization of the public sector and letting it work by the private sector's aspects and standards. Additionally, the researcher chose this factor and put it under investigation to ensure that organizational operations' efficiency and effectiveness have pros or cons regarding reforming the current hierarchy. Gutiérrez discovered a robust relationship between efficiency and competition, while privatization had a significant impact when it dealt with regulation [56]. Additionally, during the last twenty years, many researchers made many types of research on the effect of telecom companies' performance by focusing on many scenarios through business life like liberalization, privatization, and regulation, and their impact on telecom business [59–64].

1.2.7. Illiteracy in Using the Computer and Applying Information Technology Software

In the past, many questions produced many interpretations about the relation between illiteracy in using the computer and applying information technology software. Different definitions are also given, ranging from technological (computer literacy can use computers) to optimistic.

"The term literacy is shorthand for a cultural optimum as eclectic as economic development, personal fulfillment, and individual moral fortitude" [65]. Schwab identified a mediator as a variable between the independent and dependent variables in a causal relationship [66]. In this paper, we consider applying the information technology software (AIS), which is considered the activity of using software inside the company's departments as a mediator, which has a causality result between illiteracy in using the computer (IIUC) and reconstructing telecom companies (RTC). Therefore, applying the information technology software affects RTC and has antecedents affected by IIUC. Because of

the importance of systems in any company, implementing systems significantly help to facilitate transactions.

Moreover, it is considered one of the assets in any organization. The most information technology systems that are installed and used in any environment would be the most arranged. Therefore, in the following subsection, we elaborate the internet financial report, provide support for training how the system is issued in the organization, and formulate the article's hypothesis.

Internet Financial Report

Internet financial reports (IFR) are now being recognized as an essential tool for businesses to advance communication with stockholders, thereby reducing costs, time, and information irregularity, to display the image of a firm more transparently [67,68]. The online financial report is a technique or system of voluntary reporting that deals with creating and offering extra information that comes in the non-financial and financial form to stakeholders that possesses a kind of user-support traits and technologies that facilitate the uses of an organization's website on the Internet [69].

The study discloses that an internet financial report is a form of extensive research, which frequently achieves enormous success. However, it is likewise affected by several constraints like cultural, institutional, social, and legal factors that equally affect its popularity. In addition, Moradi and Arianpoor added that powerful and larger corporations mostly record information on their financial report on the websites with a highly focused proprietorship system with more international investors than companies that depend on the Internet [70,71].

Firms do not depend on individual traits for the view of reproducing their financial information on the internet; as an alternative, they focus on the level of effects and relations existing among fixed attributes, the kind of industry, and its state [72]. Establishing and generating useful information and insight for investors is the primary purpose of financial reporting. Meanwhile, US FASB offers that it should establish helpful information and ideas for stakeholders, creditors, and others as enshrined in its conceptual model in preparing financial reports. Investors' demands should be satisfied by confidence-building companies and investors to upsurge and accelerate transparent financial information speed within a short time [73]. One of the general papers reported more informal, direct, and frequent communication between the management companies and a majority among investors; users should be provided with different financial reports by companies audited and consolidated [74]. Libraries or analysts' reports have limited information from the financial statements during the annual reports printed, giving access to yearly reports [75]. Presently, companies' financial reports can be swiftly published by businesses, which can be achieved by adopting paper reports or several electronic or digital tools [76]. Due to the increased global demand for commercial communications, there has been a surge in corporate institute responsibility's social and political needs and a sudden desire to incorporate information [77]. By the middle of the 90s, with the increased search for alternative and effective communication means in cost, big firms have diverted enormously to the Internet [78]. Thus, the use of the Internet has considerably affected corporate reports by companies [79]. Indeed, it is very much understood that both non-financial and financial statements, the internet, are perceived to be a productive means of communicating reports [80].

IFR means the system or procedure of using firms' internet sites to share information based on their financial performance. Indeed, the internet has become a protuberant means of interacting with a company's financial performance for investors with several electronic means [81]. In dispensing or distributing financial information, the internet is famously acknowledged as an extensively used means. Boesso and Kumar documented it as prevalent in private and public and other businesses and institutions [82]. Additionally, to facilitate transparency in operations and activities, joint-stock companies utilize the internet to deliver valuable information, both non-financial and financial [83]. In investigating the essential use and role of the internet, it has enabled universal distribution of information,

thereby allowing better-quality information and financial information availability, thus inspiring investment [84]. Considering this, analysts and investors have become familiar with utilizing the company's websites to gain the required and necessary information [85]. The studies studied above indicate that the internet has become prominent and universally used as a platform for users to seek an enormous amount of information. Accordingly, the internet's innovation is a sophisticated medium of communications and access to non-financial and financial information. Thus, the internet is a subject of increasingly popular search [86]. The cumulative adoption and the utilization of the internet to distribute corporate financial information and establish yearly reports and IFR conduct complexity vary across states [87].

Internet financial reporting (IFR) literature has been increasing exponentially and continues to rise exponentially [88]. IFR has developed a controlling subject of consideration among numerous academics. Most explicitly, the researchers acclaimed the literature review characteristics in research, supporting that assessment [89]. As Yemeni Telecom became a powerful internet tool for telecom, IFR progresses in recent times have turned out to be useful not only to most Western countries [90]. Additionally, the internet holds the capacity to transform the financial reports system. Companies can incorporate regular yearly reports and financial information, not additional funding, in several arrangements [91].

IFR tends to be modern technology, made known to financial reporting [92]. However, for the past few years, there has been a surge in the number of empirical studies shown on IFR unveiling the continuous development in this system of distributing information [93]. It is an outstanding and attractive research subject, as it is going rampant [94]. Additionally, with its flexibility in formatting, it appears to be more cost-effective, faster, and mostly available to various interested users locally and internationally [95]. Thus, in the past decade, loads of IFR research have surfaced. Studies encountered previously were shown between 1996 and 1997, which began a year after the universal corporate attention on the internet became an advertising medium and mechanism [96]. The primary sources also include a literature review of various national and international websites and magazines [97]. This trend in studies performed by the global Accounting Standards Board deals with areas like the formulas implemented to publish annual reports on the internet and inventory accessibility in real-time news and press statements [98].

Furthermore, researchers performed the role of researching previous criticism in the literature reviewed, which plays a significant role in the research process of this study supported by the assessment [99]. Therefore, it can be said that the emergence of the internet with the growth and increase in the expansion in the utilization of information technology for the preparation of financial reports was a necessity for massive growth in the amount of academic research in this area [100]. Furthermore, infrastructure has been admitted as one of the factors that most makes value for a company; it helps significantly for good reflex reputation and financial value for any organization. Moreover, it facilitates to arrange the internal structure or modify it. Therefore, we assume that:

Hypothesis 1 (H1). *There is a significant relationship between applying IT software and reconstructing companies in Yemen Telecom.*

Hypothesis 2 (H2). *There is a direct relationship between illiteracy in using the computer and reconstructing telecom companies.*

Support of Training for the Influence of IT

In terms of the associations of affective organization commitment and perceived support for training, affective commitment employee's attachment and loyalty with their work and with their manager and supervisors, and affective organizational commitment, the employee always reacts positively towards their organization in any situation [101]. Chiaburu and Tekleab defined training as a planned intervention designed to enhance the determinants of individual job performance [102]. Experiences of how officers are managed were found to have the most decisive influence on their organizational com-

mitment, while job-related variables were less influential [103]. According to Lok and Crawford, supportive cultures have positive effects on commitment [79]. Researchers using organizational commitment as a moderator of training on service performance revealed that perceived support for training had impacted organizational commitment [80]. Training is related to the skills necessarily taught by an organization's organization; the organization members must acquire them to improve its probability [81]. Employees who perceive that their organization supports upgrading and skill development to find better solutions to work-related problems feel obligated to display a higher level of commitment towards their organization [81]. In his study of "the association between training and organizational commitment", Bartlett found a direct relationship between support for training and employees' levels of affective commitment [83].

Further, studies found that support for training program participation influenced employees' behavior toward training, ultimately leading to a higher commitment level [84]. For example, an earlier study exhibited that the effects of personality, climate, and age on training outcomes were only partially mediated by self-efficacy, valency, and job involvement [85]. However, in the more recent results of their study of "the relationship between training inclusiveness and organizational commitment", Ehrhardt found supporting evidence for a direct relationship between perceived training comprehensiveness and organizational commitment [86]. In almost all cases, support for training is an essential component of organizational commitment. For example, study results revealed that training positively affected employee commitment [87]. A more recent study showed that perceived supervisory support for training was positively related to organizational commitment's affective and normative components [88]. Moreover, an investigation showed the connections between employees' perceived supervisor support for training and affective organizational commitments [89]. Any change or reform cannot exist without the awareness of its management, so we suppose support from top management support has an essential effect on moving to any new hierarchy. Because we suppose that illiteracy in using the computer (IIUC) hurts reconstructing telecom companies, which leads to making transactions in any company more sophisticated, this action has terrible consequences on its performance. As we know, every company's efficiency is required, and every management tries to catch this concept and make it applicable. Therefore, we suppose this concept is directly affecting moving to the new hierarchy, or it contributes to making reform of the current structure.

Hypothesis 3 (H3). *There is a significant relationship between support from senior management and reconstructing companies.*

Hypothesis 4 (H4). *There is a significant relationship between infrastructure and reconstructing telecom companies.*

Researchers aimed to uncover the psychological factors that influence IT adoption behavior, as well as approve whether literacy and digital skills have moderator effects on what they did, for example, [90]. For example, Yu et al. showed that ICT adoption behavior is moderated by information literacy and digital skills [91]. Therefore, we suppose that illiteracy in using the computer (IIUC) harms reconstructing telecom companies, making transactions in any company more sophisticated have terrible consequences on the company's performance. There is an apparent effect on making new structures. At the same time, it is affected by the rate of illiterate people who cannot use computers or illiteracy in using a computer that exists. Therefore, these issues are contributing to each other and drive us to the next hypothesis; regarding previous cases, it has been clear that applying IT on various sides has been proposed. Therefore, we hypothesize that:

Hypothesis 5 (H5). *There is a significant relationship between the efficiency and effectiveness of the managerial operations and reconstructing telecom companies.*

Hypothesis 6 (H6). *Applying IT software has a mediating effect between illiteracy in using a computer (IIUC) and reconstructing telecom companies.*

2. Materials and Methods

2.1. Data Collection

For this investigation, we used empirical research (quantitative approach) by using the questionnaire method. According to many types of research, the questionnaire is more appropriate, especially for studies that contain intangible variables that cannot be directly observed such as views, opinions, perceptions, and feeling of the respondents. Such information is collected using questionnaires [90–93]. When the respondents answered research questions by following the five-point Likert scale, they could denote their level of agreement or disagreement on a symmetric agree–disagree for the clauses used in this investigation [94]. As part of the reconstructing hierarchy of Yemen Telecom (YT), this research investigates the internal factors that affect reconstructing the YT company. According to the Yemen telecom staff, the target is 378 employees; we have distributed 600 questionnaires. We received 496 surveys, and the deleted respondents are 29 surveys. There are 467 valid surveys. The remaining surveys (104) are wasted surveys.

The researchers used a statistical analysis AMOS technique for windows (IBM*SPSS *Amos LP, version 25). A chi-square test was used to examine the differences in the factors that are under investigation. Structural equation modeling (SEM) was used to evaluate the synergic relationship between illiteracy of using the computer, applying IT software, infrastructure, support from top management, efficiency and effectiveness, and reconstructing telecom companies. In our following model, we will apply the multiple regression method for the equation to investigate the relation between the dependent variable and the independent variables [95].

$$RTC = \beta_0 + \beta_1 IIUC + \beta_2 AIS + \beta_3 TMS + \beta_3 INFRA + \beta_4 EaE + \mu$$

RTC: Reconstructing Telecom Companies, IIUC: Illiteracy in using the Computer, TMS: Support from top management, INFRA: infrastructure, EaE: Efficiency and effectiveness of managerial operations, μ : error coefficient.

2.2. The Study Framework

Depending on the previous literature, the study variables were selected, as presented in Figure 1. Various theories like the theory of information systems, the theory of scientific illiteracy and democracy, the theory of top management support, the economics of infrastructure, and the theory of efficiency and effectiveness are used to develop a research model. The model is used to explain the relationship between the dependent variable (reconstructing telecom companies), the independent variables (illiteracy in using the computer, support from top management, infrastructure, efficiency and effectiveness in organizational operations), and the mediating variable (applying IT software). These match with Bhaskar, Fabrizio, and Nguyen and are interpreting the transaction of moving to the new structure, or they are contributing to reconstructing the current hierarchy [96–99].

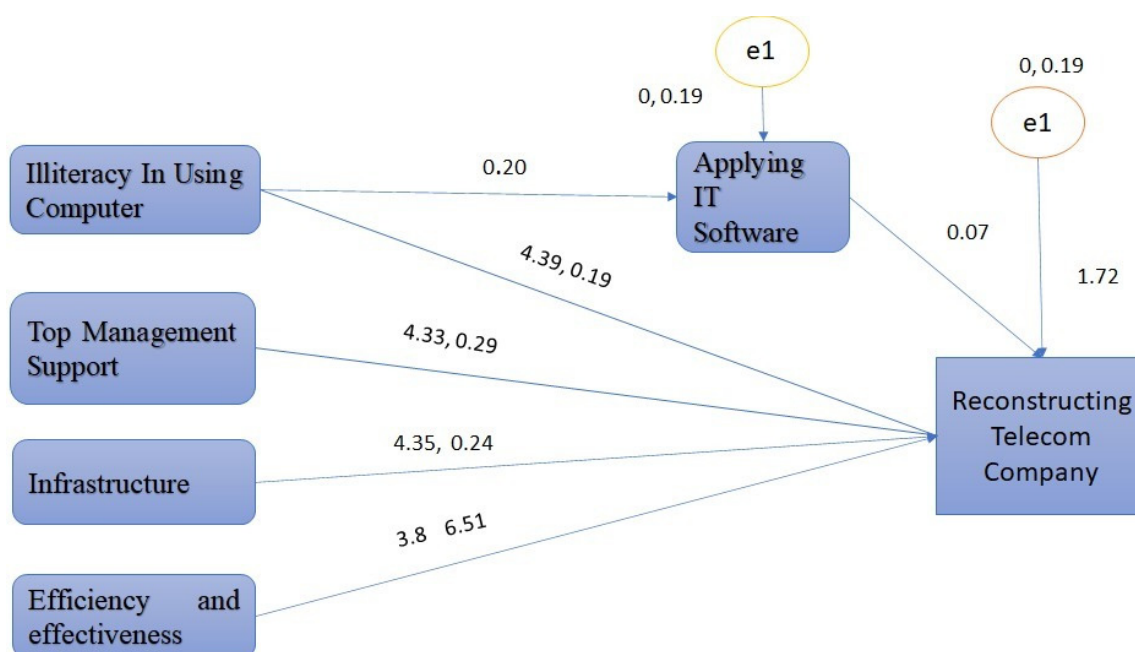


Figure 1. Conceptual framework. Sources: author's own research framework.

3. Results and Data Analysis

3.1. This Section Presents the Detailed Views of the Research Results and the Section That Follows Will Provide the Analysis

Table 1 shows the details of observed endogenous and exogenous variables in the model.

Table 1. Model Fit Summary.

Observed endogenous variables	Mean Applying Information Technology
	Gather Dependent Variables
Observed exogenous variables	Mean Illiteracy
	Mean Infrastructure
	Mean Support
	Mean Efficiency Eff
Unobserved exogenous variables	e1
	e2
Number of variables in your model	8
Number of observed variables	6
Number of unobserved variables	2
Number of exogenous variables	6
Number of endogenous variables	2

The table below shows the parameter summary of the model. There is a variance-covariance relationship with mean with 2 and 4 for both fixed and unlabeled, respectively.

Table 2 shows the percentage of each of the variables studied: 11.6% of the sample show the importance of applying information technology within the telecom company, 0.9% shows the illiteracy, and 2.8% infrastructure, respectively.

Table 2. Parameter Summary (Group number 1).

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	2	0	0	2	0	4
Labeled	0	0	0	0	0	0
Unlabeled	6	0	6	4	2	18
Total	8	0	6	6	2	22

Table 3 shows estimates of regression weights of our case factors under investigation according to the case study.

Table 3. Regression Weights: (Group number 1—Default model).

			Estimate	S.E.	C.R.	<i>p</i>	Label
Mean Applying Information Technology	←	Mean Illiteracy	0.201	0.046	4.325	***	par_1
Gather Dependent Variables	←	Mean Applying Information Technology	0.073	0.046	1.572	0.116	par_2
Gather Dependent Variables	←	Mean Illiteracy	0.123	0.047	2.597	0.009	par_4
Gather Dependent Variables	←	Mean Infrastructure	0.089	0.041	2.204	0.028	par_3
Gather Dependent Variables	←	Mean Support	0.197	0.037	5.337	***	par_5
Gather Dependent Variables	←	Mean Efficiency Eff	0.157	0.028	5.602	***	par_6

Note: *p*-value *** shows the regression weight for MeanIlliteracy in predicting MeanApplyingIT is significantly different from zero at the 0.001 level. In another explanation, we can say the probability of getting a critical ratio as large as 4.325 in absolute value is less than 0.001.

Table 4 shows the significant level of the relationships between illiteracy, infrastructure, top management support, and efficiency and effectiveness, and group number 1—default model.

Table 4. Means: (Group number 1—Default model).

	Estimate	S.E.	C.R.	<i>p</i>	Label
Mean Illiteracy	4.394	0.020	219.898	***	par_7
Mean Infrastructure	3.354	0.023	146.917	***	par_8
Mean Support	4.328	0.025	172.560	***	par_9
Mean Efficiency Eff	3.856	0.033	116.534	***	par_12

Significant level *** $p < 0.01$.

Table 5 shows the intercept of group number 1—default model and applying information technology as well as the gathered dependent variables.

Table 5. Intercepts: (Group number 1—Default model).

	Estimate	S.E.	C.R.	<i>p</i>	Label
Mean Applying Information Technology	3.387	0.205	16.522	***	par_10
Gathered Dependent Variables	1.717	0.349	4.914	***	par_11

Significant level *** $p < 0.01$.

Table 6 shows the variances of illiteracy, infrastructure, support, efficiency, and effectiveness as well as group number 1—default model.

Table 6. Variances: (Group number 1—Default model).

	Estimate	S.E.	C.R.	<i>p</i>	Label
Mean Illiteracy	0.186	0.012	15.264	***	par_13
e1	0.187	0.012	15.264	***	par_14
Mean Infrastructure	0.243	0.016	15.264	***	par_15
Mean Support	0.293	0.019	15.264	***	par_16
Mean Efficiency Eff	0.510	0.033	15.264	***	par_17
e2	0.186	0.012	15.264	***	par_18

Significant level *** $p < 0.01$.

Table 7 shows the minimization history of the error terms and default model.

Table 7. Minimization History (Default model).

Iteration	Negative Eigenvalues	Condition #	Smallest Eigenvalue	Diameter	F	NTries	Ratio
0	e	0	2666.898	9999.000	8011.277	0	9999.000
1	e	0	3805.568	0.873	2514.052	6	0.000
2	e	0	3602.308	0.512	1000.218	2	0.000
3	e	0	2600.632	0.184	399.635	1	1.254
4	e	0	1947.757	0.196	159.002	1	1.280
5	e	0	1698.958	0.175	59.446	1	1.262
6	e	0	1698.292	0.143	26.333	1	1.223
7	e	0	1759.888	0.096	19.699	1	1.146
8	e	0	1705.515	0.033	19.268	1	1.050
9	e	0	1705.657	0.003	19.266	1	1.004
10	e	0	1774.573	0.000	19.266	1	0.999

3.2. Analyze Technique

Figure 1 presents the diagram developed to examine those associations. As described in the introduction, we based our diagram on the study [100]. We use SEM, because it is one of the latest techniques used to analyze the covariance between variables. Moreover, the SEM technique is a professional technique that measures the relationship between variables. Additionally, SEM can deal with the collinearity between the independent variables and analyze the degree of variance between variables. We used the maximum likelihood for missing values (MLM method), which does not exclude a participant in the analysis because of a missing value in one of the variables. Thus, we avoided selection bias in our study.

Table 8 shows the total model fit summary.

Table 8. Total Model Fit Summary.

CMIN						AIC					
Model	NPAR	CMIN	DF	<i>p</i>	CMIN/DF	AIC		BCC			
Default model	18	19.266	9	0.023	2.141	55.266		55.815			
Saturated model	27	0.000	0			54.000		54.824			
Independence model	12	114.146	15	0.000	7.610	138.146		138.512			
Baseline Comparisons						Parsimony-Adjusted Measures					
Model	NFI Delta1		RFI rho1		IFI Delta2	PRATIO	PNFI	PCFI			
Default model	0.831		0.719		0.902	0.600	0.499	0.538			
Saturated model	1.000				1.000	0.000	0.000	0.000			
Independence model	0.000		0.000		0.000	1.000	0.000	0.000			
NCP		FMIN		ECVI							
Model	NCP	LO 90	HI 90	FMIN	F0	LO 90	HI 90	ECVI	LO 90	HI 90	MECVI
Default model	10.266	1.293	26.946	0.041	0.022	0.003	0.058	0.119	0.099	0.154	0.120
Saturated model	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.116	0.116	0.116	0.118
Independence model	99.146	68.839	136.938	0.245	0.213	0.148	0.294	0.296	0.231	0.378	0.297
Model	RMSEA	LO 90	HI 90	PCLOSE	HOELTER 0.05	HOELTER 0.01					
Default model	0.049	0.018	0.080	0.464	410	525					
Independence model	0.119	0.099	0.140	0.000	103	125					
Model	RMSEA	LO 90	HI 90	PCLOSE	HOELTER 0.05	HOELTER 0.01	Minimization	Miscellaneous	Bootstrap	Total	
Default model	0.049	0.018	0.080	0.464	410	525	0.064	0.302	0.000	0.366	
Independence model	0.119	0.099	0.140	0.000	103	125					

Additionally, five indices were used to evaluate the goodness of fit of the models. These indices are chi-square (χ^2), comparative fit index (CFI), non-normed fit index/Tucker–Lewis index (NNFI/TLI), root mean square error of approximation (RMSEA), and the standardized root/means square residual (SRMR). Chi-square is the only one that provides evidence of statistical significance [96]. The other indices are interpreted relative to the standard “rules of thumb” [97]. According to our research and referring to Figure 1, we reached the result shown in Table 9.

Table 9. The result of measurement model (Goodness-of-fit indices).

Indicators	χ^2	d.f	R ² /df	p-Value	PCFI	CFI	IFI	TLI	RMSEA
Acceptable value			<5	>0.05	>0.5	>0.8	>0.8	>0.5	<0.05
Results	19.266	9	2.144	***	0.538	0.896	0.902	0.827	0.049

Note: *p*-value *** shows that the relationship in our model are statistically significant and may consider a perfect fit model. Moreover, the goodness of fit-indices (GFI) measures fit between the hypothesized and observed covariance matrix, especially that the other values are standard. In our study, the estimated values of PCFI, CFI, IFI are perfect fit. Also, TLI and RMSEA are a good fit. That means the confirmatory factor analysis (CFA) is successful.

According to the table’s values (1), the value of Chi-square is 19.266, which is considered an accepted value. Additionally, the probability level = 0.023, which means that our hypotheses are accepted and the null hypothesis is rejected. Moreover, the ratio of root mean square error (RMSEA) shows that the percent from our model equaled RMSEA = 0.049, which is acceptable and between $0.05 < \varepsilon \leq 0.1$. Comparative fit index (CFI) means the rate of the degree of freedom (df) of the researcher’s model and comparing it with the zero models for the null model [98].

In our model, the CFI value is (0.896), which is considered an acceptable rate. Moreover, parsimony comparative fit index (PCFI), used to simplify the comparing ratio, equaled 0.538. Figure 1 shows the relations between variables and the outputs that have been calculated by AMOS software. Another ratio is the Tucker and Lowis index (TLI), which resulted in TLI = 0.827. Another ratio is the normed fit index (NFI), which equaled NFI = 0.831. Moreover, the increment fit index equaled IFI = 0.902. Hence, we consider that our model is sound and fit with data.

3.3. Hypotheses Testing

These results show that there are robust relationships between the independent variables, which are the illiteracy in using the computer (IIUC), top management support (TMS), infrastructure (INF), efficiency and effectiveness (EaE), and reconstructing telecom companies (RTC). Moreover, applying the IT software has a causality effect between the illiteracy of using computers and RTC. The researchers found that the result of the questionnaire outputs matched or agreed with the research’s hypotheses, as declared in Table 10 as follows:

Table 10. The regression weight amongst variables.

Hypotheses	Exog.	End.	Estimated	C.R	p-Value	Status	Result
H1	AIS	RTC	0.073	1.572	0.116	Less Sig.	Not supported
H6	IIUC	AIS	0.201	4.325	***	Sig.	Supported
H2	IIUC	RTC	0.123	2.597	0.009	Sig.	Supported
H3	TMS	RTC	0.197	5.335	***	Sig.	Supported
H5	EaE	RTC	0.157	5.602	***	Sig.	Supported
H4	Infra	RTC	0.089	2.204	0.028	Sig.	Supported

Note: the *p*-value (***) between IIUC and AIS is a significant relationship. This means, the value *** supports H6 and rejects null hypothesis. Moreover, that is a prove that suppose that applying IT software (AIS) has a mediating effect on Illiteracy in using computer (IIUC).

For the first and sixth hypotheses, the aim was to measure the effect of applying IT software on reconstructing telecom companies and the causality of applying IT software between illiteracy in using the computer and reconstructing telecom companies. The respondents expressed their opinions about this issue. They represented the highest value (T-value) to the question that said IT systems help shortcut many routine procedures and facilitate reconstructing the current hierarchy. Most of the respondents have agreed with the influential role of applying technology to reconstructing companies. The analysis results have shown a mean of 4.27, implying 85.4% of the respondents supported the hypothesis.

In contrast, the lowest value supports our hypotheses, which strongly disagrees with the question that using IT software is an extra cost that the company affords. These outputs have a clear impact on supporting our hypothesis. On the contrary, the *p*-value noticed from AMOS software of regression weight shows a value of (0.116), which means less significance. Therefore, this value shows little or no evidence against H0, which means applying the IT software has little effect on reconstructing telecom companies, which contrasts with our hypotheses. On the contrary, the *p*-value shown from the regression weight shows a strong relationship between illiteracy in using the computer and reconstructing the telecom company. This value is expressed as (***), which means high significance.

To conclude the respondents' views, it is clear that the respondents supported the sixth hypothesis (H6) that said applying IT software has causality results between illiteracy in using the computer and reconstructing companies. This clearly shows the percent of 94.4% of respondents. In contrast, applying IT software has a fragile effect on reconstructing companies against the second hypothesis. This result may be because of misunderstanding from the respondents in Yemen telecom company or maybe mysterious and confused questions made by the researchers.

Moreover, there are few examples of this diversity. Ritter stressed the most robust relation between attitudes toward technology (ATT) and usage intentions ($\beta = 0.61$) [99]. In contrast, Schepers identified a weak relation ($\beta = 0.16$) [100]. Additionally, Zhang did not find enough significant relation between perceived usefulness (PU) and usage intentions ($\beta = 0.07$) [101]. On the other hand, King represented a robust, positive relation ($\beta = 0.51$) [102].

For the second hypothesis, the respondents' opinions suppose that illiteracy in using the computer has a negative effect on reconstructing telecom companies. This scope analyzes the negative effect of illiteracy in using the computer on reconstructing companies and the effect of the same factor on applying IT software. Additionally, this scope tries to explain or prove that applying IT software has a causality between illiteracy in using the computer and reconstructing companies, which we mentioned in the first hypotheses.

Respondents put their opinions through the questionnaire, which reflects the agreement to this hypothesis, which supposed that illiteracy has an apparent negative effect on reconstructing a company; the mean of this scope refers to a high significance, which is 4.39, which equals or represents 87.80% of respondents' ideas with our hypothesis. Moreover, the question investigating the relationship between illiteracy in using the computer and applying a new hierarchy shows high significance. Many respondents think there is no relationship between illiteracy and applying a new hierarchy.

Furthermore, the last question of this scope clearly shows this result, which represents strong agreement with the question that said there is no relationship between illiteracy in using the computer and applying information technology software; for this question, the respondents give a mean of 4.41, which means 86% of data. Moreover, for the question that investigates the relationship between applying IT software and reconstructing telecom companies, the respondents gave the same percent to this question, 86%, which proves again that there is a causality result between IIUC and RTC (H1).

Moreover, the *p*-value that resulted from AMOS software of regression weight shows a value of (0.009), which means extreme significance. Therefore, this value shows evidence

against H0, which means illiteracy in using the computer affects reconstructing telecom companies, which agrees with our hypotheses.

Bowling analyzed the impact of entry liberalization and privatization on productivity, prices, and telecom services quality in 23 OECD countries between 1991 and 1997 [37]. The study results indicated that competition brings about productivity and quality improvements, whereas privatization does not significantly impact performance [37]. We conclude that most of the respondents support our hypothesis that supposed the negative effect of illiteracy in using the computer on reforming the current hierarchy.

The third hypothesis investigates the role of support from top management in reconstructing telecom companies. Most of the respondents agreed with our hypotheses, which argued that the companies reconstructing will face many barriers and obstacles without support from the company's senior management. Additionally, surveys clearly show the awareness of the importance of modifying the current hierarchy. Moreover, the respondents strongly agreed that the top management is applying a new hierarchy gradually. Furthermore, respondents support the argument that management facilitates and guarantees smooth moving to the new hierarchy structure. Therefore, the respondents give the highest value to this question and give the lowest value to the point that said the top management could delay reconstructing for any reason that may exist.

Moreover, the *p*-value that resulted from AMOS software of regression weight shows a value of (***), which means extreme significance. Therefore, this value shows evidence against H0, which means top management support affects reconstructing telecom companies, which agrees with our hypotheses. We conclude that most of the respondents support our hypothesis that supposes the positive effect of top management support on reforming the current hierarchy.

For the fourth hypothesis that investigates the relationship between infrastructure and reconstructing telecom companies, the questionnaire's outputs show that 3.35 (67%) of the respondents thought that there is a relationship between the infrastructure and reforming the company's hierarchy. Moreover, the *t*-test table's value shows a high significance and reliable data, 72.1117, which is greater than 1.962.

Moreover, the *p*-value that resulted from AMOS software of regression weight shows a value of (0.028), which means a high significance. Therefore, this value shows evidence against H0, which means infrastructure affects reconstructing telecom companies, which agrees with our hypotheses. Therefore, we conclude that infrastructure affects reconstructing telecom companies.

The fifth hypothesis supposes that the efficiency and effectiveness of the organizational operations affect reconstructing telecom companies. The majority of respondents gave a mean of 3.86 of supporting this factor and its impact on reconstructing telecom companies, which means (77.2%) support our hypothesis and believe that managerial efficiency and effectiveness have a pioneering role in reconstructing telecom companies. Furthermore, the value obtained from *t*-test analyses showed a value of 34.586, which is higher than 1.962; this reflex data appeared reliable.

Moreover, Powell discussed the effect of working with computers and how it affects a person's psychology and reduces computer anxiety. This study showed the correlation between computer experience and efficiency when using a computer or without using computers. In-depth research analyzes "computer anxiety" using previous meta-analyses, which found the fear of using the computer, which causes what we call computer anxiety. This concept is correlated with a lack of experience working with computers, reducing anxiety, and improving performance when using them. Moreover, the *p*-value that resulted from AMOS software of regression weight shows a value of (***), which means extreme significance. Therefore, this value indicates that there is evidence against H0, which means efficiency and effectiveness affect reconstructing telecom companies, which agree with our hypothesis.

4. Conclusions

This study has shed some light on the empirical association of constructing a telecom company, IT software, infrastructure, as well as efficiency and effectiveness. By analyzing the Yemen Telecom company's collected data, we can conclude that many internal factors facilitate moving to any new hierarchy; however, other factors may delay moving to achieve reconstruction, like computer illiteracy, which implies a lack of mandatorily required skills.

The result reveals that constructing telecom and IT software are positively related. Further, constructing telecom and infrastructure are positively associated. Furthermore, constructing telecom and efficiency and effectiveness are positively associated, and their results are supported. Hence, computer literacy and applying information technology software are firmly integrated and cannot dispense with each other. Support from top management is the critical point to facilitate moving to the new hierarchy. Moreover, it is a crucial factor in any progress of any organization. Infrastructure is an important factor to make any change in companies' hierarchy. Furthermore, the efficiency and effectiveness of managerial operations have apparent effects on reconstructing telecom companies.

5. Limitations, Further Studies, and Recommendations

This study considers several factors that may enrich the relationship between the internal factors and their roles in reconstructing companies, especially telecom ones, and can be applied in reality. On the other hand, it is considered limited, and it needs more investigations of the other SOE companies besides telecom ones. Additionally, it is noticed that the study is discussing part of those internal factors. Many internal factors were not covered by this research, such as culture, resistance to change, professional level, size of the company, staff skills and experiences, total quality management, expanding the current hierarchy, and staff training.

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