

## Mediating Role of Innovation in Strategic Human Resource Development and Organizational Performance a case of Ethio-Telecom, Afar District

By

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### Abstract

*This research examines the link among strategic human resource development, innovation, and Ethio-Telecom performance a case of Afar District, Ethiopia. Both Primary and secondary data were used in this study. The investigator employed quantitative approach. To collect data from respondents, structured questionnaire was utilized. Target population of current investigation comprised of 668 employees working in Ethio-Telecom, Afar District. By using stratified sampling techniques with the support of Yamane 1967 formula, 251 participants were included in the investigation. Structural equation modeling was used along with EFA along with CFA to analyze data. The outcome of investigation indicated that strategic human resource development has significant direct influence on Ethio-Telecom performance. In addition to this strategic human resource development can enhance innovation which impacts performance of Ethio-Telecom in turn. In this investigation, innovation was found to be partial mediator in the association. The findings of this investigation conveyed the importance of innovation to enhance Ethio-Telecom performance. The report emphasizes how innovations as well as strategic human resource development are intertwined in to enhance Ethio-Telecom performance. Ethio-Telecom better execute novel processes and adapt to the market requirements by cultivating innovation. The research's results advance the theoretical comprehension of strategic human resource management and provide useful advice for Ethio-Telecom to improve their organizational performance while preserving their innovation over the long run.*

*Keywords: Strategic human resource development, organizational performance, Innovation, Ethio-Telecom*

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## 1. Introduction

Over past decades, organizations have been focusing on strategic human resource development to enhance organizational performance. Both developed and developing nations become competitive by focusing on strategic human resource development that fosters employee growth and aligns workforce capabilities with business objectives for sustainable success (Mukhuty et al., 2022). Africa has experienced tremendous growth in telecommunications as telecommunication companies started using strategic human resource development. The focus of nations on innovativeness of telecommunication bolsters the Ethio-Telecom as an emerging paradigm of services. Ethio-Telecom is considered strategic human resource development currently that concurrently fulfills the requirements of customers and promotes innovation and organizational performance (Fikadu, 2023).

The term "strategic human resource development" refers to the ongoing process of promoting skills and knowledge, as well as competencies of employees to boost growth and organizational performance. Its primary goal is to align employee capabilities with organizational objectives, fostering innovation and improving overall performance (Al Armoti et al., 2023; Yorks et al., 2022). This model focuses on lifelong learning and building workforce skills, which brings about organizational success later. Recent research (Rustam et al., 2024; Alolayyan et al., 2021; Bahri, 2025) states that the adoption of strategic human resource development does not only positively impact organizational performance: it also leads to innovation, which allows responding to the growing number of challenges successfully.

To address the market dynamics, Ethio-Telecom is currently implementing structural changes to achieve operational efficiency, better service delivery, and improve adaptation to the market dynamics (Redahegn, 2023). Through strategic human resource development, Ethio-Telecom can attain organizational performance and make improved services to its consumers through innovation. Companies that emphasize strategic human resource development can develop capabilities of employees, achieve innovation, enhance performance as well as gain a competitive advantage (Khemraj, 2023). They will be able to offer specific training, promote a learning culture and match skills and strategic go (Kareska, 2023). Through strategic human resource development, Ethio-Telecom play a role in the national economy, showing their desire to be innovative and solve the emerging issues of buyers and stakeholders about technological innovations (Alfawaire and Atan, 2021).

Ethio-Telecom has to take the initiative of strategic human resource development and innovation to attain organizational performance and promote service delivery (Agustian et al., 2023). Since Ethiopia is a century old and Etisalat is its only telecommunications company, Ethio-Telecom is already struggling with the entrance of Safaricom in October 2022, which is the first privately owned operator in Ethiopia. This transformation brought in terms of competitive prices and new services, which increased connectivity and customer experience (Mahmood & Khan, 2023). Ethio-Telecom should focus on strategic human resource development to train employees and become innovative to compete successfully with Safaricom (Solomon, 2023; Fikadu, 2023). Although the existing literature gave a contradictory impression on the relationship between strategic human resource development and organizational performance, the recent study shows its positive correlation with innovation and performance in Ethio-Telecom (Mukhuty et al., 2022).

Based on Zeleke, (2024) there is praising interrelation among strategic human resource development and innovation in Ethio-Telecom. As Ali et al., (2024) organizational performance as well as innovation are directly impacted by strategic human resource development. Similarly, strategic human

resource development had a favorable influence on innovation and organizational performance in telecommunications (Al-Faouri et al., 2024). Scholars concur that, organizational performance of Ethio-Telecom is impacted by innovation that relies on product, process and service enhancement to create a positive correlation among the strategic human resource development and organizational performance (Jiregna, 2024).

The investigator inclined to conduct this investigation as the most of earlier investigations were not emphasized the interrelation of strategic human resource development, innovation as well as organizational performance in Ethio-Telecom and they studied factors affecting performance of Ethio-Telecom (Kelbesa, 2023; Redahegn, 2023; Kenbon, 2023; Feleke, 2023). The investigator inclined to evaluate mediating role of innovation in interrelation of strategic human resource development and organizational performance in Ethio-Telecom. In addition to this, the most important factor, innovation was not included in previous studies in association among strategic human resource development and organizational performance in Ethio-Telecom. There is also a limitation of empirical literature on strategic human resource development and its correlation to innovation as well as organizational performance in Ethio-Telecom, and in any other developing nations.

The Ethiopian telecommunications sector is experiencing a transformative shift, particularly with the introduction of private operators like Safaricom. This liberalization presents unique opportunities, including increased competition, innovation in service delivery, and enhanced customer experience. Ethio-Telecom can leverage strategic human resource development to foster a culture of innovation, enabling it to adapt to market changes effectively. This dynamic environment makes the relationships among SHRD, innovation, and organizational performance particularly significant for driving sustainable growth. Additionally, it addresses key related research questions.

1. What is the influence of strategic human resource development on Ethio-Telecom performance?
2. What is the influence of strategic human resource development on Ethio-Telecom-innovation?
3. What is the influence of innovation on Ethio-Telecom performance?
4. How does innovation mediate the relationship between strategic human resource development and organizational performance of Ethio-Telecom?

## **2. Literature Review and Hypothesis Development**

### **Definition and origin of terms**

Strategic Human Resource Development: SHRD has its history that dates back to the late 1960s when it was formed by combining the issues of strategic planning and human resource management (Soeardi, 2023). Based on the Human Capital Theory, SHRD is aimed at matching the development of employees with the organization goals keeping an emphasis on competency, knowledge and skills. With the changing technology, and the rising competition, SHRD integrates lifelong learning and flexibility, emphasizing the need to develop workforce to consider sustainable competitive advantage in the modern competitive and volatile business environment (Fikadu, 2023; Yorke et al., 2022; Alfawaire and Atan, 2021).

### **Dimension of Strategic Human Resource Development**

**Talent Training:** Talent training can be defined as the technique of nurturing employee skills, competencies and knowledge in order to improve their performance and potential in an organization. It entails customized programs and educational opportunities that are directed to match individual abilities with the objectives of the organization (Fachrunnisa et al., 2022).

**Leadership development:** refers to a continuous process of developing skills, knowledge as well as competency of individuals to make them ready to participate in leadership positions in an organization. This is through specific training, mentorship, and learning experiences that enhance good decision making, communication and strategic thinking (Soeari et al., 2023; Khemraj, 2023).

**Performance Appraisal:** Performance appraisal is a process through which evaluation of an employee based on his job performance, contribution and areas of development is done within a given time. It entails establishing the standards of performance, feedback, and areas of improvement (Homauni et al., 2021).

**Employee Job Promotion:** Employee job promotion is the promotion of an employee to a higher job within an organization and in most cases, there is a raised responsibility, power and pay level. This is a process where an employee can be recognized based on their contributions, skills and the potential they can have in making higher impacts (Amadi and Nworgu 2023; Workneh, 2022).

**Talent Retention:** Talent retention is the strategy that deals with the practices of retaining talented employees in an organization. Retention can be done effectively by providing good working environment, good remunerations and career development opportunities (Urme, 2023).

## **Organizational Performance**

In the 1st half of 20thC, management theories created organizational performance, which addressed the issue of efficiency, productivity and effectiveness. The first models were concerned with the numerical indicators of profitability and productivity (Rustam et al., 2024). The more time the idea has had, the broader the concept has been expanded to include the qualitative ones; employee satisfaction level and ability to be innovative are examples of such aspects, as it is becoming apparent that performance is multidimensional. The concept was further extended to the Balanced Scorecard that came into play in the 1990s and included both financial as well as non-financial indicators. The modern concept of organization performance is holistic, as the perspective of the stakeholders is considered, and it is necessary to make sure that the organizational strategies are consistent with the provisions of the bigger social and environmental objectives (Redahegn, 2023).

## **Innovation**

The idea of innovation was traced back to the industrial age when the process of innovation was largely related to the creation of novel technologies. The popularization of the term took place in the mid-20th century, namely through the work of the economist like Joseph Schumpeter who proposed the concept of innovation as a commercial fuel and a competitive edge (Olomu et al., 2023). In the past, the innovation process was viewed as a linear research, development and commercialization process. The concept has however evolved to appear dynamic in perspective since it has discerned the significance of collaboration, open innovation and the user-driven approaches (Tyagi et al., 2024).

## Dimensions of Innovation

**Product Innovation:** Includes the introduction as well as creation of new or improved products. To better serve clients or enter new markets, it focuses on enhancing features, design, and functionality. Innovation in Product is vital for keeping a competitive edge and adjusting to changing consumer preferences (Felix & Rembulan, 2023).

**Process Innovation:** This dimension describes the enhancement of the means and the procedures of the creation of goods or the rendering of services. It entails embracing new technologies, elimination of processes, and maximization of productivity to minimize costs and improve quality. The process innovation may result in the increasing levels of performance and organizational agility (Taques et al., 2021).

**Business Model Innovation:** This dimension entails review and re-assessment of the manner in which a business is creating, delivering, and obtaining value. It can involve changing the revenue models, distribution approaches, or customer interaction methods (Haftor & Costa, 2023).

## Theoretical Framework

**Resource-Based View (RBV) Theory:** There is RBV theory which assumes that resources and capabilities of a company play a vital role in the creation of a long-term competitive advantage (Lubis, 2022). SHRD is also able to optimize distinctive resources, including qualified staff and creative procedures, in the case of Ethiopian Telecom. As a result of prioritizing the development of these internal resources, Ethio-Telecom can enhance the performance of the organization (El Nemar et al., 2025). To understand the effect of SHRD on performance in the form of innovation, RBV underlines the significance of taking human capital as a strategic resource that is needed (Aliyev, 2024; Bahri, 2025).

**Dynamic Capability Theory:** The dynamic capability theory revolves around the ability of an organization to change and redress its resources depending on the prevailing conditions (Mele et al., 2024). Investing in the development of the workforce will contribute to Ethiopian Telecom increasing the opportunity to effectively satisfy the demands of the market and adapt to new technologies. This theory should be interpreted to study how the SHRD applies dynamic capabilities to maintain sustained performance (Pillai and Srivastava, 2024).

**Diffusion of Innovation Theory:** The concept of diffusion of innovation describes the spread of new ideas and technologies in industry and business (Guidolin and Manfredi, 2023). In the case with Ethiopian Telecom, the evaluation of the impact of SHRD on the performance requires the understanding of the acceptance and implementation of innovations. Since it explains how SHRD could be successfully used to promote the spread of innovations, which will eventually boost the performance of the organization, it will be relevant to this study (Hambissa et al., 2024).

**Human Capital Theory:** This theory underlines that it is important to invest in the abilities, knowledge, and experiences of employees to improve performance and productivity (Mustafa and Lleshi, 2024). This theory is supported by SHRD in the case of Ethio-Telecom by emphasizing the improvement of employee competences by means of special training and development programs. The concept of human capital is critical to understand since this research project directly correlates SHRD with better organizational performance (Woleli, 2021).

Balanced Scorecard (BSC) Model: The Balanced Scorecard (BSC) Model is one of the models designed to evaluate the organizational performance through a detailed assessment of its performance in various domains, such as internal processes, learning and growth, customers, and finances (Partouvi and Najafi, 2024). With SHRD integrated in the framework of the BSC, Ethio-Telecom can assess the effect of employee development on numerous different performance measures in an inclusive way (Hamied & Elbagoury, 2025).

## **Empirical Literature**

### **Effect of Strategic Human Resource Development on Organizational Performance**

SHRD plays the core central role in the process of enhancing performance of an organization, by ensuring the parity of skills and capabilities of the employees with company's strategic objectives (Amadi and Nworgu 2023). Companies can invest in certain programs development and training in order to create a competent member of staff that is more competent to meet the changing market requirements. This kind of alignment enhances the performance of single staff members as well as improves the performance of the whole organization because the workers will now be more dedicated and engrossed in the business of achieving the common objectives (Soeari et al., 2023).

Also, SHRD contributes to innovation in the organization, which is critical to a competitive advantage. The continuous development opportunities provide employees with better opportunities to create new ideas and practices (Jiregna, 2024). In this kind of continuous learning culture as well as improvement, culture of innovation can be fostered leading to improved products, services, and processes. Organizational culture is directly impacted by innovativeness since the degree of innovativeness can make the organization more responsive to the market and in the eyes of customers (Homauni et al., 2021).

Moreover, excellent SHRD enhances staff retention and turnover, which is one of the keys to the performance of the organization (Rustam et al., 2024). As soon as the workers realize that they are valued and have an opportunity to grow both personally and their career, it makes them loyal to the organization (Alolayyan et al., 2021). This stability helps the organization to come up with an integrated and experienced workforce that also helps with the performance outcomes. Overall, the strategic focus on human resource development is not only enhancing individual and collective competencies, but also in line with other organizational policies that ultimately lead to improved performance indicators of various levels (Bahri, 2025).

*H1: Strategic human resource development has significant impact on organizational performance*

### **Effect of Strategic Human Resource Development on Innovation**

Strategic Human Resource Development (SHRD) has a significant part in causing innovation within organizations as it establishes a culture of nurturing creativity and lifelong learning (Kareska, 2023). Companies train and develop their workforce to equip them with the latest skills and knowledge that they can utilize to generate creative ideas (Alfawaire and Atan, 2021). This aligns the employee competencies with strategic objectives, and this enhances their ability to think critically and become creative in problem solving. The employees will contribute to the dynamic environment when they are

empowered to seek new ideas and this ideology can result in innovation (Agustian et al., 2023).

Collaboration is the other significant component of SHRD that enhances innovation. Best SHRD practices can create teamwork and cross-functional interactions and eliminating silos in the organization (Workneh, 2022). The employees of different departments communicate; diverse opinions and thoughts are raised leading to innovative means of solving complex issues (Hamied & Elbagoury, 2025). This is further improved by team building and teamwork skill training programs. In addition, innovative thinking will thrive in the environment where free communication and knowledge sharing are encouraged in the organizations (Partouvi and Najafi, 2024).

Furthermore, SHRD inculcates the spirit of adaptation among the employees that is critical in the field of innovation. The business environment today is quite dynamic, and organizations should be capable of adapting to the new trends and technologies (Woleli, 2021; Aliyev, 2024). Continuous learning and development programs are used to stimulate the employees to engage in change and explore new ways of doing things (Mustafa and Lleshi, 2024). Such flexibility allows organizations to shift gears within a short period of time in reaction to market shifts and new technologies (Hambissa and Tadesse, 2024; El Nemar et al., 2025).

*H2: Strategic human resource development has significant impact on innovation.*

### **Effect of Innovation on Organizational Performance**

Innovation plays a significant role in enhancing the company performance in that it enables the firms to prevail in the competitive markets (Haftor et al., 2023). Presenting new processes, new services, or products can also help organizations to meet customer needs and preferences in a superior manner (Lubis, 2022). This sensitivity does not only draw new customers, but also old customers and this leads to expansion of market share and revenues. Besides, it is possible to improve operations by implementing new practices that will reduce the costs and improve overall efficiency. The greater the organizations are embracing innovation, the more they are becoming agile and responsive to the ever-changing market conditions (Tagues et al., 2021).

Moreover, innovation assists in establishment of a continuous improvement culture in organizations. The problem of experimentation promotes when employees are made creative and share their novelties (Felix and Rembulan, 2023). This culture does not only raise the levels of employee engagement and satisfaction, but also new solutions may be discovered, which can be incredibly beneficial to the process and products (Tyagi et al., 2024). Teams with innovative projects do acquire skills and knowledge, which propel the capabilities of an organization. This general intelligence becomes an asset itself, which results in more performance in various areas, including productivity and quality (Olomu et al., 2023).

Innovation also has a direct impact on performance of firms, as well as when organizations focus on innovative practices, they are more likely to become more profitable (Odeyemi et al., 2024). Firms can now charge high prices and increase their revenue base, as the introduction of new products, or the improvement of the existing services, will allow them to do so (Zhang et al., 2023). Also, innovative firms are more efficient on the whole and therefore incur less costs of operation and achieve better profit margins. Creative problem-solving capabilities are the answer to making organizations the market leaders in their respective industries, hence gaining investment, building partnerships that can be used to further increase financial stability (Migdabi, 2021; (Urme, 2023). ).

*H3: Innovation has significant impact on organizational performance.*

### **Mediating Role of Innovation among Strategic Human Resource Development and Organizational Performance**

The connection among SHRD as well as performance of firm is an intermediary role of innovation that can be used to explain why investing in employee development can raise the performance (Nguyen and Dao, 2023; Amani et al., 2021). SHRD has a focus on training staff members with skills, knowledge as well as competencies that can enable them to become innovative. When organizations concentrate on training and development, then there are high probabilities of the employees developing innovative ideas and solutions which can be helpful to the organizations (Awais et al., 2023; Susantinah and Krishernawan, 2023).

Innovation is a speeding up element that contributes more towards the performance of an entity through SHRD. It also empowers employees when empowered employees are helped by empowerment in the form of training programs and augment their personal capacity besides contributing to an overall organizational culture of innovativeness (Chawla et al., 2023). Such teamwork environment encourages sharing of ideas and cross-functional working that is essential in development of innovative products and services. The organizations will therefore be in a position to respond more to the market demands and emerging consumer preferences. SHRD initiatives precondition the improved level of innovation, which directly impacts the performance measures, which is why this mediating factor is significant (Zelege, 2024).

In conclusion, the association between SHRD and company performance depends on the moderating effect of innovation so as to maximize the impact of employee development programs (Aliyev, 2024). The workforce potential can be met through the establishment of the innovative culture and alignment of SHRD with organizational goals. This alignment transcends to increase the innovative power of the employees not only, but also the performance of the organization dramatically. Today, the necessity to understand this mediating relationship and leverage it to achieve the goal of long-term success and sustainability becomes increasingly significant in the context of the fast-evolving world in which organizations are being forced to operate within the complex business environments (AITaweel & Al-Hawary, 2021).

*H4: Innovation positively mediates the association among SHRD and organizational performance.*

### **Conceptual framework**

Figure 1 below indicates conceptual framework developed by investigators using the above literature having dependent Organizational performance), mediating (innovation) as well as independent variables (strategic human resource development).

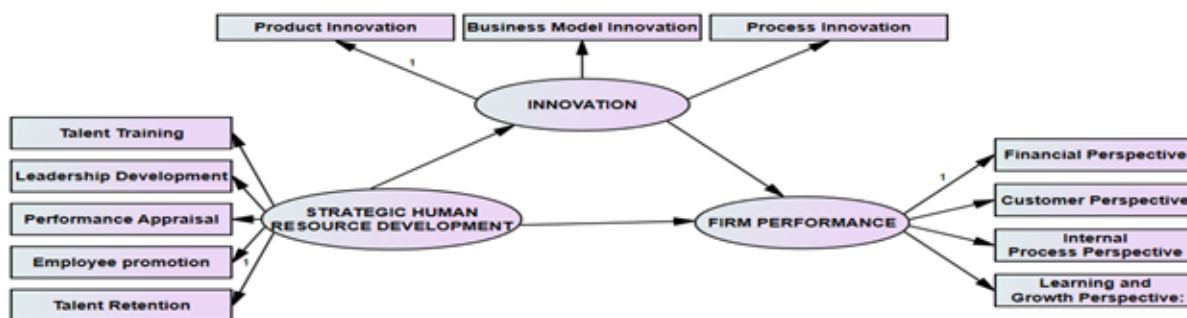


Figure 1 Conceptual Framework

Source: Authors, 2025

### 3. Materials and Methods

#### Research designs and Approaches

The study employed both descriptive as well as explanatory research designs to examine the causal relationships among Strategic Human Resource Development (SHRD), innovation, and organizational performance at Ethio-Telecom. By applying quantitative techniques, including survey questionnaires, a high number of employees were used and helped the researchers to manage the confounding factors and derive causal relationships. The explanatory design has used specific SHRD practices that enabled innovation, which can be of great help in improving organizational performance. The mixed-methods method that involved the combination of both the quantitative as well as qualitative data offered a comprehensive opinion of the impact of SHRD on organizational performance via innovation.

#### Target Population

The study will include a total population consisting of four important entities in the Ethio-Telecom: top level manager, Supervisor, and Professionals and experts, and supporting staff. The biggest population that is supportive of the staff is 470. This will encompass every employee in different branches all over the Afar Region. The total population to be used in the study was, therefore, determined by adding up the population of these four entities, which was 668 individuals. This is a holistic methodology that will ensure that the research will encompass a representative sample of the working population in Ethio-Telecom, which will give the research an idea about the different aspects of the industry and the stakeholders.

#### Sample size and Sampling Method

The sampling units are individual units, which are picked out of the population and are specifically aimed at employees of different levels within Ethio-Telecom such as Top-level managers, Supervisors, Professionals and Experts, and Support staff. The representative groups make a contribution towards a comprehensive understanding of the effect SHRD practices have on OP in terms of innovation. It took the individual level of analysis, and the data provided should capture the view of the various groups of employees. It is important to determine the sample size that is used in the dependability as well as reliability of the findings based on factors like the population variability, objectives of the study

and allowable forecasting risk. Some of the main factors to be considered when coming up with the minimum sample size are the confidence level required, population characteristics, and margin of error.

In this research, the formula of Yemane (1997) will be applied in order to find the sample size. It is a useful formula especially when getting representative samples in quantitative researches that can be defined as:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = Sample size,

N is the study's total population,

'e' is the accuracy or error margin represented as a percentage of (0.05).

Therefore,

N=668, ε=0.05, then, the following was the sample size for the survey:

$$668 / 1 + 668 (0.05)^2 = n = 251.$$

Table 1: Stratified Sampling

No	Sampling unit	Population size	Sample size	Percentage
1.	Top level manager	8	3	1.2
2.	Supervisors	39	16	6.4
3.	Professionals and experts	151	55	22
4.	Supporting staff	470	177	70.6
	Total	668	251	100

Source: survey, 2024

### Methods to collect Data

The investigator used both primary and secondary data to achieve the investigation's goals. To gather primary data, Ethiopian Telecom employees were given a methodical questionnaire. The questionnaire was first developed in English and then translated into Amharic to make sure participants could comprehend it. This made it easier for responders to comprehend the questionnaire's content, allowing for more precise input. May 2025 saw the distribution and collection of the questionnaire. This increased the validity of the results and guaranteed that respondents had a variety of language backgrounds. Limitations related to response bias including social desirability where the study participant can give answers that he or she perceives as desirable as opposed to the actual truth. To handle this, the questionnaire was made in such a way that it provided anonymity and made respondents be truthful. Besides, clear instructions were also used to highlight the significance of real feedback, thus improving the accuracy of the gathered information.

The study used different articles, books, and published papers to obtain secondary data. In order to make sure that the questionnaire is effective, pretesting and cognitive interviews were carried out with EJBME, Vol. 8, No. 2, 2026

chosen respondents. Back-translation technique was used to reduce bias in translation whereby the questionnaire was translated to Amharic by an initial translator and translated back to English by a second translator. Cultural relevance and clarity were verified by the language experts and increased the level of understanding of the questionnaire. Informed consent was obtained before the investigation whereby the participants were informed about the study and given an opportunity to pose questions. Issues of ethics involved confidentiality, where no personally identifiable information was collected, and the anonymity of the respondents as well as protection of the rights of the respondents during the research process was considered.

### **Development of Scale**

A structured questionnaire survey was the main type of data collection that would provide an insight into the perceptions of the managers and employees regarding the practice of strategic human resource development, innovation initiatives and overall organizational performance (Haraldsen, 2023). The survey involved quantitative and qualitative data collection techniques with the use of five-point Likert scale as well as open-ended questions. This mixed-methodology approach has allowed exploring the links between SHRD practices, innovation, and organizational performance in Ethio-Telecom in a way that is delicate. The questionnaire was designed using existing literature and validated measurement scales, which made the collected data more reliable and valid. The SHRD practices items were based on SHRM Practices Scale (Hambissa and Tadesse, 2024; Homauni et al., 2021). To measure innovation, nine items were selected based on the existing scales addressing business models and process and product innovation (Nguyen and Dao, 2023). Nine Likert-scaled items that had been used in the prior studies by Pillai and Srivastava (2024) and Aliyev (2024) were combined to form the Balanced Scorecard framework but to measure the organizational performance. The pilot study was done to make sure that it was clear and relevant by involving a small sample of the possible respondents.

### **Data Analysis and Processing**

The first phase of data analysis will be the most basic stage of making raw data precise, steady, and finished (Niguse, 2025; Borji et al., 2025). The analysis of the questionnaires was limited to questions that were undesirable or incorrect to maintain the integrity of the data. Descriptive and inferential analysis was done after cleaning and coding of data. The hypotheses were tested and the correlation between social innovation, green competitiveness, and sustainable business performance in large-scale industrial enterprises were analyzed using factor analysis, and Structural Equation Modeling (SEM). SEM was chosen due to its ability to test several variables relationships at a time, which increases the model accuracy. Descriptive analysis was made easier with the use of SPSS version 26 and SEM easier with AMOS version 26, which allowed grasping all direct and indirect effects of the constructs.

## **4. Results and discussions**

### **Rate of Response**

Questionnaires were given to target respondents (251), of which 246 were correctly filled and returned to the investigators. Five questions were removed from the study due to the respondents' subpar answers. Consequently, 98% of respondents provided complete answers, ensuring a robust data set for analysis. This is advantageous as it indicates a high level of participation from the sampled community, which will increase the validity of the findings. They were able to demand knowledge of what is required in

order to achieve the study objectives thanks to the careful selection of the data collecting process, which provided them with reliability of the research values.

**Reliability analysis**

Table 2: Reliability analysis

No	Variables	Alpha	Items
1	SHRD	.925	25
2	Innovation	.879	9
3	Organization performance	.890	16
5	Total	.870	16

Source: Survey result, 2025

Table 2 gives the reliability of the key variables, measured with the help of the Cronbachs Alpha. The strategic human resource development (SHRD) demonstrates the high reliability score of 0.925 with 25 items, which shows the high internal consistency and supports the increased importance of the concept in the organizational setting. High reliability is also shown through innovation with 15 items scoring 0.879 which represents a consistent measurement of the innovative practices. The overall organizational performance scores 0.890 out of 16 items implying it measures the performance metrics effectively. The reliability of all variables is 0.870 which is satisfactory in general; it shows that the measurement scales is able to measure the constructs of interest satisfactorily.

**Test of Data Adequacy**

Table 3: Data adequacy check

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.939	
Bartlett's Test of Sphericity	Approx. Chi-Square	7810.378
	Df	1431
	Sig.	.000

Source: AMOS output, 2025

Table 3 shows the outcome of data adequacy tests, such as KMO measure and Bartlett's Test. The KMO score of 0.939 means it has very good sampling adequacy of the data to work well in the factor analysis because the data above 0.9 is regarded as extraordinary (Hair, 2006). The Chi-Square value of Bartlett Test is 7810.378 with 1431 degrees of freedom and insignificant value of 0.000 shown strong relationships among constructs. These results affirm the suitability of the data in doing a valid analysis of factors.

**Analysis of Total Variance Explained**

Table 4: Total variance explained

<b>Total Variance Explained</b>									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	29.604	43.535	43.535	29.604	43.535	43.535	10.863	15.975	15.975
2	5.661	8.325	51.859	5.661	8.325	51.859	8.010	11.779	27.754
3	3.545	5.213	57.073	3.545	5.213	57.073	6.558	9.645	37.398
4	2.578	3.791	60.864	2.578	3.791	60.864	5.819	8.557	45.955
5	1.661	2.443	63.306	1.661	2.443	63.306	4.065	5.978	51.933
6	1.552	2.283	65.589	1.552	2.283	65.589	3.813	5.607	57.540
7	1.406	2.068	67.657	1.406	2.068	67.657	3.812	5.606	63.146
8	1.329	1.954	69.611	1.329	1.954	69.611	2.748	4.041	67.187
9	1.108	1.629	71.240	1.108	1.629	71.240	2.486	3.656	70.843
10	1.058	1.556	72.796	1.058	1.556	72.796	1.328	1.953	72.796
50	.062	.092	100.000						

Extraction Method: Principal Component Analysis.

Source: AMOS.2025

Table 4 indicates the cumulative variance that the Principal Component Analysis (PCA) of the data explained. The Initial Eigenvalues reveal that the first component has the value of 29.604 that constitutes 43.535 percent of total variance implying that it has high variance capture. The second component has a cumulative percentage of 51.859 percent and another 8.325 percent which is represented by the component. A combination of these two factors indicates that there are several factors that are good reflectors of the underlying data structure. The extraction amounts are stable and testify to the power of the factors obtained. It is also notable that once the rotation of the squared loadings has occurred, the first component has continued to elucidate 10.863% of the variance as compared to the second and third components of 8.010 and 6.558 respectively. Overall, the findings of this study demonstrate the applicability of the PCA in finding key factors that lead to variation in the data.

**Factor Confirmation**

CFA was used to assess whether observed indicators appropriately reflect the proposed factors, enabling hypothesis testing about relationships among strategic human resource development, innovation, and organizational performance. Results in Figure 2 show all factor loadings exceed the 0.5 cutoff, as recommended by Hair (2006), confirming the reliability of the measurement model, except for OP14.

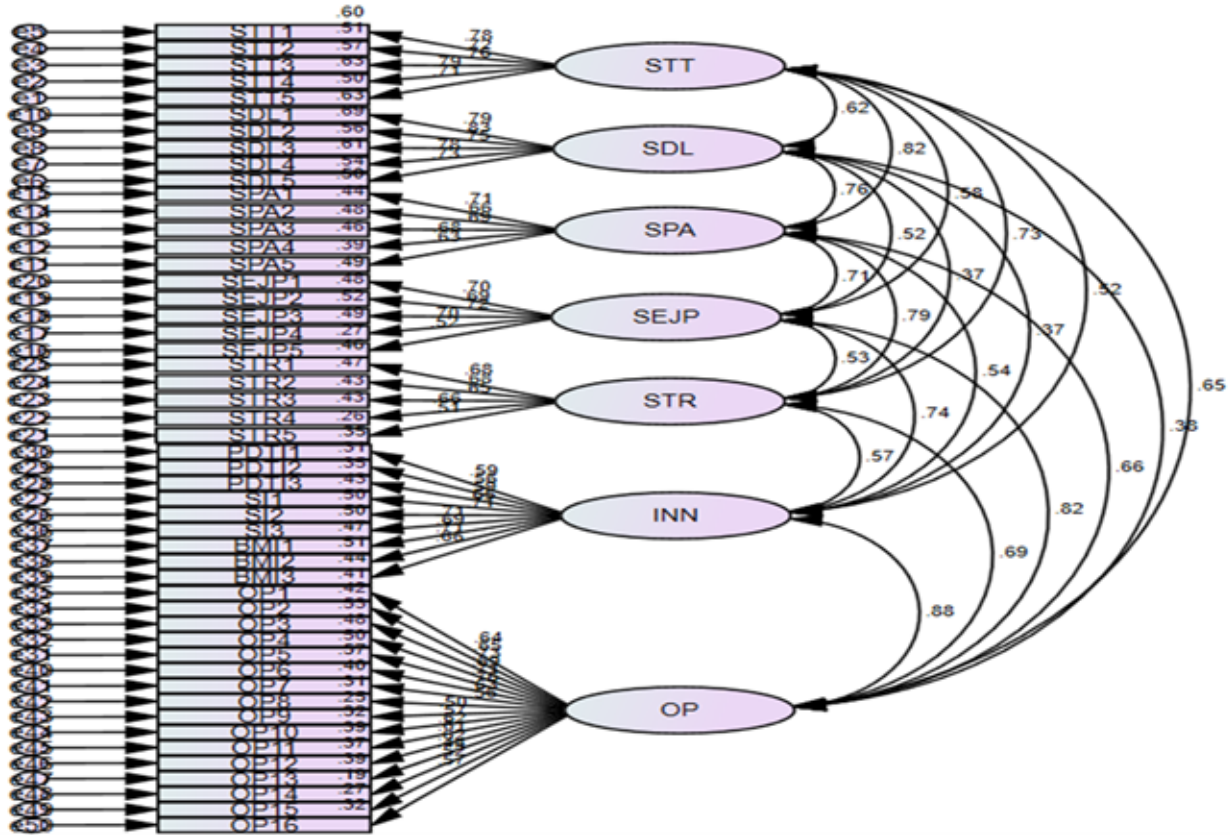


Figure 2: Confirmatory factor analysis

Source: AMOS output, 2025

**Analysis of Model Fitness**

Table 5 Analysis of model fitness

Measurements	Criteria	Outcomes	Accepted level	Decision	
Chi-square	CMIN	33.650	-		
	Degree of freedom	20	-		
	CMIN/DEF	1.741	<3	Acceptable	
	P value	.148	>0.05	Acceptable	
Absolute measurement of fit	RMSEA	.047	<0.08	Acceptable	
	CFI	.992	>0.9	Acceptable	
	IFI	.970	>0.9	Acceptable	
Incremental fit instruments	RFI	.938	>0.9	Acceptable	
	TLI	.959	>0.9	Acceptable	
	Parsimony fit measure	PNFI	.510	>0.50	Acceptable
		PCFI	.612	>0.50	Acceptable

Source: AMOS output, 2025

Table 5 is the analysis of the model fit which displays different measures which determine the suitability of the structure model. The Chi-square statistic is 33.650 with a degree of freedom of 20 with a CMIN/DEF of 1.741 which is lower than the acceptable level of 3 thus a good fit. The p-value of 0.148 compares to 0.05, and this value is also an additional indication of the validity of the model. RMSEA of 0.047 is within the acceptable threshold of 0.08 implying that it has a close fit. CFI (0.992), IFI (0.970), RFI (0.938), and TLI (0.959) are all incremental fit indices and they all exceed the acceptable value of 0.9 which supports the strength of the model. Finally, the parsimony score (PNFI) is 0.510 and PCFI is 0.612, and both scores are above 0.50, which shows that the model is well balanced between model complexity and model fit. All these findings confirm the reliability and validity of the model.

**Validation**

Table 6 Validity Concern

	<b>CR</b>	<b>AVE</b>	<b>MSV</b>	<b>MaxR(H)</b>	<b>SHRD</b>	<b>INN</b>	<b>OP</b>
SHRD	0.732	0.639	0.218	0.851	0.651		
INN	0.761	0.652	0.131	0.762	0.170	0.662	
OP	0.787	0.612	0.271	0.796	0.380	0.190	0.683

*Note: SHRD= Strategic human resource development; INN= Innovation, Op= Organizational performance*

*Source: AMOS output, 2025*

Table 6 presents an analysis of the validity of the Strategic Human Resource Development (SHRD), Innovation (INN), and Organizational Performance (OP) constructs. The Composite Reliability (CR) scores indicate high internal consistency, with SHRD at 0.732, INN at 0.761, and OP at 0.787, all surpassing the acceptable threshold of 0.70. Construct validity is reinforced by the Average Variance Extracted (AVE) values: SHRD (0.639), INN (0.652), and OP (0.612), demonstrating significant variance contribution. Additionally, Maximum Reliability (MaxR(H)) scores indicate robust reliability. The low inter-construct correlations further validate discriminant validity, confirming the effectiveness of these measurement tools in assessing relationships among the constructs.

**Structural Equation Model**

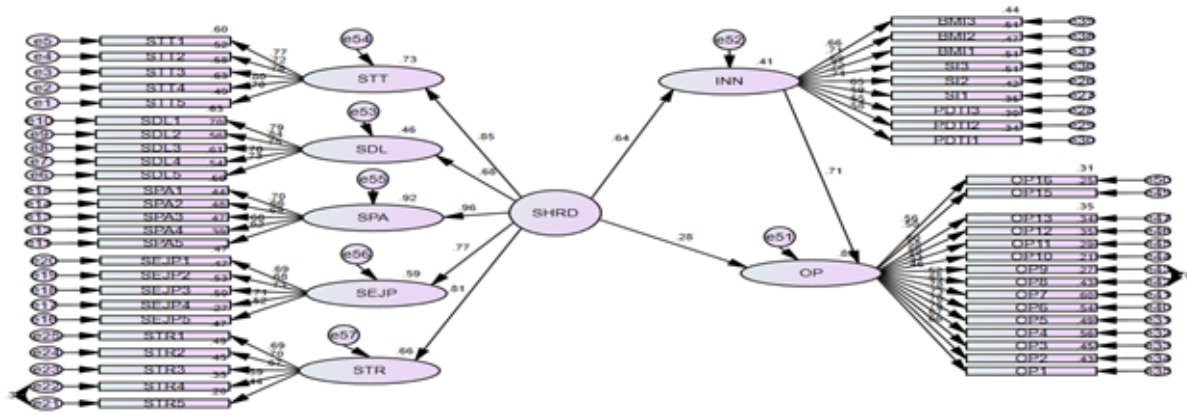


Figure 3: Structural Equation Model

Source: AMOS output, 2025

**Regression Examination Analysis**

Table 7 regression examination

Constructs	Estimate	S.E.	C.R.	P	Hypothesis
Innovation <--- Strategic Human resource Development	.640	.091	7.033	***	H2
Organization performance <--- Innovation	.710	.039	18.205	***	H3
Organization performance <--- Strategic Human resource Development	.280	.085	3.294	***	H1

Source: AMOS output, 2025

Table 7 shows the outcomes of the regression analysis, which reveals the correlations of Strategic Human Resource Development, Innovation, and Organizational Performance. According to the analysis, the path between SHRD and Innovation has a high positive estimate of 0.870 and the critical ratio (C.R.) is 9.534 which imply that Hypothesis 2 (H2) is strongly statistically significant (p < 0.001). This implies that strong SHRD contributes greatly towards innovation in the organization. On the other hand, the estimation between Innovation and Organizational Performance is weak at 0.051 and C.R. 1.311 and the p-value is 0.190, which does not support Hypothesis 3 (H3). Nevertheless, the direct effect of SHRD on Organizational Performance is significant and its value is estimated to be 0.827 with a C.R. of 9.759 which is a strong indicator that Hypothesis 1(H1) is true and supports the fact that SHRD does help in promoting performance.

**Mediating Role Analysis**

Table 8 Mediating role analysis

	<b>Influence</b>	<b>Worth</b>	<b>Influence of path</b>
Strategic human resource Development -----> Organization performance	Direct Influence	.28	Direct influence
Strategic human resource Development -----> innovation -----> Organization performance	Indirect Influence	.64*.71= .474	Indirect Influence
	Whole influence	.75	

Source: AMOS output, 2025

Table 8 represents the mediating role analysis indicates a significant relationship between strategic human resource development (SHRD) and organizational performance. The direct influence of SHRD on organizational performance is quantified at 0.28, suggesting that effective human resource practices contribute positively to performance metrics. Moreover, SHRD also promotes innovation, which subsequently enhances organizational performance, represented by an indirect influence of 0.474, calculated as the product of the path coefficients (0.64 and 0.71). This underscores the critical role of innovation as a mediating factor in the relationship between SHRD and organizational performance. Combining both direct and indirect influences results in a total influence of 0.75, indicating that strategic HR initiatives not only improve performance directly but also foster innovation that amplifies overall organizational effectiveness.

**Discussion**

The present investigation focused on strategic human resource development, Ethio-Telecom performance and innovation a case of Afar district, Ethiopia. The study included 668 managers, supervisors, professionals and experts of Ethio-Telecom, Afar district as the target population. The researchers used stratified sampling in selecting sample participants, and therefore 251 respondents were selected. The researcher used SEM and of CFA EFA through the use of SPSS and AMOS 26. The study indicated that strategic human resource development directly affects the performance of Ethio-Telecom with (.28) standard deviation and indirectly through innovation by (.474) standard deviation, a situation that suggests a partial mediation of innovation.

Past studies had suggested that strategic human resource development leads to favorable outcomes in the organizational performance and innovation is also affected by strategic human resource development. According to Nguyen and Dao, (2023), strategic human resource development has high statutory contribution to the performance of an organization. The investigation is consistent with the results provided by Awais et al., (2023), which emphasized a positive effect of strategic human resource development on innovation. In the case of Ethio-Telecom that is the subject of unceasing investment into talent training, talent development, leadership training, performance appraisal, employee promotion, and talent retention, the latter is instrumental to their organizational success. Through the development of strategic human resource, Ethio-Telecom will be able to improve their competitive positioning, absorb the changes in the market in addition to the need to create sustainable development. This continued

investment on strategic human resource development and innovation is crucial towards maintaining business performance in rapidly evolving business environment.

The research indicated that innovation is a mediator that has a positive relationship with strategic human resource development, and Ethio-Telecom performance. It was established that the relationship between organizational performance and strategic human resource development is mediated by innovation in part. This result of the inquiry is opposite to that of Chawla et al., (2023) result that indicated that innovation does not mediate the interrelations of these associations. Nevertheless, it was consistent with the findings of Urme, (2023) and Feleke, (2023) who deliver the argument that indeed, the relationship between strategic human resource development and organizational performance is partially mediated by innovation. These understandings support the importance of innovation in propagating organizational performance using product, process and business model innovation projects.

The significant direct value of strategic human resource development on the performance of Ethio-Telecom with a standard deviation of 0.28 indicates that in the case of Ethio-Telecom, strategic human resource development will achieve high performance of their organization without necessarily having to invest in issues of innovation. However, the positive indirect effect of 0.043 standard deviation using innovation means that Ethio-Telecom still can further improve the firm's performance by placing an emphasis on innovation. This underscores the need to include the element of product, process and business model innovation in business strategies.

## 5. Conclusion

In this study, conclusion has been drawn by noting the imperative role of innovation as a major mediator in the strategic human resource development versus the performance of Ethio-Telecom. The results show that innovation is a mediator to some extent in the relationship between strategic human resource development and organizational performance at Ethio-Telecom. Ethio-Telecom can improve its business performance through emphasis on strategic human resource development and innovation. By focusing on product, process, and business model innovation, the company will be able to use the techniques to put effective strategies to ensure that the company does not only enhance the current performance but also ensure sustainability in the competitive market. Finally, the culture of innovation and healthy HR practices are essential to the further expansion and prosperity of Ethio-Telecom in the telecommunications industry.

The findings indicated the inter-relationship between strategic human resource development and Ethio-Telecom performance regarding innovation. The increasing evidence indicated that the performance of Ethio-Telecom is extremely dependent on effective innovation to achieve business performance. This research revealed that Ethio-Telecom should incorporate the application of holistic systems that will in turn merge strategic human resource development and innovation in their business performance. Companies that have set up such structures have greater chances of attaining their performance besides sustaining their market positioning. Besides this, the result of the investigation validates the applicability of several theoretical perspectives such as RBV, Dynamic Capability theory, theory of diffusion of innovation, human capital theory and BSC model. This holistic strategy explains why strategic human resource development is important in being coordinated with innovation to be successful in the long run.

## 6. Theoretical Implications

The results of the research have serious theoretical implications as they support the applicability of some existing theories in explaining the relationship between strategic human resource development, innovation, and organizational performance. Resource-Based View (RBV) focuses on the fact that competitive advantage should rely on the internal capabilities of the firm, including human resources and innovation. Dynamic Capability Theory emphasizes responsiveness and adaptability in the fast-moving market, which is a critical success factor to Ethio-Telecom. The Theory of Diffusion of Innovation reveals the importance of implementing innovative practices as a way of improving performance. Also, the Human Capital Theory allows believing that it is necessary to invest in the development of employees to promote innovation. Balanced Scorecard (BSC) model also offers a strategy of matching strategic goals to performance measurements and there is a great necessity of using a combined strategy to maintain long- term success.

## **7. Practical implication**

The results of the investigation have certain practical implications on Ethio-Telecom in Ethiopia in general and in the study area in particular. To begin with, strategic human resource development is critical in terms of improving employee skills and innovation culture. This will be done by special training programs, mentorship and career development programs. Second, Ethio-Telecom must establish detailed mechanisms that will combine HR practices and innovative strategies such that the employees are motivated to provide innovative ideas. Also, frameworks that focus on product, process and business model innovation will make the organization stay competitive in the telecommunications industry. Lastly, sustained evaluation of performance measurements in line with strategic goals, according to the model proposed by the Balanced Scorecard will be instrumental in informed decision-making and flexibility, which would ultimately result in long-term organizational performance and positioning in Ethio-Telecom.

## **8. Limitations of Investigation and Future Direction**

There are a number of limitations of this study. To begin with, the study of Ethio-Telecom could restrict the applicability of the results in other organizations or industries in Ethiopia or elsewhere. Also, this may be biased by the self-reported data and the accuracy of the measures concerned with strategic human resource development and innovation. To mitigate bias from self-reported data, future researchers should collect data from multiple sources, including management assessments and performance metrics, for comprehensive insights. The cross-sectional design also limits the possibility of making causal relationships through time. For future research, utilizing a longitudinal design would establish causality among strategic human resource development, innovation, and organizational performance and provide insights into how these relationships evolve in the dynamic telecommunications sector. Generalization would be improved by conducting research on different industries. In addition to this, qualitative methods may give a more in-depth understanding of the dynamics and the difficulties experienced by the organizations when trying to integrate HR practices with innovation.

## **Abbreviations**

SHRD: Strategic human resource development

Inn: Innovation

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