



DEVELOPING HUMAN RESOURCES IN THE TELECOM SECTOR IN LIBYA USING THE INTERNATIONAL STANDARD ISO 10015 FOR THE QUALITY OF TRAINING

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Abstract

This study aims to investigate the relationship between the quality of training following (International Organization for Standardization) ISO (10015) and Human Resources Development (HRD) in Libya's telecom sector. This study uses systems theory and human capital theory as foundational disciplines or theories in HRD research and practice. Data was collected from a sample of 132 employees from various telecom businesses in Libya. This study concentrates on ten telecom businesses in Libya in an attempt to provide a holistic view of sub-variables of quality of training in accordance with ISO (10015) and HRD. The PLS approach is used to approximate the causal relationship between the variables in this research. Quality of training in accordance with ISO (10015) was found to have a positive relationship with HRD. This study has contributed to attempting to find out new ways of developing employee capabilities and skills through quality training in accordance with ISO (10015). The theoretical and practical implications of this study were highlighted.

Keywords: Human Capital theory, Human Resources Development, Quality of Training in Accordance with ISO (10015), Systems Theory



INTRODUCTION

The International Organization for Standardization (ISO) has established several standards, including ISO 10015 (Shalhaf Zadeh et al., 2020). More than 22,600 standards have been created by ISO for different industries (Marra da Silva Ribeiro et al., 2021). ISO standards 9000 and 14000 have the most impact on business practices (Kaur et al., 2021). These are "generic management system standards," and the emphasis is on "how" they create the goods or services rather than "what" they provide. The basic tenet of the standards is that you must "document what you claim and accomplish what you documented." The ISO 9000 series of quality standards offers a variety of viewpoints for ensuring the quality of Competence, Awareness and Training (Antony et al., 2021). This is to make sure that the individuals doing the task are capable of achieving the quality of the product or service. Many organisations have issues with this clause, which has been in place for more than 40 years and affects small and medium-sized businesses in particular (Chiarini et al., 2021). ISO 10015 was established, negotiated, and polished by a panel of 22 nations and released by the ISO secretariat in December 1999 (Jabbari et al., 2021). With the ISO 9000 quality management family, the ISO 10015 is a guideline for education and training in companies, and it guarantees that personnel inside the company are well-trained and competent to meet the firm's commitment to producing goods or services of needed quality (Ali et al., 2021).

Since ISO 10015 mandates adherence to a uniform methodology, HRD experts no longer have to solicit management to remove certain stages throughout the training design process. HRD has been founded on the premise that organisations are human inventions that depend on human competence to create and realise their objectives. Individual and group, as well as the work process, and organisational integrity are all values that HRD professionals and managers uphold (Ali et al., 2021). As a result of this, the standard assures that managers will continue to adhere to best practices in training.

According to Al-Githami and Esmail (2020), ISO 10015 has two more benefits over other standards. For starters, firms familiar with the ISO quality management standard will have no problem grasping the notion of a process-oriented approach. It also provides suggestions on how to employ training technologies in a manner that promotes organisational learning. It has been widely discussed since ISO 10015 developed as an international standard for verifying the quality of employee training programmes in enterprises. As a result, their clients are happy, and their standard-setting processes continue to develop. When it comes to HR, it's always been about making sure firms can deliver on their product goals, which in turn affects how they educate employees and how they make hiring choices (Ali et al., 2021).

This study has contributed to attempting to find out new ways of developing employee capabilities, creativity and skills through quality training in accordance with ISO (10015). In the previous decade, HRD research, experimentation, and practice have developed tremendously (Jang & Ardichvili, 2020; Yawson, 2020). According to ISO (10015) standards, this research was conducted to demonstrate extraordinary efforts to uncover innovative methods of enhancing staff skills via quality training. Systems theory and Human capital theory as used by many scholars (e.g., Jacobs, 2014; Wright & Constantin, 2021) are used as theoretical frameworks in this study to analyse the relationship between HRD and quality training in compliance with ISO standards (10015). It is also the first research to focus on HRD and ISO (10015) quality training in the Libyan telecom industry, to the best of our knowledge. As a result, HRD is essential for any organization that wants to preserve and expand its business while maintaining its competitive edge via efficient management and corporate leadership. The findings of the study have the potential to help stakeholders and management of telecommunication in adopting properly and well-articulated HRD practices to stimulate positive behavior in all level of staffs and impact their knowledge, skills and attitudes

According to the following sections, the rest of the paper is structured as follows: Section 2 includes the literature review, hypotheses, and conceptual model. Section 3 focuses on the collection and analysis of data. In section 4, we look at the characteristics of the respondents and the results of the research. Section 5 contains the study's discussion of theoretical, and practical implications, while Section 6 contains the conclusion, implications, limitations and future research directions.

LITERATURE REVIEW AND HYPOTHESES

Theoretical Focus

In this research, the system approach and the human capital theory have effects on the proposed interpretation of ISO 10015. First, it should be anticipated that training programmes that use a systems approach would be more successful. Systems theory asserts that organisational success is based on the synergy, interrelations, and interdependence of many subsystems (Jacobs, 2014). Employees are undoubtedly the most valuable component of a firm, making up a variety of important subsystems. This theory has been well-documented in the field of human resource development (Hamidi, 2018; Turner et al., 2019). ISO 10015's potential influence on organisational performance is a major consideration when deciding whether or not to implement it. Organizations may have to provide resources for training if they want to implement the standard. As a result, acceptance of the standard might have an impact on management's view of training as a strategic instrument. As a result, considering ISO 10015

and HRD programmes as systems may help with both the creation and enhancement of training resources. The premise of the human capital theory is that an institution's ability to produce or provide services is enhanced through the implementation of effective employee training (Marginson, 2019). Numerous pieces of HRM literature have included concepts of human capital theory as well (Bae, Kang & Kim, 2020).

Quality of Training is in accordance with ISO (10015) and Human Resources Development

Training criteria for an organization's human resources are defined by the ISO-10015 standard, one of the ISO-9000 standards. Organizations may use these guidelines to choose the training activities that best support their vision and goals. There are four steps in the ISO 10015 Quality of Training (Huang et al., 2017): (1) Define training needs; (2) Design and plan training; (3) Provide for training, and (4) Evaluate training outcomes. ISO 10015 mandates a monitoring method that records each process step to verify compliance with established processes and performance standards (Ali et al., 2021). There are mechanisms in place to monitor training programmes and decide whether or not they have been successful. This is a continual process and may be considered a cycle that promotes constant progress.

As part of HRM, human resources development plays a significant role in a company's strategy for enhancing employee behaviour and overall performance (Piwowar-Sulej, 2021; Widyatmoko, Pabbajah & Widyanti, 2020). HRD activities are, in reality, intertwined substantially. HRD refers to the process of maximising both the production and the usage of the workforce. HRD is also the process of creating and releasing human knowledge via organisational development and human resource training (Chams and García-Blandón, 2019). There are four main areas of focus for HRD: (1) employee skills, (2) employee ability and willingness to change, (3) employee creativity, and (4) core capabilities. HRD activities should begin when a person enters a company and continue throughout his or her career, regardless of whether that individual is an executive or a frontline employee. Organizations' long-term objectives and strategies must be taken into account while developing HRD programmes, as must job changes.

According to Garavan et al. (2019), training aims to improve the HRD of both individuals and groups within an organisation. Human resource development benefits greatly from training, according to the findings of Reddy and Ambatipudi (2021) in Australia. When it comes to HR development, scholars found that training has a significant impact on the organization (Moore & Khan, 2020). According to Sheeba and Christopher (2020), training may be described as an organization's deliberate attempts to improve the knowledge, skills, and capacities of its

employees. For Manresa, Bikfalvi and Simon (2018) training and development are synonymous terms that refer to the process of enhancing an individual's talents, abilities, and knowledge. These two ideas may be separated based on their goals. Training focuses more on enhancing present capabilities, whereas HRD focuses more on enhancing future skills that may be employed in a variety of contexts, such as in the workplace. Troger (2021) claims that the process of the training staff is a way to impart specialised information and skills to employees so that they may execute their duties more effectively in accordance with the standard. There is a larger opportunity for growth in this scenario. It might be an endeavour to improve the information that will be utilised often or frequently in the future (Haralayya, 2022).

People are the primary driving force behind a company's production processes, ensuring that they are properly used to meet the demands of the business and its clients (Boon et al., 2018). Training operations are carried out by businesses to improve the quality of their workforce, which in turn improves their creativity and productivity (Rampa & Agogué, 2021). Consequently, all departments should have access to the fundamentals of knowledge and abilities, and they should specifically foster positive motivation, elevated morale and self-development as outlined in system theory (Turner, Morris and Atamenwan, 2019). Organizational development and innovation can only be achieved if human capital is strengthened. As a result, businesses may use ISO 10015 as a planning tool to develop a human capital management framework and systemize training activities. As a result, these firms can simply measure the value of training programmes (Shalhaf Zadeh et al., 2020).

Organizations may adopt, compete, excel, innovate, create, be safe, enhance services, and achieve objectives with the help of training activities. As a part of a lifelong process of self-improvement and growth, training teaches workers how to apply what they've learned in the real world to new situations. For both new and long-term workers, training is essential for the development and improvement of fundamental capabilities (Wisshak and Hochholding, 2018).

According to ISO 10015/2001, the procedures for training design and planning are laid out as follows: deciding on the role of the environmental training in an organisation; training for outsourced employees; setting up a training programme and making it available to all employees, regardless of their position. In Moh'd Abu Bakir, (2019) research, they established guidelines for assessing training programmes to attain HRD. A training program's success may be gauged by the amount of knowledge received by its participants. According to the finding, trainees believed that the instructor's role was significant and that the value of skills and corporate knowledge can be attained through the training or learning assessment procedure. Scholars have come up with a variety of ways to analyse the training requirements of employees. However, the most often utilised front-end methods are complicated and need

explanation (Otoo and Mishra, 2018). Participants' skills, learning behaviour, and performance outcomes are all important considerations for HRM and those working in the training industry. Performance evaluations and monitoring are part of the training process, which also includes coaching, creative management, presenting skills and supervisory abilities (Murphy, 2020). In addition to the theoretical justifications in the literature and to address the research gap, the current study intends to assess the impact of quality training in accordance with ISO (10015) on HRD. Hence, positing the following hypotheses:

H1: (a)Defining training (b) Designing and planning training (c) Providing for the training (d) Evaluating the outcome of training (e) Monitoring and improving training needs has a positive effect on employee skills

H2: (a)Defining training (b) Designing and planning training (c) Providing for the training (d) Evaluating the outcome of training (e) Monitoring and improving training needs has a positive effect on employee ability and willingness to change

H3: (a)Defining training (b) Designing and planning training (c) Providing for the training (d) Evaluating the outcome of training (e) Monitoring and improving training needs has a positive effect on employee creativity

H4: (a)Defining training (b) Designing and planning training (c) Providing for the training (d) Evaluating the outcome of training (e) Monitoring and improving training needs has a positive effect on core capabilities

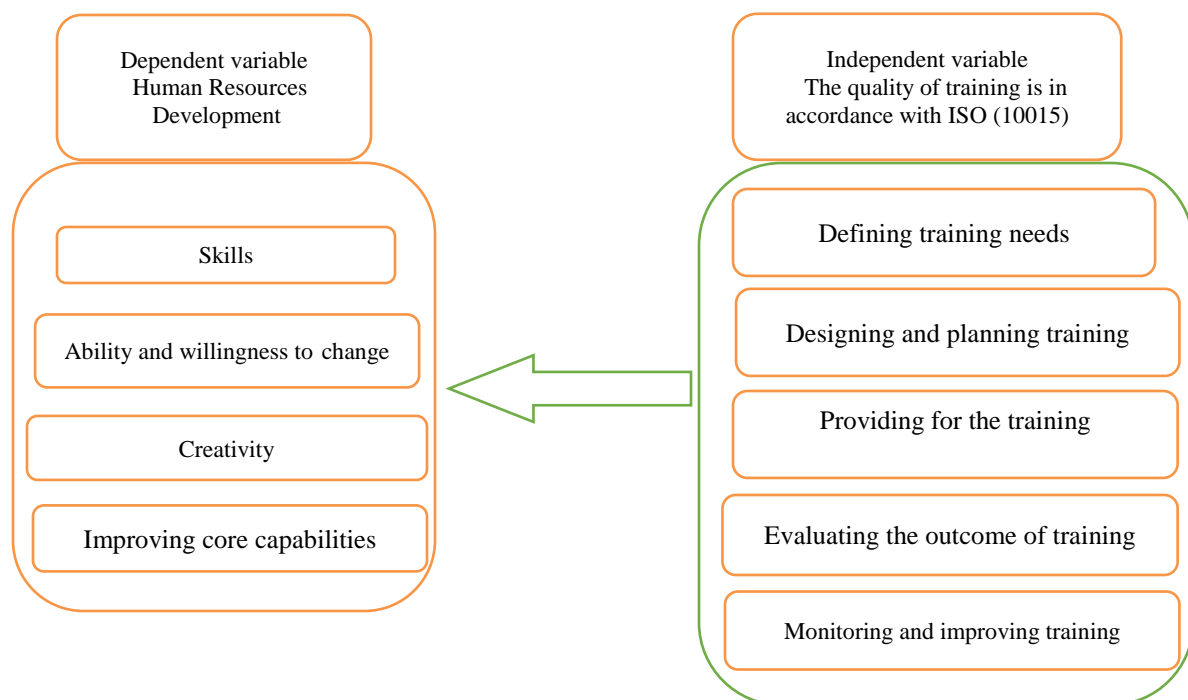


Figure 1: Conceptual Framework

METHOD

Measurement items

The quality of training in accordance with ISO (10015) was measured consisting of five dimensions, using forty-one items; Defining training (6 items); Designing and planning training (9 items); Providing for the training (9 items); Evaluating the outcome of training (8 items); Monitoring and improving training needs (9 items) all adapted from (The relationship between the quality of training using ISO-10015 and the development of human resources. An analytical study of the views of a sample of training center officials in a number of Iraqi Ministries) research. HRD was measured consisting of four dimensions, using twenty-four items; employee skills (10 items); employee ability and willingness to change (7 items); employee creativity (8 items); core capabilities (12 items) all adapted from (The relationship between the quality of training using ISO-10015 and the development of human resources. An analytical study of the views of a sample of training center officials in a number of Iraqi Ministries) research.

Each item on the indicators of quality of training in accordance with ISO (10015) and HRD was anchored on a seven-point scale, ranging from 7 (strongly agree) to 1 (strongly disagree).

Research Design

Judgmental sampling was used as a sample method in this study. When "the researcher picks selected aspects from the population that will be representative or instructive about the subject" (Alhazimeh & Alzoubi, 2020). There were 132 participants in this research from 10 different Libyan telecom companies, each with a distinct job description. A letter with the study objectives and permission to collect data was sent to the management of each telecom company. Management gave the researcher permission to gather the data. The participant was made aware that participation was optional but encouraged to participate, as well as informed that management has approved their involvement.

Data Analysis

Partial least squares (PLS), a commonly used structural equation modelling (SEM) technique, was utilised to analyse the data (Ringle et al., 2012). PLS-SEM is effective in previous studies due to its prediction orientation, high model complexity, and utilisation of formatively assessed components (Dakhan et al., 2020). To evaluate the model, the Smart-PLS statistical package is employed to approximate the causal link between latent

variables. Structured Equation Modeling and Regression Path Analysis are included in PLS-SEM (Ringle et al., 2020). PLS-SEM model study may benefit from this method. There must be a method for bootstrapping data and the normality of data concerning real-life circumstances. In the measurement model, confirmatory factor analysis, differential validity, and composite validity were incorporated (e.g., Hair et al (2014)). For the purpose of determining the path coefficients, bootstrapping was used to examine the interaction (Kock, 2018). It was necessary to assess the influence of common-method bias since all of the measuring scales were self-reported. Tenenhaus, Vinzi, Chatelin, and Lauro (2005) advocated the use of goodness of fit indexes (2005). The geometric mean of the average commonality and the average R^2 is used to calculate the goodness-of-fit statistic (for endogenous constructs).

RESULTS

Demographics

Table 1. Demographics

Identification information	Indicators	Number	Percentage(%)
Gender	Male	109	83
	Female	23	17
Age	25-30 years	21	16
	31-35 years	35	27
	36-40 years	26	20
	41-45 years	21	16
	46-50 years	18	14
	> 51 years	11	8
Educational qualification	Secondary and below	4	3
	Technical Diploma	6	5
	Higher Diploma	43	33
	Bachelor	66	50
	Master's degree	13	10
	PhD	0	0
Years of work	< 5 years	13	10
	5-10 years	34	26
	11-15 years	39	30
	16-20 years	21	16
	21-25 years	20	15
	> 25 years	5	4

Current job title	Manager	10	8
	Head of Department	20	15
	Head of unit	26	20
	Administrative	33	25
	Accountant	16	12
	Employee	27	20
No. of courses you participated	Inside Libya	426	63
	Outside Libya	247	37
	Total	673	100

The vast majority of respondent were men (83%) in this study (see Table 1). Almost one-third (27%) were between the ages of 31 and 35. The majority of responders had 4 to 6 years of job experience (31%). Half of the respondents had a bachelor's degree (50%). In terms of years of job experience, the highest group (30 per cent) had 11 to 15 years of experience. Administrative staff (25%) were the majority from different telecom businesses in Libya. Finally, the majority of workers (63 per cent) have taken a variety of courses inside Libya.

Measurement and Validation

Factor loading, construct reliability, discriminant validity, Heterotrait-Monotrait ratio (HTMT), and Goodness-of-Fit (GoF) Index were used to determine the framework in Table 2, 3, 4 and 5 (see Yana et al., 2015).

A confirmatory factor analysis was conducted to examine the validity and reliability of the utilized measurement scales. Factor loadings (standardized estimates), average variance extracted (AVE) and composite reliability were evaluated to verify convergent validity (CR). The outcomes are shown in Table 2.

Cronbach alpha values were more than 0.82 for all constructs, above the suggested minimum of 0.70. (Purwanto and Sudargini, 2021). Factor loading ranged from 0.71 to 0.91, above the suggested threshold of 0.60 (Afthanorhan, 2013). Composite reliability was between 0.93 to 0.96, above the recommended threshold of 0.70, suggesting adequate consistency (Ab Hamid, Sami and Sidek, 2017). The AVEs are more than 0.65, which above the proposed threshold of 0.50, suggesting a higher CR of 0.70 and stronger construct dependability (Fornell and Larcker, 1981).

Table 2. Reliability and convergent validity of the constructs

Scale items	Factor loading (FL)	Cronbach's α	Composite reliability (CR)	Average extracted (AVE)
Quality of training in accordance with ISO (10015)				
<i>Defining training needs</i>				
ITEM 1	0.76	0.90	0.93	0.70
ITEM 2	0.87			
ITEM 3	0.80			
ITEM 4	0.87			
ITEM 5	0.86			
ITEM 6	0.86			
<i>Designing and planning training</i>				
		0.894	0.94	0.63
ITEM 1	0.84	0.88	0.95	0.68
ITEM 2	0.85			
ITEM 3	0.75			
ITEM 4	0.86			
ITEM 5	0.84			
ITEM 6	0.73			
ITEM 7	0.83			
ITEM 8	0.72			
ITEM 9	0.73			
<i>Providing for the training</i>				
ITEM 1	0.83	0.88	0.95	0.68
ITEM 2	0.89			
ITEM 3	0.81			
ITEM 4	0.86			
ITEM 5	0.77			
ITEM 6	0.82			
ITEM 7	0.77			
ITEM 8	0.82			
ITEM 9	0.84			

<u>Evaluating the outcome of</u>		0.87	0.95	0.70
<u>training</u>				
ITEM 1	0.87			
ITEM 2	0.81			
ITEM 3	0.81			
ITEM 4	0.80			
ITEM 5	0.88			
ITEM 6	0.81			
ITEM 7	0.81			
ITEM 8	0.88			
<u>Monitoring and improving</u>		0.91	0.95	0.75
<u>training</u>				
ITEM 1	0.89			
ITEM 2	0.83			
ITEM 3	0.89			
ITEM 4	0.87			
ITEM 5	0.85			
ITEM 6	0.85			
ITEM 7	0.87			
ITEM 8	0.86			
ITEM 9	0.88			
HRD				
<u>Skills</u>		0.84	0.95	0.66
ITEM 1	0.78			
ITEM 2	0.90			
ITEM 3	0.79			
ITEM 4	0.75			
ITEM 5	0.71			
ITEM 6	0.82			
ITEM 7	0.83			
ITEM 8	0.82			
ITEM 9	0.81			
ITEM 10	0.88			

<u>Ability and willingness to</u>		0.82	0.94	0.70
<u>change</u>				
ITEM 1	0.88			
ITEM 2	0.87			
ITEM 3	0.83			
ITEM 4	0.91			
ITEM 5	0.84			
ITEM 6	0.77			
ITEM 7	0.72			
<u>Creativity</u>		0.87	0.95	0.72
ITEM 1	0.86			
ITEM 2	0.89			
ITEM 3	0.77			
ITEM 4	0.91			
ITEM 5	0.84			
ITEM 6	0.85			
ITEM 7	0.83			
ITEM 8	0.84			
<u>Improving Core Competencies</u>		0.86	0.96	0.65
ITEM 1	0.75			
ITEM 2	0.86			
ITEM 3	0.84			
ITEM 4	0.78			
ITEM 5	0.83			
ITEM 6	0.86			
ITEM 7	0.85			
ITEM 8	0.81			
ITEM 9	0.81			
ITEM 10	0.78			
ITEM 11	0.78			
ITEM 12	0.72			

Note: Factor standardized loadings of all items were significant

Table 3. Assessment of the discriminant validity of constructs

Construct	1	2	3	4	5	6	7	8	9
<i>Defining training needs</i>	0.87								
<i>Designing and planning training</i>	0.69	0.70							
<i>Providing for the training</i>	0.61	0.62	0.71						
<i>Evaluating the outcome of training</i>	0.57	0.62	0.68	0.83					
<i>Monitoring and improving training</i>	0.67	0.57	0.60	0.60	0.76				
<i>Skills</i>	0.68	0.66	0.60	0.54	0.65	0.74			
<i>Ability and willingness to change</i>	0.67	0.59	0.60	0.58	0.52	0.63	0.81		
<i>Creativity</i>	0.69	0.61	0.65	0.50	0.55	0.52	0.56	0.79	
<i>Improving Core Competencies</i>	0.61	0.55	0.59	0.52	0.66	0.67	0.58	0.64	0.80

Discriminant validity is also crucial for testing the dissimilarity of measuring instruments of distinct components, where the square root of the AVE should be greater than correlations with other constructs (Fornell and Lacker, 1981). As demonstrated in Table 3, our model's application of the Fornell-Larcker criteria confirms this criterion. Overall, this measuring model's discriminant validity supports the notions'.

Table 4. Heterotrait-Monotrait ratio (HTMT)

Construct	1	2	3	4	5	6	7	8	9
<i>Defining training needs</i>									
<i>Designing and planning training</i>	0.79								
<i>Providing for the training</i>	0.73	0.78							
<i>Evaluating the outcome of training</i>	0.67	0.72	0.71						
<i>Monitoring and improving training</i>	0.72	0.64	0.71	0.73					
<i>Skills</i>	0.64	0.74	0.75	0.78	0.75				
<i>Ability and willingness to change</i>	0.70	0.72	0.78	0.65	0.67	0.70			
<i>Creativity</i>	0.72	0.70	0.66	0.76	0.60	0.70	0.73		
<i>Improving Core Competencies</i>	0.76	0.60	0.70	0.73	0.64	0.71	0.73	0.71	

The heterotrait-monotrait ratio (HTMT) of the correlations may be used to assess the discriminant validity of the formative model. The HTMT ratio must be lower than 0.85. (Kline,

2011). Table 4 contains all HTMT test results; all findings are less than 0.85, which demonstrates their discriminant validity.

Table 5. Goodness-of-Fit (GoF) Index

Construct	AVE	R
<i>Defining training needs</i>	0.70	--
<i>Designing and planning training</i>	0.63	--
<i>Providing for the training</i>	0.68	--
<i>Evaluating the outcome of training</i>	0.7	-
<i>Monitoring and improving training</i>	0.75	-
<i>Skills</i>	0.66	-
<i>Ability and willingness to change</i>	0.70	0.36
<i>Creativity</i>	0.72	0.37
<i>Improving Core Competencies</i>	0.67	0.34
Average scores	0.65 ^a	0.37 ^b
AVE * R ²	0.25	
(GOF= $\sqrt{\text{AVE} * \text{R}^2}$)	0.5	

Notes. AVE: average variance extracted.

We assessed a goodness-of-fit score of 0.5 for the model used in this investigation, indicating a very excellent model fit (Table 5). A cut-off value of 0.36 or above indicates a satisfactory match (Prystowsky et al., 2021).

Test of Hypotheses

Using the Path Coefficients test, the predicted relationships were evaluated. In Table 6, the results of the hypotheses yields beta-related numerical data, matching t-values, and P-values, as suggested by Ramli, Latan, and Nartea (2018). Moreover, we are using the bootstrapping option.

Table 6: Path Coefficient

Path (hypothesis)	Std. (β)	t-value	p-value	Conclusion
<i>H1a</i>	0.53	7.03	.00	Supported
<i>H1b</i>	0.69	11.08	.00	Supported
<i>H1c</i>	0.55	7.51	.00	Supported
<i>H1d</i>	0.50	6.58	.00	Supported
<i>H1e</i>	0.70	11.10	.00	Supported

<i>H2a</i>	0.42	5.32	.00	Supported
<i>H2b</i>	0.46	5.97	.00	Supported
<i>H2c</i>	0.39	4.83	.00	Supported
<i>H2d</i>	0.30	3.59	.00	Supported
<i>H2e</i>	0.29	3.49	.00	Supported
<i>H3a</i>	0.41	5.12	.00	Supported
<i>H3b</i>	0.38	4.64	.00	Supported
<i>H3c</i>	0.28	3.36	.00	Supported
<i>H3d</i>	0.35	4.31	.00	Supported
<i>H3e</i>	0.52	6.94	.00	Supported
<i>H4a</i>	0.43	5.37	.00	Supported
<i>H4b</i>	0.55	7.50	.00	Supported
<i>H4c</i>	0.49	6.43	.00	Supported
<i>H4d</i>	0.49	6.45	.00	Supported
<i>H4e</i>	0.56	7.66	.00	Supported

As presented in Table 6, hypothesis 1 showed that employee skill is positively influenced by quality of training in accordance with ISO (10015) i.e., Defining training ($\beta = 0.53$, $p < 0.001$); Designing and planning training ($\beta = 0.69$, $p < 0.001$); Providing for the training ($\beta = 0.55$, $p < 0.001$); Evaluating the outcome of training ($\beta = 0.5$, $p < 0.001$); Monitoring and improving training ($\beta = 0.70$, $p < 0.001$). Thus, based on the path coefficients, we conclude that hypothesis 1a, 1b, 1c, 1d and 1e is accepted. Hypothesis 2 showed that employee ability and willingness to change is positively influenced by quality of training in accordance with ISO (10015) i.e., Defining training ($\beta = 0.42$, $p < 0.001$); Designing and planning training ($\beta = 0.46$, $p < 0.001$); Providing for the training ($\beta = 0.39$, $p < 0.001$); Evaluating the outcome of training ($\beta = 0.3$, $p < 0.001$); Monitoring and improving training ($\beta = 0.29$, $p < 0.001$). Thus, based on the path coefficients, we conclude that hypotheses 2a, 2b, 2c, 2d and 2e are accepted. Hypothesis 3 showed that employee creativity is positively influenced by quality of training in accordance with ISO (10015) i.e., Defining training ($\beta = 0.41$, $p < 0.001$); Designing and planning training ($\beta = 0.38$, $p < 0.001$); Providing for the training ($\beta = 0.28$, $p < 0.001$); Evaluating the outcome of training ($\beta = 0.35$, $p < 0.001$); Monitoring and improving training ($\beta = 0.52$, $p < 0.001$). Thus, based on the path coefficients, we conclude that hypotheses 3a, 3b, 3c, 3d and 3e are accepted. Lastly, Hypothesis 4 showed that employee core competencies is positively influenced by quality of training in accordance with ISO (10015) i.e., Defining training ($\beta = 0.43$, $p < 0.001$); Designing and planning training ($\beta = 0.55$, $p < 0.001$); Providing for the training ($\beta = 0.49$, $p < 0.001$); Evaluating the outcome of training ($\beta = 0.49$, $p < 0.001$); Monitoring and

improving training ($\beta = 0.56$, $p < 0.001$). Thus, based on the path coefficients, we conclude that hypotheses 4a, 4b, 4c, 4d and 4e are accepted.

DISCUSSION

As shown in Table 6, the hypothesized quality of training in accordance with ISO (10015) on HRD showed a significant relationship. Therefore, it supports the hypothesis that the outcomes of quality of training in accordance with ISO (10015) have a positive influence on the outcomes of HRD.

The findings of this research shed light on the impact of ISO (10015)-compliant training on human resource development in a substantial way. Results confirmed all the relationship in hypothesis one by showing that employee skill is positively influenced by the quality of training in accordance with ISO (10015). Other research has demonstrated that training enhances workers' skills, which in turn increases their efficiency (Wisshak and Hochholding, 2018; Sheeba and Christopher, 2020). Results from all relationships in hypothesis two indicate that employee ability and willingness to change is positively influenced by the quality of training in accordance with ISO (10015). This study supports Turner, Morris, and Atamenwan's (2019) claim that training leads to many beneficial advantages, including employee capacity and desire to modify behaviour and enhanced morale, which contributes to company values and goals. The relationships in hypothesis three confirms that employee creativity is positively influenced by the quality of training in accordance with ISO (10015). This outcome is consistent with Rampa and Agogué's (2021) empirical results that successful training methods boost employee creativity and productivity. Results of from all relationship in hypothesis four indicate that employee core competency is positively influenced by the quality of training in accordance with ISO (10015). According to Wishak and Hochholding (2018), training new and experienced workers will lead to an increase in core competencies. These findings confirm all the hypotheses of this study.

According to this result, employees that get ISO-compliant (10015) training benefit from increased creativity, skills, elevated capacity to learn new things and an overall higher level of core competencies. Using ISO (10015) as a methodology for training quality enables HRD results to be accounted for once the programme is implemented. This viewpoint reveals aspects that could otherwise go unnoticed. For example, the success of a goal-setting exercise in sub-systems of the organisation may be influenced by the HRD professional's ability as a facilitator in accordance with systems theory (Turner et al., 2019). The human theory of productivity and efficiency also claims that education and training may raise the cognitive stock of productive human capacity, which is a consequence of natural potential and investment in all workers (Marginson, 2019).

CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

An organisation's most important resource is its people since they are the ones who have ultimate control over the resources, such as cash, technology, and finances. Planned organisational efforts to enhance employee knowledge, skill, and competency are necessary through training and development. Training and development have the same goal, which is to enhance one's knowledge, skills, and capacities. However, these two conceptions are distinct when it comes to their intended outcomes. Training is mainly concerned with enhancing current abilities, while development aims to increase future job-related knowledge in a manner that is integrated with other activities to promote improved work behaviours. This article experimentally examined the link between two factors based on the idea of ISO (10015)-compliant training quality and Human Resource Development. The results of this research are consistent with human capital and systems theory and imply a favourable connection between human resources and education.

This research adds to the body of knowledge by laying forth a theoretical framework. In addition, this study has significance for the HRM literature since training is crucial and plays a big role in institutions nowadays. ISO (10015) training quality offers a valuable standard for enterprises to evaluate their human resource operations. When HRD is properly integrated, it results in lower costs, better quality, happier customers, and faster product development cycles thanks to the system approach and human capital theory (Bae, Kang & Kim, 2020). This study contributes to the scarce number of previous studies that have focused on the quality of training in accordance with ISO (10015) and HRD in the telecom industry. HRD practices have a positive impact on business performance when employees have the right competencies, according to this research. As a result, this study's findings have not previously been experimentally validated in HRM literature. This research adds to the body of literature uniquely: it provides empirical evidence that links HRD outcomes to quality of training in accordance with ISO (10015) in the Libyan telecom sector.

Managerial implications may be drawn from the findings. The Libyan telecommunications industry is increasingly concerned with increasing productivity, which prompted this research. Changing internal and external environments, as well as shifting tactics, need training for telecommunications businesses' human resources. As a result, companies must prioritise the selection of effective training methods that may help them achieve their objectives while also enhancing the creativity and core capabilities of their personnel (Manresa, Bikfalvi and Simon, 2018). To keep up with the rapid pace of technological change, firms are forced to focus on the quality of their human resources (Murphy, 2020). An increase in labour productivity and a decrease in expenses may be achieved through improving worker training and professional

abilities. Akoi and Yesiltas (2020) the need of making the training strategy visible to improve HRD in Iraq's telecom industry.

Several restrictions might lead to exciting discoveries in the near future. Cross-sectional research was used to gather data; the however longitudinal study would have provided a better way to examine the chance correlations between variables. Another method used in the study's analysis of questionnaire data was the use of quantitative research. In the future, researchers are urged to collect more in-depth qualitative data. The inclusion of both qualitative and quantitative methods would have allowed for more depth and clarity to be gained. This research also relied heavily on the subjective perceptions of workers as data. Future research is advised to use objective measurements. Cross-validating replies from numerous sources and identifying personal biases from individual respondents might enhance this section of the project. The study's generalizability might also be a drawback. To be able to generalise the study results, this research only focused on one nation and the telecom industry. Only in the context of the Libyan telecommunications industry can the findings of this research be extrapolated. Given the telecom industry's specifics, we should be cautious when extending findings to other industries. The plausible mediating role in the connection between the quality of training in accordance with ISO (10015) with HRD outcomes was not evaluated. In light of the outlined limitations, future research should look into how perceived organisational support mediates the connection between ISO (10015) quality training and HRD outcomes. Using quality of training in accordance with ISO (10015), future studies should evaluate the potential mediation influence of perceived organisational support on HRD outcomes.

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