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The Impact of Continuous Learning on Service Quality and Information Quality: The Moderating Effect of System Quality

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Abstract

Many mining organizations are implementing various information systems as part digital transformation. With many mining operations located in rural parts of developing countries, where Information Systems skills among employees is not adequate, the question of information quality for decision has become a major topic of research. This paper investigates the service quality moderating effect on continuous learning that affects information quality and system quality. Data from a survey of mining employees working in rural areas of a developing country were analysed using Partial Least Square (PLS) Structural Equation Modelling (SEM). The results suggest that continuous learning positively affects information quality but does not positively or significantly affect service quality. Further, continuous learning moderated by system quality is not significant and does not positively impact information quality and service quality. Thus, organizations should create an environment where employees are continuously learning to drive information quality, which is critical in having a data-driven decision-making culture in mining organizations operating in rural areas of developing countries.

Keywords: Continuous Learning, Service Quality, Information Quality, System Quality, Information Systems Success, Knowledge Management, Organizational Learning

1. INTRODUCTION

The rise in digital transformation has resulted in many mining organizations implementing information systems. Research on the significance of information system success in

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v10 n6155

various businesses and contexts has been highly focused since 1995 (Petter et al., 2008; Petter & McLean, 2009). To get exceptional commercial results, it is imperative for organizations to have user acceptance and utilization of information technology (IT) and information systems (IS). Information systems are deployed with the purpose of acquiring a competitive edge and safeguarding organizational knowledge. Instances of IS encompass business resource planning systems, human resource information systems, and so on. Many of these IS incur significant expenses for licensing, deployment, and upkeep. Hence, the organization's strategic advantage heavily relies on the success and quality of their performance.

Extensive research has been conducted in different countries on the topics of technology adoption, learning organizations, and strategies for achieving success in information systems (Petter & McLean, 2009; Jeyaraji, 2020; Al-Kofahi, 2020). DeLone and McLean (1992) posited that the concept of quality encompasses various elements, such as system and information quality procedures, application and contentment as attitudinal outcomes, and unique and institutional influences as performance-linked outcomes. The relationship between the quality of IS and the influence on organizations is explained by the alteration of IS quality techniques, such as system quality (SQ), information quality (IQ), and service quality (SeQ), from the DeLone and McLean IS success model (Gorla et al., 2010). Their findings suggested that IS service quality has the greatest influence in this model (followed by information quality and system quality), thereby highlighting the importance of IS service quality for institutional success.

Additional research has been conducted on the concept of a learning organization, also known as organizational learning, and its influence on the performance of an organization (Watkins & Marsick, 1996; Yang et al., 2004; Goh, 1998). Marsick & Watkins (1999) asserted that learning organizations guarantee the acquisition of knowledge and skills at the individual, team, and organizational levels. Marsick & Watkins (1996) argued that learning takes place in all companies, but learning businesses are characterized by active efforts to create, collect, store, exchange, and utilize knowledge to provide innovative products and services.

While these studies have been done successfully in other countries (Lien et al., 2006; Yang et al., 2004; Ya-Hui Lien et al., 2006; Ellinger et al., 2002), less research has investigated the impact of continuous learning on IS quality and service quality moderated by system quality for industries such as mining operations in rural Africa. Continuous learning ongoing, purposefully employed process that is seamlessly interwoven with and occurs simultaneously with employment resulting in acquisition of knowledge.
The purpose of this study is to investigate the link between the impact of continuous learning (CL) on IS quality and service quality moderated by system quality for a mining operation in Africa.

Mining Operations in Rural Zambia
The mining operations in rural Africa implement a socially sustainable development program by hiring the majority of their workforce from the local community. Kapwepwe et al. (2007) state that the Lumwana area in Zambia, where the Lumwana mining company operated by Barrick Gold Cooperation is situated, has historically suffered from low literacy rates due to inadequate educational facilities and limited access to higher education opportunities. Due to the employees' limited exposure to technology education in the nearby schools, there is a difficulty in embracing and utilizing modern technologies in their mining operations.

Mining is a complex undertaking that necessitates advanced engineering and expertise to attain superior outcomes. Like numerous contemporary institutions, the majority of mines built in the 21st century employ cutting-edge technology to adjust and thrive in the knowledge-based economy (Leitch et al., 1996; Egan et al., 2004). The educational background of miners in rural Zambia are mostly not at the college graduate level but the digitalization of mining operations and business processes require a degree of technological sophistication. Miners require access, training, and familiarization on IS to perform diagnostics and maintenance on machines and vehicles and conduct technical mining operations. Continuous learning in IS and computing education is especially important to improve information quality.

The study aims to investigate the relationship between continuous learning, information quality, system quality, and service quality at the mine. The research questions for this study are:

- RQ1: How does Continuous Learning impact Information Quality?
- RQ2: How does Continuous Learning impact Service Quality?
- RQ3: How does System Quality moderate the relationship between

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v10 n6155

Continuous Learning and Information Quality?

- RQ4: How does System Quality moderate the relationship between Continuous Learning and Service Quality?

We present a literature review on IS Success and continuous learning. We then detail the methodology and summarize the results that are discussed. They conclude the paper by looking into the contributions and limitations of the research and the possibilities for future investigations.

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

Information Systems Success

Gorla et al. (2010) provided a comprehensive explanation of the general categorization of IS quality indicators into system quality, information quality, and service quality. Information system quality pertains to the metrics used to evaluate the performance and effectiveness of the information processing system itself (DeLone & McLean, 1992).

DeLone and McLean (2003) modified their original IS success model by replacing the individual impact and organizational impact constructs with "net benefits" constructs in their updated model. They argued that this revised model can be applied at various levels of analysis depending on the specific task. The impact of IT extends beyond immediate users to work groups, organizations, industries, consumers, and society as a whole.

DeLone and McLean updated the D&M IS Success Model by assessing its effectiveness in response to significant changes in IS practice, particularly the emergence and rapid expansion of e-commerce (DeLone & McLean, 2004).

Figure 1 below is the updated DeLone and McLean model.

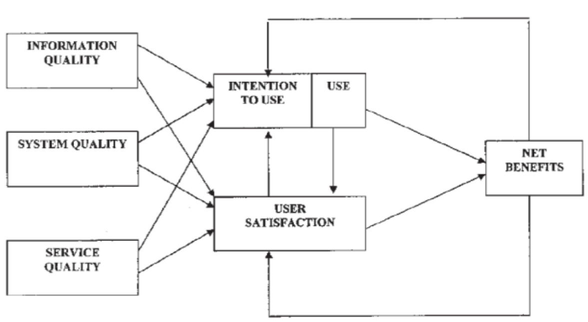

Figure 1: Updated D&M IS Success Model (DeLone & McLean, 2003)

As shown in the D & M IS success model in Figure 1, the independent variables are information quality, system quality, and service quality.

Continuous Learning (CL)

In order for technology adoption to take place, particularly among workers lacking technological training and experience, it is imperative to establish a conducive learning company culture. The culture of a learning organization is crucial for achieving IS success, particularly in the knowledge economy. This is because the business environment is always changing due to technological advancements, competition, and innovation (Egan et al., 2004). Leitch et al. (1996) earlier proposed that learning is crucial for organizations to adjust and expand. The fate of many organizations hinges on their ability to adapt to technology and fully embrace a culture of continuous learning in their daily operations.

According to Leitch et al. (1996), a learning organization is characterized by the acquisition, improvement, and transfer of knowledge, the facilitation of individual and collective learning, and the integration and modification of behaviors and practices within the organization and its members as a result of learning. Watkins & Marsick (1996) define a learning organization as one that engages in continuous learning and undergoes transformation. Learning is an ongoing, purposefully employed process that is seamlessly interwoven with and occurs simultaneously with employment. Acquiring knowledge also improves the ability of an organization to innovate and expand. The learning organization has integrated processes in place to capture and disseminate knowledge.

Marsick & Watkins (1999) contend that all organizations possess the ability to acquire knowledge. Learning businesses are distinguished by their proactive efforts to generate, capture, store, exchange, and utilize knowledge at the systems level in order to develop innovative goods and services. In their argument, Marsick & Watkins (1994) propose that the concept of the learning organization offers various potentialities. They assert that it is not a fixed set of instructions, but rather a framework for evaluating existing practices. Organizations can utilize this notion to strategize ways to improve workplace learning that align with the objectives of the business and the individual employees comprising it. Marsick & Watkins (1994) introduced the dimensions of the learning Organizations Questionnaire (DLOQ) framework, which has been extensively employed to assess the efficacy of the learning organization

ISSN: 2473-4901
v10 n6155

culture.

The Watkins & Marsick (1996) model identifies seven dimensions of a learning organization culture. These dimensions are: (i) Continuous learning, which involves the creation and support of ongoing learning opportunities; (ii) Inquiry and dialogue, which fosters interactive inquiry and dialogue; and (iii) Team-based learning, which promotes collaborative learning activities within teams (iv) Empowerment, which refers to empowering people toward a collective vision, (v) Embedded system, which refers to establishing systems to capture and share learning (vi) System connection, which refers to connecting an organization to its environment, and (vii) Strategic leadership, which focuses on providing strategic leadership for learning practices.

According to Watkins & Marsick (1993), "yesterday's organizations were machine-like, today's are systems-like, and the future's are brain-like." Continuous learning makes learning part of the job in today's workplace. It must be included into normal tasks. Thus, employees must acquire not just their job abilities but also those of others in their work unit and how their work unit affects the business's operations and goals. Employees must teach and learn from each other. The entire workplace promotes skill acquisition. Watkins & Marsick created a problem-solving cycle-based continuous learning paradigm. The model alternates judgment or thought with action. The model enhances work-based learning. According to the approach, every problem may be turned into a learning opportunity, hence there is no fixed period for learning.

Learning organizations help people articulate their opinions through effective thinking (Watkins & Marsick, 1993). People also learn to listen and ask questions. The company culture should encourage questioning, feedback, and innovation. People should investigate ideas, questions, and prospective actions through open-minded curiosity that suspends presuppositions and judgments in the pursuit of truth for a better answer.

The workplace integrates high- and low-tech learning sharing systems, according to Watkins & Marsick (1993). Such systems should be accessible and maintained. Even if individual learning supports organizational learning, business practices influence learning systems (Watkins & Marsick, 1993).

Watkins & Marsick (1996) said that learning organizations define, own, and implement a shared vision. To help people understand their roles, responsibility is separated near decision-making. Watkins & Marsick call this "empowerment." Learning organizations require many people to share a goal and unlock their potential. Learning is focused on a shared vision in the learning organization.

Watkins & Marsick (1993) argued that learning companies deal well with their physical, social, and cultural surroundings. The learning organization recognizes its environmental dependency. Helps people recognize how their job affects the company. They must monitor the environment and change work habits. Watkins & Marsick (1993) said continual interaction binds the organization to the community.

Information Quality (IQ)
Decision makers' satisfaction is achieved through the use of high-quality information. According to Landrum et al. (2008), there is a positive correlation between information quality and user satisfaction. Caniëls & Bakens (2012) state that the satisfaction level is directly influenced by the quality of the output produced by project management information systems (PMIS).
The information quality directly affects the quality of decision-making by managers. Caniëls & Bakens (2012) highlighted that there is a strong and positive correlation between the quality of information produced by the PMIS and the decision-making abilities of project managers. The PMIS's ability to generate high-quality information is closely linked to the quality of decision-making. Bharati and Chaudhury (2004) has shown that there is a clear and positive relationship between the quality of information and the level of satisfaction in decision-making. Therefore, an enhancement in the quality of the information results is heightened satisfaction with decision-making.

Information quality is directly and positively correlated to decision-making satisfaction, so an increase in the quality of the information leads to an increase in decision-making satisfaction (Bharati & Chaudhury, 2004). Continuous learning motivates employees to teach, learn from their co-workers, and gain productive reasoning skills (Watkins & Marsick, 1993). Learning organizations with embedded learning systems enable employees to create innovative products and services and connect with the organization in novel ways. Egan et al. (2004) argue that the learning organization culture and IS quality measures are tied to corporate performance and eventual survival. Accordingly,

ISSN: 2473-4901
v10 n6155

this study proposes that learning organizations promote continuous learning across their employees to improve the quality of information for decision-making. Thus, we propose that:

H1: Continuous Learning positively impacts Information Quality

Service Quality (SeQ)

Service quality has emerged as a necessary addition to the information success model. It uses the SERVQUAL measures adapted to the information systems context, focusing on items that provide reliability, responsiveness, assurance, and customer empathy (DeLone & McLean, 2003). Many IS researchers have validated the SERVQUAL metrics to ensure their reliability and validity. The IS departments are seen as service providers within many organizations, and thus, measuring service quality is critical for user satisfaction. Some measures for service quality include the IS staff's skill, experience, and capabilities (Petter et al., 2008). The service quality also applies to outsourced services.

Petter et al. (2008) explain service quality as the quality of the support system users receive from the IS department and IT support personnel. Information system service quality is the variable with the most significant impact in this model. Continuous learning in the IS department and empowerment of the IT support personnel will benefit both the goals of the organization and the individual workers in the organization. Accordingly, this study proposes that continuous learning in the IS department will increase the IT support personnel's responsiveness, accuracy, reliability, technical competence, and empathy. Thus, we propose that:

H2: Continuous Learning positively impacts Service Quality

System Quality (SQ)

System quality refers to the desirable attributes or characteristics of an information system. System quality is assessed based on several factors including simplicity of use, system adaptability, system reliability, ease of learning, as well as system attributes such as intuitiveness, sophistication, flexibility, and response times (Petter et al., 2008). The effectiveness of MIS (management information systems) has a significant influence on the accuracy and reliability of the information as well as the overall functioning of the company. The high quality of MIS encompasses the high quality of information, the perceived usefulness of the information, the satisfaction of decision makers, and an improvement in the quality of managerial decision-making.

A multitude of studies commonly employ or embrace the established metrics for evaluating system quality, which include simplicity of use, flexibility, response speed, and reliability. Usability refers to the extent to which decision-makers perceive that utilizing a MIS for managerial decision-making would require minimal effort. A system characterized by limited adaptability may result in reduced user satisfaction and have an impact on the quality of the information.

The quality of MIS impacts the information and the organization. High quality of MIS means high quality of information, perceived usefulness, decision makers' satisfaction, and an increase in the quality of managerial decision-making. Learning organizations that foster continuous, high-quality IS empower employees and the organization with greater ease of use, increased system reliability, more accessibility with system flexibility, and ease of learning (Petter et al., 2008). In contrast, more than accessing MIS, the low reliability of the systems may lower user satisfaction and influence the quality of the information and the quality of the service. Thus, we propose that:

H3: System quality moderates the relationship between Continuous Learning and Information Quality

H4: System quality moderates the relationship between Continuous Learning and Service Quality

Figure 2 illustrates the final research model for this research with the hypotheses.

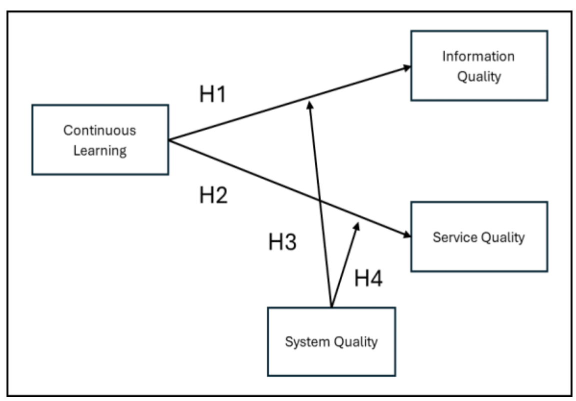

Figure 2. Hypotheses and Research Model

3. METHODOLOGY

Population and Sample

ISSN: 2473-4901
v10 n6155

The research population consisted of mining employees who used an information system and were recruited from a developing rural society. A purposive sampling technique was used to identify 55 respondents. In purposive sampling, a researcher chooses respondents from the identified sample population (Neuman, 2018). The sample for 55 was determined to be adequate for the effect size and power for this study using a 10-times rule method for using Partial Least Square (PLS) Structural Equation Modelling (SEM), which suggests that sample size (n) should be more than 10 times the maximum number of inner or outer model links (Hair et al., 2011; Goodhue et al., 2012; Peng & Lai, 2012).

Sample Size	N = 55
Gender	%
Female	14.5
Male	85.5
Qualifications	%
Grade 12 Certificate	43.6
College Certificate	27.3
College Diploma	23.6
University Degree	5.5
Mining Experience	%
1-5 Years	20
>5 Years	80
Employee Category	%
Junior (Hourly)	74.5
Senior (Salary)	25.5

Table 1. Demographic Sample Statistics

Data Collection Procedures
The quantitative aspects of the study involved using a paper questionnaire administered in-person to a group at a mine site to the employees in the sample to gain a comprehensive view of learning organization culture and information system quality measures. The researcher decided on a survey to ensure easy usage and to facilitate a quick response. The other advantages related to this data-gathering technique included the adaptability of planning the research structure, the capability to permit a reasonable sample, and lowered outlays (Weible & Wallace, 1998).

The data collected through this quantitative method was analyzed in two ways. Firstly, descriptive statistics were used to present results in tables. This activity was accomplished using SPSS software. The second analysis was accomplished using partial structural equation modelling (SEM) using SMART PLS v3.

The researcher employed SEM to analyze the associations among the variables being evaluated. SEM is a second-generation multivariate evaluation technique that offers analysts a comprehensive technique to analyze and quantify theories (Jöreskog & Sörbom, 1996). This technique was adopted as it is suitable for research where the sample size is small and correct model specification cannot be ensured.

The participants' opinions were recorded using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Initially, a preliminary version of the modified items was examined and evaluated by a pretest conducted with a cohort of 12 miners. The phrasing and organization of the items were updated in response to input to provide clarity in the mining context. Subsequently, the conclusive questionnaire consisting of 27 items was ultimately refined and employed to procure 55 valid responses. The research model depicted in Figure 2 was examined. Table 1 presents a concise overview of the demographic characteristics of the participants in the primary investigation.

Survey Instruments
The constructs in this study were measured using items adapted from previously validated studies (See Appendix 1). Four CL items were adapted from the Dimensions of a Learning Organization Questionnaire construct (Yang et al., 2004). In addition, 2 information quality, 2 service quality, and 2 system quality measures were adapted from the study by Petter et al. (2008).

4. RESULTS AND DISCUSSION

Measurement Model
The measurement model assesses the precision of variables (measurement items), the associations between the measured variables, and the underlying constructs they reflect (Hair et al., 2014). This process entails the evaluation and analysis of several factors such as the loadings of items (item reliability), the composite reliability and Cronbach’s alpha of constructs (internal consistency reliability), the convergent and discriminant validity (construct validity), and the overall fit of the measurement model (Yaokumah et al., 2019).

According to Yaokumah et al (2019), the general guideline for determining the cut-off point is to include items with loadings of 0.7 or above, as suggested by Fornell & Larcker (1981). A loading of 0.7 signifies that about 50% of the variability in the observable variables may be attributed to the latent variable (Hulland, 1999). Chin (1998) suggests that when scales are adopted from other

 ISSN: 2473-4901
v10 n6155

settings, a loading of 0.5 could be employed as the threshold point (Chin, 1998). Nevertheless, it is recommended to exclude components with loadings below 0.4 (a generally used criterion for factor analysis results) or 0.5 (Hulland, 1999). In this analysis, all items with a loading below 0.7 were excluded, except for SQ3, which was included due to its adaptation and a loading of 0.547(Chin, 1998). The examination of the structural model utilized a total of nine components. Refer to table 2 for the factor loadings.

Convergent validity assesses the degree to which items within a construct are interconnected and measures the same underlying concept. It is tested using the average variance extracted (AVE). Hair et al. (2009) recommends a variance of more than 50% in each construct. Discriminant validity, in contrast, implies that variables within each construct are not correlated and alone capture the essence of their respective constructs. The evaluation of the data can be conducted using a Fornell-Larcker criterion and a heterotrait-monotrait ratio of correlations (HTMT) in SmartPLS. The Fornell-Larcker values, which are the square root of the average variance extracted (AVE), are displayed in bold font. Additionally, the diagonal of the correlation matrix (Table 3) also shows these values. These Fornell-Larcker values are greater than the off-diagonal correlations between any pair of latent constructs, as stated by Fornell and Larcker (1981).

Item	CL	SQ	SeQ	IQ
CL1	0.786			
CL2	0.814			
CL4	0.796			
SQ2		0.872		
SQ3		0.547		
SeQ1			0.938	
SeQ2			0.867	
IQ1				0.902
IQ2				0.900

Table 2. Outer Model Loadings

The standardized root mean square residual (SRMR) measures the discrepancies between the observed and hypothesized correlations in a model. The SRMR value of our model (.139) is consistent with the recommended threshold values proposed by Hu and Bentler (1999), Byrne (2016), and Kline (2011), indicating a strong fit of the model.

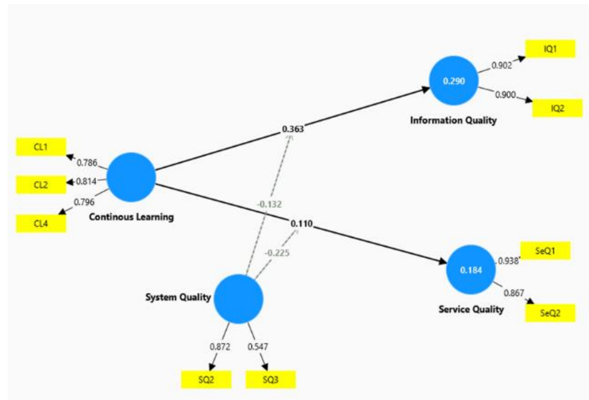

Figure 3. Model Results Structural Model and Hypotheses Testing

Figure 3 and Table 4 summarize the model results, including the standardized path coefficients for each hypothesized relationship and associated ρ values. Our overall model's R^2, representing the variance explained in the exogenous constructs information quality and service quality is 0.290 and 0.184 respectively, a weak outcome measuring the model's predictive accuracy (Hair et al., 2011). Testing H1 Continuous Learning (CL) positively impacts Information Quality (IQ) at a significant level ($\beta = 0.363$, $\rho = 0.015 < 0.05$), Continuous Learning (CL) does not positively impact Service Quality (SQ) at a significant level, ($\beta = 0.110$, $\rho = 0.685 > 0.05$), not supporting H2. When System Quality moderates the relationship between Continuous Learning (CL) and Information Quality (IQ), the impact is not positive and significant ($\beta = -0.132$, $\rho = 0.626 > 0.05$), not supporting H3. When System Quality moderates the relationship between Continuous Learning (CL) and SQ, the impact is not positive and significant, ($\beta = -0.225$, $\rho = 0.504 > 0.05$), not supporting H4.

5. IMPLICATIONS, FUTURE RESEARCH, AND LIMITATIONS

Theoretical Implications

Our study contributes to learning organization and IS success as theoretical lenses. First, this study builds upon DeLone and McLean updated D&M IS Success Model to help understand ~~the~~ system quality, information quality, and service quality (DeLone & McLean, 2004).

ISSN: 2473-4901
v10 n6155

Variable	1	2	3	4	AVE	CR	α
1. Continuous Learning (CL)	**[0.860]**				0.739	0.749	0.638
2. Service Quality (SeQ)	0.061	**[0.884]**			0.781	0.855	0.816
3. Information Quality (IQ)	0.362	0.424	**[0.876]**		0.768	0.768	0.812
4. System Quality (SQ)	0.175	0.404	0.448	**[0.354]**	0.125	0.144	0.529

Note:
Model Fit Statistics: SRMR = 0.139, X^2 = 108.25
AVE: average variance extracted, CR: composite reliability, α: Cronbach's alpha, N=55
√AVE represented on diagonal in [ ]
Confirmed both discriminant and convergent validity using Fornell and Larcker (1981) method

Table 3: Latent Variable Correlations, AVE, CR, and Cronbach's alpha (reliability)

Hypothesis	Relationship	p-value	Supported
H1	CL positively impacts IQ	0.015	Yes
H2	CL positively impacts SQ	0.685	No
H3	System quality moderates the relationship between CL and IQ	0.626	No
H4	System quality moderates the relationship between CL and SQ	0.504	No

Table 4. Hypotheses Summary

Our study shows the continuous learning linkages to information quality and continuous learning to system quality impact. Secondly, our study models learning organization culture by investigating continuous learning impacts on IS success measures.

Lastly but not the least, our study reveals system quality as moderating latent variables on CL and IQ links is not significant.

Practical Implications
People learn and pass information in a continuous learning culture, raising the collective knowledge of the workforce. This is evident by the results of our study which shows that miners who come from backgrounds where they did not have exposure to technology can learn new systems.

The result of our study shows that system quality does not moderate information quality. As many systems improve and get over engineered, that saying of garbage in garbage out still holds true. Mining companies employing technology as part of their operations should invest in training their workforce regardless of their backgrounds to ensure they obtain quality information.

The modern mining operations are dynamic with continuous change and using advanced IS, requiring a continuous learning culture among users (i.e., miners). Training departments in mining organizations should empower continuous learning and increase safety practices with quality IS and services.

The mining operations using continuous learning resulting in high information quality should realize optimal availability and utilization of production time, safer operations, higher operating efficiency, and lower cost of production. Study results indicate continuous learning of high school educated miners can positively impact information quality in rural areas. Research shows information quality positively impacts organizational performance (Gorla et al., 2010). Thus, having higher information quality can result in better mining performance.

Limitations and Future Research Directions
The study has several limitations even after conducting a rigorous design and control of survey instruments and data analysis. First, this study surveyed only African users who were recruited from rural areas near the mine and were employees of a mining company who use advanced IS. Therefore, the findings based on these limitations may not generalize to non-African IS users who have IS experiences. Future studies should consider interactions of technology and culture and implications in mining operations. Second, the type of mining is an open pit mine and learning organization culture differs between the types of mines, industries, and contexts. Organizational demographic variation (more educated or tech-savvy miners) may affect the best practices for optimal learning in mining

ISSN: 2473-4901
v10 n6155

organizations. Future research should explore how demographic differences of industries correlate with their data validity and reliability. Third, conduct mixed-method research
h to obtain valuable information using structured data collection instruments (quantitative) in combination with qualitative approaches to further explore or explain the phenomenon.

Last, the rate of learning over the life course of the mine is not constant due to turnover, job rotation, new IS, upgraded equipment, and the mine transformation. Besides cross-sectional studies, longitudinal studies should explore the rates of learning in the context of schedule and unexpected changes in mining operations and its life course.

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APPENDIX 1.

A1. Construct and Measurement Items

Note: The scales for all the survey items are
1 – Strongly Disagree
2 – Disagree
3 – Neither Disagree or Agree
4 – Agree
5 – Strongly Agree

Construct	Item	Adapted from
Continuous Learning (CL)	I continue to learn about the system as I use it	Yang et al., 2004
	I am encouraged to ask and seek answers when I do not understand	Yang et al., 2004
	I ask my team members when I encounter difficulties, and they offer help	Yang et al., 2004
	I recommend improvements and the organization acts on them	Yang et al., 2004
Information Quality (IQ)	The information needed from the system is always available	Petter et al., 2008
	The system produces readable, clear, and formatted information	Petter et al., 2008
Service Quality (SeQ)	The system support team always helps with system problems	Petter et al., 2008
	The system support team has knowledge to do their job	Petter et al., 2008
System Quality (SQ)	The system produces readable, clear, and formatted information	Petter et al., 2008
	The system responds quickly when using it the system is easy to learn	Petter et al., 2008

