

Interplay between Organizational Learning and Departmental Performance: Implications for Change in Ethiopian Public Research Universities

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ABSTRACT

Literacy abilities are crucial for economic progress and community welfare, with higher education recognizing them as vital for problem-solving, critical thinking, continuous learning, and effective functioning for both experienced educators and the new student cohorts. The study examined the interplay between organizational learning and departmental performance, and its implications for changes in Ethiopian Public Research Universities. The researchers used the framework that focuses on seven distinct dimensions of organization learning (OL) namely continuous learning, inquiry and dialogue, collective and collaborative efforts of organizational members, empowerment, embedded system, system connection and strategic leadership and departmental performance (DP) which consists of three dimensions teaching-learning, research and community services. The researchers employed embedded mixed methods design (QUAN + qual) to examine the interplay between organizational learning (OL) and departmental performance (DP). The researchers selected four public research universities using simple random sampling technique. Then, they selected 1,176 respondents (969 instructors and 207 department heads) from target population using simple random sampling technique. The researchers adapted standardized questionnaires and collected quantitative data using questionnaires, and analyzed using descriptive statistics (mean & standard deviation), and inferential statistics (multiple correlations, multiple regressions & structural equation modeling). Qualitative data was collected using semi-structured interview from 14 key informants who were selected using the purposive sampling technique based on their rich lived experiences of teaching-learning, research and leadership in higher education institutions. The qualitative data was thematically analyzed. The finding of the study showed that the structural equation model fit to the data. It was also found that the correlations between the different dimensions of organizational learning practices and departmental performance ranged between low and moderate. There were positive significant and moderate correlations between each dimension of organizational learning and departmental performance. The organizational dimensions accounted the largest cumulative variance to departmental performance dimensions; research ($R^2 = 40.70\%$; $\beta = .638$, $p < .001$); community service ($R^2 = 33.50\%$; $\beta = .579$, $p < .001$) and teaching-learning ($R^2 = 24.60\%$; $\beta = .496$, $p < .001$). The study showed that the presence of formal and informal organizational learning cultures in universities enhance departmental performances. Therefore, the Ethiopian public research universities should create effective organizational learning systems to improve departmental performances.

Key words: Organizational Learning; Departmental Performance; Research University, Organizational Literacy

INTRODUCTION

Background

The growing of international competitions, accountabilities, responsibilities, academic and professional competencies call for changes and respond to rapid changes occur in the learning environments because higher education makes significant changes driven by globalization and technology (Mense et al., 2018). These global demands meet the changing needs

of the learning environments and must possess learning organization and organizational learning system (Hussein et al., 2014). Literacy abilities are crucial for economic progress and community welfare, with higher education recognizing them as vital for problem-solving, critical thinking, continuous learning, and effective functioning for both experienced educators and the new student cohorts (Nikou & Aavakare, 2021). Organizational learning takes a position of a social process of individual's participation in collectively

situated practices and discourses to reproduce and expand organizational knowledge (Popova-Nowak & Cseh, 2015) that indisputably subsidizes departmental performance. In addition, organizational learning as a meta-learning process includes structures, strategies and cultures consists of cognitive process instead of redesigning organizational elements (Lundberg, 1995). It occurs when organizations have system perspectives that enable understand the relationship and interdependence of organization within the subsystem and their larger external environment which affects the current and future performance (Senge, 1990). From this we can see how organizational learning which in itself is key in bringing about desired changes in organizations in this era.

A novel way of critical looking at the debate between the learning organization as a positive ideal, and the learning organization as negative idea is essential argument to think about learning organization and its performance in different directions. Vince (2018) stated paradoxical tensions because they generate possibilities of learning much to be learned from the interplay between the desires to create ongoing learning opportunities and conscious and unconscious efforts to avoid and undermine them. Organizational learning contributes to knowledge acquisition through which organizational members develop shared values, cognitive knowledge and skills enhancing their performance (Vince, 2018). In addition, it results in changes of knowledge, beliefs and behaviors which take place at individual, group and organizational levels (Marsick & Watkins, 2003; Yang et al., 2004). The whole learning with all its interdependence, interaction of its parts and its connection to the larger learning environments promote organizational success through improved performances enabling organizations learn from experiences and best practices (Xie, 2019).

OL is creating, acquiring, transferring and integrating knowledge to continuously adjust or change its behavior. Accordingly, the seven distinct but interrelated dimensions of OL are identified (Yang et al., 2004). These theoretical bases comprise continuous learning, inquiry and dialogue, collective and collaborative efforts of organizational members, empowerment, embedded system, system connection and strategic leadership. In line with the dimensions of organizational learning, there is a minimal assumption that OL occurs first at individual level, which gradually leads to learning at team level and increasingly larger units (Yang et al., 2004). Based on this assumption, OL occurs first at individual level and gradually leads to learning at team level and increasingly in larger units or organizational level (Yang et al., 2004) to cause effects on organizational performance.

Similarly, organizational performance measurement in the public sector has received considerable attention in many countries and becomes the subject of considerable academic research (Bogt & Scapens, 2012). As Hood (1995) pointed out, New Public Management (NPM) emphasizes accountability and efficiency through the use of explicit quantitative performance measures and external audits. In contrast, an old public management, which relied largely on self-management by professionals, had somewhat implicit standards rather than qualitative performance indicators.

In a number of countries, public funding for universities has become increasingly dependent upon their research and teaching performances (Whitley, 2007; Martin & Whitley, 2010). The organizational performance is influenced by organizational elements or behaviors such as employees and organizational commitments as organizational motives that encourage individuals in the organization dedicated towards achieving organizational goals (Abebe & Assemie, 2023). Likewise, organizational learning capability impacts an organizational innovation which positively influences organizational or departmental performance (Haile & Tüzüner, 2022).

Education scholars define organizational performance as the success of an organization in meeting its objectives (Ashraf, 2012). This organizational phenomenon accounts for the quality of departmental performances in public universities. Departmental performance (DP) is conceptualized depending on the mission-based academic institutions' performance model that comprises of teaching-learning process, research, and community services (Abubakar et al., 2018). Similarly, MoE (2018) roadmap policy identified poor research infrastructure, misalignment between teaching and research, research findings and community services in Ethiopian Universities. In addition, Girma and Aklilu (2023) stated that higher education learning institution's mission completion through combined effects of teaching-learning, research and innovation created large magnitude of entities towards organizational performances. This study basis on the contributions of seven distinct and interrelated OL dimensions, which further categorized as individual person and organization or system level dimensions of organization learning to DP.

Problem Statement

Pertaining to the interplay between OL and DP, the researchers witnessed observations of only few international and national levels empirical studies conducted in Ethiopian public research universities. The study conducted by Adefisayo et al. (2020) revealed that there were moderately strong, positive and statistically significant relationships between OL and DP. This indicates that there are positive and statistically significant relations between OL and DP although it was not conducted in Ethiopian Universities. Zelalem and Jabessa (2015) further stated that there was poor linkages between pay and performance in Ethiopian higher education institutions resulted to low employee motivation and engagement. This gap contributed to high mass departure of top talents from Ethiopian universities to other industries. The outcome effects of OL on DP illuminated the achievements of the university's mission and vision in Ethiopia were characterized by poor working conditions, lower quality of work-life and commitment (Abebe & Assemie, 2023). These studies did not show causal-effect relationships between OL and DP rather than showing the direction of the relationships.

In addition, Mebratu (2021) further found out that individual, institutional and organizational levels learning are positively and significantly related to institutional performance in Ethiopian public higher institutions. However, they were not able to share and utilize the existing knowledge

to create new knowledge to improve institutional practices. The other researcher, Letense (2018) studied on a number of dimensions of OL and indicated that the dimensions were significantly and positively related to organizational performance without indicating the contribution of each dimension of OL to DP. Moreover, the empirical study conducted by Haile and Tüzüner (2022) on the effects of organizational learning capability on organizational innovation shows that there was little empirical evidence that suggests the nexus among organizational learning capability, process and administrative innovations.

In addition, the practice of OL includes collaboration, collegiality, information sharing, professional activities and social relationships in Ethiopian Universities caused fragile states of DP (Desta et al., 2023). The local empirical studies also did not predict the casual-effect relationships' direction and strengths of the relationships between OL and DP rather than re-counting about dimensions of OL and DP. Therefore, the researchers were motivated and inspired to investigate the interplay between OL and DP improvement and its implications for changes in Ethiopian Public Research Universities.

Research Questions

1. What are the nature of the relationships (i.e., direction, strength, and statistical significance) between dimensions of organizational learning and departmental performance?
 H_0 : The two dimensions of OL (SL and PL) are not related positively to the four dimensions of DP (TL, RES, ADMFA and CS).
2. To what extent do dimensions of OL contribute to dimensions of DP independently and jointly?
 H_0 : The contributions of the two dimensions of OL (SL and PL) to the four dimensions of DP (TL, RES, ADMFA and CS) do not exceed that of their independent contributions.
3. Are there statistically significant differences in the dimensions of Organizational Learning and DP with respect to staff category (Head versus Instructors)?
 H_0 : Heads and instructors do not differ in their ratings of practices of dimensions of organizational learning and DP.

Significance

The findings of this study inform the organization level policy makers to reinvigorate the effects of organizational learning practices on departmental performances. It also enhances the academicians' and leaders' understandings about theoretical applications and validity of organizational learning practices on departmental performances. In addition, it improves the practices of departments' heads, academicians and researchers. This informs the most plausible organizational learning variable on elevating individual and groups' teaching-learning research and extension and community service dimensions' performance expectations. Besides, the finding of the study helps to develop the ways essential

literacy skills of department heads leadership and academic staff shall be developed in this 21st century digital world.

Operational Definition of Terms

Organizational learning

Refers to a dynamic and deliberate process that results in changes in knowledge, beliefs and behaviors which takes place at the individual, group and organizational levels (Marsick & Watkins, 2003; Yang et al., 2004). Being informed by this conceptual base, the researchers customized Organizational learning as a deliberate process where the department heads exert efforts on the learning of academic staffs and teachers themselves exert efforts to learn by interactions with others.

Departmental performance

Is a perceived outcome of academic department of research Universities missions accomplishment measured by the new tools for measuring global academic performance focuses on teaching, research and community services (Abubakar et al., 2018). Accordingly, based on Abubakar et al. (2018), the researchers adapted and further constructed more items to explain and explore the contexts of Universities under investigation.

Theoretical Framework

The theoretical framework of this study is organizational learning and academic performance measurements theories. Organizational learning (OL) is an organization's ability of creating, acquiring, transferring and integrating knowledge to continuously adjust or change its behavior. Yang et al. (2004) identified seven distinct but interrelated dimensions of OL. These are continuous learning, inquiry and dialogue, collective and collaborative efforts of organizational members, empowerment, embedded system, system connection and strategic leadership. On the other hand, in line with Yang et al. (2004), depending on the assumption that OL occurs first at individual level, which gradually leads to learning at team level and increasingly larger units, OL can have two major dimensions: individual/people level (PL) and organizational/system level (SL). Departmental performance (DP) is conceptualized depending on the mission based academic institutions' performance model that comprises of teaching-learning process, research, and community services (Abubakar et al., 2018). Teaching Learning (TL) performance is related to the classroom activities including information inside the classroom along with grades of the students, the number of degrees awarded, graduates, and their job position. Research (RES) performance involves publishing empirical articles individually or collaboratively in a journal, publishing a book review; or presenting a paper at a professional meeting. Community service (CS) refers to service delivered by a department to the surrounding community in the form of an outreach, training, a consultancy and/or a partnership.

MATERIAL AND METHODS

The present study used an embedded type of mixed methods design (QUAN + qual) in order to examine the link between dimensions of LB and DP (Creswell & David, 2018). The design is considered embedded because quantitative data results are explained further with the qualitative data.

Sample and Sampling Techniques

The study was conducted on four universities such as Bahir Dar, Haramaya, Hawassa and Jimma universities which were selected from eight Ethiopian public universities identified as centers of excellence in research (Ministry of Science and Higher Education [MoSHE], 2021). The primary data were collected from the universities' instructors and department heads. The four universities and the participants were selected randomly using a multi-stage simple and stratified probability sampling techniques (Cohen et al., 2018). According to the data obtained from MoSHE (2021) at the time of data collection, there was a total target population of 5863 academic staff (Male = 4814, Female = 1049) in the four universities. The sample size for this study was determined following Kline's (2016) suggestions. After indicating that the minimum sample size commonly used in simple SEM studies is 200, Kline pointed out rule of sample size in terms of the proportion of number of participants (N) to number of parameters to be estimated (q) (N: q) with (N: q; 20:1) being maximum and (N: q; 10:1) being less ideal, warning that the trustworthiness of results of a SEM study diminishes as the N: q ratio falls below 10:1. The present study used (N: q; 15:1) reasoning that this ratio would provide a sample size from which results of adequate trustworthiness can be obtained. Accordingly, 1,192 academic staff participated in the study. However, data screening indicated that 16 of the participants had missing values on the scaled items, and the number of cases reduced to the analysis to 1,176. 14 academic staff (12 males and 2 females) was selected purposively from the four universities for the qualitative investigation, In addition, for the qualitative study, 14 academic staff (12 males and 2 females) was selected using purposive sampling technique. These 14 key informants (department heads and instructors) were selected based on such criteria as rich teaching-learning, research and leadership lived experiences. The academic ranks of these participants ranged from lecturer to full professor with up to 32 years of work experience in different positions in their respective higher education institutions. Accordingly, the key informants provided their depth perceptions, experiences and practices regarding the effects of leadership behaviors on departmental performance. The technical staff were not included in the study because they don't normally directly engage in staff research and graduate research.

Data Collection Tools

A questionnaire consisting of demographic questions and two scales, and semi-structured interview were used for data collection. The tools were administered in English as it is the language of instruction in Ethiopian universities. The

adapted form of new tool for measuring global academic performance (Abubeker et al., 2018), was used to measure departmental performance (DP). As indicated in Table 1, examination of the internal consistency reliability of the scales using Cronbach Alpha produced the optimum number of items with the highest possible reliability coefficients.

Data Analysis Techniques

For quantitative data analysis, Exploratory (EFA) and Confirmatory Factor Analysis (CFA), descriptive statistics, correlational analysis and path analysis using structural equation modeling (SEM) were used to analyze the data. In addition, for qualitative data analysis, thematic analysis was employed using open code version 4.03 software. During transcription, the researchers repeatedly listened to the audios three different times to obtain complete information. Thus, thematic analysis in the present study involved four separate flows of activity: data reading, coding, reducing, and displaying all involving a constant process of interpretation (Miles & Huberman, 1994).

For the EFA of the dimensions of the learning organization questionnaire items KMO was .962 and Bartlett's test was significant ($p = .000$) indicating that some latent factors underlie the correlation matrix. EFA produced three factors which explained a total variance of 57.428%. Nonetheless, Factor 3 was found to correlate strongly with the other two factors, particularly to the extent of overlapping with Factor 2 ($r = .89$) thereby leading to the problem of multicollinearity. Thus, Factor 3 was removed from the model along with other items that disturbed fitness of the model. Factor 1 in this modified model was named System Level (SL) and Factor 2 was named People Level (PL) dimensions of OL (see Figure 1). This two-factor CFA model of the OL was found to fit the data well [$\chi^2(53) = 356.809$, $p = .000$; TLI = .949; CFI = .959; RMSEA = .070 (90% CI: (.063, .077), PCLOSE = .000)]. The composite of the relatively high quality 12 items which remained in the model were used to represent their respective two dimensions in the structural model.

For the EFA of the dimensions of the new tool for measuring global academic performance, KMO was .95 and Bartlett's test was significant ($p = .000$) indicating that some latent factors underlie the correlation matrix. EFA produced four factors which explained a total variance of 43.042%. Factor 1 was named as *Teaching Learning* (TL), Factor 2: *Research* (RES), Factor 3: *Administration and Facility* (ADMFA), and Factor 4: *Community Service* (CS). After removing seven items that disturbed fitness of the model to the data, CFA confirmed that the four-factor CFA model (see Figure 2) fits that data well [$\chi^2(224) = 1172.443$, $p = .000$; TLI = .904; CFI = .915; RMSEA = .060 (90% CI: (.057, .063), PCLOSE = .000)]. The composite of the relatively high quality 23 items which remained in the model were used to represent their respective four dimensions in the path model.

Descriptive statistics (i.e., frequencies and percentage) were used to describe the demographic characteristic of the participants of the study. Pearson product moment correlational coefficient was used to examine the zero-order correlations among variables of the study. Path analysis using SEM was used to examine contributions of the dimensions

Table 1. Reliabilities (cronbach alpha,)α of the scales in main studies (n=1176)

Scale	Subscale	Pilot Study		Main Study	
		K*	α	K*	α
Dimensions of the Learning Organization Questionnaire	System Level			7	0.898
	People Level			5	0.846
Departmental Performance	Teaching Learning	9	0.754	6	0.782
	Research	13	0.903	7	0.848
	Administration and Facilities			6	0.821
	Community Service	6	0.823	4	0.814

*K=Number Items; for System Level and People Level organizational leaning and Administration and Facilities, reliabilities were not reported because these dimensions did not emerge as distinct factors in the pilot study data

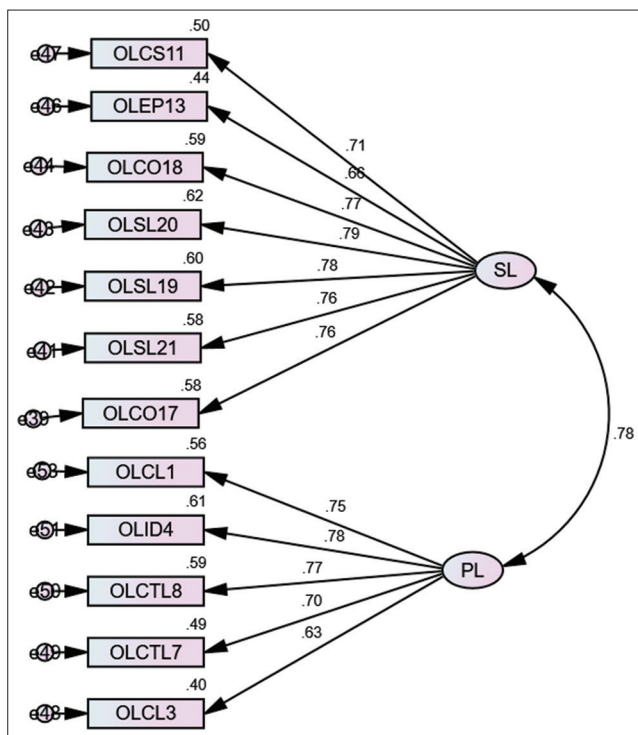


Figure 1. CFA of items measuring organizational learning dimensions

of OL to dimensions of DP. To examine tenability of the assumption of linearity, graphical and scatterplot methods (Tabachnick & Fidell, 2013) were employed. Generally, this assumption was found to be tenable. Likewise, the assumption of multi-collinearity for the variables was tenable as none of the squared multiple correlations among variables in structural models were near .90. The analyses were carried out using version 23.0 of AMOS and SPSS.

RESULTS

Relationships between Dimensions of Organizational Learning and Departmental Performance

The first research question of the present study examined the relationships between dimensions of organizational learning and departmental performance. The zero-order correlation coefficients among dimensions of these variables are depicted in Table 2. All of the 8 relations among the 6 dimensions

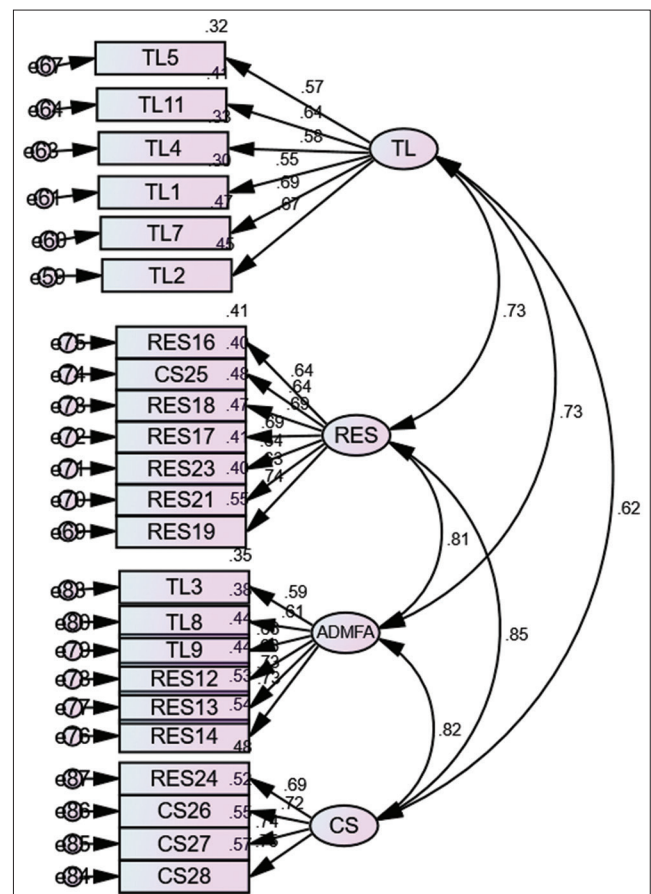


Figure 2. CFA of items measuring of academic departmental performance dimensions

were found to be statistically significant at the $\alpha = .001$ level. The strength of the statistically significant correlations ranged from weak ($r = .352$), between people level and community service dimensions to moderately strong ($r = .590$), between system level and research dimensions. In all of the relations, system level dimension was found to be related relatively more strongly to dimensions of DP.

Contributions of Dimensions of Leadership Behavior to Organizational Learning

The second research question in the present study inquired proportion of the variance explained in the dimensions of DP

by dimensions of Organizational Learning. Table 3 illustrates that the contribution of system level dimension to dimensions of DP is larger than that of the people level dimension. Relatively, while the system level dimension of OL contributed most to Research ($R^2 = 34.80\%$) followed by Teaching and Learning ($R^2 = 28.80\%$), the people level dimension contributed most to teaching and learning ($R^2 = 22.80\%$) followed by research ($R^2 = 18.90\%$). Together, the system and people level dimensions of OL contributed most to research ($R^2 = 35\%$) followed by teaching and learning ($R^2 = 31.10\%$). Except in CS, the combination of dimensions of OL explained the largest variance in the dimensions of DP than their independent variable contributions.

In addition, the qualitative findings indicated that OL positively contributes to DP by enhancing the knowledge, skills and attitudes of the staff:

No question! To speak the truth, if it is practiced, organizational learning contributes positively to department performance. The fact that some staff do not engage in research and effective teaching may not only be because of lack of interest but also because of lack of skills and knowledge. If there is organizational learning, I believe that problems related to knowledge, skills and attitude will be resolved. If these problems are resolved, then, the staff will be likely initiated and engage in departmental

performance. If the effort that the staff exerts is high, there is no question; departmental performance will be high. The better organizational learning leads to departmental performance, the better organizational learning positively impacts departmental performance. [QLPA 06]

Similarly, the other participant elucidated that OL contributes to DP positively:

I think organizational learning, which focuses on individual level learning, increases departmental performance. This is because learning occurs at the individual level, which means the tasks were performed by them, they know in practice where there are gaps or areas for improvement, what they lack to achieve the desired goal, and what skills and knowledge they currently have to perform their tasks. This does not mean neglecting systems or structural learning. Thus, individual learning has a stronger relationship with departmental performance for me. [QLPA 05]

Dimensions of Organizational Learning and Departmental Performance about Staff Category

The third research question sought to examine differences in the dimensions of OL and DP with respect to staff category (Heads versus Instructors). Table 4 illustrates that, although with small effect sizes, statistically significant differences were found between the heads and instructors in all of the dimensions. Relatively, in all of the dimensions of DP, that is, teaching and learning ($t = -5.26, p < .001$), research ($t = -3.62, p < .001$), administration and facilities ($t = -6.35, p < .001$) and community service ($t = -2.65, p < .001$), department heads reported significantly higher scores than instructors. Similarly, department heads reported significantly higher scores than instructors in system level ($t = -5.84, p < .001$) and people level ($t = -10.19, p < .001$) dimensions of organizational learning.

The qualitative findings revealed that only the TL dimension of DP is being practiced compared to the others, "... There are visions, but community services and research were not carried out as intended because of budget constraints. This

Table 2. Relations between organizational learning and departmental performance (n=1176)

	Dimensions of Organizational Learning	
	System Level	People Level
Dimensions of Departmental Performance		
Teaching-Learning	0.537***	0.478***
Research	0.590***	0.434***
Administration and Facility	0.536***	0.399***
Community Service	0.516***	0.352***

p < 0.01; *p < 0.001

Table 3. Contributions of dimensions organizational learning to dimensions of departmental performance (n=1176)

Dimensions of Organizational Learning	Dimensions of Departmental Performance	Standardized Regression Coefficient (β)	Squared Multiple Correlation (R^2)
People Level	Teaching and Learning	0.478***	0.228
	Research	0.434***	0.189
	Admn and Facility	0.399***	0.159
	Community Service	0.352***	0.124
System Level	Teaching and Learning	0.537***	0.288
	Research	0.590***	0.348
	Admn and Facility	0.536***	0.287
	Community Service	0.516***	0.266
System Level, People Level	Teaching and Learning	0.394***; 0.209***	0.311
	Research	0.550***; 0.059	0.350
	Admn and Facility	0.494***; 0.062	0.289
	Community Service	0.516***; 0.000	0.266

Table 4. Summary of results from independent samples t-test (instructors=969, heads=207)

Variables		Staff Category	Mean	T	ES
Dimensions of Departmental Performance	Teaching and Learning	Instructors	11.95	-5.26***	0.02
		Department Heads	13.82		
	Research	Instructors	12.97	-3.62***	0.011063
		Department Heads	14.58		
	Administration and Facilities	Instructors	9.52	-6.35***	0.03
		Department Heads	12.11		
	Community Service	Instructors	6.82	-2.65**	0.01
		Department Heads	7.56		
Dimensions of Organizational Learning	System Level	Instructors	22.25	-5.84***	0.12
		Department Heads	25.83		
	People Level	Instructors	16.88	-10.19***	0.08
		Department Heads	21.06		

*p < 0.05; **p < 0.01; ***p < 0.001

discourages the staff; it also affects organizational trust. There are lots of challenges in this aspect” [QLPA 03]. The qualitative analyses findings revealed that the practices of organizational learning at the department level can be said to be weak:

To my understanding, to speak the truth, the culture of organizational learning and learning from one another is weak. It is difficult for me to express that the staff is interacting with one another as members of the same institution. Instead, behaviors related to independence prevail; each staff runs his own race. I do not see staff members sharing knowledge to one another. Because the staff works in their own preferred ways; they do not share their experiences and knowledge to others. At department level, we are not conducting seminars; even on the seminars that are prepared at the college level, the staffs are not willing to participate. [QLPA 04]

Nonetheless, as one participant indicated, relative to the system level OL, people level OL might be practiced more:

Individual or people-based learning is more prevalent at the department. Because learning occurs at the individual level, which means the tasks are performed by them, they know in practice where there are gaps or areas for improvement, what they lack to achieve the desired goal, and what skills and knowledge they currently have to perform their tasks. [QLPA 06]

DISCUSSION

The first research question examined the strength of correlations among dimensions of OL and DP reached to the decision that the relationships ranged from weak between people level and community service dimensions to moderately strong between system level and research dimensions. This finding indicated that as dimensions of OL increase, dimensions of DP increase. These findings are congruent with previous empirical studies carried out in Ethiopian higher education institutions. For instance, the study of Mebratu (2021) conducted in seven public Ethiopian universities showed that individual, institutional and organizational level

learning are positively and significantly related with institutional performance. Similarly, the findings of the present study show alignment with that of Letensea (2018) who studied in three Ethiopian Public Universities, and reached to deduction that various dimensions of organizational learning such as continuous learning, dialogue and inquiry, and team learning contributed significantly and positively to organizational performance. Furthermore, this finding shows an agreement with the finding of Adefisayo et al. (2020) in that both revealed positive and statistically significant relationship between OL and DP. Therefore, the directional alternative hypothesis and null hypothesis developed below research question no. 1 were examined and found to be accepted.

The second research question and hypotheses of the present study examined the contributions of dimensions of organizational learning to dimensions of departmental performance. The finding indicated that while system level dimension of OL contribute the most to RES, people level dimension contributed the most to TL. The combination of the two dimensions of OL explained the largest variance in the dimensions of DP than their independent contributions thereby confirming that the alternative and null hypotheses are tested and accepted in the present study. This finding coincides with a minimal assumption that OL occur first at individual level and gradually leads to learning at team level and increasingly larger units or organizational level to cause effects on organizational performance (Yang et al., 2004). Therefore, the directional alternative and null hypotheses developed below research question no. 2 were examined and found to be accepted.

Furthermore, the findings of the present study in line with research question three and its hypotheses pursued that differences were observed in the dimensions of organizational learning and DP with respect to staff categories or their demographic profiles. Hence, the third questions of the present study showed statistically significant differences in all of dimensions of DP (TL, RES, ADMFA and CS) and OL (PL and SL). This contradictory finding was triangulated by

qualitative findings that support the findings of instructors regarding the gaps of implementation of dimensions of OL and DP with respect to staff categories because of different demographic profiles. This finding shares communality with the study conducted on effectiveness of teaching-learning, research and innovation (Girma & Aklilu, 2023). Therefore, the directional alternative and null hypotheses developed below research question no. 3 were examined and found to be accepted.

CONCLUSIONS

The organizational learning dimensions have positive and moderate relationships with departmental performance ranging from weak between people and community services dimensions to positively strong relationship between system level dimension and research of DP. As the strengths of dimensions of OL increase, the strengths of dimensions of DP will increase. In addition, the system level dimension of OL contributes the most to RES whereas the people level dimension contributed the most to TL. Therefore, the combination of the two dimensions of OL explained the largest variance in the dimensions of DP than their independent contributions with optimum performance when organizations focus on both system level and people level learning. The difference observed between dimensions of OL and DP with respect to staff categories, the findings of instructors was strengthened by open-ended interviews about the practices of dimensions. Thus, low implementation of dimensions of OL and DP with respect to staff categories occurred because of the differences of the nature demographic differences.

RECOMMENDATIONS

The top educational leader levels, college deans and department heads should encourage and positively enforce departmental members to participate in people level learning, then to system learning opportunities through available educational technologies. At the same time, the universities top academic leadership authorities should encourage and support different seminars, workshops, dialogues and conferences where staff members in the department exchange their views, present new insights on their field of study and practices. The college deans and department heads should work on connecting OL dimensions (people level and system level) with delivering research outputs, effective teaching-learning and community services. Therefore, the researchers suggested that public research universities should excel in research, graduate teaching and learning excellence and need-based community services. An institutional policy should support and enforce structured and informal system of learning among faculties, monitor and evaluate the implementation of policy strategies. The Universities department heads in collaboration with deans should foster collaboration and interdisciplinary approaches: encourage collaboration across departments and disciplines to promote a holistic approach to literacy skill development and create opportunities for cross-disciplinary learning experiences.

LIMITATIONS OF THE STUDY AND FUTURE DIRECTIONS OF RESEARCH

Although the present study used advanced statistical procedures, developed and tested the model that has important theoretical and practical implications, it has also limitations to be kept in mind when interpreting and using the results. Although the rapport was established with the participants and an attempt was made to supplement quantitative data with qualitative data, the data gathering tools were susceptible to such response sets as social desirability in which the participants could respond not based on the basis of what they really experienced, but on the basis of what they think are socially acceptable.

ABBREVIATIONS

AMOS	Analysis of a Moment Structure Confirmatory
CFA	Factor Analysis
EFA	Exploratory Factor Analysis
DHIP	Department Head Interview Participant
DLOQ	Dimensions of Learning Organization Questionnaire
DP	Departmental Performance
IIP	Instructor Interview Participant
NPM	New Public Management
OL	Organizational Learning
PA	Path Analysis
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences

CONFLICTS OF INTEREST

We have declared that there is no conflict of interest.

FUNDING INFORMATION

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DATA AVAILABILITY STATEMENT

The data were included in the analysis, and the raw data will be available on request.

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