

Relative importance of leadership dimensions in predicting internal efficiency in the primary schools of Gamo and Gofa Zones, South Ethiopia

Betta Tsemato Ambaw

*Department of Pedagogical Sciences, Arba Minch University,
Arba Minch, Ethiopia*

Abstract

Purpose – Educational goal attainment in the primary schools of Gamo and Gofa Zones, South Ethiopia, has been constrained by persistent internal inefficiency, resulting in substantial resource wastage because of delayed student progression. Despite ongoing efforts to address this challenge, the performance was below expected standards. Thus, the purpose of this study is to improve education quality through application of balanced leadership dimensions in the target primary schools.

Design/methodology/approach – This study used a quantitative research approach and multiple regression analysis to identify the relative importance of leadership dimensions in predicting internal efficiency.

Findings – The findings of this study revealed that the sampled schools demonstrated internal inefficiency and misalignment of the application of leadership dimensions. These findings suggest that the inappropriate alignment and application of leadership dimensions, contrary to the principles of the Full Range Leadership Model, contributed significantly to internal inefficiency and the consequent wastage of educational resources.

Research limitations/implications – The findings suggest that improving school internal efficiency would be ensured with a more balanced and strategic application of leadership practices, particularly promoting those dimensions with stronger predictive influence. Thus, it would lead to societal implication by improving education quality, to managerial implication by enabling education sector managers to make informed decisions and verified applications, to academia implication through its contribution to the existing body of knowledge, besides suggesting further studies to contextualize the findings to new settings.

Practical implications – This study would lead to societal implication by improving education quality, to managerial implication by enabling education sector managers to make informed decisions and verified applications, implication to academia through its contribution to the existing body of knowledge, besides suggesting further studies to contextualize the findings to new settings.

Originality/value – Adopting a comprehensive Full Range Leadership Model with emphasis on the appropriate leadership dimensions adjusts school internal efficiency.

Keywords Efficiency, Leadership, Dimension

Paper type Research paper



1. Introduction

Education is universally considered as a catalyst and master key for all development processes and, thus, for optimum human life (Badaru and Adu, 2021). Research on human resource capital concurred that the pivotal determinant of a country's rate of progress is its human resource (Amar and Satrianto, 2025; Özdemir, 2023). Studies also indicated that education, mainly primary education, is an important determinant of poverty reduction (Spada *et al.*, 2024).

Thus, the goal of attaining optimal economic development, improved living condition of the citizens and attempts to boost technological advancement are unlikely to be attained unless education plays its vital role. Consequently, governments and the public were intervening in the education system to facilitate proper functioning of the education system so that its contribution in various aspects of development would be maximized (Tsemato and Darza, 2024). Governments have been designing and redesigning the education policies, strategies and programs of their respective countries so as it would fit the countries' development plans. In this regard, Jahantab (2021) and Oyekan (2018) indicated that the realization of national development lies on the effective implementation of the country's educational policies and the performance of both teachers and students at all levels of the system.

Similarly, the Government of Ethiopia placed great hope on education as both a means and an end of poverty alleviation program and has given special attention for education sector in cognizant of its role in poverty alleviation program (GGZED, 2019). Accordingly, MoE in the Ethiopian Education Sector Strategy document stated that the education objective was to produce citizens who would have the ability to appropriately solve individual and community problems and the potential to be productive members of the community (MoE, 1994b). In this connection, the Ethiopian Education and Training Policy specifies that the curriculum need be grounded on the objectives of education that guarantee the achievement of the standard profile of the students (MoE, 1994a).

Unless the graduates develop the desired level of behavior, the confidence that society and government have on education to enhance development would be in vain. Unfortunately, effectiveness of the education system of Ethiopia was questioned throughout the history of education in Ethiopia (Ambaw, 2019; Tsemato and Darza, 2024). According to this author, the historical phenomena of education in Ethiopia involved traditional and modern education systems each having its respective chronological profiles. Based on his analytical review of the phenomena of education history in Ethiopia, he stated that the problem with quality of education was common to all the systems of governance except some differences in its magnitude and suggested that rigorous investigation was required to reverse the recurrence of the vicious circle (Ambaw, 2019).

The problem with quality education in Ethiopia is salient. Impeded by internal inefficiency, significant number of pupils entering grade one were not completing the cycle of primary education within the years prescribed (Mutegi, 2019). The review of the efforts and their outcomes of the previous years ended with sad instead of good news. Targets set to be attained in 2020 to respond to the problem were not met in Ethiopia. The efficiency indicators – repetition rates in Grades 1–8 and dropout rate in Grade 1 – were moving away from the target (MoE, 2015). Thus, the national survival rate of pupils was 49.2%, 55% and 55.8% at Grade 5 in the years 2005, 2010 and 2015, respectively, while the target for it in the year 2020 was 70%. Besides, primary education completion rate was 43.6%, 47.8% and 51.3% in the years 2005, 2010 and 2015, respectively, whereas its target was 74% in the year 2020 (MoE, 2015). Moreover, Ministry of Education indicated that the national promotion rate of primary education (Grades 1–8) was 91.2%, 91.5% and 92.7% in the years 2005,

2010 and 2015, respectively, while its target for the year 2020 was 98% (MoE, 2015). When closely observed, the 10-year achievement of all the primary education survival, completion and national promotion rate was insignificant compared with that of the targets set for 2020 – the achievement in 2015 was 55.7%, 51.3% and 92.7% instead of 69.7%, 71.6% and 97.2%, respectively.

The current situation was the worst of ever experienced. The average repetition and dropout rate of primary school students was 7.2% and 9.8, respectively, whereas the proportion of students who did not score pass mark in the eighth-grade regional examination was 82.2% in 2023 for Gamo and Gofa Zones. Thus, it was evident that internal efficiency was moving away from the target whereby the problem relapsed compared with its rate in 2015.

The aforementioned problems of the education system had several consequences. First, it compelled government to expend huge number of resources to re-educate great number of readmitted students. A student who repeats a grade requires extra resource that would educate him nearly the whole year in the next grade. In this respect, the education department indicated that repetition leads to more utilization of resources than the one which was allocated (GmZED, 2021). When traced back, the former Gamo Gofa Zone was compelled to allocate additional resource to school 28,691 primary school students in 2017/2018 academic year, for instance, who required 575 additional classrooms, 575 more teachers and 229,530 extra textbooks to re-school them in the previous grade levels besides loss of ample pupils' time as opportunity cost (GGZED, 2019). The resource spent by the zone to school these students estimated to be US\$7,100,000 in 2018 which implied high internal inefficiency. It also implied that the rate of return of investment on education went on declining as internal efficiency was deteriorating. Moreover, it was apparent that education system was missing its role of ensuring development. Consequently, the state of wreck of the education system in terms of internal efficiency became the major concern of the government in the study area in particular and all over the country at large. Therefore, it was imperative to look for ways of tackling the problem scientifically. Despite the salient nature of the problems stated, no research was conducted to investigate the effect of leadership dimensions on internal efficiency in the study area.

2. Conceptual framework

A number of studies conducted in the realm of leadership indicated that leadership had reflective relationship with organizational performance which resembled students' achievement or the schools' internal efficiency in education institutions (Addin, 2020; Aggarwal, 2011; Leithwood *et al.*, 2004; Yukl, 2006). These scholarly findings attributed certain share of internal inefficiency to the drawbacks in the schools' leadership practices. Thus, this research was designed to investigate the link between internal efficiency and the school principals' behavior in practicing full range leadership model (FRLM) in the primary schools of Gamo and Gofa Zones. In effect, the following hypotheses were tested to examine the statistical significance of the relationship among the variables:

- H1. There is no relationship between the primary schools' internal efficiency and the school principals' idealized attribute, idealized behavior, individualized consideration, inspirational motivation and intellectual stimulation dimensions of transformational leadership in the study area.
- H2. There is no relationship between the primary schools' internal efficiency and the school principals' contingent reward and active management by exception dimensions of transactional leadership in the study area.

- H3. There is no relationship between the primary schools' internal efficiency and the school principals' passive management by exception and laissez-faire dimensions of passive avoidant leadership in the study area. Quality Education
for All

Thus, it is imperative to draw conceptual framework of the variables to guide the study. It was suggested that internal efficiency of primary schools is influenced by the nine leadership dimensions composed of Idealized Attributes (IAs), Idealized Behaviors (IBs), Individualized Consideration (IC), Inspirational Motivation (IM) and Intellectual stimulation (IS) dimensions of transformational leadership, Contingent Reward (CR) and Active Management-by-Exception (AMbE) dimensions of transactional leadership and Passive Management-by-Exception and Laissez-Faire (LF) dimensions of passive avoidant leadership dimensions. It was hypothesized that each of the nine leadership dimensions would predict the internal efficiency of primary schools to certain extent based on the alignment of the school principals' leadership behavior with the acceptable FRLM. This was depicted in Figure 1.

3. Literature review

3.1 The concept of leadership

Leadership is pervasive with respect to dimensions of time, territory, sector and with respect to impact. In this regard, literatures indicated that leadership was a powerful instrument connoting symbols of influential, vibrant persons that order triumphant arms, lead company domains or design countries path (Yukl, 2006). It is per meant not only to humans; it is also a tool for coordination of other animals including insects like ants, bees and termites. As diverse is the scope of leadership, scholars used to define leadership in relation to various perspectives they view it. Among other numerous definitions, leadership is referred to as tapping the efforts of followers toward achievement of goals which are obviously drawn in the leader's mind as a vision to be realized by the involvement of the employees (Cartwright, 2017). Although different writers define leadership in many different ways, all of them incorporate in their definitions that leaders influence their followers toward the achievement of goals.

3.2 Underpinning theories of leadership

Studies revealed successive evolutionment of leadership theories. The previous leadership theories like "Trait Theory of Leadership" were developed focusing on the leaders' personality or quality, whereas the successive theories like "Contingency Theory of

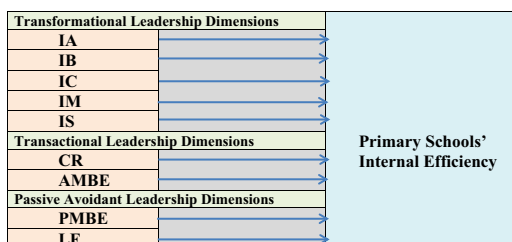


Figure 1. Conceptual framework of the variables

Note(s): Relative importance is assessed through: Direction ($\pm$) of the relationship; Standardized regression coefficient (β); Statistical significance (p -value); and Comparative magnitude of β

Source: Author's own work

Leadership” were evolved through studies based on scholarly interests grown mainly during the early period of the 19th century and focused on other variables like contextual elements (Avolio, Walumbwa and Weber, 2009). In this regard, the great-man, trait, behavioral, contingency, transactional and transformational leadership theories were the most prevalent ones (Jawoosh *et al.*, 2021).

Contemporary leadership researchers have stressed on the influence of transformational and charismatic leadership on groups’ motivation and performance; they credited continued interest in the field that were emerging during the mid-1980s to 1990s and tested all through the literatures of education, psychology and management (Avolio, 1999; Hunt, 1999; Lowe and Gardner, 2000). Working on transformational and charismatic leadership was considered as second order of the new theories where the theories were critically reviewed, and the variables relevant to the theory were identified (Hunt, 1999). The third stage of the evolution of the new theories was concerned with revising, resolving the controversies and consolidating the theories (Antonakis, Avolio and Sivasubramaniam, 2003). Avolio and Bass put forward Full Range Leadership Theory (FRLT) as one of the novel leadership theories (Bass and Avolio, 1991; Bryman, 1992). FRLT involved the dimensions of transformational, transactional and LF leadership which are constituted by nine distinctive elements and are mainly assessed by MLQ (Bass and Avolio, 1991; Hunt, 1999). Other authors considered laissez-faire leadership as passive avoidant leadership and described that FRLT comprised transformational, transactional and passive avoidant leadership (Horwitz *et al.*, 2008).

The components of FRLT involve five transformational, three transactional and one passive avoidant leadership dimensions; the five transformational leadership dimensions are IA, IB, IC, IM and IS; the three transactional leadership dimensions are CR, AMbE and passive management by exception (PMbE) and the one passive avoidant leadership dimension is LF leadership (Antonakis *et al.*, 2003; Bass and Avolio, 1991; Tejeda, Scandura and Pillai, 2001). Moreover, PMbE dimension of transactional leadership is habitually regarded as passive avoidant leadership under equivalent global construct as LF leadership approach (Avolio and Bass, 2004; Horwitz *et al.*, 2008). This view was supported by other studies by limiting the components of transactional leadership dimensions as CR and AMbE (Avci, 2015; Hamstra, VA Yperen, Wisse and Sassenberg, 2014).

Scholars have identified each of the leadership dimensions with their specific descriptions; thus, CR is a transactional leadership dimension where the leader provides rewards or punishments based on the followers’ behavior or performance, whereas with AMbE, the leader strongly monitors and frequently intervenes before the problem becomes chronic (Antonakis *et al.*, 2003; Horwitz *et al.*, 2008). With transformational leadership dimensions, a leader who uses IA provides sense of undertaking, increases followers’ deference and trust where the group imitates the leader’s manners; a leader who practices IB lays down example for followers’ behavior via self-actions where the group imitates the leaders’ behavior for regulation of their own behavior; a leader who uses IM uses power emanating from the leaders’ relationship with the group, conveys messages charismatically and clearly to the group; a leader who applies IS promotes inventiveness, logical action and dynamic problem-solving among the followers; a leader who exercises IC offers personalized attention, mentoring, empowering and attachment with followers on individual basis (Antonakis *et al.*, 2003; Horwitz *et al.*, 2008; Tejeda *et al.*, 2001). With passive avoidant leadership dimension, a leader who practices PMbE is reactive and intervenes only after problems reach chronic level; sometimes, PMbE is regarded as a transformational leader’s behavior when the leader intentionally releases followers to learn through making mistakes; a leader implementing LF dimension of passive avoidant is characterized by

avoiding decision-making, passing key decision-making undertakings to the followers and becoming reluctant in acting on key and controversial issues (Horwitz *et al.*, 2008).

The findings of the studies conducted in the field of leadership emphasized the benefits of FRLT with particular attention of retaining the leadership dimensions; applying the distinct components of the FRLT was found to be much better in conducting field studies, training leaders and providing feedback rather than referring the general leadership constructs like transformational or transactional; accordingly, retaining the nine components of FRLT better enables leadership scholars to train leaders when they need to focus on which of the specific leadership dimensions among the nine to promote their leadership potentials; it makes one more fruitful to say “focus on individualized consideration” instead of “focus on transformational leadership,” for example (Antonakis *et al.*, 2003). More importantly, application of FRLT is dependent on contextual factors; context refers to associating observations with appropriate facts or events that may involve institutional characteristics, work nature, exterior factors and demographics (Lowe and Gardner, 2000; Rousseau and Fried, 2001).

3.3 Leadership in education

Educational leaders are expected to bear an image of a desirable tomorrow which is shared among the members of the organization and that could mold the teaching and learning programs as well as the designs and steps permeating the everyday life of the organization (Crawford, Kydd and Riches, 1997). Academic leaders bear an ethical responsibility to take care of everybody fairly, value individual desires, keep up trust, exhibit honesty in every dealing and generate ways of life which assist enhancement for every student (Chen *et al.*, 2015; Cosenza, 2015; Mac Ruairc, 2013).

3.4 Theoretical framework of leadership linkage with internal efficiency

The ultimate goal in educational institutions is students' academic achievement which implies the institutions' internal efficiency (Tsemato, Darza and Berhanu, 2024). Internal efficiency refers to the degree to which the wealth allocated to education system is wisely used to attain the objectives – students learning – for which the education system has been created (Yukl, 2006). Scholars associate internal efficiency with quality education. In this regard, they categorize quality indicators into four – inputs, processes, internal efficiency and external efficiency (the latter two are output related variables); and they enumerate pupils' pass, repetition and drop-out rates as components of internal efficiency (Van Der Berg *et al.*, 2019). Studies revealed that input, process and output are the three indicators which make the foundation for internal efficiency (Subedi, 2009; Tsemato and Beyene, 2024; Yunas, 2014). In this regard, internal efficiency is the degree to which output is as high as possible, whereby the probability of wastage is minimized. Thus, internal efficiency in education is the degree to which the outputs of educational institutions (involving promotion, completion and survival rates) are heightened, whereby the probability of educational wastage is minimized.

The standard to measure the extent of internal efficiency is the target set by an organization in a measurable manner. Therefore, it is the very responsibility of the institutions' leaders to establish the standard, to align and mobilize all the resources toward the attainment of internal efficiency and to measure the organization's effectiveness in attaining the standard. Thus, studies indicated that the level of the schools' internal efficiency is determined by the level of the school principals' leadership practice (Tsemato and Darza, 2024). Internal efficiency is directly correlated with school management system in that well managed schools are more efficient than mismanaged schools (Yang, 2014). Lack of principals' managerial skills and competences led to low internal efficiency of the schools,

and this could be resolved by enhancing the principals' competence and commitment through continuous professional development program (Yunas, 2014).

The relationship between leadership dimensions and internal efficiency is grounded in Systems Theory, which conceptualizes organizations as open system consisting of interrelated inputs, processes and outputs. Within this framework, principals' competence in applying appropriate leadership dimensions, in this study FRLM, constitutes the input. The influence of these leadership dimensions on teachers' and other stakeholders' attitudes, behaviors, motivations and performance represents the process through which organizational activities are transformed. The resulting level of internal efficiency, manifested in improved student progression, reduced repetition and dropout rates and enhanced educational outcomes, constitutes the output of the system. Accordingly, Systems Theory provides a logical framework for explaining how effective leadership practices are transformed into improved internal efficiency through organizational processes.

4. Methodology

Descriptive survey design and quantitative method were used to meet this study purpose which was discovering the relationship of primary schools' internal efficiency and the principals' leadership practice. Hence, two sets of survey questionnaires of which items were tested for validity and reliability were used to gather the data. The first set of tools was used to collect data on leadership practice from 436 participants composed of 36 school principals and 400 teachers, whereas the second set was for gathering data on internal efficiency from 445 participants comprising 65 home room teachers and 380 students. For questionnaire set I, all the 36 school principals were considered as the number of principals of the selected schools is limited to 36; and for determining the sample size of teacher respondents, Yamane's formula written as " $n = N/[1 + N(e)^2]$ " where n = sample size, N = total population and e = level of significance, was applied. Thus, for the first set of questionnaires, the total population was 10,917 and the significance level was 0.05. Hence, 386 was the appropriate number of participants to be considered as sample but the researcher included 10% more participants to compensate none responses, if any. Thus, he considered 400 teachers in addition to 36 school principals. The same procedure as for the first set of questionnaires was used to determine the sample size for the second set of questionnaires. The total population for the second set of questionnaires was 95,483. In effect, 398 was the appropriate number of participants to be considered as sample. However, the researcher considered a total of 445 respondents including 10% of the expected sample size as there may be none responses. Proportionally stratified random sampling technique was used to identify individual participants for both the first and the second sets of questionnaires. The data collection period spans from December 2024 to January 2025. The data were analyzed using mean, correlation and multiple regression models applying SPSS version 24. Mean, as descriptive statistics, was used to analyze the respondents' perceptions rated as "not at all," "once in a while," "some times," "fairly often" or "frequently" having the rating vale of 0, 1, 2, 3 and 4, respectively.

MLQ scale scores, which were average scores for the items on the scale, were used; it was designed to identify a leader as, for example, "more transformational than the norm" or "less transactional than the norm" rather than labeling of a leader as transformational or transactional; the benchmark guideline for mean scores of FRLM components was set as greater than or equal to three for all transformational leadership dimensions; greater than or equal to two for CR; less than one and half for AMbE and less than one for PMbE and LF dimensions (Avolio *et al.*, 2004; Bass and Avolio, 1991). Multiple regression model was used to investigate the measure of relative importance of each of the leadership dimensions

in predicting the primary schools' internal efficiency and 0.01 probability level was used as a criterion to determine the rejection or acceptance of the null hypothesis (Best and Kahn, 2016).

4. Result

4.1 *Assessment of common method bias*

Common method bias (CMB) arises when measurement error is introduced because both the independent and dependent variables are measured using the same data collection method, instrument, respondents or data source, potentially inflating or deflating the observed relationships among variables. Consequently, assessing CMB is generally necessary when data for both the predictor and outcome variables are obtained from the same respondents using a single measurement method.

In the present study, however, a formal test for CMB was not considered necessary because the independent and dependent variables were measured using different data sources and data collection instruments. Specifically, data on the independent variable – leadership dimensions – were collected from 436 respondents, comprising 36 school principals and 400 teachers, using a questionnaire designed to assess leadership practices. In contrast, data on the dependent variable – internal efficiency – were collected from a separate group of 445 respondents, comprising 65 homeroom teachers and 380 students, using different instruments specifically developed to measure indicators of internal efficiency. As the predictor and outcome variables were obtained from different respondent groups through separate measurement procedures, the likelihood of CMB affecting the study findings is minimal. Therefore, a statistical assessment of CMB was not warranted for this study.

4.2 *Analysis of the primary data*

As depicted in Table 1, this study revealed that the school principals' leadership behavior did not align with the acceptable norm of the FRLM. The descriptive analysis of the data indicated that the perceived value for internal efficiency of the sample primary schools in the study area was low having the mean value of 2. On the other hand, the average mean value of the respondents' perception was 2.25 for transformational leadership dimensions, 2.96 for CR dimension of transactional leadership, 3.18 for AMbE dimension of transactional leadership and greater than 1 for PMbE and LF dimensions of passive avoidant leadership. However, as a rule of thumb, the value for transformational leadership dimensions was greater than or equal to 3, for CR dimension of transactional leadership was greater than or equal to 2, for AMbE dimension of transactional leadership was less than 1.5 and for PMbE and LF dimensions of passive avoidant leadership was less than 1. Thus, the primary school principals practiced the dimensions of passive avoidant and transactional leadership styles more than the norm, whereas they practiced transformational leadership dimensions less than the norm.

From the results of the descriptive analysis discussed above, one can deduce that inadequate leadership practice exercised in the primary schools of the study area may have influenced the schools to be in a state of wreck in terms of internal efficiency (Outlaw and Toriello, 2014; Pereira and Gomes, 2012; Wang *et al.*, 2012). However, mere observation of the magnitude of the mean values cannot guarantee the true relationship between internal efficiency and leadership practice. Thus, farther analyses of statistical significance of difference were required to come up with the genuine findings (Best and Kahn, 2016). Therefore, analysis of correlation and multiple regressions models were used to investigate the statistical significance of the relationship between primary schools' internal efficiency and leadership dimensions.

Table 1. The responses on leadership dimensions and internal efficiency

Model	Transformational leadership dimensions				Transactional LDs			Passive avoidant LDs		
	IA	IB	IC	IM	IS	Av	CR	AMbE	Av	IE
Mean	2.35	2.22	2.14	2.43	2.14	2.25	2.96	3.18	3.07	1.27
SD	0.466	0.552	0.636	0.486	0.571	0.428	0.572	0.542	0.462	0.620
Note(s): Key: IA = Idealized attribute; IB = Idealized behavior; IC = Individualized consideration; IM = Inspirational motivation; IS = Intellectual stimulation; CR = contingent reward; AMbE = active management by exception; PMbE = passive management by exception; LF = laissez-faire; and IE = Internal Efficiency										
Source(s): Author's own work										

4.3 Leadership practice correlated with internal efficiency

Before conducting the analysis, the validity and reliability status of the data was assured. A pilot test was conducted using 30 participants from Arba Minch Town primary schools in Gamo Zone. The internal consistency reliability coefficient was calculated by applying Cronbach's alpha reliability measures, and it was found to be 0.902, 0.774 and 0.804 for transformational, transactional and passive avoidant leadership dimensions, respectively, which was acceptable as the value of Cronbach's alpha coefficient was 0.700. The content validity of the items was also checked by consulting three experts, known in research work in education, to judge whether the items covered all the domains intended to measure and whether they are in appropriate proportions relative to that domain as per to literature. The analysis result of the correlation model for internal efficiency with each of the dimension of transformational, transactional and passive avoidant leadership models was depicted in Table 2. The null hypothesis $H1$, $H2$ and $H3$ were examined to determine whether each of the dimensions of transformational, transactional and passive avoidant leadership had statistically significant relationship with internal efficiency. As it was depicted in Table 2, the null hypothesis $H1$ was rejected for each of the dimensions of transformational leadership at " $p = 0.000 < 0.01$." Specifically, the analysis result of the correlation model indicated that the null hypotheses "IAr = 0.202, $p > 0.01$ " of IA, "IBr = 0.451, $p > 0.01$ " of IB, "ICr = 0.442, $p > 0.01$ " of IC, "IMr = 0.427, $p > 0.01$ " of IM and that of "ISr = 0.423, $p > 0.01$ " of IS dimensions of transformational leadership were rejected, as each had statistically significant relationship " $p = 0.000 < 0.01$ " with the schools' internal efficiency (IE). The positive correlation coefficient 0.202, 0.451, 0.442, 0.427 and 0.423 for IA, IB, IC, IM and IS, respectively, indicated that increase in each of the dimensions of transformational leadership was accompanied by increase in the internal efficiency of the schools despite variations in their magnitude.

Next, the null hypothesis $H2$ was examined to identify if internal efficiency had statistically significant relationship with the dimensions of transactional leadership. As it was depicted in the Table, the null hypothesis "CRr = 0.137, $p > 0.01$ " was rejected because internal efficiency had statistically significant relationship with CR dimensions of transactional leadership as " $p = 0.005 < 0.01$," whereas the null hypothesis "AMbEr = -0.058, $p > 0.05$ " was accepted because the school principals' transactional leadership dimension, AMbE, had no statistically significant relationship with the schools' internal efficiency (IE) as " $p = 0.239 > 0.05$." Besides, the positive correlation coefficient (0.137) indicated that an increase in the school principals' transactional leadership dimension, CR, was accompanied by increase in the internal efficiency of the schools although the r value "0.137" indicated that the magnitude of the effect was small.

Finally, the null hypothesis $H3$ was examined to detect if internal efficiency had statistically significant relationship with the dimensions of passive avoidant leadership. In this case, both of the null hypotheses "PMbEr = 0.052, $p > 0.01$ " and "LFr = 0.008, $p > 0.01$ " were accepted because internal efficiency had no statistically significant relationship with PMbE as " $p = 0.296 > 0.05$ " and with that of LF (LF) as " $p = 0.869 > 0.05$."

When the dimensions of transformational, transactional and passive avoidant leadership were combined in their respective categories and put into the model, the result indicated that only transformational leadership had statistically significant relationship with internal efficiency. In general, the result of the correlation analysis indicated that all the dimensions of transformational leadership and CR dimension of transactional leadership had statistically significant relationship with the primary schools' internal efficiency, whereas two of the passive avoidant leadership dimensions and AMbE dimension of transactional leadership had no statistically significant relationship with the primary schools' internal efficiency.

Table 2. Correlation of internal efficiency and leadership practice

Measure	Transformational leadership dimensions					Transactional LD			Passive avoidance LD			
	IA	IB	IC	IM	IS	OATF	CR	AmbE	OATA	PMbE	LF	OAPA
Internal efficiency	0.202	0.451	0.442	0.427	0.423	0.502	0.137	-0.058	0.050	0.052	0.008	0.033
Significance (two-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.239	0.313	0.296	0.869	0.505
Cronbach α coefficient	0.719	0.700	0.807	0.739	0.725	0.902	0.729	0.752	0.774	0.700	0.782	0.804
Note(s): Meant correlation is significant at the 0.01 (**) level (two-tailed)												
Source(s): Author's own work												

Thus, the correlation analysis enabled the researcher to discern the statistical significance of the relationship between the principals' leadership dimensions and the primary schools' internal efficiency in the study area. However, further analysis was required to distinguish the measure of relative importance of each of the leadership dimensions in predicting the school's internal efficiency. Hence, multiple regression model was used up on the confirmation of appropriateness of the data for the analysis through running the pre-model fitting assumption test in terms of sample size, normality, multi-collinearity, homoscedasticity, linearity and independence of residuals.

4.4 Relative importance of leadership dimensions in predicting IE

Table 3 depicted that the beta regression coefficients for IC, IS, IB, IM and CR were 0.200, 0.170, 0.168, 0.122 and 0.120, respectively. Thus, it indicated that, holding other variables constant, IC ($\beta = 0.200$) made the strongest unique contribution in predicting the primary school's internal efficiency, followed by IS ($\beta = 0.170$), IB ($\beta = 0.168$), IM ($\beta = 0.122$) and CR ($\beta = 0.120$).

The combined leadership dimensions showed a positive overall productive effect ($\beta = 0.274$) on internal efficiency. Therefore, IC, IS and IB were relatively the influential predictor variables among transformational leadership dimensions in explaining the primary schools' internal efficiency in the study area. These results were supported by previous studies and this was discussed in Section 5.

5. Discussion

When the dimensions of transformational, transactional and passive avoidant leadership were combined in their respective categories and put into the model, the output indicated that transformational leadership alone had statistically significant correlation with internal efficiency. This finding coincided with some studies, and yet, it contrasted with others. According to McGuire and Kennedy (2006), performance improvement was the effects of transactional leadership; Islam *et al.* (2012) also indicated that transactional leadership resulted in better performance than transformational leadership models. However, Bass and Avolio (1991), Tichy and Devanna (1990) and Yukl (2006) indicated that transformational leadership was positively correlated with performance in different organizations unconditionally. Transformational leadership was believed to ensure extraordinary goal achievement, thereby enabling the followers grow into leaders.

Besides, the effects of transformational leadership include the followers confidence in the leader's dream, coinciding value and obedience to the leader which results in affection to the leader, compliance and assimilation with the leader, enhanced goals for the group and employees assurance in goal attainment (Shamir *et al.*, 1993). According to Zhang *et al.*, (2012), transformational leadership could be effective even during times of crisis because transformational leaders bear emotional control and self-sacrificial behavior; they motivate their followers to carryout commands more effectively and are listened to by the people with whom they share good relationship. Moreover, organizations' overall performances increase with transformational leadership (Starr, 2014). This implied that transformational leaders are characterized by optimizing the interests of the organization, the followers and the leaders themselves where the followers trust the leaders, identify with them and willingly sacrifice their interests for the attainment of the organizations' goal because of the good relation that they maintained with their leaders. Studies conducted in academic institutions also indicated that transformational leadership had positive correlation with performance. Thus, academic institutions where more of transformational leadership was practiced were found to better attain their goals (Hitt, 1993).

Table 3. Result of multiple regression model

Leadership style	Predictor variables		Unstandardized coefficient		Standardized coefficient, β	t	Significance
	Leadership dimension	B		Std. Error			
(Constant)		0.485		0.221	–	2.189	0.028
Transactional	CR	0.110		0.043	0.120	2.537	0.012
	IA	–0.076		0.054	–0.068	–1.419	0.157
	IB	0.157		0.061	0.168	2.567	0.011
	IC	0.163		0.047	0.200	3.460	0.001
	IM	0.128		0.065	0.122	1.977	0.490
All dimensions	IS	0.154		0.053	0.170	2.913	0.04
	–	0.290		0.439	0.274		0.000

Note(s): CR = contingent reward; IA = idealized attribute; IB = idealized behavior; IC = individualized consideration; IM = inspirational motivation; and IS = intellectual stimulation

Source(s): Author's own work

The correlation model indicated that two of the passive avoidant leadership dimensions and active management by exception dimension of transactional leadership had no statistically significant correlation with the primary schools' internal efficiency. Previous studies, in this regard, showed that AMbE was not desirable for organizations requiring the followers' creativity, self-initiation and innovative approach; rather, it is desirable during high risk situations and in lower organizational hierarchies where the followers do not have expertise (Avolio, 1999; Bass, 1998; Hunt, 1991). Thus, this opinion is consistent with the finding of the current study because schools as educational institutions are peculiar by the virtue of the staff professionalism where participant teachers had the expertise that the school principal may not have.

The correlation analysis of this study also indicated that PMbE and LF dimensions of passive avoidant leadership did not have statistically significant relationship with internal efficiency. Previous studies showed that full freedom leadership styles – represented by passive avoidant dimensions (passive management by exception and LF) – were found to have negative correlation with leader effectiveness, and thus, it was marked by a general failure (Densten, 2003; Eagly *et al.*, 2003; Judge and Piccolo, 2004). Yet, other studies responded to the problems of controversies with the findings of different studies. The positive correlation of internal efficiency with different leadership dimensions aligned with the findings of different studies showing that different leadership dimensions need be used in the same or different organizations depending on the context under which the leader is practicing his leadership (Avci, 2015; Keskes, 2014; Wang *et al.*, 2012). Confusions with leadership studies and practices appear to emanate from failure to understand and focus on contextual variables (Zaccaro and Klimoski, 2002).

Context refers to associating observations with appropriate facts or events that may involve institutional characteristics, work nature, exterior factors and demographics (Lowe and Gardner, 2000; Rousseau and Fried, 2001). The organizational characteristics of schools involve the hierarchical level, the staff composition and the customers who are receiving the service. Thus, because the primary schools where the study was conducted were characterized by lower hierarchical level, they demand IC dimension of transformational leadership, and because they were characterized by staff professionalism, they demand IS dimension of transformational leadership (Amin *et al.*, 2013; Antonakis *et al.*, 2003; Wang *et al.*, 2012).

Moreover, the result of multiple regression analysis indicated different leadership dimensions had different levels of predictive contributions on the primary schools' internal efficiency. IC, IS and IB were relatively influential predictor variables in explaining internal efficiency. Besides, IM and CR dimensions of leadership had relatively considerable influence in predicting internal efficiency of primary schools in the study area. These results were justified by the findings of different studies conducted in the field.

IC was a transformational leadership dimension with the highest measure of relative importance in predicting the primary schools' internal efficiency in the current study. IC, as its name indicates, enables the leader to create a caring environment where he/she addresses the interests of individual employee via keen listening, coaching, assisting and empowerment (Bass and Avolio, 1990; Horwitz *et al.*, 2008). Besides, Antonakis and Atwater (2002) confirmed that this type of leadership is appropriate at lower hierarchical levels of organizations where the leaders have direct interaction with their followers. IC could be more evident at lower hierarchical levels. In the current study, the principals' leadership practice takes place at lower levels of hierarchy; thus, its finding is in line with the previous findings. Other studies also indicated that IC, as an individual centered leadership behavior, is directly correlated with personal initiatives and goal achievement (Wang *et al.*, 2012). Therefore, the analysis result showing that IC dimension of transformational

leadership had the highest measure of relative importance in predicting the primary schools' internal efficiency in the study area was indisputable.

Moreover, the current study indicated that IS is the second influential dimension of transformational leadership in predicting internal efficiency. With IS, the leaders encourage creativity, innovation, thoughtfulness, rational action and active problem solving among the followers. The findings of previous studies showed that IS is helpful in educational institutions to enhance learning for variety of children ([Amin et al., 2013](#)). Academic institutions are characterized by staff professionalism. Each of the staff members has a subject as well as a professional specialization. Thus, it is apparent that IS dimension of transformational leadership could correlate with internal efficiency with higher effect size.

Furthermore, IB was found to be the third influential dimension of transformational leadership in predicting internal efficiency. With IB, the leader sets example for follower behavior through own actions where the followers look to the leaders behavior for guidance of their own behavior; one of the manifestations of IB of a transformational leader is having strong sense of purpose ([Bass and Avolio, 1990](#)). Thus, by emulating the strong sense of purpose and other such behaviors of the school principal, the staff might grow to leader in a sense that the staff bears the principal's vision and takes self-monitoring responsibility. Thus, the result of the multiple regression analysis that indicated IB dimension of transformational leadership was the third level variable in predicting internal efficiency was justifiable.

The fourth influential predictor of internal efficiency among the leadership dimensions entered into the model was IM. It is a transformational leadership dimension in the case of which leaders reveal optimism and motivate followers while expressing assurance of goal achievement ([Avolio et al., 2004](#)). Scholars indicated that idealized influence and IM, as group centered behaviors of transformational leadership, were directly correlated with team performance ([Wang et al., 2012](#)).

The result of multiple regression analysis displayed that CR dimension of transactional leadership was the fifth important variable in predicting internal efficiency. It is a transactional leadership dimension in the case of which leaders clarify expectations and set targets, then reward the employees positively or negatively in accordance with the accomplishments toward organizational goals ([Avolio et al., 2004](#)). Transactional leaders are managers, and they prefer to meet compulsions by means of exchange rather than followership; thus, studies revealed that these leaders failed to address the needs of their employees; they could not empower them; and they never seek to respond to the higher order needs of the followers ([Shamir et al., 1993](#)). Despite these limitations, some studies revealed that CR could have positive relation with performance ([Islam et al., 2012](#)).

6. Implications

The findings have important societal, managerial, academia and further study implications. Maintaining the norm of FRLM by minimizing the use of active management by exception, PMbE and LF leadership dimensions and emphasizing IC, IS, IB and IM dimensions of transformational leadership would contribute to the improvement of primary school internal efficiency in the study area. Thus, this results in societal impacts by responding to the challenges of low-quality education and serving as an input for policy making. It also has significant implication for education sector leaders and managers, thereby enabling them to make informed decisions and verified applications. Besides, it has significant implication to academia through its contribution to the existing body of knowledge. Moreover, further studies in the problem area are suggested to enable the application of the findings to other settings with similar research problems, as there might be contextual differences between the present study area and the new settings.

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Further reading

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Corresponding author

Betta Tsemato Ambaw can be contacted at: bettatsemato@gmail.com