

# The Relationship Between Organizations' Acquired Knowledge, Skills, Abilities (SKAs) and Shareholders Wealth Maximization: The Mediating Role of Training Investment

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**Abstract:** The study examined the relationship between organizations' acquired knowledge, skills, abilities and shareholders wealth with training playing the mediating role. The sample of the study consisted of organizations that spent 10% or more of its annual budget on training and those whose training budget is less than 10% of the organization's annual budget. A total of 620 questionnaires were distributed to employees working in various organizations out of which 580 representing 93.5% were retrieved. The sample was drawn using convenience sampling. The data collection instrument was mainly questionnaires supported by the use of Regression models for analysis to be made. Analyzing multiple models, it was discovered that organizations training investment plays a considerable indirect and direct effect with partial mediation between organizations acquired skills, knowledge, abilities and shareholders wealth. Shareholders should allow their agents to invest part of their holdings to develop the human capital of the organization but this should be done with caution since shareholders returns do not depend much on how much organizations spend in developing its human resource capital.

**Keywords:** Skills, Knowledge, Abilities, Shareholders Wealth, Training Investment

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## 1. Introduction

All organizations no matter its size cannot operate on smoothly without training. This means that training investment is crucial for organizations. If organizations want to use employees to maximize shareholders wealth, they cannot rely solely on the skills and knowledge that public or private educational institutions had helped employees to acquire. These skills and knowledge do not fit into the culture as well as the core values that drive the organization forward. It is on the basis of this that many human resource practitioners are of the view that despite the employee receiving formal education, for an organization to improve its performance, tailored made training that focus on strategic directions of the organization should be provided. Nickel et al (2002) in support of training investment commented that investors are now recognizing the importance of

organization's acquired skills and knowledge and its relevance to managers who manage their investments. To them, an organizational training investment data is one of the criteria investors consider which organizations they need to invest. This is based on the assumption that, the higher the training investment data of an organization, the more skilful and knowledgeable their managers are and as such it is believed that they have all the abilities to manage shareholders funds effectively.

Despite the support that many writers throw on training investment, there are others who also belief that most training programmes of organizations are routine and they are not tailored towards improving employees skills and knowledge, hence has no correlation with shareholders wealth. Just like any other investments engaged by Finance Managers, if organizations training investment does not improve the needed skills, knowledge and abilities of

employees, the associated cost of such investment will not be accounted for and hence has the tendency of diluting shareholders wealth in the long run. Organizations that spend huge amount of money training their employees may not recognize any benefit from the training especially if the employees do not stay long after the training and if this happens managers will find it very difficult to account for shareholders money which they spend on the training. Again, many people also believe that training investment does not improve the needed skills and knowledge and hence dilutes shareholders wealth simply because proper needs assessment which is one of the phases of any training may not be done by managers. If managers select the wrong employees for training, then transfer of knowledge as well as application of newly acquired skills becomes difficult since it is possible that such employees may not apply what they had learned from the training. If transfer of knowledge and application of skills acquired from the training is not forthcoming, then shareholders money can be said to have been thrown away and this affects the profitability of the firm.

Looking from these two scenarios with regard to the mediating role training investment play between organization's acquired knowledge, skills, abilities and shareholders wealth maximization, one is tempted to investigate the relationship between these two variables with training investment serving as the mediator. It is believed that if an organization's training investment brings the needed knowledge, skills and abilities that employees need, then all things being equal, high profitability is expected and hence shareholders wealth maximized. If opposite is the case, then it is expected that shareholders wealth will be affected since training cost cannot be accounted for.

#### *Research Questions and Hypothesis*

The research questions and hypothesis of the study are as follows:

#### *Research Questions*

- i. Does organization's acquired knowledge, skills and abilities have any relationship with shareholders wealth?
- ii. Does training play mediation role between shareholders wealth and organization's acquired knowledge, skills and abilities?

#### *Hypothesis*

H1: There is significant relationship between organization's acquired skills and productivity.

H2: There is significant relationship between organization's acquired knowledge and productivity.

H3: There is significant relationship between organization's acquired abilities and productivity.

H4: There is significant relationship between organization's acquired skills and profitability.

H5: There is significant relationship between organization's acquired knowledge and profitability.

H6: There is significant relationship between organization's acquired abilities and profitability.

H7: There is significant relationship between organization's acquired skills and dividends.

H8: There is significant relationship between

organization's acquired abilities and dividends.

H9: There is significant relationship between organization's acquired knowledge and dividends.

H10: There is significant relationship between organization's acquired skills and shareholders wealth.

H11: There is significant relationship between organization's acquired knowledge and shareholders wealth.

H12: There is significant relationship between organization's acquired abilities and shareholders wealth.

H13: There is mediation between productivity and organizations' training investment.

H14: There is mediation between profitability and organization's training investment.

H15: There is mediation between dividends and organization's training investment.

H16: There is mediation between shareholder's wealth and training investment.

## **2. Literature Review**

Many writers have commented that training should not be seen as cost but rather an investment provided it facilitates the acquisition of knowledge, skills and abilities needed by employees to perform their job satisfactorily. According to the American Society for Training and Development (ASTD), (2010) quoted by Heathfield (2012), though many businesses are not favoured by economic conditions, business leaders still continue to commit huge sums of money in training because they need to improve the knowledge and skills of their employees. The ASTD estimates that about US\$125.88 billion were invested in employees by means of training in 2009. Out of this total figure, according to them about two-thirds of the amount which is US\$78.61 billion were spent on internal learning function whilst US\$47.27 billion were allocated to external services. Looking at such huge sums of money spent on training, there is no doubt that organizations are reaping benefits from such investments through the improvement of employees' skills and knowledge. Again this can also be evident from a comment made by them that the best award winning organizations are those that have all the needed skills and knowledge needed to achieve both short term and long term objectives.

From the words of Grobler et al (2006), employee training investment is a big business in many countries such as South Africa. According to them, training costs is estimated to be R5 billion per year. The writers see employee training as investment since it is a key factor in meeting the employer's strategic, business and operational goals. The writers also emphasized that technological advances as well as social, political and economic pressures mean that an organization cannot do away with training. This is one of the main reasons why training is seen as vital in the mining and manufacturing industries in Ghana. In the mining industry of Ghana, training is one of the tools used to avoid non compliance of both domestic and environmental laws as well as health and safety laws which help the mining industry to avoid financial penalties associated with mistakes and unorthodox practices

by its employees. It is believed that if these investments in training are not done, the financial penalties associated with it as a result of mistakes and unorthodox practices by employees can add to the cost of these companies and this has implications on shareholders wealth in terms of dilution.

Looking at the words of Huselid (1995), training is considered as very important to organizations such that the main problem facing organizations is not whether there should be training or not but rather the problem is which employees should be trained and what methods should be used to train them. From this statement, one can point out that if organizations face the problem of who should be trained, then those who are not in favour of an organization's training investment playing a mediating role between employees' knowledge, skills, abilities and shareholders wealth maximization can argue that it is proper for shareholders who want returns on their investment to kick against training investment since proper training needs assessment is one of the ingredients needed for training benefits to be realized. Again, if organizations cannot identify the right people to be trained, then transfer of knowledge acquired from the training becomes difficult and this has serious implications on shareholders wealth since it will add to cost of the organization which will intend affect productivity and profit.

Training is not considered as important only to organizations owned by private individuals but to nations and various governments who are considered as the major employer in many countries. For instance according to Grobler *et al* (2006), the passage of various Acts in relation to enhancing workers skills and knowledge by the South African government indicates the seriousness nations place on training investment. Some of these Acts according to the writers include the South African Qualifications Authority Act, No. 58 of 1995, the Skills Development Act, No. 97 of 1998 and the Skills Development Levies Act, No. 9 of 1999. In Ghana, majority of the government institutions such as the Ghana Police Service, Bank of Ghana, Prisons Service, Ghana Broadcasting Corporation and others have their own training centres and huge amount of money is allocated to these training centres with the belief that the returns derive from sharpening employees' skills and knowledge will far outweigh the cost associated with it.

From the words of Barney (2005), one of the reasons why companies spent huge sums of money investing in training is that it serves as a means of achieving competitive advantage as a result of the acquisition of certain unique skills and knowledge which are not available to competitors. According to the writer, one of the companies that have used training to achieve this advantage is the Southwest Airlines. The writer sees this airline as one of the major airlines that have remained profitable after the September 11 tragedy. To him, the ability of the company to retain its customers is based on the excellent and quality services provided by its workers, thanks to the company's training playing a mediating role.

Apart from Southwest Airlines which is benefiting a lot from training investment, there are companies which cannot

be left out as pointed out by Bateman and Snell (2000). According to the writers, companies such as Motorola, General Motors and International Business Machines (IBM) have invested over billions of dollars in training. The returns on the training enjoyed by these companies far exceed the amount that was invested. In support of this assertion, they emphasized that Motorola has been gaining US\$30 on every US\$1 invested in training. Going by this comment, it means that training investment is seen as a big business which has positive correlation with shareholders wealth. Alan (2009) adding his voice to the relationship between organization's acquired knowledge, skills, and shareholders wealth maximization with training serving as a mediating role, training yields dividends but it is not easy to measure them in monetary terms. The dividends provided by training can be noticed in terms of increased productivity, improved communication and participation, reduced labour turnover as employees now have the skills and knowledge to fit into their positions, waste reductions as less errors are committed by employees and reduction in accidents.

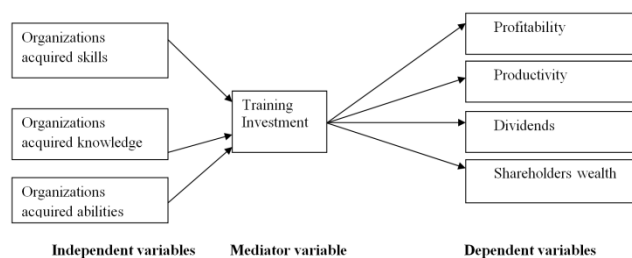
From the words of Devanna *et al* (2005), Guest (2009) as well as Wright and Taylor (2004), training mediates acquisition of knowledge and skills and firms' performance. Whilst Devanna *et al* (2005) see training as increasing individual performance which is believed to lead to higher firm performance, Wright and Taylor (2004) believes that human capital is considered as very important and if an organization does not have the right skills and knowledge, it will be very difficult for that organization to achieve its goals which is mostly geared towards profit maximization. Other writers who have also contributed to acquisition of knowledge, skills and shareholders wealth maximization with training playing a mediating role are Bottomley (2000), Cole (1996), Beach (2004), Pratt and Bennet (2001), Crane (2002) and Graham and Bennet (2001). According to Bottomley (2000), the fundamental purpose of training is to provide for the organization's manpower needs. This writer in support of Beach (2004) is of the view that organizations spend huge sums of money advertising and recruiting from external but at the end, these cost associated with the recruitment and selection process cannot be recovered if the newly recruited employee does not stay in the organization for long.

As a means of reducing recruitment and selection cost which also adds to the cost of the organization and hence dilution of shareholders wealth, it is important for organizations to first consider investing in their existing employees by means of training so that they can occupy vacant positions. Their arguments also points to the fact that, getting skilled and knowledgeable employees to fill vacant positions serve as a means of intrinsic motivation for employees to put up their best so that in future they can be considered. Second, such employees are already familiar with the culture and customs of the organization and as such the propensity that they will stay in their new positions is higher than those recruited externally since their expectations may not be what they find on the job.

Looking at a comment by the American Bankers Association on the role of training investment on firm's performance, they emphasized that Chief Learning Officers have a significant leadership responsibility to see that workplace learning and development dollars are spent in ways that support business goals and yield the greatest return to the organization. They concluded that training investment is becoming something which organizations cannot do without in the banking industry since it is seen as one of the greatest investment which an organization can make. From their point of view, training investment lead to improved performance of banks through gains in quality, customer satisfaction, productivity, profitability, and dividends for limited liability companies. Many of the Banks in Ghana such as Standard Chartered, Barclays, Ghana Commercial, Ecobank have all established training centres which aimed at training their employees. The establishment of these training centres aimed at equipping the skills and knowledge of employees proves that, the responsibility of ensuring increase in companies sales, profit and dividends are not left to the Finance Manager or Operations Manager but Training Managers who should ensure that training offered to employees equipped them with the necessarily skills, knowledge and abilities for those variables to be realized.

Though many writers have argued in favour of training investment playing mediating role of organization's acquired skills, knowledge, abilities correlating positively to shareholders wealth maximization, according to Gall et al (2002), an organization's training investment does not necessarily bring the acquisition of knowledge and skills which will correlate positively to shareholders wealth. Their arguments point to the fact that, there are many hidden motives why organizations invest in training rather than training the employee to acquire the needed skills and knowledge. Secondly, much depends on the employee's preparedness and willingness to acquire the knowledge and skills which the training is meant. This means that training itself does not automatically lead to the acquisition of skills and knowledge but other factors need to come into play before the organization's needed skills and knowledge can be realized. The literature by Howe (2004) supports the argument given by Gall et al (2002) that training itself does not necessarily bring acquisition of skills and knowledge since organizations have different reasons why they invest in training and not necessarily to improve employees' skills and knowledge. To the writer, if the training is meant to enable employees release stress by taking time off the job to go for external training programme which is not tailored to the employees need, then the argument that an organization's training investment plays a mediating role of organization's acquired skills, knowledge and abilities needs to be questioned.

Looking at the literature review and the hypotheses set, a conceptual model for the dependent variables, independent variables and the moderator variable was set as follows:



**Figure 1.** Proposed Conceptual Model of Dependent, Independent and Moderator variable.

The above conceptual model means that organizations acquired skills, knowledge and abilities comes into existence through the organization's investment in training and this will in turn maximizes shareholders wealth as a result of increase in productivity, profit and high declaration of dividends.

### 3. Methodology

Though the researchers could not cover all the companies that are owned by shareholders in Ghana, a multiple case study approach which covers a significant number of companies were adopted by the researchers. These companies were drawn from mining, beverage; breweries and filtered water industries. The population of the study covers a wide range of professionals and this includes account officers, personal secretaries, managers, computer operators, complaint officers, customer relation officers, production workers, heads of department, human resource managers, internees, information technology engineers, information technology officers, corporate lawyers, mechanics, corporate medical doctors, marketing officers and public relation officers. The purpose of targeting these categories of employees was to make generalization of the research findings easier.

#### 3.1. Sampling Techniques

The researchers adopted a multi-stage sampling technique for the study. First different organizations were conveniently selected. At the second stage, the population of these organizations amounting to 3,285 was divided into two strata namely organizations (Study 1) that spent 10% or more of their total annual budget on staff training and those (Study 2) that spent less than 10% of their total annual budget training their staff. The researchers decided to choose 10% because from the literature of Taylor and Bogdan (1984) any serious organization that want to develop its human capital should not spend less than 10% of its annual budget on employee training. In the third stage, the researchers selected a total of 620 employees out of 3,285 drawn from these organizations using convenience sampling. The data collection instrument used was questionnaires which were distributed to the selected number of employees from study 1 and 2 but 580 questionnaires representing 93.5% response rate was recorded. The distribution of respondents for both Study 1

and 2 can be seen from table 1:

**Table 1.** Distribution of respondents (Study 1 and 2).

|                                 | Study 1                        | Study 2                        |
|---------------------------------|--------------------------------|--------------------------------|
| Respondent type                 | ≥10% annual budget on training | <10% annual budget on training |
| Total questionnaire distributed | 290                            | 330                            |
| No of responses (response rate) | 280                            | 300                            |

For both study 1 and 2, the researchers used the same questions with the same scale to solicit responses from the respondents. Responses were coded as 5=strongly agree to 1=strongly disagree. Data from the questionnaires were analyzed using SPSS 16.0 version.

Regression analysis was also used to test if there is mediation among the independent and the dependent variables.

### 3.2. Definition of Variables as Used in the Study

In order for us to be clear about the definitions of different terms which will also be used throughout the study, the researchers looking at various literature defined the terms or variables used for the study. Organizations acquired knowledge refers to the theoretical or practical understanding of a subject. For example, an employee might have knowledge of ADDIE model used in instructional design. This does not mean the employee have skills in the application of the model when it comes to designing training programmes at the workplace. Organizations acquired Skills are the proficiencies developed through training or experience. For example using the ADDIE example, the employee must demonstrate skills in applying the ADDIE model when designing training programmes. Organizations acquired abilities are the competence to perform an observable behavior or a behavior that results in an observable product. Productivity is the average measure of the efficiency of production. Profitability is the ability of a business to earn profit or revenue exceeding total cost. Dividends refer to the payment made by organizations to its shareholders, usually as a distribution of profits. Shareholders wealth maximization is the process that increases the current net value of business or shareholder capital gains, with the objective of bringing in the highest

possible return.

## 4. Results and Discussion

The main objective underlying the study is to assess the relationship between organizations' acquired knowledge, skills, abilities (SKAs) and shareholders wealth maximization with training investment serving as the mediating role. The researchers conducted normality test to check if the data is normally distributed with no extreme values and outliers in data set. The value of Skewness was 0.85 which is within -1 to +1. Talking about the value of Kurtosis test conducted, the study recorded 7.65, which shows normality in the data set.

The mean and standard deviation for each of the variables used for the study, revealed the following:

**Table 2.** Descriptive statistics.

| Variables                       | Study 1: ≥10% annual budget Mean Std. deviation |      | Study 2: <10% annual budget Mean Std. Deviation |      |
|---------------------------------|---|------|---|------|
| Organization acquired skills    | 3.5   | 0.82 | 3.5   | 0.82 |
| Organization acquired knowledge | 3.2   | 0.89 | 3.2   | 0.89 |
| Organization acquired abilities | 3.6   | 0.86 | 3.6   | 0.86 |
| Productivity                    | 3.6   | 0.77 | 3.6   | 0.77 |
| Profitability                   | 2.9   | 0.74 | 2.9   | 0.74 |
| Dividends                       | 2.8   | 0.84 | 2.8   | 0.84 |
| Shareholders wealth             | 2.7   | 0.92 | 2.7   | 0.92 |

The above table shows the mean and standard deviation for each item for both studies. The mean values, as seen from table 2 indicates that profitability, dividends and shareholders wealth are lower than the average 3.0 for both studies. Looking at organization's acquired skills, knowledge and abilities as well as productivity, they are above the average of 3.0.

Correlation analysis was conducted based on the data retrieved from the questionnaires distributed to the respondents. Table 3 shows the kind of relationship that exists between the variables in both studies.

**Table 3.** Correlation coefficient of study 1 (≥ 10% annual budget on training).

|                                       | OAK    | OAS    | OAA     | OTI    | PDT    | PRO     | DVD    | SHW    |
|---------------------------------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Organization acquired knowledge (OAK) | 1      | .488** | .197**  | .186*  | .115** | .030**  | .135** | .124** |
| Organization acquire skills (OAS)     | .488** | 1      | .126*   | .057*  | .184*  | .039*   | .348** | .166*  |
| Organization acquired abilities (OAA) | .197** | .126*  | 1       | .547** | .316** | -.024** | .195** | .018*  |
| Training investment (OTI)             | .186** | .057*  | .542**  | 1      | .430** | .462**  | .167*  | .016*  |
| Productivity (PDT)                    | .115** | .184*  | .316**  | .430** | 1      | .298**  | .141*  | .038*  |
| Profitability (PRO)                   | .038** | .039*  | -.024** | .462** | .298** | 1       | .334** | .112*  |
| Dividends (DVD)                       | .135** | .348** | .195**  | .167*  | .141*  | .334**  | 1      | .176** |
| Shareholders wealth (SHW)             | .124** | .166*  | .018*   | .016*  | .038*  | .112*   | .176** | 1      |

\*\* . Correlation is Significant at 0.01 level (2 tailed)

\* . Correlation is Significant at 0.05 level (2 tailed)

**Table 4.** Correlation coefficient of study 2 (< 10% annual budget on training).

|                                       | OAK    | OAS    | OAA    | O TI   | PDT    | PRO    | DVD    | SHW    |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Organization acquired knowledge (OAK) | 1      | .486** | .193** | .188*  | .219** | .055** | .138** | .129** |
| Organization acquire skills (OAS)     | .486** | 1      | .122*  | .052*  | .382*  | .020*  | .342** | .163*  |
| Organization acquired abilities (OAA) | .193** | .122*  | 1      | .542** | .391** | .410** | .193** | .010*  |
| Training investment (OTI)             | .188** | .052*  | .542** | 1      | .410** | .455** | .153*  | .010*  |
| Productivity (PDT)                    | .219** | .382*  | .391** | .410** | 1      | .291** | .132*  | .133*  |
| Profitability (PRO)                   | .133** | .020*  | .410** | .455** | .291** | 1      | .324** | .110*  |
| Dividends (DVD)                       | .138** | .342** | .193** | .153*  | .132*  | .324** | 1      | .171** |
| Shareholders wealth (SHW)             | .129** | .163*  | .010*  | .010*  | .133*  | .110*  | .171** | 1      |

\*\* . Correlation is Significant at 0.01 level (2 tailed)

\*. Correlation is Significant at 0.05 level (2 tailed)

The Tables above (3 & 4) show the correlation analysis results for both study 1 and 2. Correlation analysis gives the relationship that exists among variables. If there is strong relationship among variables, one can interpret it as high correlation existing among those variables. Organization acquired knowledge, skills and abilities are positively correlated with organization's productivity ( $r = .115^{**}$ ,  $p < 0.01$ ), ( $r = .184^{*}$ ,  $p < 0.05$ ), ( $r = .316^{**}$ ,  $p < 0.01$ ) respectively for study 1 and ( $r = .219^{**}$ ,  $p < 0.01$ ), ( $r = .382^{*}$ ,  $p < 0.05$ ), ( $r = .391^{**}$ ,  $p < 0.01$ ) respectively for study 2. Hence, hypothesis 1, 2 and 3: There is positive relationship between organizations acquired knowledge, skills, abilities and productivity had been proved. Literature also supports there is positive relation between those independent variables and productivity as can be witnessed in the literature provided by Cho et al (2006), Huang (2000) and Pine and Judith (1993)

Though there is positive relationship between the independent variables and productivity, both studies recorded a weak relationship existing among the variables. This means that taking the co-efficient of determination ( $r^2$ ) into consideration; organizations acquired knowledge, skills and abilities only contribute 1.32%, 3.39%, 9.99% respectively to organizations productivity when it comes to study 1 whilst for study 2, it was 4.80%, 14.60%, 15.29% respectively. The above presentation shows that there are other variables that play significant role in determining the productivity of organizations. Employees may have all the required knowledge, skills and abilities but both intrinsic other than organizations training and extrinsic motivation is necessary for the application of these independent variables by employees. Organizations also need to provide all the necessary logistics as well as conducive environment for employees to apply these independent variables. If these are missing, application becomes difficult and hardly will it have significant contribution in terms of improvement in work of the employee.

The relationship between organizations acquired knowledge, skills, abilities and profitability, shows a positive correlation between the independent variables and the dependent variable except the relationship between organizations acquired abilities and profitability which recorded negative relationship for study 1 as can be witnessed in Table 3 ( $r = .030^{**}$ ,  $p < 0.01$ ), ( $r = .039^{*}$ ,  $p < 0.05$ ), ( $r = -.024^{**}$ ,  $p < 0.01$ ) respectively. For Table 4, the relationship

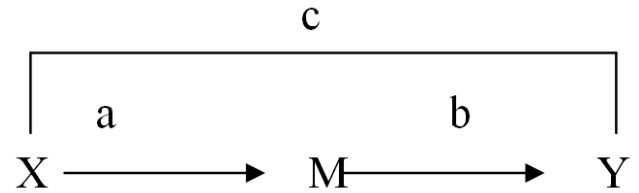
between all the independent variables and the dependent variable recorded positive relationship ( $r = .055^{**}$ ,  $p < 0.01$ ), ( $r = .020^{*}$ ,  $p < 0.05$ ), ( $r = .410^{**}$ ,  $p < 0.01$ ) respectively for study 2. From this, one can say that hypothesis 4 and 5: There is positive relationship between organizations acquired knowledge and skills had been proven. For hypothesis 6, whilst it holds in study 2, it was not proven in study 1. The above presentation tells us that though organizations in study 1 spend 10% or more of its annual budget on employees training, the relationship between organizations acquired abilities and profitability is negative as opposed to study 2. Literature from Chapman (1993) and Gelade and Ivery (2003) support the assertion that it is not the quantum of money that organizations spend on its training programme that will increase its profit but several factors such as the ability to control or minimize cost in all areas of the organization will go a long way to determine the profitability of an organization. From this literature, it means that though organizations in study 1 might spend more on training as compared to organizations in study 2, the ability of organizations in study 2 to develop a cost conscious culture in their organization will help boost their profits rather than relying mainly on training as a means to increase profits.

The relationship between the independent variables, organizations acquired knowledge, skills, abilities and the dependent variable (dividends) recorded positive relationships as can be witnessed in table 3 for study 1 ( $r = .135^{**}$ ,  $p < 0.01$ ), ( $r = .348^{**}$ ,  $p < 0.01$ ), ( $r = .195^{**}$ ,  $p < 0.01$ ) and table 4 for study 2 ( $r = .138^{**}$ ,  $p < 0.01$ ), ( $r = .342^{**}$ ,  $p < 0.01$ ), ( $r = .193^{**}$ ,  $p < 0.01$ ). The same situation applies to the relationship between the independent variables and shareholders wealth for both studies as can be witnessed in tables 3 and 4. The above presentation proves the hypotheses 7, 8 and 9 that there are positive relationships between organizations acquired knowledge, skills and abilities respectively and dividends declared to shareholders. Hypotheses 10, 11 and 12 was also proven that there is positive relationship between organizations acquired knowledge, skills, abilities respectively and shareholders wealth maximization. The literature from Ahmad & Schroeder (2003); Fey, Björkman and Pavlovskaya (2000); Garcia (2005) and Khatri (2000) support hypotheses 7, 8, 9, 10, 11 and 12 that there is positive relationship between the independent variables (organizations acquired knowledge,

skills and abilities) and the dependent variables (dividends; shareholders wealth). Though these authors' support that such relationship exists among the variables, Ahmad & Schroeder (2003) and Garcia (2005) were of the view that an organization cannot claim strong relationship among those variables and as such dividends attributed to equity shareholders does not depend significantly on how much the organization spend on its training. Their argument is based on the fact that an organization can spend huge sums of money to train their employees but the dividends that the organization will declare does not depend on how much was invested in employees by means of training. To them training can be used to improve the skills and knowledge of employees for profitability of the organization to be improved but the dividends declared attributable to equity shareholders will depend on a number of factors such as the organization's dividend policy and availability of cash. For instance, an organization's training can be successful for profitability to be improved but if majority of the organization's sales are on credit basis, it may lack cash for dividends to be declared and paid to equity shareholders for their wealth to be maximized. It therefore sounds good idea for companies to regulate how much they spend on their training investment since it is not a significant contributor to declaring huge dividends to equity shareholders for their wealth to be maximized.

#### *Testing for Mediation using Regression*

Mediation is a hypothesized causal chain in which one variable affects a second variable that, in turn, affects a third variable. The intervening variable, assuming 'M', is the mediator. It "mediates" the relationship between a predictor, X, and an outcome as can be represented in figure 2 below:



**Figure 2.** Proposed Conceptual Model of three chain affecting variables.

In figure 2, path 'a' and 'b' are direct effect. A meditational effect in which 'X', the independent variable leads to Y, the dependent variable through 'M' the mediator variable is called indirect effect. It is obvious that without identification of an indirect effect, mediation is incomplete.

According to Baron and Kenny (1986), a four step approach where several regressions have to be run and significance of regression co-efficient determined at each step is required for mediation testing to be complete. The mediation test conducted for the study using the approach of Baron and Kenney (1986) produced the following results as can be seen in Table 5:

**Table 5.** Regression Models.

|  | Study | R Square | Adjusted R Square | F     |
|--|-------|----------|-------------------|-------|
| Simple Regression, I.V predicting D.V for path c only  |       |          |                   |       |
| PDT= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA +$  | 1     | .178     | .166              | 13.31 |
|  | 2     | .175     | .180              | 13.32 |
| PRO= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA +$  | 1     | .129     | .116              | 9.25  |
|  | 2     | .128     | .117              | 10.24 |
| DVD= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA +$  | 1     | .032     | .015              | 2.06  |
|  | 2     | .033     | .014              | 3.12  |
| SHW= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA +$  | 1     | .052     | .036              | 3.37  |
|  | 2     | .054     | .037              | 4.46  |
| Simple regression analysis with all I.V predicting mediator variable for identification of path a:               |       |          |                   |       |
| OTI= $\alpha + \beta_1 OAK +$  | 1     | .020     | .017              | 5.21  |
|  | 2     | .021     | .018              | 6.20  |
| OTI= $\alpha + \beta_1 OAS +$  | 1     | .003     | .001              | .656  |
|  | 2     | .005     | .002              | .660  |
| OTI= $\alpha + \beta_1 OAA +$  | 1     | .505     | .214              | 69.12 |
|  | 2     | .503     | .215              | 70.14 |
| Simple Regression Analyses with mediator variable predicting D.V for identification the significance of path b:  |       |          |                   |       |
| PDT= $\alpha + \beta_1 OTI +$  | 1     | .535     | .160              | 47.80 |
|  | 2     | .544     | .162              | 48.90 |
| PRO= $\alpha + \beta_1 OTI +$  | 1     | .026     | .023              | 6.95  |
|  | 2     | .027     | .024              | 6.96  |
| DVD= $\alpha + \beta_1 OTI +$  | 1     | .012     | .041              | .001  |
|  | 2     | .021     | .042              | .002  |
| SHW= $\alpha + \beta_1 OTI +$  | 1     | .006     | .001              | 1.34  |
|  | 2     | .004     | .001              | 1.33  |
| Multiple Regression Analyses with I.V and mediator, predicting D.V in order to identify significance of path c': |       |          |                   |       |
| PDT= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA + \beta_4 OTI +$  | 1     | .240     | .223              | 15.46 |
|  | 2     | .242     | .224              | 15.45 |
| PRO= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA + \beta_4 OTI +$  | 1     | .142     | .125              | 8.09  |
|  | 2     | .144     | .123              | 8.11  |
| DVD= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA + \beta_4 OTI +$  | 1     | .023     | .011              | 1.67  |
|  | 2     | .013     | .011              | 1.68  |
| SHW= $\alpha + \beta_1 OAK + \beta_2 OAS + \beta_3 OAA + \beta_4 OTI +$  | 1     | .054     | .035              | 2.79  |
|  | 2     | .055     | .036              | 2.80  |

A summary of mediation test from table 5 indicates that all independent variables (organizations acquired knowledge, skills, and abilities) have significant indirect effect with dependent variables (productivity, profitability, dividends, shareholders wealth) at path 'a'. Looking at path 'b', one can see that all the dependent variables have indirect effect with the mediator variable. Lastly, all the independent and moderator variable significantly predict dependent variable at path c.

The above presentation from that table indicates that in effect, there is full direct and partial indirect mediation existing among the study variables.

## 5. Theoretical and Empirical Contributions

The study has looked into the relationship between organizations acquired knowledge, skills, abilities and productivity, profitability, dividends and shareholders wealth. Theoretical contributions claim that if organizations are to improve on productivity, they need to invest in their human capital as that is the only way by which employees knowledge can be enhanced to render better service or produce quality products (Krueger & Rouse, 1998), Katou & Budhwar (2007), Ghebregiorgis & Karsten (2007). When employees acquire the necessary knowledge, it also helps them to develop the needed skills which bring the ability to perform. To the writers especially Ghebregiorgis & Karsten (2007), 'ability to perform' results in increase in productivity which is strongly correlated with increase in profit and hence high dividends and shareholders wealth maximized. The current study does not agree entirely with the literature as increasing productivity cannot be claimed to have strong correlation with profit, dividends and shareholders wealth. These variables are determined by several factors which an organization's ability to develop a conscious culture and a low cost structure play a key role rather than organizations investment in training to enhance employees' knowledge, skills and abilities.

## 6. Conclusions

On the whole, the study provides a new theoretical direction towards understanding that, if an organization's training investment achieves its desired objective of improving employees' knowledge, skills and abilities, it should correlate positively with shareholders wealth. It also revealed experiential backing of positive outcomes of a well planned and executed organization's training investment as a mediator and this is supported by hypotheses 13, 14, 15 and 16.

## 7. Limitation and Recommendations for Future Research

Convenience sampling technique which is a non probability sampling type was used and based on that the

results of the study cannot be generalized to the whole population since not all members in the population had equal chance to be selected for the study. Secondly, data was collected with the use of only the questionnaire technique. Combining other techniques such as focus group or interview might have enriched the results.

Again, the study only looked at three independent variables (knowledge, skills, abilities) and its relationship with shareholders wealth. This means that there are other variables that play key role in the determination of shareholders wealth based on the weak positive correlation results and as such future research should look into these other variables and its role in determining shareholders wealth.

Lastly, the researchers could not do higher statistical analysis for the mediation test and it is believed that future research should consider higher statistical analysis such as the use of structural equation modeling to look at the mediation role training investment play between the independent and the dependent variables.

## Competing Interest

The authors declare that they have no competing interests.

## Authors' Contribution

Dr. Gabriel Dwomoh identified the problem and consulted the two other authors for a paper to be written on that. He assisted in the design of questionnaires as well as the general write up of the paper. Mr. Kofi Kwarteng and Mr. Williams Kwasi Boachie did the data entry and helped in the analysis of the data with the use of SPSS 16.0.

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