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The Efficiency of Jordan Insurance Companies and its Determinants using DEA, Slacks, and Logit models

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Abstract

This study aims to evaluate the technical efficiency in the Jordan insurance market, and examine the internal and external determinants that appear to affect the technical efficiency of the insurance companies. The study used panel data for 22 insurance companies operating inside Jordan over the period 2000-2016. Data Envelopment Analysis used to evaluate the technical Efficiency Scores, Slacks based and Logit models to examine the efficiency determinants. The study found that there is a slight development of technical efficiency for the Jordanian insurance companies during the study period. In addition, there is a substantial efficiency difference between insurance companies each year, and there is a variation at the level of efficiency for each company in each year. The results also showed that owners' equity are among the most important internal determinants of companies' efficiency, and there is a significant correlation between type, size, and return on assets of the insurer and its efficiency. This study provides insurance management with relevant indicators that would guide them to make efficient use of the resource base. The period of study also covers the period following the adoption of the Insurance Law and the issuance of most of the legislation related to the work of insurance companies.

Key words: Insurance, efficiency, DEA, Logit model, Jordan.

1. Introduction

The efficiency has become an issue that has begun to take an interest in the insurance sector as efficiency helps to identify efficient and inefficient companies in the market, in order to improve competition and profitability and raise the trust of the policyholders. The efficiency of the insurer refers to insurer ability to produce a given set of outputs via the use of inputs (Diacon et al., 2002).

In recent years, efficiency measurement has captured a great deal of attention. And the insurance sector, in particular, has seen extreme growth in the number of studies applying frontier efficiency methods. Frontier methodologies measure firm performance relative to best practice frontier

comprised of the leading firm in the industry. Data envelopment analysis (DEA) is the most frequently applied method of frontier efficiency analysis in the insurance. DEA measure the relative performance of companies through comparing a set of inputs and outputs and developing benchmarks related to industry best practices, based on the idea that the widespread application of these can lead to improving performance throughout the whole industry (Barros et al., 2005).

The Insurance sector in Jordan consists of (24) insurance companies, whereof one is licensed as a life company, (9) are licensed as non-life companies, (14) are licensed as composite companies. Jordan insurance market is small by international standard. In 2016, Gross written premiums in Jordan reached JOD (582.9) million, and the gross Claims paid reached JOD (438.9) million. In the same year, the sector earned JOD (35.1) million in net profits before tax, the return on assets was (3.8%), and the return on equity was (10.2%)

The importance of the insurance sector in Jordan increased during the period (2000-2016), where gross written premiums increased at an annual rate of (12%), insurance premiums per capita increased by (187%), which increased from JOD (21) to JOD (59) at that period. In addition, the ratio of gross premiums to the gross domestic product (insurance penetration ratio) increased from (1.7%) in 2000 to (2.1%) in 2016.

The purposes of this study is to partially fill the gap in existing literature by evaluating the technical efficiency for the Jordan insurance companies using DEA method, and examine the internal (managerial inefficiency) and external (characteristic of external environment) determinants that appear to affect the technical efficiency of the insurance companies using slacks-based and Logit models.

The importance of the study stems from the importance of efficiency in the work of the insurance companies and their impact on their performance and results. The issue of efficiency in the insurance companies is of fundamental importance for the current time due to the challenges faced the insurance sector in Jordan represented by the low return on assets and weak contribution to GDP, In addition to the low per capita insurance. This study provides insurance management with a relevant indicator that would guide them to make efficient use of the resource base. The period of study also covers the period following the adoption of the Insurance Law and the issuance of most of the legislation related to the work of insurance companies.

2. Literature review and empirical Studies

In microeconomic theory, the production function is defined in term of the maximum output that can be produced from a specific input, given the existing technology to the firm involved (Battese, 1992). The term economic efficiency means that resources are used in such a way to generate maximum possible output with a given input. In insurance, efficiency refers to the ability of an insurance company to produce a specific set of outputs (such as premium or investment profits) from the use of a specific set of input, such as capital and labor. The insurance company is technically efficient if cannot reduce its resources usage without some corresponding reduction in output, given the current state of production technology in the industry (Diacon, 2001).

Economic efficiency consists of technical efficiency and Allocative efficiency (Farrell, 1957), where technical efficiency means the ability of an organization or (Decision making unit-DMUs) to obtain the maximum amount of production using available inputs, and the measure of technical efficiency is usually defined as the maximum reduction of all inputs allowing continual production of the

same output as before. Allocative efficiency refers to the capacity of the production unit to mix optimal proportions of inputs and outputs appropriate to their current market price. Thus, economic efficiency refers to the combination of both technical efficiency and allocative efficiency. Therefore, the company cannot be 100% economically efficient unless it is 100% technically and allocative efficient (Jarraaya and Bouri, 2012).

There are two approaches to calculating the efficiency indicators; the first is the Input Oriented approach, which minimizes the inputs used in the production to the lowest possible level while the level of production remains constant. The other approach is the Output Oriented approach, which increases the production level to the highest possible level while the input level remains constant. The two approaches can specify to the production function under the assumption of constant (CRS) or variable return to scale (VRS) (Eling and Luhnen, 2011)

Efficiency estimated by comparing firms to the "best practice" efficient frontier formed by the most efficient firms in the industry (Farrell, 1957). The literature distinguishes two main approaches to estimating these frontiers; parametric and non-parametric approach. The most widely non-parametric or mathematical approach used is Data Envelopment Analysis (DEA) which introduced by Charnes et al. (1978). DEA is a non-parametric approach that employs linear programming technique to construct an efficient frontier that envelope all the combination between inputs and outputs of firms in the sample. The efficient combination of input and output is in the frontier, while the inefficient combination will be less than that.

The objective of this model is to estimate the production frontier of DMUs that use the same input in the production. The relative efficiency of each unit measured for the purpose of making a comparison and efficiency score is usually standardized between 0 and 1, with the most (least) efficient firm receiving the value of 1 (0). The difference between a company's assigned value and the value of 1 can be interpreted as the company's improvement potential in terms of efficiency (Cooper et al., 2007: Diacon et al, 2002).

The efficiency of any economic entities is obtained through the maximum of the weighted ratio of outputs to the weighted ratio of inputs, provided that the ratio of similar entities are less or equal to one (Charnes et al., 1978).

The model is generally as follows:

$$Max\ \theta = \frac{\sum_{r=1}^{s} U_r Y_{ro}}{\sum_{i=1}^{m} V_i X_{io}}$$

Subject to:

$$\frac{\sum_{r=1}^{s} U_r Y_{rj}}{\sum_{i=1}^{m} V_i X_{ij}} \leq 1$$

Where:

J=1,…,n.

$$U_r, V_i \geq 0 \qquad U_r, V_{rj} \geq 0$$

r = 1,….,s.;   i= 1,..,m

$$Y_{rj}, X_{ij} > 0$$

Where:

s: Number of output.

U_r: Weight of Output r.

Y_{ro}: Amount of r produced by DMUs.

m: Number of Input.

V_i: Weight of Input i.

X_{io}: Amount of Input I used by DMUs.

There are two types of DEA, namely the constant return to scale and variable return to scale. The first model introduced by (Charnes et al., 1978) and called (DEA-CCR). This model is appropriate when the entities operate at their optimal scale of production. The production possibilities curve can be determined under this assumption and the technical efficiency scores known as the overall technical efficiency.

The second model developed by Banker et al. (1984) and called (DEA-BCC). Many factors do not make the entities operate at its optimal level such as incomplete competition and some restrictions on financing and so on. Therefore, the DEA-CCR model may give inaccurate ratios of the technical efficiency of the entities. In this model, technical efficiency is decomposed to pure technical efficiency and scale efficiency.

Measurement of efficiency for insurance sector got significant consideration in recent years, where the empirical researches observed various matters concerning the efficiency of the insurance business. In a study prepared by (Fecher et al., 1993), which included 84 life and 243 non-life insurance companies in France during the period 1984-1989. By using both parametric and non-parametric approach, the authors observe that there a great variation in the relative efficiency levels between companies, and there is a correlation between the size, ownership, distribution, reinsurance, and claims ratio of the company and its efficiency.

In order to analyze the technical efficiency of 94 insurance companies operating in Italian insurance market for the period (1985-1993) using the DEA model, (Cummins et al, 1996) found that the result indicated that the level of efficiency during the study period remained constant despite the low productivity in the same period.

Cummines et al., (1999) study of the US market, which focuses on the life insurance companies during the period (1988-1933), found that the efficiency of insurance companies is relatively low when compared to other companies in other financial sectors in addition to the existing of significant differences in efficiency among those companies.

Diacon (2001) reviewed the efficiency of non-life insurance companies in the UK and compared their counterparts in the European Union. The study included 431 companies in six European countries. The results showed that the efficiency of insurance companies operating in the UK is medium and has the ability to be one of the most efficient companies in the EU. In study of Diacon et al. (2002), which included 450 life insurance companies in 15 European countries, with the aim of identifying the best companies for reference and measuring the performance of other companies,

they found significant differences in the level of efficiency between countries. In addition, there was a decrease in the average level of technical efficiency during the study period. Also by using Tobit regression they found that mutual companies have higher levels of efficiency than stock companies, the most efficient insurer are those that specialized in particular market sectors, and solvency ratios are associated with higher level of technical efficiency.

Hardwick et al., (2004) evaluated 50 life insurance companies in various organizational forms to verify the relationship between corporate governance and efficiency and found that the efficiency of companies increases as a number of board of directors increases.

Borges et al. (2008) use the DEA model to evaluate the performance of Greek life insurance companies during the period 1994-2003. They found that large and equated life insurance companies as we as those involved in merger and acquisition exhibit higher efficiency.

In Jordan, Ajlouni and Tobaishat, (2010) study 22 Insurance companies listed in Amman stock exchange By Using DEA during the period (2000-2016), they showed an improvement in the efficiency of companies during the study period, and the efficiency of life and nonlife are nearly closed.

3. Data and methodology

The study used panel data for 22 out of 24 insurance companies operating inside Jordan covering the period (2000-2016). Two companies excluded from the study due to unavailability of data covering the entire study period. The data collected from the annual financial statements of the insurance companies.

In insurance, there are three main inputs: business, capital and business services, and there are three main approaches for measuring the output of the insurance industry: Asset or Intermediation Approach and User-Cost Approach and value-added approach**.**

The value-added approach emphasizes the importance of outputs if they contribute significant added value based on operating cost allocations. This approach the most used approach for studying insurance company efficiency's (Cummins and Weiss, 2000). This approach assumes that insurers offer three main services through risk pooling and risk bearing, real financial services related to insured losses and intermediation by collecting funds and invest them.

 DEA results are sensitive to the variables that used (inputs and outputs), the choice of method and variables have an important impact on the measurement and analysis of efficiency. As (Diacon, 2001: Yang, 2006: Alhassan et al, 2015) the following variables will be used in efficiency measurement by DEA:

Inputs: total operating expenses, Debt and Owner's equity, and total technical Provisions.

Outputs: Net Earned premiums and investments Income.

Details of the input and output variables are given in the following box.

Variable	Description
Total Operating Expenses	Includes administrative, general expenses and commission paid as at the end of the year.
Debt and Owner's equity	Including the paid-up capital of the company in addition to the retained earnings after the issuance of both statutory and voluntary reserves and premium on paid-up capital, as well as the value of the change in the investment valuation reserve as at the beginning of the year. Plus borrowing from banks.
Total Technical Provisions	Includes The provision for Unearned premiums, Outstanding Claim Provision, and the Mathematical reserve at the end of the year
Net Earned premiums	premiums written by the Company after excluding reinsurers 'share plus the value of the change in the unearned premium provision after excluding the reinsurer's share (for non-life insurance business) or the value of the change in the mathematical reserve after deducting reinsurers' share (for life insurance).
Investments Income	Including the profits from financial investments in addition to the interest on deposits in banks and interest earned on bonds owned by the company.

Because of the many constraints that prevent companies from operating at their optimal scale of production, the DEA model with a variable return to scale (DEA-BCC) used to evaluate the level of efficiency for insurance companies in Jordan. As follows:

$$Min_{\theta,\lambda}\theta$$

Subject to:

$$-Y_j + Y\lambda \geq 0$$
$$\theta X_j - X\lambda \geq 0$$
$$Z'\lambda = 1$$
$$\lambda \geq 0$$

Where:

$[X]i.j$ is the input matrix, $[Y]r.j$ is the output matrix, λ is the vector of the variables weights, Z is scale Constraint, θ represents the technical efficiency of the Decision Making Units (DMUs), where $0 \leq \theta \leq 1$.

4. Data analysis and Findings

DEA Analysis Result

Table (1) summaries the average Technical efficiency per year for the insurance companies in Jordan during the period 2000-2016. The result of DEA analysis shows in general, that during the period of study there is a slight development of technical efficiency for the Jordanian insurance companies, where it was (89.0%) in 2000 and reached (92.5%) in 2016. The year 2012 witnessed the highest level of efficiency reached by the insurance companies (94.0%), while the lowest level of the efficiency of these companies was in 2001 as it was (80.1%).

Table 1: Average Technical efficiency per year for the insurance companies in Jordan during the period 2000-2016

Year	Average Efficiency	Year	Average Efficiency
2000	89.0%	2008	92.6%
		2009	91.7%
2001	80.1%	2010	85.5%
2002	89.8%	2011	91.6%
2003	85.2%	2012	94.0%
2004	82.5%	2013	90.5%
2005	92.7%	2014	91.2%
2006	92.9%	2015	92.5%
2007	92.8%	2016	92.5%

Table (2) shows that (DMU-1) achieved the highest level of efficiency by (100%) and it was the Bench Mark for the other companies, Twelve companies had average efficiency greater than (90%) during the study period, while five companies With an average efficiency of (80%-90%), four companies efficiency was lower than (80%) and the lowest company in terms of efficiency was (DMU-22) at (72.5%).

Companies that are more efficient than (90%) are considered to perform well in comparison with their inputs in the production process, These companies are characterized either by higher output such as (DMU-1) or lower use of production inputs compared to other companies as they depend on certain types of insurance such as motor compulsory insurance, which does not require high expenses to achieve premiums. and These companies can reduce their use of inputs to reach full technical efficiency.

The second group of companies, which ranged between 80% and 90%, could achieve the same outputs using less input. The third and fourth groups, which ranged between 70% and 80%, had large inputs and could achieve the same Outputs by significantly reducing their inputs

Table 2: Average Technical efficiency per company for the insurance companies in Jordan during the period 2000-2016

DMU	Efficiency Score	DMU	Efficiency Score
DMU-1	100.0%	DMU-12	91.1%
DMU-2	99.7%	DMU-13	89.2%
DMU-3	99.5%	DMU-14	88.0%
DMU-4	98.4%	DMU-15	87.4%
DMU-5	97.4%	DMU-16	86.0%
DMU-6	96.8%	DMU-17	85.7%
DMU-7	95.5%	DMU-18	83.7%
DMU-8	94.7%	DMU-19	78.5%
DMU-9	93.5%	DMU-20	77.3%
DMU-10	93.4%	DMU-21	77.0%
DMU-11	92.2%	DMU-22	72.5%

Appendix (1) illustrates that there is a substantial efficiency difference among insurance companies in each year, for example in 2000, (9) companies achieved the level of efficiency (100%), while the other companies fell from this level. In addition, the lowest level of efficiency in that year was (60.9%).

In addition, there is a variation at the level of each company each year, which affect the average efficiency during the study period. For example, the fluctuation in the efficiency of (DMU-120, which was in 2000 (68.5%) and increased to (97.9%) in 2002, then reach (72.2%) in 2004, and increased to achieve the full technical efficiency during the years 2005-2008, then decreased in 2009 to (80.8%) and fluctuated during the years (2010-2016) and reached (91.1%) at the end of 2016.

These results are similar to those of Ajlouni and Tobaishat (2010) in terms of the technical efficiency of the insurance companies. However, there is difference in the efficiency scores of the companies between the two studies because they calculate the efficiency scores under the assumption of a constant return to scale, contrary to our study, which uses the assumption of a variable return to scale.

5. Determinants of Efficiency

Slacks based model

The inefficiency is either from using inputs incorrectly, or these inputs cannot achieve the required level of output. Therefore, if companies reduce their use of inputs to achieve the same level of output, it will be possible to upgrade their efficiency to achieve full technical efficiency.

For inefficiencies firm, the input target will be less than actual input. The difference between actual input and target input is input slack, and it can be expressed as a percentage:

$$\text{Input Slack percentage} = \frac{\text{Actual Input} - \text{Input Target}}{\text{Actual Input}} \times 100$$

Appendix (2) show the percentage of input that must be reduced in order to achieve the full efficiency for each company. By reviewing the ratio for each company, it is clear that the owner's equity and Debt are the most important determinant of firm efficiency, followed by technical reserves. Operating expenses were the least important determinants of efficiency. It is possible to reach the current level of output by reducing the owner's equity and Debt by (6.33%), its technical reserves by (0.85%) and operating expenses by (0.27%). Thus, the companies achieve the full technical efficiency.

Logit Model

To examine how external factor affects the efficiency level for the insurance companies, this study uses the Logit model to analyze the size and direction of the relative effect of the independent variable in their impact on the efficiency. One of the main advantages of Logit regression does not require a linear relationship between dependent and independent variables, and it can handle various types of relationships because it applies a non-linear log transformation to the predicted odds ratio. Those external variables are not decision variables that would otherwise figure in the firm's choice of the nature or level of inputs and or/outputs as that already been included in the DEA analysis.

The suggested model can formed as follows:

$$\theta_{it} = \alpha \ + \beta_1 Size_{it} + \beta_2\ Rein_{it}\ + \beta_3 ROA_{it} + \beta_4 Type_{it} + \varepsilon_i$$

Where:

α : represents the constant, i: insurance company, t: time period (in years), θ: Technical efficiency, Size: natural logarithm of Assets, Rein: reinsurance ratio, ROA: return on assets, Type: type of insurance company, (β 's) : Model parameters, and (ε): the random error.

The dependent variable (efficiency) converted to a binary outcome:(0,1) expressing that the company is Efficient or not, where the variable takes the value (1) by probability (P) if the company is technically efficient, and the value (0) with probability of (1-P) if company is not technically efficient.

(Size): Size of the insurer (i) in time (t). Large insurers expected to benefit from economies of scale and scope in the form of lower per unit cost of production derived from the large scale of production. In other hands, the inability of the larger firm to monitor and control activities of large-scale operation results in diseconomies of scale, a negative relationship. Size of the insurer measured by natural Logarithm of Company Assets.

(Rein): Reinsurance of the insurer (i) in time (t). Reinsurance is a way of transferring the risk from the insurer to the reinsurer, in order to protect the insurer from unexpected financial losses that may expose to it. This variable measured by dividing the total amount transferred to the reinsurers to the total premiums written by the insurer

(ROA): Return on Asset of the insurer (i) in time (t). Profitability of insurer proxy by ROA to investigate if there a relationship with technical efficiency.

(TYPE) is a Dummy variable equal to 1 for composite (life and nonlife) insurer and zero for life or non-life insurer, aiming to capture the role of business line diversification on efficiency.

Table (3) shows the results of the Logit models that investigate the probability of the company is efficient currency employing the explanatory variables mentioned above.

Table 3: Regression Result

Variable	Coefficient
Size	0.270659***
	(0.146413)
Rein	-0.08912
	(0.816565)
Type	-1.273139*
	(0.270336)
ROA	2.467615**
	(1.163194)
C	-3.700586
	(2.381742)
Log likelihood	-242.3529
LR statistic	33.72552
Cox-Snell r	0.086229
Nagelkerke r	0.114976

- Standard errors in brackets.
- *1%, **5% and ***10% significant levels.

Based on the Maximum Likelihood estimation, the result indicated that the type of insurance has a significant impact on the efficiency of the company. The coefficient is negative which mean that the proportion of insurer being efficient decreased by (1.273) times in case if the Insurer licensed as a composite (life and non-life).

This result can be explained as while the insurer being just life or non-life insurer will enhance the efficiency throw concentration the efforts and resources on the specific line of business in a way that

increases the insurance efficiency. This finding consistent with the number of previous studies such as the study of (Barros et al., 2009) (Diacon, 2001), and contrary to what came in the study of (Wasseja and Mwenda, 2015).

The result support that the size of the insurer play a role in achieving the full technical efficiency, where the coefficient is positive and statically significant at 10%. Large insurer seems to have improved flexibility to arrange the best combination of inputs and outputs and benefits from the economies of scale. This finding support (Diacon et al., 2002) (Barros et al., 2005) (Afza and Kausar, 2010) (Yao et al, 2007).

Return on the assets variable highlight the role of profitability in enhancing the chance that insurer being efficient, where the result indicates that ROA increases the chance of being efficient by (2.46) times. The result consistent with the finding of (Gramanova and Strunz, 2017) (Diacon, 2001).

However, reinsurance is had no statically significant impact on the insurer efficiency, which means that reinsurance does not matter to efficiency.

The Log Likelihood ratio for the model, which is testing the weather the coefficients are simultaneously significantly different from zero, confirm the general statistical significance of the model at the 1% level of significance. Pseudo R square values are also calculated (Cox & Snell and Nagelkerke pseudo R squares). This value is an indicator of the percentage of the variance in the dependent variable that explained by the model, the results considered acceptable Since Econometric estimation based on cross-section data usually show low R2, particularly logistic regression (Gujarati, 2003).

6. Conclusions and recommendations

This study aimed to evaluate the insurance companies in Jordan during the period 2000-2016 by measuring the technical efficiency of these companies and its determinants. The study uses panel data for (22) insurance companies operating in Jordan, where the technical efficiency and factor that appears to affect its efficiency were estimated by utilizing Data Envelopment Analysis (DEA), slacks-based and logit models.

The study finds that there is a slight development of technical efficiency for the Jordanian insurance companies during the study period. In addition, there is a substantial efficiency difference among insurance companies in each year, and there is a variation at the level of efficiency for each company each year.

The results also showed that owners' equity is among the most important internal determinants of companies' efficiency, followed by technical provisions and operating expenses. The external determinants identified by the logit model and support that there is a significant correlation between type, size, and return on assets of the insurer and its efficiency.

Based on the results the study recommends improving the technical efficiency of low-efficiency companies by reducing the level of inputs used, reallocating the resources used to maximize efficiency. The results showed that it is possible to reach the same current level of output by reducing on average the owner's equity and debt by (6.33%), technical provisions by (1.82) and operating expenses by (0.85%).

Insurance companies also should focus on specific types of insurance (life or nonlife) and should increase their size throw merger with each other's, and regulator must take action to encourage such mergers.

References

Ajlouni, M. and Tobaishat, S. (2010). The Effect of Technical Efficiency in Insurance Companies on Stock Performance: Data Envelopment Analysis (DEA) Evidence from Jordanian Companies listed in Amman Stock Exchange (ASE) During the Period (2000-2006). **International Journal of Strategic Management**, 10 (1), 67-75.

Alhassan, A. and Biekpe, N. (2016), Competition and Efficiency in the non-life Insurance Market in South Africa. **Journal of Economic Studies**, 43 (6)، 882-909.

Barros, C., Barroso, N. and Borges, M. (2005), Evaluating the Efficiency and Productivity of Insurance Companies with Malmquist Index: A Case Study for Portugal. **The Geneva Papers on Risk and Insurance**, 30, 244-267.

Banker, R. D., Charnes, A., & Cooper, W. W. (1984). Some models for estimating technical and scale inefficiencies in data envelopment analysis. **Management science**, 30(9), 1078-1092.

Barros, P., Obijiaku, E. L., (2007). Technical Efficiency of Nigerian Insurance Companies. **Department of Economics, Institute for Economics and Business Administration, Technical University of Lisbon**. (Working Paper No. 18).

Battese, G. (1992). Frontier production Functions and Technical Efficiency: A survey of Empirical Applications in agricultural economics. **Agriculture Economics**. 7, 185-208

Borges, M.R. Nektarios, M. and Barros, C.P. (2008), Analyzing the Efficiency of the Greek life Insurance Industry. **European Research Studies**, XI (3), 648-669.

Charnes, A., Cooper, W. and Rhodes, E. (1978). Measuring the Efficiency of Decision Making Units. **European Journal of Operational research**.2, 429-444.

Cummins, D. and Weiss, M. (2000). Analyzing Firm Performance in the Insurance Industry Using Frontier Efficiency Methods. **The Wharton Financial Institution Center.** (Working paper).

Cummins, J. D., Tennyson, S., Weiss, M. A.(1999). Consolidation and Efficiency in the US Life Insurance Industry. **Journal of Banking and Finance**. 23(2–4), 325–357.

Cummins, J.D., Turchetti, G. and Weiss, M.A. (1996). Productivity and technical efficiency in the Italian insurance industry**. Wharton Financial Institutions Center, University of Pennsylvania, Pennsylvania**. (Working paper).

Diacon, S.(2001), The Efficiency of UK General Insurance Companies. **Center for Risk & Insurance Studies**, CRIS Discussion Paper Series, 2001III.

Diacon, S.R, Starkey, K. and O'Brein, C., (2002), Size and Efficiency in European Long-term Insurance Companies: An International Comparison. **The Geneva Papers on Risk and Insurance**, 27 (3), 444-466.

Farrell, M. (1957), The Measurement of Productive Efficiency, **Journal of the royal Statistical Society. Series A (General)**. 120 (3), 253-290.

Fecher, F., Kessler, D., Perelman, S., and Pestieau, P.,(1993), Productive Performance in the French Insurance Industry. **Journal of Productivity Analysis**. 4(1–2), 77–93.

Gujarati, D., (2003), **Basic econometrics**. USA, NY: McGraw- Hill Book Company.

Gramanova, E. and Strunz, H. (2017), Efficiency of Insurance Companies: Application of DEA and Tobit Analysis, **Journal of International Studies**. 10 (3), 250-263.

Hardwick, P., Adams, M. and Zou, H. (2004). Corporate governance and cost efficiency in the United Kingdom life insurance industry. **Working Paper**.

Huang, W. and Eling. M. (2011). An Efficiency Comparison of the Non-Life Insurance Industry in the BRIC Countries. **Institute Of Insurance Economics**, Working Paper on Risk Management and insurance No.94.

Jarraya, B. and Bouri, A. (2012), Efficiency Concepts and Investigations in Insurance Industry: A Survey**. Munich Personal Repec archive**.

Wasseja, M.M, and Mwenda, S.N. (2015), Analysis of the Efficiency of Life Assurance Companies in Kenya Using the DEA Model. **American Journal of Mathematics and Statics.** 5(2), 60-71.

Yang, Z. (2006). A two-stage DEA model to evaluate the overall performance of Canadian life and health insurance companies and computer. **Mathematical and Computer Modelling**. 43 (7–8), 910–919.

Yao, S., Han, Z. and Feng, G. (2007), on technical efficiency of China's insurance industry after WTO accession, **China Economic Review**. 18 (1), 66–86.

Appendix 1: Technical efficiency of insurance company in Jordan for the period 2000-2016

DMU	2000	2001	2002	2003	2004	2005	2006	2007	2008
DMU-1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DMU-2	100.0%	100.0%	100.0%	99.5%	95.1%	100.0%	100.0%	100.0%	100.0%
DMU-3	100.0%	92.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DMU-4	100.0%	91.6%	84.3%	100.0%	100.0%	100.0%	100.0%	100.0%	98.4%
DMU-5	90.2%	96.6%	100.0%	85.0%	89.9%	100.0%	100.0%	100.0%	100.0%
DMU-6	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	96.8%	100.0%	100.0%
DMU-7	100.0%	79.0%	90.2%	53.8%	100.0%	100.0%	100.0%	100.0%	100.0%
DMU-8	76.1%	57.7%	100.0%	95.5%	100.0%	100.0%	100.0%	100.0%	100.0%
DMU-9	85.6%	100.0%	93.5%	100.0%	98.4%	95.7%	96.4%	100.0%	91.3%
DMU-10	91.5%	91.7%	100.0%	100.0%	87.5%	94.4%	88.1%	100.0%	100.0%
DMU-11	100.0%	79.5%	74.3%	82.4%	67.1%	100.0%	100.0%	94.5%	98.4%
DMU-12	68.5%	88.6%	97.7%	77.8%	72.2%	100.0%	100.0%	100.0%	100.0%
DMU-13	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	69.1%	75.8%
DMU-14	80.0%	50.3%	100.0%	77.4%	61.5%	82.6%	100.0%	100.0%	100.0%
DMU-15	90.5%	100.0%	99.5%	100.0%	100.0%	100.0%	56.9%	87.4%	100.0%
DMU-16	60.9%	34.8%	71.7%	55.5%	67.3%	82.3%	88.7%	100.0%	100.0%
DMU-17	85.4%	85.0%	100.0%	100.0%	71.2%	100.0%	56.4%	100.0%	68.8%
DMU-18	74.4%	82.6%	100.0%	62.5%	58.4%	92.8%	100.0%	82.1%	100.0%
DMU-19	84.8%	50.5%	73.7%	44.0%	51.2%	78.2%	98.3%	75.5%	76.5%
DMU-20	100.0%	71.3%	69.0%	59.0%	57.0%	64.4%	100.0%	61.3%	71.6%
DMU-21	72.4%	52.8%	69.7%	82.9%	85.5%	75.0%	100.0%	100.0%	100.0%
DMU-22	96.8%	63.1%	52.5%	100.0%	52.2%	73.0%	66.2%	65.3%	67.1%
Average	89%	80%	90%	85%	82%	93%	93%	93%	93%

DMU	2009	2010	2011	2012	2013	2014	2015	2016	Average
DMU-1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DMU-2	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%
DMU-3	100.0%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.5%
DMU-4	100.0%	100.0%	98.7%	100.0%	100.0%	100.0%	100.0%	100.0%	98.4%
DMU-5	100.0%	100.0%	100.0%	100.0%	97.0%	97.0%	100.0%	100.0%	97.4%
DMU-6	86.7%	82.6%	97.9%	100.0%	81.5%	100.0%	100.0%	100.0%	96.8%
DMU-7	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	95.5%
DMU-8	95.9%	94.4%	89.8%	100.0%	100.0%	100.0%	100.0%	100.0%	94.7%
DMU-9	97.5%	100.0%	93.5%	71.8%	79.9%	91.4%	97.5%	97.5%	93.5%
DMU-10	100.0%	100.0%	100.0%	100.0%	96.6%	82.9%	77.4%	77.4%	93.4%
DMU-11	78.9%	100.0%	100.0%	100.0%	100.0%	98.5%	100.0%	100.0%	92.6%
DMU-12	80.0%	91.0%	96.3%	98.9%	98.1%	97.3%	91.1%	91.1%	91.1%

DMU-13	89.2%	72.5%	87.9%	81.5%	92.7%	93.6%	77.4%	77.4%	89.2%
DMU-14	100.0%	87.4%	79.3%	100.0%	88.3%	89.0%	100.0%	100.0%	88.0%
DMU-15	57.2%	71.5%	100.0%	100.0%	87.0%	64.7%	85.4%	85.4%	87.4%
DMU-16	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	86.0%
DMU-17	100.0%	61.2%	62.0%	81.5%	100.0%	84.8%	100.0%	100.0%	85.7%
DMU-18	89.7%	83.0%	100.0%	91.7%	68.9%	77.0%	79.4%	79.4%	83.7%
DMU-19	100.0%	67.5%	97.2%	100.0%	93.1%	96.0%	73.9%	73.9%	78.5%
DMU-20	94.5%	50.1%	100.0%	97.7%	75.0%	82.3%	80.3%	80.3%	77.3%
DMU-21	59.7%	51.8%	55.0%	63.5%	62.6%	77.5%	100.0%	100.0%	77.0%
DMU-22	85.1%	75.4%	59.6%	80.6%	73.8%	80.6%	70.9%	70.9%	72.5%
Average	92%	86%	92%	94%	91%	91%	92%	92%	90%

Appendix 2: Input Slacks

DMU	Variable Return to Scale		
	(Technical Reserves)	(Operating Expenses)	(Owner's Equity+Debt)
DMU-1	0.00%	0.00%	0.00%
DMU-2	-5.00%	0.00%	-1.42%
DMU-3	-0.98%	0.00%	-4.88%
DMU-4	0.00%	-0.16%	0.00%
DMU-5	-0.43%	0.00%	-3.99%
DMU-6	0.00%	0.00%	-5.84%
DMU-7	-0.24%	0.00%	0.00%
DMU-8	-0.53%	-0.25%	-16.32%
DMU-9	-7.48%	-0.05%	-3.16%
DMU-10	-3.07%	0.00%	-6.35%
DMU-11	-0.70%	-0.56%	0.00%
DMU-12	-1.69%	-0.05%	-8.39%
DMU-13	-3.76%	0.00%	-16.96%
DMU-14	-0.07%	-0.86%	-2.86%
DMU-15	-2.88%	0.00%	-19.90%
DMU-16	-0.29%	-0.03%	-1.73%
DMU-17	-2.71%	-0.01%	-21.07%
DMU-18	0.00%	-14.49%	-11.03%
DMU-19	-3.25%	-0.40%	-5.43%
DMU-20	-1.94%	-1.06%	-2.16%
DMU-21	-3.66%	-0.27%	-0.46%
DMU-22	-1.31%	-0.61%	-7.23%
Average	-1.82%	-0.85%	-6.33%

Strategies For Developing High Performing Work Teams (HPWTS) In Modern Organizations

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Abstract

This paper is aimed at discussing strategies for developing High Performing Work Teams (HPWTs) in modern organizations. As organizations are moving from individualistic based- operations to collective based-operations, work teams are required to synergize with identical focus to pursue common goals. The consistency in pursuing these goals require work teams with high performing qualities like consistent commitments and accomplishments, effective communication, relevant and multiple skills, high level of accountability and effective leadership among others. The paper deployed qualitative methodology with the use of secondary materials. The paper covered definition and explanation of concepts, characteristics of high performing work teams, types of teams, relevance of high performing work teams, phases for developing work teams and principles for developing high performing work teams. The paper concluded that to nurture work teams for high performance, modern organizations are expected to ensure that their work teams are taken through all the phases of team development without ignoring the principles of developing work teams.

Key Words*: Strategies, development, High Performance Work Teams, modern organizations*

1. Introduction

Organizations today are beginning to see the importance of pooling employees together with identical focus for a common goal. The idea behind this fact is that, employees without identical focus can hardly achieve commonality and once the cohesion is not exhibited, the consequence is that the organizational performance will be affected negatively. It is the synergy among employees that results to effective work teams with innovative and creative ideas to fashion out quality products and deliver effective services. No wonder, teams have become an essential part of work in organizations like Honeywell, General Electric, Australian Airlines, Honda and Toyota automobile and Telecommunication Corporations among others. In fact, about 80% of all fortune companies are using teams in almost all parts of their organizations (Robbins and DeCenzo, 2008: 246). As organizations have restructured themselves to compete more effectively and efficiently, they have turned to teams as a better way to use employees' talents. Teams are more flexible and responsive to changing events than traditional departments or other forms of permanent groupings (Robbins, Judge and Vohra, 2013:328).

The complexity of organizations and quest to continuously improve operations in order to meet customers' demands, improve quality and productivity, create job satisfaction and improve profit for survival and sustainability require work teams that are high performing. High performing work teams are characterized by clear goals, unified commitment, good communication, mutual trust, effective leadership, external and internal support, negotiating skills and relevant skills (Robbins and DeCenzo, 2008: 251). In addition, HPWTs are known for consistent accomplishments, consistent problem solving, high complimentary skills, high trust, creativity and rapid decisions. These attributes are known to be the hallmark of high performing work teams in modern organizations. It is important to note that it is by synchronizing the above mentioned attributes that work teams become effective and high performing. It is expected that employees of high performing organizations share in common the attributes of high performing teams so as to roll in the same direction to dominate any industry, in any market, against any competition, at any time. Therefore, as modern organizations put teams in place for continuous improvement and competitive advantage, the challenge still remains developing such teams for effectiveness and high performance. It is in this connection that this paper deployed qualitative methodology using secondary sources to discuss in details the strategies required in developing teams that are high performing and effective in modern organizations. The paper is fashioned to cover definition and explanation of concepts, characteristics of high performing work teams, types of teams, relevance of high performing work teams, phases for developing work teams and principles for developing high performing work teams.

2. Definition and Explanation of Concepts

In discussing this paper, key concepts will be defined and explained to facilitate our understanding.

2.1. Work Teams and Work Groups

The two concepts are used interchangeably, but they are not the same and also distinct in nature. Scholars have perceived and interpreted these concepts in diverse ways. Scholtes (1988:3) defined a team as a group of people pooling their skills, talents and knowledge. Katzenbach and Smith (1993:45) add the elements of commitment and mutual accountability, defining a team as a

small number of people with complimentary skills who are committed to a common purpose, performance goals and approach for which they hold themselves mutually accountable. According to Forsyth (2010) cited in Zoltan and Vancea(2015:96), teams are structured groups of people working on the basis of well-defined common goals that require coordinated interactions in order to perform certain tasks. This definition highlights one of the key features of team, that is, its members work together on a common project for the achievement of which they are all accountable. From the two definitions, a team can be seen as a group of persons working together with complimentary skills and experiences for a common goal. The concept of work team is more common in business and seen as integral unit of the organization functioning and the interest for it has increased in recent time, as many organizations turn to the organization of work in teams, yet they are seen as solutions to organizational problems, including those related to productivity (Zoltan, Bordeianu & Vancea, 2013) cited in Zoltan and Vancea(2015:96). Work teams are individuals who come together to generate positive synergy through a coordinated effort where individual efforts result in a level of performance that is greater than the sum of those individual inputs (Robbins and DeCenzo, 2008: 248). Work teams are characterized by common goals, shared responsibilities, unified commitment, complementary skills, mutual trust and interdependence among others.

On the other hand, work group is a collection of peoples who work in the same area or have been drawn together to undertake a task but do not necessarily come together as a unit and achieve significant performance improvement (Bateman and Snell, 2002: 441). Work groups are individuals who come together with the aim to share information and make decisions to help each member perform within his or her area of responsibility. Work groups have no need or opportunity to engage in collective work that requires joint effort. So their performance is merely the summation of each group member's individual contribution. There is no positive synergy that would create an overall level of performance greater than the sum of the inputs (Robbins et al, 2013: 329). Katzenbach and Smith (1993:45) said a work group constitutes members that perform their tasks successfully and achieve personal satisfaction, but not necessarily share the same objectives, with poor coordination. Work groups are characterized by individual efforts, lack of mutual trust, individual accountability and lack of common goal among others.

2.2. High Performing Work Teams (HPWTs)

High performing team is a group of people who share a common vision, goals, metrics and who collaborate, challenge and hold each other accountable to achieve outstanding results. Members of high performing team have a clear and vision of where they are headed and what they want to accomplish, are excited about that vision they took part in creating, act from clearly defined priorities to achieve their vision, have clear measures of success and receive feedback about how they're doing, maintain open communication and positive relationships with each other, identify and solve problems, make decisions when and where they occur, successfully manage conflict, share leadership responsibilities, participate in productive meetings, have clearly defined roles and work procedures and cooperate cross-functionally. (www.centerod.com/docs/CenterOD_DevelopHighPerformanceTeams.pdf).

HPWTs are teams that consistently develop goals and plans, enhance communication among members, develop and maintain positive relationships among members, solve problems

and make decisions on a timely basis, successfully manage conflict, facilitate productive meetings, clarify roles for team members, operate in a productive manner, exhibit effective team leadership and provide development opportunities for team members (www.goiam.org/images/articles/headquarters/departments/hpwopartnerships/ten_characteristics_hpwteam.pdf). HPWTs are teams that are optimum in goal setting, communication, complimentary skills, accountability and leadership among others. Such teams deliver results and receive recognition and on the basis of trust, team members accelerate their personal and collective learning (Eigenhuis and Dijk, 2008:135). HPWTs are teams with performance norms, that is shared beliefs about how people should think and behave. Members of HPWTs are expected to be focus, committed and hard working, eager to solve problems and willing to support one another.

The distinction between high performing work teams and natural work teams is that, HPWTs have the ability to perform at optimum level for a long period of time and to accomplish its work in efficient and effective manner while natural work teams have the ability to perform but not at optimum level and lacks consistency in accomplishment.

2.3. Characteristics of High Performing Work Teams

These are inherent attributes and features exhibited by work teams that seem to be optimum. Scholars in their research identify these characteristics distinctively. According to Lewis, Goodman and Fandt (2004:440), high performing teams have mutual influence, common purpose, interaction and interdependence relationship as their attributes. Innovative ideas, goal accomplishment and adaptability are also features (Certo, 2000:391). Eigenhuis and Dijk (2008: 131) said high performing teams make decisions more rapidly, create support for their decisions in the wider organization and adapt faster to changing market conditions. Finally, high performing work teams are characterized by clear goals, unified commitment, good communication, mutual trust, effective leadership, external and internal support, negotiating skills and relevant skills (Robbins and DeCenzo, 2008: 251). Major features of high performing work teams are discussed in details below.

Clear understanding of goals and objectives: The goals and objectives to be pursued are not ambiguous to high performing teams. In clear terms, they have a full understanding of these goals and objectives and because of their understanding, they redirect their energy away from personal concerns to specifically actualize team mandate.

High commitment: Team members show and display high level of dedication as they give time and put efforts for the achievement of team goals.

 Common goal: The ability to team up for a common purpose is inevitable, because team members know in clear terms what to achieve, therefore, their focus is solely on the result and nothing else.

Relevant skills: Team members have skill sets required at different work process to accomplish diverse assignments for the attainment of the overall goals. Instead of possessing only the technical skills, team members also have the interpersonal kills among others to achieve excellence.

Creative ideas: Team members are innovative in thinking, as they initiate different ways of approaching issues relating team goals.

Supportive decisions: Team members assist each other to make choices required in pursuing organizational goals and as team members interact freely, the willingness to make inputs to decisions is not compromised

Open communication: There is free flow of information between individuals and organization. This facilitates feedback and guide team members to correct misunderstandings as they arise. Team members relate freely by sharing feelings and ideas.

Effective leadership: Team members motivate themselves in difficult situations, they make clarifications on goals to pursue, adapt to change, help team members realize their potentials and more importantly, they are focus.

Mutual trust: Team members have confidence in themselves and exhibit intense loyalty and dedication to each other. Integrity of team members is of high esteem.

Performance norms: Every member is expected to follow the acceptable pattern and style in pursuing team's goal. There are laydown rules for members to follow, so as to guide team's operations.

2.4. Types of Teams

Work teams in organizations today can be categorized on the basis of objective, function and scope among others. According to Certo(2000:387) three types of teams are commonly found in today's organizations namely; problem solving teams, self-managed teams and cross-functional teams. Robbins and DeCenzo (2008: 248) stated that the four most common forms of teams in organizations are functional teams, problem-solving teams, self-managed teams and cross-functional teams. Robbins et al (2013: 330) mentioned problem -solving teams, self-managed teams, cross-functional teams and virtual teams as the most common teams in an organization. Torrington et al (2002) cited in Suff and Reilly (2006:4) identified four broad teams; production and service teams, cross- functional management teams, functional teams and problem–solving teams.

In this paper, problem-solving teams, functional teams, self-managed teams, cross-functional teams and virtual teams will be discussed.

Problem-solving teams: A number of employees set up by the organization to share ideas and discuss ways of improving work processes and methods. These teams assist the organization in offering solutions to operational challenges.

Functional teams: Managers in various departments, sections and units including employees under them who put efforts together to improve work activities and also solve specific problems affecting a particular department, section or unit.

Self-managed teams: A number of employees constituted by the organization to plan, organize and control and complete work processes without much management interference. They take responsibility of the entire work process from the starting point to the finishing point with minimal directives from the management.

Cross-functional teams: Employees of almost the same level from different departments, sections or units within the organization brought together due to its expertise to coordinate

activities of different departments, sections and units for the accomplishment of organizational task.

Virtual teams: Team members situated in different geographical areas who are linked by modern communication technology like wide-area networks, videoconferencing and e-mail to solve problems and also discuss issues affecting the organization.

2.5. Relevance of High Performing Work Teams

HPWTs contribute significantly to organizations as well as individuals. According to Suff and Reilly (2006:39) organizations tend to benefits from improvements in productivity, quality, customer satisfaction levels, employee commitment while team members tend to enjoy great job satisfaction from freedom, responsibility and flexibility of working in groups. Both organizational and individual benefits are clearly discussed below.

Organizational Benefits:

High productivity: Employees put in their best as a result of the cohesive environment and coupled with the friendly and conducive atmosphere, there is very tremendous output.

High quality: The freedom and cohesiveness among employees, give room to generate ideas for continuous improvement in organizational product and services.

High level of customer satisfaction: The high quality of goods and services produced and provided as a result of continuous improvements from new ideas, meet customers' satisfaction and retain them.

Competitive edge: Organizations with high performing work teams have competitive advantage over organizations that have work teams that are not effective and high performing.

Improved profitability: As organizations meet customers' satisfaction with products and services that of high quality, the sales is on the rise and the organizational turnover improves.

Individual Benefits:

Job satisfaction: With the friendly and cohesive environment, employees in the organization are happy doing their jobs because there is no fear and nothing to worry about.

Freedom: As employees interact and share ideas in the course of working for team goals, they become free among themselves and are willing to open up for more information.

Interpersonal skills: The interaction among employees enables them to sharpen their interpersonal skills and develop good work relationship.

Experience: As employees work together continuously, they are exposed to new ideas that equip them to develop in their careers.

2.6. Phases for Developing Work Teams

Work teams go through phases and stages before they become effective and high performing. Within this period, team members exhibit different behaviours, attitudes and characteristics. The time require for each of the stages vary greatly, with each stage lasting until its paramount issues are resolved. These stages are interdependent, because is only when issues at a

particular stage are clarified before members move unto another stage. It is in this connection that Lewis et al (2004: 446) said the process of development is ongoing and complex and therefore, new groups may progress through these stages, but if the group's membership changes, the group may regress to an earlier stage, at least temporarily. Research has indicated that teams that proceed through the developmental stages successfully seem to outperform and sustain higher levels of performance when compared to teams that do not (Bushe & Coetzer, 2007) cited in Lunenburg and Lunenburg (2015:4).

In developing work teams to high performing teams, Bruce Tuckman in 1965 developed four major stages; forming, storming, norming and performing. Eigenhuis and Dijk (2008: 131) extended these stages to five by adding high performing while Lewis et al (2008: 448) and Certo(2000: 391) included adjourning to the first four stages developed by Tuckman. The understanding of these stages is of great importance to any organization that will decide to develop its work teams.

Forming stage: This is a stage where individuals come together and begin to think of themselves as members of a team. This is a period of uncertainty, stress and anxiety. As individual members explore to know what is expected of them, what kind of people constitute the team and the skills team members possess. This is an exploratory period where team members search for information to organize their activities. The behaviours most common for individuals in the forming stage include dependency, keeping feelings to themselves, experiencing confusion and uncertainty about what is expected, being polite, showing hesitancy about how to proceed, etc. Teams in forming stage should be given enough time to get familiar with each other before attempting to carryout their responsibilities.

Storming stage: The emergence of conflict and disagreement among members indicates the beginning of storming stage. As individual members argue about roles and procedures, there is no more unity and they become uncomfortable interacting with one another. Competition for the leadership role and conflict over goals are dominant themes at this stage. Some members withdraw or try to isolate from the tension generated. The behaviours most common for individuals in the forming stage include arguments, pride, power struggle, withdrawal, conflict, etc. Team members should be given free hand to clarify issues and how they intend going about their goals and objectives.

Norming stage: After the conflict stage, norming begins. The norming stage of development is a stage in which team members come to agree among themselves on roles, goals, rules and acceptable behaviour while working on the team. It is a stage of team development where a real sense of cohesion and belonging begins to emerge. The behaviours most common for individuals in the norming stage include sense of cohesion, sense of success, sharing of feelings and effective feedback. Team members should develop acceptable norms and values that will be instrumental in building a successful organization.

Performing stage: At this stage, team members channel their efforts in carrying out tasks, as they get to understand and work well with everyone on the team. It is a stage where team members become productive as they work towards accomplishing organizational goals. Team members are fully focused on solving complex problems and meeting assigned challenges. The behaviours most common for individuals in the performing stage include commitment to

challenges, problem solving, commitment to task and high level of interdependence.   The accomplishments of team members should be recognized regularly and rewards must also be assigned to get the best from team members.

Adjourning stage: This is the last stage in team development where there is termination of task and disengagement from relationship-oriented behaviours. At this stage, the team finishes its job and prepares to disband. The behaviours most common in this stage include disappointment for loss of work and personal relationships among team members. Team members should be briefed before the termination of task, to avoid them from psychological trauma.

2.7. Principles for Developing High Performing Work Teams

Modern organizations can nurture its work teams for high performance by ensuring that work teams meet up with the required principles such as team size, team composition, organizational support, clear and challenging goals performance norms, feedback mechanism, team training, team trust, team accountability, team leadership, etc.

Team size: The task and assignment should determine the number of persons that will make up a work team, but the ideal size for a work team is six to seven persons. It should be noted that if the team is too large, social loafing will be encouraged and most members will end up not contributing to the goals of the team and if the team is too small, the required skills will be lacking to pursue team goals.

Team composition: It is important to ensure that team members have complimentary competencies to enable them solve problems that will arise in the course of team's operations and activities. Finally, there should be gender balancing among team members.

Organizational support: Moral and material support should be given to team members so as to empower them make decisions within an agreed framework and mandate for the team. And there should be availability of appropriate information systems and a stimulating physical working environment.

Clear and challenging goals: Well defined goals that require complimentary skills and critical thinking to actualize should be set for team members to pursue.

Performance norms: The laydown rules, pattern of behaviour and work style expected of team members should be stated in clear terms so as to guide their conduct in pursuing team's goal.

Feedback mechanism: In order to have a report on the performance of each team member, a feedback system is required. This system enables team members to adjust if their performance is below standard.

Team training: Organizations are expected to expose team members to relevant training programmes to enable them acquire interpersonal, problem-solving and decision making skills that will facilitate their team operation and cohesion.

Team trust: Ensuring that team members develop confidence and integrity for each other in carrying out team's task.

Team accountability: Team members are expected to take responsibilities assigned by their organizations and ensure that each of the responsibilities is being accounted for.

Team leadership: The essence of team leadership is to stimulate, motivates and inspire other team members to strive in difficult situations to actualize team's goal. Most importantly, team leadership enables team members to be visionary and focus in pursuing team's goal.

3. Conclusion

Organizations are now shifting from individualistic to collective efforts with work teams that are synergizing to pursue common goals. The consistency in pursuing and accomplishing these goals require work teams that are effective and high performing, members of such work teams are characterized with relevant and multiple skills, positive relationships, high level of accountability and integrity, etc. Therefore, for work teams to be nurtured for high performance, modern organizations are expected to ensure that these work teams are taken through all the phases of team development without neglecting the principles required for developing high performing work teams.

References

Bateman, T.S and Snell,S.A.(2002). Management: Competing in the New Era. (5th edition). New York: McGraw-Hill.

Certo, S.C.(2000). Modern Management. (8th edition). New Jersey: Prentice Hall.

Eigenhuis, A and Dijk, R.V.(2008). HR Strategy for the High Performing Business: Inspiring Success through Effective Human Resource Management. (2nd edition). United Kingdom: Kogan Page.

Katzenbach, J., and Smith, D., (1993). The Wisdom of Teams: Creating the High-Performance Organization. Cambridge, MA. Harvard Business School Press.

Lewis, P. S., Goodman, S. H., and Fandt, P.M.(2004). Management: Challenges for Tomorrow's Leaders. (4th edition). Canada: Thomson.

Lunenburg, F. C and Lunenburg, M. R(2015). Developing High Performance Teams: Long-Standing Principles That Work. International Journal of Organizational Behavior in Education Volume 3, number1.

Robbins, S.T and DeCenzo,D.A(2008). Fundamentals of Management: Essential Concepts and Applications. (6th edition). Upper Saddle River: Pearson Prentice Hall.

Robbins,S.T, Judge, T. A, Vohra,N (2013). Organizational Behaviour. (5th edition). United States: Pearson.

Scholtes, Peter, 1988. The Team Handbook: How to Use Teams to Improve Quality. Madison, WI, Joiner Associates.

Suff, P and Reilly, P. (2006). Pulling Together: Getting the Most out of Teams. United Kingdom. Institute for Employment Studies.

Zoltan, R. and Vancea, R. (2015). Organizational Work Groups and Work Teams – Approaches and Differences. Ecoforum. Volume 4, Issue 1 (6).

www.centerod.com/docs/CenterOD_DevelopHighPerformanceTeams.pdf

www.goiam.org/images/articles/headquarters/departments/hpwopartnerships/ten_characteristics_ hpwteam.pdf

momentum.com/_downloads/the_critical_steps_to_building_high_performance_teams.pdf

www.isixsigma.com/implementation/teams/high-performance-teams-understanding-team- cohesiveness

www.goiam.org/images/articles/headquarters/departments/hpwo- partnerships/ten_characteristics_hpwteam.pdf

www.centerod.com/docs/CenterOD_DevelopHighPerformanceTeams.pdf

www.rialtoconsultancy.com/pdfs/whitepapers/How%20to%20Create%20High%20Performing%20T eams.pdf

www.linkageinc.com/...development.../10-Leadership-Techniques-for-Building-High-...

https://itll.colorado.edu/images/uploads/.../ch06teamwork_and_working_in_teams.pdf

https://www.mindtools.com/blog/corporate/wp-content/.../Forming-Storming.pdf

https://salvos.org.au/.../HANDOUT_-_Tuckmans_Team_Development_Model.pdf

https://www.gla.ac.uk/media/media_358180_en.pdf

https://msu.edu/~morgeson/morgeson_lindoerfer_loring_2010.pdf

www.teamworkandteamplay.com/resources/resource_5stages.pdf

www.naspaa.org/JPAEMessenger/Article/jpae-v16n1/holmes.pdf

The Profitability Analysis of Islamic (Sukuk) vs. Conventional Financing: an Empirical Analysis

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Abstract

Over the last decade, Islamic Financials (Sukuk) emerged as a pioneering capital market instrument. One of the fundamental reasons for the emerging demand of Islamic Financing (Sukuk) includes its adherence to the finance in accordance to the Islamic values, avoiding Riba, which is the generation of money from money such as usury or interest. Sukuk issues have notably proliferated, which fuels the debate regarding the between the conventional and the Islamic finance. To investigate the impact of Islamic and Conventional Financials on shareholders' wealth, this study takes the profitability ratios (including ROA, ROE, ROCE, and NPM) of 15 companies issuing Islamic Financials and 15 companies issuing Conventional Financials from the period between 2010 and 2017 and compares the profitability of both ffinancials. The findings reveal the Islamic Financials (Sukuk) to be a significantly high source of profitability for a company along with the other clients' catchy determinants such as religious principles, sharia-compliant instruments, and interest (Riba) free financing. The paper provide evidence that companies are recommended to pay more attention to Islamic Sukuk in order to grab the attention of customers. Furthermore, the Islamic Financials (Sukuk) offers other instruments to catch the customers' attention such as religious principles, sharia-compliant instruments, and interest (Riba) free financing. From this perspective, the mentioned determinants fulfil the religious needs of customers.

Keywords: Islamic finance, Islamic Sukuk, profitability, sharia-compliant instruments

JEL Codes: G21, G23.

1. Introduction

Islamic finance, a term that gained momentum since last two decades requires adherence to Islamic laws and formation of sharia-compliant structures. All the products or services under these structures are subject to sharia compliance. According to Uusmani and Taqi 'Usmani (2002), Islamic finance is a system, which is based on the Islamic law while, Conventional finance is based on manmade law. The purpose of Islamic Financing is to establish justice and equality in the society while Conventional finance being an ethic-neutral system is not much helpful to achieve this objective because money keeps circulating in a few hands only. Transactions involving Riba (interest) and speculations are prohibited and no guaranteed return is offered to investors; rather profit are generated on business risk-sharing basis. After confirming to sharia standards, Islamic financial institutions can produce the instruments that can replace the conventional interest-bearing speculative equity, derivatives and mortgages schemes of financing. These sharia-compliant instruments would make the transfer of an asset in a systematic way from lender to the borrower. For instance, Sidlo (2017) states, "regulations are necessary in the fiscal field, as certain Islamic structures (such as murabaha) can potentially result in multiple tax duties being applied on the transfer of assets" (p. 12). Having this as a reference, a lot many Islamic financial instruments are designed in which lending transactions are backed by real assets and credit participation involves business risk instead of guaranteed return (Jobst, 2007).

1.1 Background of the Study

One of the developments in the Islamic financial industry is the introduction of Sukuk. Sukuk is the plural form of word Suk. The Accounting and Auditing Organisation defines the Sukuk as "equal value certificate of undivided shares provided in possession of assets tangible in nature, Services and usufruct or in possession of asset pertaining to a particular project or activity entailing especial investment" (AAOIFI 2008, p. 307). Sukuk is a novel specification of debt when probing into its capabilities for the provision of funds and diversity in this area. They can be viewed in light of regular bonds but since these come under the head of Islamic financial instrument so compliance to sharia is necessary. The riskiness of Sukuk is similar to that of the bond as they depend on the financial credibility of the issuer. The holders of these certificates enjoy an exclusive benefit generating ownership in the asset underlying the transaction. They benefit from both ends firstly, from the profits derived from these assets and secondly, from the proceeds of its realization. At some places,

they are also claimed to be a developmental tool rather having being classified as a financial tool.

1.2 Problem Statement

The local market lacks a portfolio of Islamic financial instruments that could be utilized by non-Islamic profitable institutions. A step into the local financial market gives an impression to the investors that they are limited to few choices when it comes to sharia-compliant securities that could offer better profitability. An environment whereby the ultimate focus is laid on Murabaha, Ijara, and Wakala investment. As financial instruments based on sharia-compliant laws, Sukuk can be considered as a unique addition to Islamic financing tools that can address the concern of deficiency of such tools in local markets. In addition to the case of securitization, whereby a heated up debate always stands on its sanctity among religious figures (Al-Salem, 2009). Therefore, this research bases its focus to establish the profitability comparison of companies offering Sukuk Certificates and others that utilize conventional financing.

1.3 Purpose of the Study

Islamic finance is an emerging field with a considerable number of research studies focusing on how Islamic finance offer solutions to traditional and modern financial markets. For a viable development of Islamic finance, Islamic capital market (ICM) is crucial. The main goal of ICM is to allocate and mobilize resources efficiently. This realistic goal can be accomplished through the development of real sector financing. From a different perspective, ICM can perform the task of liquidity management through sharia-compliant money market operation in the Islamic financial industry. Management of liquidity is core to ICM in short run since it would provide sustainability in long run to Islamic financial institutions (IFI's) within the area of financial markets. Hence there exist dire need to innovate products that are complying the laws of sharia so that the concept of efficient and vibrant ICM could be materialized (Nazar, 2015). In this regards, Sukuk as a tool for operationalizing the concept of the sharia-based product plays a pivotal role in resource mobilization and smoothing liquidity in ICM. It is Islamic financial instrument with the enormous capability to provide a boost in economic growth of the country and significantly inculcate initiatives for development of real financial Sector. This research will further probe that role of Sukuk in profitability of its issuing forms by comparing the profitability of both Sukuk issuing firms and other traditional bond-issuing firms.

Islamic Sukuk can also be an ideal offering for overall market integration of Islamic financial

instruments entailing varying risk levels to satisfy the diversified need of investors. It would provide an opportunity to market growth since growth would no longer remain the function of institution size or borrowing capability rather its ability to securitize assets and issue Sukuk. Sukuk issue would increase growth prospects, financial returns and spread the risk arising from organizations deriving funds from a large number of lenders: those issuing Sukuk certificate rather allowing it to be borne by banks. Simply both the institution issuing Sukuk and the banks financing it would mark an increase in their credit ratings (Al-Salem, 2009). Considering the increased benefit of Sukuk financing, this study builds the following research question:

1.4 Research Question

Which of the financing institutions (based on conventional bounds or Islamic Sukuk) is performing well in their respective domains in terms of profitability?

Hypotheses

H1: There is no difference between ROA of Sukuk Financing Institutions and interest-based financing schemes of conventional Financing Institutions

H2: There is no difference between ROE of Sukuk Financing Institutions and interest-based financing schemes conventional Financing Institutions

H3: There is no difference between ROCE of Sukuk Financing Institutions and interest-based financing schemes conventional Financing Institutions

H4: There is no difference between the Net profit Margin of Sukuk Financing Institutions and interest-based financing schemes conventional Financing Institutions

2. Literature Review

A large number of studies have been conducted to examine the difference between the efficiency of Conventional Banks (CBs) and Islamic Banks (IBs). From this perspective, some of the studies indicated no difference between the efficiency of IBs CBs, nevertheless, a significant number of studies shows that IBs are more efficient as compared to the CBs. On the other hand, some of the other studies suggest that IBs are not more efficient as compared to the CBs. According to the study conducted by Saiti, Bacha, and Masih (2016), a closer analysis of the performance of both types of financials shows certain regularity. For example, no considerable difference (or to some extent higher

efficiency in the operations of IBs) is found between IBs and CBs if the pre-crisis period is examined (smaller ones and the big one). On the other hand, the efficiency of IBs is found as lower as compared to CBs if the period of crisis is examined.

Financials with the primary goal of maximizing the profits are generally considered as the most significant financial institutions in most of the countries. Arslan-Ayaydin, Bejaoui, Dorsman, and Shahzad (2016) noted that Islamic financials are in the efforts to be socially responsible while operating in accordance with religious principles such as prohibiting the use of interest and following the model of profit and loss sharing with their clients and thus generating more revenue. IBs and Islamic finance, in general, represent one of the fastest growing financial industries despite its relatively short history compared to CBs (Iqbal & Mirakhor, 2011). Exploring the difference between the Islamic financing and Conventional financing, Arslan-Ayaydin, Bejaoui, Dorsman, & Shahzad (2016) found that "Transactions in Islamic Finance (IF) are guided by ethical, moral, and social considerations. Moreover, according to IF money should be used to create social value. With regard to these point of views, IF aligns with Socially Responsible Investing (SRI), which refers to the combination of social, environmental and ethical requirements when making financial investment decisions" (p. 187). On the other hand, investments are exclusively focused on return and risk in conventional finance (CF); nevertheless, Islamic Finance and Socially Responsible Investing also have a social value component. Islamic banking is based on Islam's terms and conditions while Conventional banking (financing) is an un-ethical system whose main aim is to get more money in the form of interest. Islamic financing is becoming more and more popular across the world due to its policies but sometimes it may not support you (Bley & Kuehn, 2004).

If an individual wants to get a loan for a bear shop/business, Islamic finance cannot help him, as it is an illegal business and one cannot get a loan for it. While conventional finance can give the desired loan and the loan taker is supposed to return it with interest (Hanif, 2011). Conducting a study to determine the risk determinants of liquidity risk between Islamic and Conventional banks, Waemustafa and Sukri (2016) found that money is a product and not the medium in the Conventional Financing, while real property is a product and money is just a medium of exchange in the Islamic Financing. Similarly, interest is charged on the basis of time (Interest can increase with the flow of time) in Conventional Financing, while profit is earned by exchanging goods and services in Islamic Financing. According to Samad (2004), "there is no major difference in performance

between Islamic and conventional banks with respect to profitability and liquidity. However, the study finds that there exists a significant difference in credit performance" (p. 1). For instance, conventional financing does not share losses and the client is charged interest even in the case of loss. Nevertheless, Islamic financing shares the loss. In the same way, the government very easily obtains loans from Central Bank via Money Market Operations without initiating capital development procedure in the case   of Conventional Financing. On the other hand, the government cannot gain loans from the Monetary Company without making sure the delivery of goods to National Investment fund   in Islamic financing.

Conducting a study on the preferences of clients of Conventional and Islamic banks in Bahrain in order to choose a bank to patronize, Al-Ajmi, Abo Hussain, and Al-Saleh (2009) found, "Islamic religious belief and social responsibility are the two most important factors that determine bank selection. Cost-benefit is the third most important factor considered in bank selection; clients of conventional and Islamic banks share a number of motives, but they differ significantly on a few motives in relation to bank selection; and clients of Islamic banks are more familiar with the products/services that conform to the shari'a" (p. 1086). Money remains in a few hands that is why there is no real growth of money and society cannot build up well

Via Conventional financing. Nevertheless, real growth in the wealth of the people of the society takes place in Islamic financing, due to multiplier effect and real wealth goes into the ownership of a lot of hands. According to Mollah and Zaman (2015), the loan can be written off if the project fails in Conventional financing whereas it is transferred to any other organization in the Islamic financing if a project fails.

2.1 Countries/Companies Using Islamic Financing

All the Islamic countries are using Islamic financing/banking system. Besides them, Islamic banking is also popular in non-Muslim counties. For an example: India is a non-Muslim country and there is no existence of Islamic financing but after the orders of Indian Supreme Court, now there are many organizations which are running on the base of Islamic finance system (Derigs & Marzban, 2008). A large number of banking systems were founded during the 1970s, to be claiming for the provision of Islamic Financing. These banks include the first private commercial bank in Dubai in 1975, in Sudan (Faisal Islamic Bank of Sudan) in 1977 and in Bahrain (Bahrain Islamic bank) in 1979 (Institute of

Islamic Banking and Insurance, The Islamic Banker). Today, the world counts over 300 IBs in more than 70 countries. Besides the Muslim countries, they can be found in various countries such as Australia, the Bahamas, Denmark, France, Ireland, Luxembourg, Germany, the USA, Switzerland, the UK, as well as Albania and Bosnia and Herzegovina. The only Southeast Europe countries in which there are banks that operate on Islamic financial principles (Ali, 2014).

2.2 Islamic and Conventional Finance in Asian Countries

Agriculture is the heart of Bangladesh's economy and holds a significant stake in economic development. Around 85% of our total population directly or indirectly depends on agriculture (Miah & Sharmeen, 2015).Different sectors of agriculture like as Cultivation of crops,Plantation, Agricultural Machineries and Implements, Agricultural Fertilizers and Pesticides, Livestock's and so on have developed because of bank financing in different forms. The average growth rate of financing and investment in agriculture, fishing and forestry is 165.60% and 89.50% f o r Islamic and conventional banks respectively that specifies higher involvement of Islamic banks in agriculture, fishing and forestry. In an underdeveloped country like Bangladesh Small & Cottage Industries play a major role in economic development (Rahman & Banna, 2016). Under SME the following sectors like as dyeing and printing, sawmills, salt manufacturing and processing industries, plastic and plastic products, cosmetics, milk and milk products, jam, jelly, ice factories, wood and wood products & light engineering are getting priority in bank lending and investment (Islam, Alam, & Hossain, 2014). That contributes to reducing unemployment and encouraging new entrepreneurs. Conventional banks' participation is higher.

Beside above sectors, there are many other sectors (like the oil industry, infrastructure, transport etc.) in which Islamic and Conventional financing system help Bangladesh's economic development. Although Conventional Financing plays an important role according to the above data but statically, Islamic Financing is more social and helpful in economic growth. This can be easily understood by understanding the above comparison data (Islam, Alam, & Hossain, 2014). Figure 1 compares the conventional bond and Islamic Sukuk.

Figure 1: Conventional Bond vs. Suluk Source: Sonavane (2013)

Criteria	Conventional bond	Islamic Sukuk
Nature of security	Debt obligation	Share of ownership in asset/project
Nature of investment	To finance any type of business if it complies with local law	Asset/project has to be Shariah compliant (e.g. investing in weapon producing company is not allowed)
Issue price	Based on rating of the issuer	Based on market value of asset/project
Return on investment	Regular interest payments	Share of profits derived from asset/project
Risks	Interest rates fluctuations, default risk	Risk of sharing a loss, default risk

3. Methodology

Since this research concentrates on the readily available data in the company's annual reports, it is a secondary data research. Different companies' reports are accessed from the respective websites and data are collected from its published financials statements therein. According to Boslaugh (2007), secondary data is collected by an individual who is not the actual user of the gathered data. For instance, information collected by government departments, censuses, data that was initially collected for other research purposes, and organizational records are a few examples of the secondary data set when such data set are used by a researcher for the secondary purpose.

3.1 Sample and Frequency

The profitability ratios of 15 companies issuing Sukuk financials and 15 companies issuing Conventional financials, currently functional in Pakistan, were planned to gather from the period between 2010 and 2017. The data gathered was annual in nature; therefore, the number of observations for each variable was supposed to be 172 for both of the financings, as data for 15 companies issuing Sukuk financials and 15 companies issuing Conventional financials are cross-sectional units for about 8 years were analyzed. Nevertheless, while compiling the secondary data

from the annual financial statements, that reflects the operations of a business for an analysis of its performance (Penman, 2016), of the each selected company, it was found that some of the profitability ratios were missing. From this perspective, some of the companies with the missing data were deselected. In the same way, the duration of the years was to be reconsidered to include the maximum number of companies. The detail of included companies and the selected time period is mentioned in Table 1 in the descriptive analysis.

3.1.1 Variables

Since the analysis would be conducted on the profitability ratios, four accustomed profitability ratios, i.e. Return on Assets (ROA), Return on Equity (ROE), Return on Capital Employed (ROCE) and Net Profit Margin (NPM) were chosen for the analysis. From this perspective, ROA indicates the profitability of a company in relation to its total assets. With the calculation of ROA, an investor, manager, or analyst can have the idea about the efficiency of company's management using its assets to generate earnings (Heikal, Khaddafi, & Ummah, 2014). ROE, also known as return on net worth, is used to measure the financial performance of a company. According to them, "a rising ROE suggests that a company is increasing its ability to generate profit without needing as much capital". The financial ratio ROCE measures the profitability and efficiency of a company in line with its employed capital. Defining the NPM, Bragg (2017) states, "Net profit margin is the percentage of revenue left after all expenses have been deducted from sales. The measurement reveals the amount of profit that a business can extract from its total sales. The net sales part of the equation is gross sales minus all sales deductions, such as sales allowances" (p.n.d). Following are the formulas used to calculate each financial ratio:

- ROA = Net Income / Total Assets

- ROE = Net Income/Shareholders' Equity

- ROCE = Earnings Before Tax and Interest / Capital Employed

- NPM = (Net profits / Net sales) x 100

3.1.2 Data Analysis

The analysis of the gathered data is based on two techniques, descriptive and inferential. The descriptive analysis of the gathered data was accomplished by employing descriptive statistics to

describe the characteristics of the selected companies. On the other hand, an independent sample T-test was applied to analyze (the inferential analysis) the profitability difference in institutions issuing Sukuk and those that are working with conventional ways of financing. Independent sample T-test was appropriate for the study since the study was comparative in nature and its inferences were based on mean comparisons. Furthermore, the stated hypotheses were justified based on the inferential analysis.

4. Results and findings

4.1 Descriptive Statistics

Table 1 describes the characteristics of the selected companies. Since the available data was missing in the published Financial Statements of the selected companies, the data of 6 years (between 2010 and 2015) from 11 companies providing Islamic Financials (Sukuk) and 11 companies providing Conventional Financials was included in the data analysis. From this perspective, N = 66 reveals the total number of observation from each of the Conventional Financials (6 years' data of 11 companies) and Islamic Financials (6 years' data of 11 companies).

Table 1: Descriptive Statistics

Group Statistics					
ROA	Conventional Financials	66	2.58	8.35	1.028
	Sukuk Financials	66	5.35	6.09	.75
ROE	Conventional Financials	66	-2.56	38.16	4.69
	Sukuk Financials	66	19.15	17.40	2.14
ROCE	Conventional Financials	66	8.49	8.79	1.08
	Sukuk Financials	66	13.19	11.78	1.45
NPM	Conventional Financials	66	-15.56	117.34	14.55

Sukuk Financials	66	21.35	23.43	2.88

It can be well observed from the Group Statistics in Table 1 that a considerably large difference exists in the financial profitability indicators of both firms. The institutions using conventional ways of financing are having low profitability as compared to that using Sukuk mode of financing. despite profitability, the risk involved with these institutions is also high since their standard deviation is also comparatively high except for the return on capital employed thereby Sukuk issuing institutions are fluctuating more.

4.2 Comparing the Profitability of Conventional and IslamicFinancials

Table 2 compares the profitability of Conventional and Islamic Financials if the existing difference is significant.

Table 2: Independent Samples Test

EoV*							t-test for Equality of Means			
							Mean	Std.Error	Confidence Inte	
		F	Sig	t	df	2-tail	Dist.	Difference	Lower	upper
ROA	EVA**	1.62	.204	-2.17	130	.031	-2.76	1.27	-5.28	-.25
	EVNA***			-2.17	118.88	.032	-2.76	1.27	-5.29	-.24
ROE	EVA	8.85	.003	-4.20	130	.000	-21.71	5.16	-31.9	-11.5
	EVNA			-4.20	90.91	.000	-21.71	5.16	-31.9	-11.4
ROCE	EVA	2.09	.150	-2.59	130	.011	-4.69	1.80	-8.27	-1.11
	EVNA			-2.59	120	.011	4.69	1.80	-8.27	-1.11
NPM	EVA	1.41	.237	-2.50	129	.013	-36.92	14.73	-66.0	-7.77

	EVNA			-2.48	69.02	.015	-36.92	14.83	-66.5	-7.32

* Equality of Variances

**Equal variances assumed

*** Equal variances not assumed

With respect to the results of ROA, first, the null hypothesis of the Levene test that equal variances are assumed (p > 0.1, F = 1.627) is to be retained. Now in alignment with the first row of equal variance assumed the first hypothesis can be rejected and can be concluded that there exists a statistically significant difference in the average ROA of Sukuk financing and conventional financing institution t (130) = -2.17, p < 05. The average mean difference between both is (-2.76) indicating that Sukuk institutions ROA is greater than conventional ones. In the case of RoE, we would reject the null hypothesis of Levens test hence ending up with following the second row (p < 0.05, F = 8.85). According to the statistics available, p=.000, t (118.889) = -4.20 we can again reject our null hypothesis and can mark that there exists a significant difference in average ROE of Sukuk financing and conventional financing institutions. The Sukuk financing institutions supersede in this regards since the average mean difference is (21.71). ROCE and NPM also indicate comparative results, after retaining its null hypothesis for levels test, it could be observed that there exist do exist a statistically significant difference in this profitability indicator of Sukuk financing and conventional institution. This makes us reject our third {t (130) = -2.595, p < 0.05} and forth {t (129) = -2.506, p < 0.05} hypothesis.

4.3 Hypotheses Assessment Summary

Table 3 presents the status of hypotheses along with their t and p values.

Table 3: Hypothesis Assessment Summary

No	Hypotheses	Status	Criteria
1	There is no difference between ROA of Sukuk Financing Institutions and interest-based financing schemes of conventional Financing Institutions	Reject	t = -2.175, p < 05

2	There is no difference between ROE of Sukuk Financing Institutions and interest-based financing schemes of conventional Financing Institutions	Reject	t = -4.206, p < 0.05
3	There is no difference between ROCE of Sukuk Financing In-situations and interest-based financing schemes of conventional Financing Institutions	Reject	t = -2.595, p < 0.05
4	There is no difference between the Net profit Margin of Sukuk Financing Institutions and interest-based financing schemes of conventional Financial institutions.	Reject	t = -2.506, p < 0.05

5. Discussion

The findings of the present study second most of the studies conducted previously in relation to considering the Islamic Financials as more profitable than that of the Conventional Financials. For example, the study conducted by Arslan-Ayaydin, Bejaoui, Dorsman, and Shahzad (2016) revealed that Islamic financials are in the efforts to be socially responsible while operating in accordance with religious principles such as prohibiting the use of interest and following the model of profit and loss sharing with their clients and thus generating more revenue. The findings of this study are in line with the findings of the present study, which reveal the Islamic Financial as more profitable along with the other determining factors such as religious principles and so on. Similarly, the findings of the study conducted by Iqbal and Mirakhor (2011) are also similar in the way that IBs and Islamic finance, in general, represent one of the fastest growing financial industries despite its relatively short history compared to CBs. Apart from the profitability ratio of the Islamic financials, the companies providing Islamic financials (labelling as Sukuk) following additional attractive factors. For example, exploring the difference between the Islamic financing and Conventional financing, Arslan- Ayaydin, Bejaoui, Dorsman, & Shahzad (2016) found that "Transactions in Islamic Finance (IF) are guided by ethical, moral, and social considerations. Moreover, according to IF money should be used to create social value. With regard to these point of views, IF aligns with Socially Responsible Investing (SRI), which refers to the combination of social, environmental and ethical requirements when making

financial investment decisions" (p. 187).

6. Conclusion

The above research provides an indication that Sukuk financing institutions are performing well in their respective domains as compared to traditional ones since all of their profitability indicators are statistically better than those of traditional financing institutions if Sukuk Financing is itself playing a part in such increase of profitability. A thorough analysis of firms should be conducted that would control the effects of various variables therein and hence exclusive effects could be captured. The findings reveal the Islamic Financials (Sukuk) to be   a significantly high source of profitability for a company along with the other clients' catchy determinants such as religious principles, sharia-compliant instruments, and interest (Riba) free financing.

7. Recommendations

Since the findings of the present study reveal as well as the reviewed literature demonstrates that Islamic Financials (Sukuk) is significantly high in terms of profitability for a company, companies are recommended to pay more attention to Islamic Sukuk in order to grab the attention of customers. Furthermore, the Islamic Financials (Sukuk) offers other instruments to catch the customers' attention such as religious principles, sharia-compliant instruments, and interest (Riba) free financing. From this perspective, the mentioned determinants fulfil the religious needs of customers.

References

Sarea, A.M., 2012. The level of compliance with AAOIFI accounting standards: evidence from Bahrain. *International Management Review*, *8*(2), pp.27-32.

Al-Ajmi, J., Abo Hussain, H. and Al-Saleh, N., 2009. Clients of conventional and Islamic banks in Bahrain: How they choose which bank to patronize. *International Journal of Social Economics*, *36*(11), pp.1086-1112.

Ali, A.E.E.S., 2014. *The challenges of islamic trade finance in promoting SMES in IDB member countries* (No. 1435-6).

Al-Salem, F.H., 2009. Islamic financial product innovation. *International Journal of Islamic and Middle Eastern Finance and Management*, *2*(3), pp.187-200.

Amin, H., Rahim Abdul Rahman, A., Laison Sondoh Jr, S. and Magdalene Chooi Hwa, A., 2011. Determinants of customers' intention to use Islamic personal financing: The case of Malaysian Islamic banks. *Journal of Islamic Accounting and Business Research*, 2(1), pp.22-42.

Arslan-Ayaydin, Ö. Bejaoui, M., Dorsman, A.B. and Shahzad, K., 2016. Islamic Finance versus Conventional Finance. In *Energy and Finance* (pp. 187-203). Springer, Cham.

Bley, J. and Kuehn, K., 2004. Conventional versus Islamic finance: student knowledge and perception in the United Arab Emirates. *International journal of Islamic financial services*, 5(4), pp.17-30.

Boslaugh, S., 2007. *Secondary data sources for public health: A practical guide*. Cambridge University Press.

Boslaugh, S., 2007. An introduction to secondary data analysis. *Secondary data sources for public health: A practical guide*, pp.2-10.

Derigs, U. and Marzban, S., 2008. Review and analysis of current Shariah-compliant equity screening practices. *International Journal of Islamic and Middle Eastern Finance and Management*, 1(4), pp.285-303.

Hanif, M., Tariq, M. and Tahir, A., 2012. Comparative performance study of conventional and Islamic banking in Pakistan. *International Research Journal of Finance & Economics*, (83).

Heikal, M., Khaddafi, M. and Ummah, A., 2014. Influence analysis of return on assets (ROA), return on equity (ROE), net profit margin (NPM), debt to equity ratio (DER), and current ratio (CR), against corporate profit growth in automotive in Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*, 4(12), p.101.

Iqbal, Z. and Mirakhor, A., 2011. *An introduction to Islamic finance: Theory and practice* (Vol. 687). John Wiley & Sons.

Islam, K.A., Alam, I. and Hossain, S.A., 2014. Examination of profitability between Islamic banks and conventional banks in Bangladesh: A comparative study. *Research in Business and Management*, 1(1), pp.78-89.

Jobst, A., 2007. *The economics of Islamic finance and securitization* (No. 7-117). International Monetary Fund.

Economics, M.D.M., 2015. Relationship between capital, risk and efficiency. *International Journal of Islamic and Middle Eastern Finance and Management*, *8*(2), pp.203-221.

Mollah, S. and Zaman, M., 2015. Shari'ah supervision, corporate governance and performance: Conventional vs. Islamic banks. *Journal of Banking & Finance*, *58*, pp.418-435.

Nazar, J.K., 2015. Regulatory and financial implications of Sukuk's legal challenges for sustainable Sukuk development in Islamic capital market. *Ethics, Governance and Regulation in Islamic Finance*, p.135.

Penman, S.H., 2016. The design of financial statements.

Rahman, M.L. and Banna, S.H., 2016. Liquidity Risk Management: A Comparative Study between Conventional and Islamic Banks in Bangladesh. *Journal of Business and Technology (Dhaka)*, *10*(2), pp.18-35.

Saiti, B., Bacha, O.I. and Masih, M., 2016. Testing the conventional and Islamic financial market contagion: evidence from wavelet analysis. *Emerging Markets Finance and Trade*, *52*(8), pp.1832-1849.

Samad, A., 2004. Performance of Interest-free Islamic banks vis-à-vis Interest-based Conventional Banks of Bahrain. *IIUM Journal of Economics and Management*, *12*(2), pp.1-15.

Sidlo, K., 2017. Sharia-compliant investments in infrastructure and development capital financing in DFID/CDC/PIDG geographies.

Uusmani, M.T. and Taqī ʿUs̲mānī, M., 2002. *An introduction to Islamic finance* (Vol. 20). Brill.

Waemustafa, W. and Sukri, S., 2016. Systematic and unsystematic risk determinants of liquidity risk between Islamic and conventional banks.

Determinants of Career Choice Among Secondary Schools Students: Evidence From Selected Secondary Schools in Tanzania

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Abstract

The purpose of the study was to investigate the psychosocial determinants of career choice among secondary school students in Iringa Municipality. The study identified the career services available at Secondary schools, also determined psychological and social factors determining career choices in the selected secondary schools in Iringa Municipality. The study employed mixed approach. This study adopted case study design and Questionnaires were used as the survey instrument. Then probability sampling was used to select a representative sample. A sample size of 100 students was taken and interview guide for 30 who were teachers and head of schools. The data were collected by using structured questionnaires and interview guide. Descriptive statistics used to analyze data collected from the respondents and SPSS version 20 and excel Microsoft application were used to process data. Findings of the study revealed that respondents denied that their schools to have career visits and career counselors. Also majority of respondents disagreed with the statement that "*The school has career instructional materials".* Furthermore the study found majority of respondents admitted to choose subjects of their interests and their personality were the reasons why they do belong to certain streams, lastly respondents 89% admitted they are so cautiously with the future life in terms of career, 84% agreed they are so confident on their potentials and talents they hold. Furthermore the study found there is positive strong relationship between psychological factors and career choice but social factors was found to weak relationship.

Keywords: Career choice, Psychosocial

1. Background of the Study

Career refers to a variety of work and non-work situations which usually span through the entire life of an individual, it is generally related to a pattern of decision, transaction and adjustments which affects one's role in work, education, family, community development and leisure (Okobiah and Okorodudu, 2004).

Career selection is one of many important choices students will make in determining future plans, this decision will move them throughout their lives, the spirit of who the student is will revolve around what the student want to do with their life- long work, a lot of students in secondary schools believe that their future is a wonderful journey in which they are bound to succeed and many of them have the idea that they would be able to work in the public or private establishments as soon as they complete secondary school education. Some have planned to become lawyers, engineers, medical doctors, accountants and so on (Olamide and Olawaiye, 2013).

Career choice has been a difficult decision for secondary students since it determines the kind of profession that a student intends to pursue in their life, Students face problems when trying to make choice on which career to major by matching their preferences with their abilities in academic performance and in most cases the choice of career subjects, courses of study and the subsequent career path to follow are nightmare for future, students more often choosing the right subjects combination leading to the right professional can make a difference between enjoying and hating the career in future (Koech et al, 2016).

Ndalichako and Komba (2014), argued that, in Tanzania context students join secondary schools are supposed to take nine subjects, namely mathematics, English, Kiswahili, Biology, Physics, Chemistry, Geography, and History. In the third year students are allowed to choose one for the following options; science, business, agriculture science, technical and home economics, they also added that, students are expected to select subject that suit their interest and abilities. The increasing in experiences gained in form I and II serve as a basis for students in deciding which subjects to take in form III. It is worth mentioned that secondary school education in Tanzania is the gateway to future career opportunities, the subjects selected by students automatically dictate the kind of career path they will enter.

Students in secondary schools like many other young adults are always worried about what they will do with their lives, the kind of adult they will become, to them career choice has become a delicate issue that requires caution and serious considerations, planning for tomorrow itself is primarily the responsibilities of the parents, teachers and school counselors since students need general orientation (Wattles, 2009). An individual should have a true reasoning on the relations of her/himself and the requirements of success, occupations are chosen to meet needs but the decision making to this selection is guided by information and awareness about students themselves, career and occupation (Mabula, 2012).

It has been recognized recently that for a person to make realistic decision on career choice, many factors can be influential, it is one thing to demonstrate interest in a particular occupational field and it is another thing to have confidence and ability to successfully undertake the task involved and be able to belong in a certain career (Olamide and Olawaiye, 2013).

According to Brown (2002) the process of choosing a career is described as one of estimating one's ability and skills required for success in a given occupation, and estimating the work values that

will be satisfied by the various occupational alternatives available. Brown added that, the essence of who the student is willing to be in future, revolve around what the student wants to do with their life-long work. Parents, teachers, the society, and the government as the whole recognize the needs for the proper career guidance and development. Students are concerned about future work and occupations but are not sure which factors like money or prestige should influence one's choice for job; in fact, career information which is obtained at school through career programs can help many students to make right career decisions and pursue subject combinations which can lead them to their dreams (Kariuki, 2008).

Bandura et al(2001) state that; each individual undertaking the process is influenced by several factors including the context in which they live in their personal aptitudes, social contacts and educational attachments, factors that influence career choice can either be intrinsic or extrinsic or both, most of people are influenced by career that their parents favor while others follow career that their educational choices have opened for them and some choose their passion regardless of how much or little it will make them while others choose the careers that gives high income. Student perception of being suitable for particular job also has been found to be influenced by a number of factors including ethnic background, year in school, level of achievements, choice of science subjects, attitudes and differences in job characteristics (Mac Quaid and Bond, 2003).

A study on career choice in Ethiopia by Stebleton (2007) indicated that the students had an external locus of control and believes that there are numerous factors which influence their career choices; these factors include political and economic considerations, previous work experience and the influence of key individuals in person's life. Onyamo and Amoth (2008) said studies in Kenya show that rural students tend to seek help from parents more than urban students and that parents play a major role in the career choice of students more than teachers. In Tanzania different factors were found as determinants of career choice among high school students in Dar es Salaam, these includes good experience from the work of professionals, professionals who are attractive to respondents and professionals who command high respect in the community were perceived as important factors, also knowledge about work to be done and advice from important persons was perceived important (Mugonzibwa, et al., 2000).

However, these findings have not given us a clear picture of the Iringa context. Despite the available literature to the researchers' knowledge, none has been able to give a comprehensive picture of psychosocial determinants of career choice among secondary school students in Iringa municipality. Also many of the reviewed studies focused on the factors affecting career choice on universities and higher learning institutions and emphasize little about secondary schools while the foundation of future careers of individuals starts from there. Hence it is crucial to conduct the study on Psychosocial Determinants of Career choice among secondary school students in Iringa Municipality**.**

2. Literature Review

2.1 Career services available at secondary schools.

Mabula (2012) in his study on "Career Services Provision to Secondary School Students in Tanzania: Is it a dream or Reality?" examined the status of career services provision and its role on career decision making among high school students in Dar es Salaam, Tanzania by comparing career services provision in government and international schools with the intention of identifying the career programs available to students in schools, students' career knowledge and the contribution

of career programs and career knowledge to students' career decision making. The study was conducted in six secondary schools using a sample of 322 students. The data from students were collected through a structured questionnaire and focus group discussions. The results revealed that students in international schools had access to many career programs and they have better knowledge on careers as compared to students in government schools. The study concluded that, career services provision in international schools is to some degrees a reality as opposed to government schools where career services provision is still a dream. It is suggested that, future research can observe the role of career services provision in secondary schools to students' ability to make relevant course choices in higher learning institutions. Critically, this study only focused on Career Services Provision to Secondary School Students in Tanzania contrary to the intended study which will focus on determinants of career choice among students in secondary schools in Tanzania specifically in Iringa municipality and career service provision will be a part of it. Biswalo (1996) explains that, the career services provision in many secondary schools in Tanzania is still less effective due to lack of trained career counselors, career instructional materials and related career facilities a factor which limits the knowledge of students on careers.

2.2 Psychological determinants of career choice among secondary school students

Hellman (2014) in his study titled "Social and Psychological Factors Related to Career Exploration Process of Young adults" examined social and psychological factors influencing the career exploration process of young adults in USA, the predictor variables of the study were parental attachment, peer attachment and self-efficacy, the outcome variables were environmental/ occupational exploration, self-exploration and career indecision. Data collection was through a survey presented on qualtrics. The results indicated that secure maternal attachment predicted secure peer attachment and high self-efficacy in young adults. Higher level of self-efficacy was positively correlated with environmental exploration and negatively correlated with career indecision. This imply that maternal attachment have an indirect influence on young adults career exploration and decision making.

Olamide and Olawaiye (2013) in their study titled "The Factors Determining the Choice of Career among Secondary School Students in Nigeria." Used a sample of 100 students who were randomly selected from five secondary schools in Ogun state. The sample consists of 37 males and 63 females. A questionnaire designed on the basis of Likert scale on the factors determining the choice of career based on environment, influence and opportunity of the students was administered. The analysis was through percentages, mean, standard deviation and T-test. Significant differences were found on personality factors, opportunity factors and environmental factors. The results also show that both factors affect student's career choice in different ways.

Obiunu and Ebunu(2011), Investigated on "Factors Affecting Career Development of Senior Secondary School Students in Ethiope East Local Government Area, Delta State, Nigeria" using the population of senior secondary school students. Simple percentage was used to analyze the data collected from the respondents. Some of the factors revealed to affect career development psychological factors such as interests, self-esteem, personality, values, norms and prestige, social factors such as peer groups, role models, mentors, social networks, social economic status of parents and family influences, educational factors such as skills, experiences, knowledge, information and other factors that could be product of teaching and learning. Heredity factors were also revealed. All of these were evidenced to play significant role in career decision making process

of secondary school students. The findings also indicated that career counseling is required for appropriate career development.

2.3 Social factors determining career choice among secondary school students

Shumbal and Naong (2012), conducted a study titled "Factors Influencing Students Career Choice and Aspiration in South Africa" aimed to determine factors which influence career choice and aspiration in South African students; by using a quantitative methodology where by a survey in the form of structured questionnaire was used in a study. A purposive sample of 133 students participated, the career aspiration questionnaire was also used, and the data obtained were analyzed by using percentages and tables. The study found that the family influences, peers, the ability of the learner self to identify his/her preferred career choice and teachers were significant factors that influence the career choice and aspiration of students.

Mugonzibwa et al, (2000), identified the "Factors Influencing Career Choice among High School Students in Tanzania". A sample of 352 high school students from randomly selected high school were selected to complete a pre-tested questionnaire containing twenty four items addressing five factors. Image of a professional such as good experiences from the work of professionals, professionals who are attractive to respondents and professionals who command high respect in the community was perceived as important factor in career choice by majority of respondents (over 88 percent). Work/professional characteristics was ranked as the second most important factor in career choice and course characteristics were the third while direct gains and advice prom important persons were perceived as least important factors in career choice.

Naz, et al., (2014) in their empirical study on "Peer and Friends and Career Decision Making: A Critical Analysis" basing on content analysis as well as field information which explores the nature, level and extent of peer and friends influence in career decision making process of an individual. The data has been collected through library method i.e. searching relevant books, journals, articles, newspapers and even internet sources while field information has been obtained through questionnaires from 100 students using random sampling method. All the collected information have critically analyzed, debated and explained to produce theory for generalization and analysis of data was in the form of frequencies and percentages through chi-square test. The analysis and discussion thus give rise to an argument that although family i.e. Parents and other family members primarily geared and transformed the behavior of the children in multiple ways, however; peer influence is an asset for developing career opportunities and decision making among youth since peer and friends are important aspect of socialization process and their influence and pressure has also received wide acknowledgement in shaping and molding the course of an individual life .

Kala, (2015) in her study on "Parental and peer influence on career choice among secondary school students in Mombasa Sub-County" investigated parental and peer influence on career choice among secondary school students in Mombasa sub-county by using Self Determination Theory. Descriptive survey design was employed. The target population included form II students and parents who had schooled or were schooling children in secondary schools in Mombasa sub-County. Total respondents of 210 were used in the study. The study used the questionnaire and the interview guide as the major instruments for data collection. Data was analyzed descriptively with the use of Statistical package for Social Sciences (SPSS) version 18.0. The study found that parents

who encouraged their children to follow their career path were major players in career selection of the student and the least influence of parental support was joining higher learning institutions.

Koech, et al. (2016), on his study on '"Factors Influencing Career Choices among Undergraduate Students in Public Universities in Kenya," examined the factors that influence career choices among students which attempt to unravel the secret surrounding career choices amongst students, the targeted population was undergraduate students at the University of Eldoret. A study sample of 210 was obtained by using a convenience sampling technique. The study used a descriptive research design where by data collection instrument used was a self-administered questionnaire which contained both open and closed ended questions factors of interest included were peer influence, gender, parental influence, job opportunities and personal interest. Results indicated that multiple factors such as parental influence determine career choices of undergraduate students.

2.4 Conceptual Framework

Figure2.1. Conceptual framework
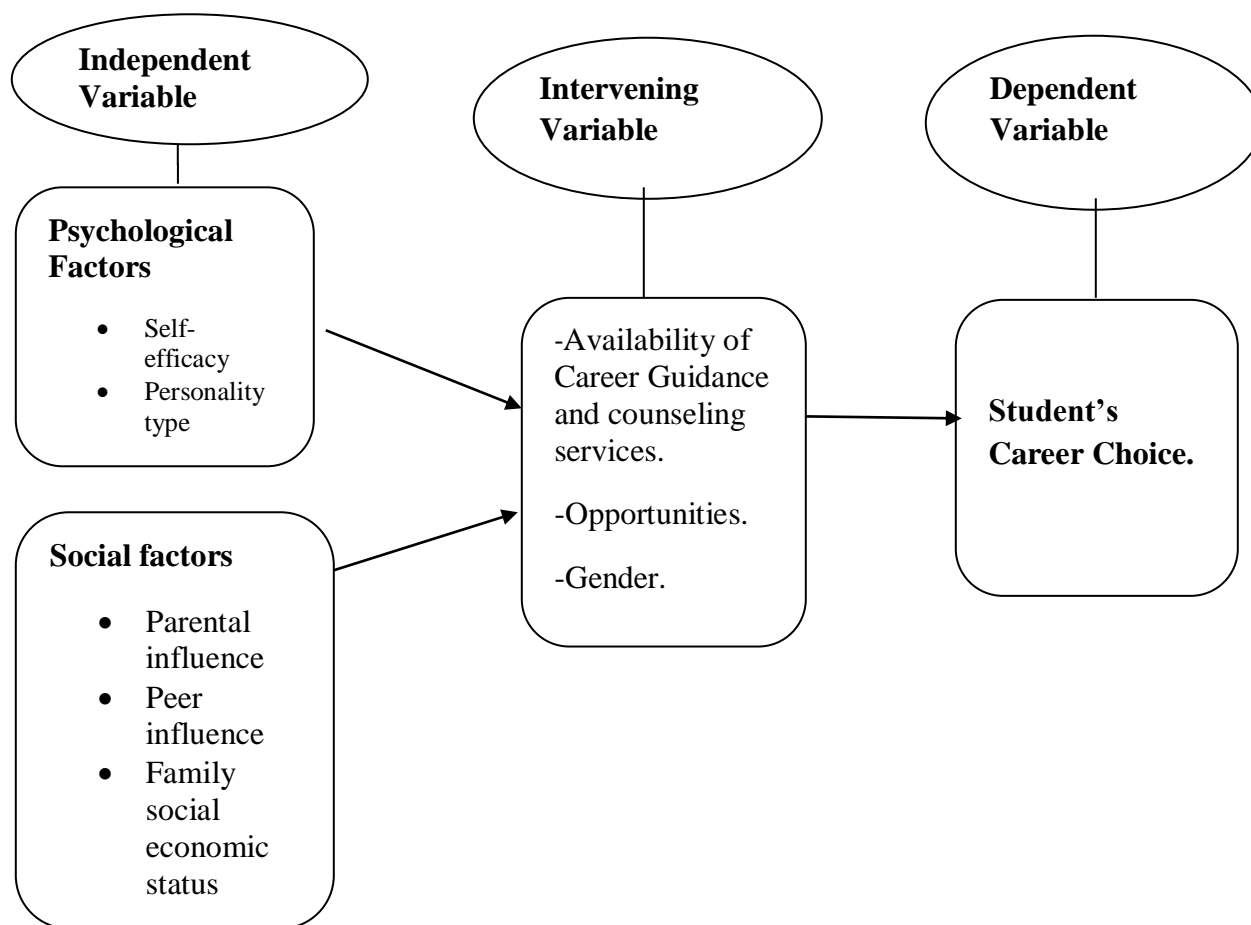
Source: Synthesized from literature reviewed (2018).

3. Research Methodology

The study employed mixed approach i.e. quantitative and qualitative approaches. This study adopted case study design to assess the psychosocial determinants of career choice among secondary schools. Questionnaires were used as the survey instrument. Then probability sampling was used to select a representative sample. A sample size of 100 students was taken and interview guide for 30 who were teachers and head of schools. The data were collected by using structured questionnaires and interview guide. Descriptive statistics and were used to analyze data collected from the respondents and SPSS version 20 and excel Microsoft application were used to process data.

4. Results

4.1 Demographic characteristics

In this study, in order to have a better understanding on the demographic characteristics and specifications of the respondents, frequency analysis has been used. The samples of the questionnaires were taken from selected secondary schools in Iringa Municipality which consisted of 100 sample size. Totally, there were five questions that give a brief overview of demographic attributes of respondents. As presented in Table 1

Table 1: Sample characteristics

Variable	Categories	Frequency	Percentage (%)
Sex	Male	45	45.0
	Female	55	55.0
Age	12-14	31	31.0
	15-17	67	67.0
	18-20	2	2.00
Class representation	Form III	61	61.0
	Form IV	39	39.0
Stream representation	Science	55	55.0
	Arts	24	24.0
	Agriculture	2	2.0
	Business	17	17.0
	Domestic Science	2	2.0
School representation	Lugalo	25	25.0
	Klerruu	18	18.0
	Mlamke	14	14.0
	Iringa Girls	21	21.0
	Ipogolo	7	7.0
	Miyomboni	15	15.0

Source: field data (2018)

The study involved a sample of 100 (100%) respondents who filled the questionnaires. 45 (45%) of total respondents were male and 55 (55.0 %) were female. This implies that there was a slight difference between male and female respondents. Therefore, gender was seriously taken into consideration to collect data from the respondents. Also about 67% of respondents fall in the age category of 15-17, followed by 31% who had age between 18-20 years, and the remaining 2% range from 12-14years.

Findings also revealed majority of the respondents were in form three who was 61(61%) followed by form four who were 39(39%). The reason behind why form four students were few was because by the time data collected these group were doing Mock Examination. The study statistics indicate that 25 (25.0%) were respondents from Lugalo Secondary School, 18(18%) were students from Kleruu Secondary, 14(14%) from Mlamke Secondary School, 21 (21%) were respondents from Iringa Girls, 7(7%) from Ipogolo Secondary and the remaining 15(15%) were from Miyomboni Secondary School. Therefore, the statistics shows that most of the respondents were from Lugalo and Iringa Girls Secondary Schools.

Respondents were asked to state stream they have opted. The study statistics indicate that 55% of respondents studied science, followed by 24% arts, 17% were studied business, and 2% studied Agriculture and Domestic science respectively. Therefore, the statistics shows that most of the respondents were studied science and Arts. This is because most of these schools have science and arts streams.

4.2 Career services available in Selected Secondary Schools in Iringa

In identification of career choices available in the selected secondary schools in Iringa Municipality, the researcher formulated several statements whereby the respondents were asked to jot down for the purpose of showing their levels of agreement on availability of career choices in their schools. Findings as indicated below;

Table 2: Career services available in selected secondary schools

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
	Percentage (Frq)	Per (Frq)	Per (Frq)	Per (Frq)	Per (Frq)
The school has career visit	41(41.0)	23(23.0)	20(20.0)	15(15.0)	1(1.0)
The school has trained career counselor	31(31.0)	24(24.0)	8(8.0)	23(23.0)	14(14.0)
The school has career instructional materials	37(37.0)	19(19.0)	17(17.0)	22(22.0)	5(5.0)
I have enough knowledge on how to choose career	22(22.0)	17(17.0)	18(18.0)	28(28.0)	15(15.0)
The school conduct career exhibition to students	45(45.0)	14(14.0)	10(10.0)	19(19.0)	12(12.0)

We have career clubs in our schools	27(27.0)	10(10.0)	6(6.0)	38(38.0)	19(19.0)
The school has many career programs	35(35.0)	16(16.0)	23(23.0)	18(18.0)	8(8.0)

Source: field data (2018)

The data in the table 2 indicates that, 64% of the respondents denied that their schools to have career visits, 55% also disagreed that to have trained career counselors in their schools, 56% disagreed with the statement that "*The school has career instructional materials".* Moreover on whether they have enough knowledge on how to choose career 43% disagreed only 42% agreed to have the knowledge. Furthermore, 59% of the respondents denied having career exhibition in their schools, while 56% admitted to have career clubs in their schools, lastly 51% of all respondents denied to have many career programs in their schools. Based on these findings it imply that majority of the selected secondary schools in Iringa Municipality have no career services in their respective schools, only few schools have career clubs which are not enough for the students to get the required advices on how to choose the career.

4.3 Psychological factors determining career choice among secondary school students in Iringa Municipality

In determining psychological factors which determine career choices among secondary school students in Iringa several questions were posed, and respondents were supposed to show their level of agreement. Table 3 below illustrate

Table 3 Psychological factors influencing career choice

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Percentage (Frq)	Per (Frq)	Per (Frq)	Per (Frq)	Per (Frq)
I can always manage to solve difficult problems in my studies	11(11.0)	4(4.0)	10(10.0)	53(53.0)	22(22.0)
It is easy for me to stick to my aims and accomplish my goals in my studies	4(4.0)	6(6.0)	11(11.0)	46(46.0)	33(33.0)
I can solve most problems facing my studies if I invest the necessary effort	3(3.0)	3(3.0)	5(5.0)	46(46.0)	43(43.0)
I believe that am capable of choosing any career I want without being forced by any one because I'm doing well in my studies	9(9.0)	5(5.0)	6(6.0)	34(34.0)	46(46.0)
I can remain calm when facing difficulties because can rely on	9(9.0)	12(12.0)	17(17.0)	31(31.0)	31(31.0)

my coping abilities					
I am capable of accomplishing my study works at a time. When I am confronted with a problem, I can usually find several solutions	3(3.0)	5(5.0)	17(17.0)	38(38.0)	37(37.0)
I am able to accomplish my works without being helped by others	3(3.0)	14(14.0)	17(17.0)	29(29.0)	37(37.0)
I choose subjects of my interests	9(9.0)	3(3.0)	6(6.0)	26(26.0)	56(56.0)
My personality is the reason why I belong to a certain stream	6(6.0)	9(9.0)	7(7.0)	32(32.0)	46(46.0)
I am so cautiously with my future life in terms of career	2(2.0)	4(4.0)	5(5.0)	30(30.0)	59(59.0)
I am so confident on my potentials and talents I hold	4(4.0)	6(6.0)	6(6.0)	38(38.0)	46(46.0)

Source: field data (2018)

Findings in table 3 above found 75%   of the respondents admitted that they are able to solve difficult problems in their studies, 79% agreed with the statement that "*It is easy for me to stick to my aims and accomplish my goals in my studies"* also 89% agreed with the statement *"I can solve most problems facing my studies if I invest the necessary effort*".

Moreover 80% believed that they are capable of choosing any career without being forced by anyone, 62% also admitted to remain calm when facing difficulties because they can rely on coping abilities, 76% admitted to accomplish their work on time and without being forced by others. 80% they admitted to choose subjects of their interests, 78% admitted their personality were the reasons why they do belong to certain streams, and 89% admitted they are so cautiously with the future life in terms of career, 84% agreed they are so confident on their potentials and talents they hold.

4.4 Social factors determining career choice among secondary school students in Iringa Municipality

In examining social factors determining career choice several statements were posed and respondents were asked to show their levels of agreement or disagreement. Table 4 below illustrates

Table 4. Social factors determining career choice

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Percentage (Frq)	Per (Frq)	Per (Frq)	Per (Frq)	Per (Frq)
My parents chose my secondary school subject	55(55.0)	18(18.0)	4(4.0)	6(6.0)	17(17.0)

My career choice has been influenced by the occupation of my parents/close relatives	30(30.0)	15(15.0)	11(11.0)	19(19.0)	25(25.0)
My parents always warned me never to choose certain career they won't like	26(26.0)	33(33.0)	12(12.0)	13(13.0)	16(16.0)
My parents encourage me to consider many different educational and career options	10(10.0)	16(16.0)	8(8.0)	23(23.0)	23(23.0)
My parents socio-economic status determine my career	35(35.0)	18(18.0)	8(8.0)	11(11.0)	28(28.0)
My parents tell me they have high expectations for my career	14(14.0)	10(10.0)	3(3.0)	25(25.0)	48(48.0)
My parents encouraged me to be involved in extracurricular activities	16(16.0)	16(16.0)	14(14.0)	27(27.0)	27(27.0)
Opinions from my fellow students affects my career choice	25(25.0)	21(21.0)	18(18.0)	16(16.0)	20(20.0)
Peer advice plays crucial role in my future career choices	20(20.0)	24(24.0)	18(18.0)	21(21.0)	17(17.0)
Exchanging ideas with my peers influences my career choices	14(14.0)	14(14.0)	10(10.0)	37(37.0)	25(25.0)
I am afraid of making career choice decisions due to peer rejection	47(47.0)	20(20.0)	5(5.0)	11(11.0)	17(17.0)

Source: field data (2018)

Results in 4 above found 73% denied that their parents to chose their secondary school subjects, 46% denied that their career choices has been influenced by the occupation of their parents/close relatives, 59% denied to be warned by their parents on how to choose a certain career, 46% admitted that their parents encourage them to consider many different educational and career options, 53% denied their parents social status to determine their career, 73% admitted that their parents to tell them that they had high expectations for their career. Furthermore 54% admitted that their parents encouraged them to be involved in extracurricular activities, 46% denied that opinions from fellow students to affects their career choices. Moreover 44% also denied peer advices to play a crucial role in their future career choice, 62% admitted that exchanging of ideas with their peers influences their career choices, 67% denied to afraid of making career choice decisions due to peer rejections.

4.5 Reliability of the Study

The reliability of data instruments was evaluated through the Split-Half Reliability test that can be calculated through the reliability index by coefficient alpha, Kuder-Richardson formula 20 (KR-20) or the Spearman-Brown formula to determine how much error in a test score is due to poor test

construction. However, the coefficient alpha or Cronbach's Alpha was used to evaluate the reliability of the study because *"If you administer a Likert Scale or have another measure that does not have just one correct answer, the preferable statistic to calculate the split-half reliability is coefficient alpha or called Cronbach's alpha"* (Korb, 2013).

Table 5 shows the value of the coefficient alpha or Cronbach's alpha as the research scale is 0.839 or 83.9%. This gets over the percent of 80%, which is an extra good value for the internal consequence of the conceptual construction of the investigated scale. Since the coefficient value of $\alpha = 0.839$ was obtained, hence the reliability is excellent.

Table 5 Reliability Statistics	
Cronbach's Alpha	N of Items
.839	38

Source: Field data (2018)

4.6 Validity of the Study

The validity of the study was measured using the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of sphericity through the SPSS. Results extracted from SPSS are presented on the Table 6 below regarding the two hypotheses of factor analysis. From table 6, the researcher found a sample sufficiency index of KMO by Kaiser-Meyer-Olkin, which compares the sizes of the observed correlation coefficients to the sizes of the partial correlation coefficients for the sum of analysis variables, is 0.558 or 55.8%, and it is reliable because it is above 0.5 or 50% which is the cut-off. In addition, supposition test of sphericity by the Bartlett test (Ho: All correlation coefficients are not quite far from zero) is rejected on a level of statistical significance p<0.0005 for Approx, so that the second acceptance of factor analysis is satisfied.

Table 6 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.558
Bartlett's Test of Sphericity	Approx. Chi-Square	30.113
	Df	3
	Sig.	.000

Source: Field data (2018)

5. Conclusion

The study conclude that most of the secondary schools in Iringa do not have career counsellors, career programs, career visits as well as career instructional materials which is a bad sign for the students because they will fail to choice their career correctly. Moreover the study concludes that most of the secondary schools in Iringa just have career clubs which are not enough for all students to get the required advices. Also study revealed majority of the respondents choose their career based on their personality and not influenced by their parents.

6. References

Bandura A, et al.(2001). Self–efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, 72: 187–206.

Biswalo, M. P. (1996). An Introduction to Guidance and Counselling in Diverse African Contexts. Dar es Salaam: DUP

Brown, D. (2002). "The role of work and cultural values in occupational choice, satisfaction, and success: A theoretical statement." Journal of Counseling and Development, 80: 48-56.

Hellmann, J N., (2014). "*Social and Psychological Factors Related to the Career Exploration Process of Young Adults*" Theses and Dissertations--Family Sciences. Paper 19. http://uknowledge.uky.edu/hes_etds/19

Kala, N. J. (2015). Parental and peer influence on career choice among secondary school students. a case study of Mombasa Sub-County. URI: http://ir-library.ku.ac.ke /handle/123456789/15115

Kariuki, K. (2008, April 6). *An Easy to Read guide on Careers*. Sunday Nation, p, 12.

Koech et al (2016). Factors Influencing Career Choices among Undergraduate Students in Public Universities in Kenya. *Australian Journal of Commerce Study SCIE Journals*. Evaluation and Policy Analysis, 4: 237–247.

Mabula, N. (2012).Career Services Provision to Secondary School Students in Tanzania: Is it a dream or Reality? *International Journal of Learning & Development* ISSN 2164-4063 2012, Vol. 2, No. 2

Mugonzibwa, E. A., Kikwilu, E. N., Rugarabamu, P. N., &Ntabaye, M. K. (2000). Factors Influencing Career Choice among High School Students in Tanzania (Abstract). *American Journal of Dental Education*, 64(6), 423-429.

McQuaid, R. and Bond, S. (2003). *Gender stereotyping of career choice.* Cited from http://www.careers-scotland.org.uk.

Naz et al. (2014). Peer and Friends and Career Decision Making: A Critical Analysis. *Middle-East Journal of Scientific Research* 22 (8): 1193-1197, 2014 ISSN 1990-9233

Ndalichako, L .J. and Komba, A. A. (2014) Students' Subject Choice in Secondary Schools in Tanzania: A Matter of Students' Ability and Interests or Forced Circumstances? Open *Journal of Social Sciences*, 2, 49-56.http://dx.doi.org/10.4236/jss.2014.2800

Obiunu J and Ebunu O.R. (2011). Factors affecting career development of senior secondary school students in Ethiope east local government area, Delta state, Nigeria. *Educational Research (ISSN: 2141-5161) Vol. 1(11) pp. 594-599.*

Okobiah OC and Okorodudu R.I (2004). Issues, Concepts, Theories and Techniques of Guidance and Counselling, Benin City: Ethiope Publishing.

Olamide O.I and Olawaiye O.S (2013). The Factors Determining the Choice of Career among Secondary School Students. *The International Journal of Engineering and Science (IJES)* Volume|2 2319–1813ISSN (p):2319–1805www.theijes.com

Shumba1, A. and Naon, M. (2012). Factors Influencing Students' Career Choice and Aspirations in South Africa.*Journal of Social Sciences, 33(2):169-178*.

Stebleton, M. J. (2007) Career counseling with African immigrant colleges: theoretical approaches and implications for practice. *Career Development Quartely*, 55(4), 290-312

Oyamo, O. R. and Amoth D. (2008). "Choice of final year options by undergraduate students at the Moi School of Information Sciences." *East African Journal of Information Science.*

Wattles, D.W. (2009). "The science of getting rich." *Journal of developmental psychology*.www.thescienceofgettingrich.net.