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SHALOM BUSINESS AND TECHNOLOGY COLLEGE HAWASSA, ETHIOPIA

CONFERENCE PROCEEDINGS, 2022

2nd International Annual Research Conference on Contemporary Issues in Business and Management

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SHALOM COLLEGE is a young college established in 2019, under the Ethiopian government Higher Education Relevance and Quality Assurance (HERQA) in Hawassa town Sidama Regional state Ethiopia.

Shalom College offers different programs in different departments.

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Marketing	Information Technology
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In Bachelor Degree Program

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Message from Dr. Tsegaye Mathewos, College Dean

Last year, our college organized its First International Academic and Research Conference inviting distinguished academic personalities from both global and local areas. This year also, we have called on highly experienced academicians and scientific practitioners from all over the world including Ethiopia. Moreover, what makes this year's conference more fashionable is that we have a tremendous number of post-graduate students i.e., masters' students among us. We hope that this would be a breathtaking experience for them, in particular, and for all of us, in general.

We are living amid an unprecedented time of intervention of science and technology in the education system. Therefore, we can say, without science and technology intervention, the final goal of education would be less eminent. Shalom business and Technology College thus strives to give science and technology-based education to the upcoming generation.

Dr. Tsegaye Mathewos
Dean, Shalom Business and Technology College

Message from Keynote Speaker

Research is a key piece of the puzzle when understanding and building our societies. High-quality research is a cornerstone to understanding where we are coming from and where we are going. Quality research needs to be allowed to take time; to look for answers to questions we did not know we had to ask. Quality research needs to be able to prove our hypothesis right, or even more importantly, wrong, even when we expected it to be in a certain way. Research needs to objectively look at data and facts regardless of our initial expectations. In a world where facts are not always objective and many different powerful forces are claiming to own the facts even if they are fake news, the importance of real quality research has increased. This is also true in the context of all the different facts that are shared on social media. Research can counterbalance this. When it comes to data, I suppose you all are aware of the power of strong data sets when doing an analysis. Being very mindful of where the data comes from is of course, very important. It is also important to critically look into all the details in the data when comparing data over time or between data sets.

Karolina Ridel
Financial Counselor in EU-Budget
Brussels Region and Belgium

Message from Research and Community Service Head

I am extremely pleased that the Second Annual International Academic Conference was attended by various people from online and offline modes. It was a joy to organize this hybrid event in our college. This makes me think that we can conduct many international conferences easily, which is the idea of moving forward. The conference's main objective was to let researchers share and disseminate findings and outputs to concerned bodies. It also intended to create discussion opportunities for researchers and other stakeholders on the core outputs of research. The conference can be used as input by researchers to undertake further studies. Specifically, it helps our college graduate students to get experience for their future research work. It is to be recalled that Shalom College has been engaged in conducting problem-solving research and the college has disseminated the First Annual International Conference's research outputs to colleges and other concerned bodies because one of the responsibilities of the research and community service office is to publish and disseminate research findings. Finally, the research and community service office would like to acknowledge all participants, presenters, moderators, and facilitators of the conference.

Desalew Demissie, PhD (c)
Research and Community Service Head
Shalom Business and Technology College

About Editor-In-Chief & Editors

❖ Dr. Tsegaye Mathewos

Dr Tsegaye Mathewos is an Assistant Professor. He has 14 years of experience in Auditing at Hawassa University. He has Authored three Scopus and two UGC care publications. He guided more than 50 postgraduate students. He is now a member of the higher education board, Vice President at Hawassa. He is also Dean at Shalom Business and Technology College, Hawassa, Ethiopia.

❖ Dr. Nidhi Nalwaya

Dr Nidhi Nalwaya is an Associate Professor at the Faculty of Commerce, Parul University, Vadodara. With over 12 years of academic teaching experience at the postgraduate and graduate levels in subjects such as Managerial Accounting & Financial Management, she is currently a guide to six international research scholars pursuing a PhD. She contributes to books on accountancy and financial inclusion. She has more than 30 publications and has also worked as a joint editor in the Pacific Business Review.

❖ Mr. Desalew Demissie

Mr Desalew Demissie Teshome is a researcher and research methodology course instructor. He started his academic journey with a Statistics bachelor's degree and moved to management-related courses in his master's and PhD. He has participated in different regional and national research through data processing and analysis works during his career at Hawassa University. He has guided more than 30 Masters' students. He has quantitative and qualitative research experience and works with external consultants as an independent researcher.

❖ Mr. Estifanos Mathewos

Mr Estifanos Mathewos graduated with Masters of Human Resource Management at Parul University, Vadodara, India. He served as a lab assistant at Hawassa University, Wondogenet College of Forestry. Now, he is a lecturer and academic dean at Shalom Business and Technology College.

Preface

Research is one of the three major mandates of higher institutions (along with teaching, learning and community service). Shalom Business and Technology College has rich research experiences which have resulted in the production of numerous scientific publications. This proceeding derives from the presentations given at the International Research Conference which was held on 31st July 2022 at the Hawassa Campus of Shalom Business and Technology College. This was the Second International Conference on the theme of Contemporary issues in Business and Management.

This conference intended to gather in one place, interested research scholars and allow them to exchange ideas about different research as one of the prerequisites for enhancing educational growth with their peers and the participants at large. It is heartening to note that this pressing topic, one with both professional and ethical implications in the work of higher education, is already generating significant and informative research in the country. It is the hope of the conference organizers, and the Editorial Board of this publication, that this volume will contribute to this discussion.

The papers published here have been submitted by the presenters in expanded and elaborated form from their presentations; this allows each individual contributor, or team of contributors, to express the results of their research most fully. For the widest comprehension and distribution, the English language was required for submissions. The papers have been edited for linguistic coherence. They have not been edited for content as such. They do not necessarily reflect the views of Shalom Business and Technology College nor of the editorial board of this proceeding. The Editorial Review Committee has published these papers in good faith, but the responsibility for proper academic usage and citation remains with the contributors.

We acknowledge with thanks the work of the Organizing and Review Committees and the contribution of staff and students, as well as participants, who helped to make the conference a grand success.

List of Articles

An Economic Inquiry into Access and Utilization of Rural Financing in Southern Ethiopia

*Debela Geleta**

ABSTRACT

The main objective of this paper is to assess farmers' access to and utilization of credit services, and to identify the determinants of access and utilization of agricultural financing in the study area. The study employed a multistage sampling technique in order to solicit 223 households' heads from the study area. From the econometric model results both model results of the probit model and the double hurdle model have been proved to be relevant and statistically significant implying that the explanatory variables put together do explain the variation in the dependent variable of both access and the level of utilization. The probit regression of participation in rural financing access decision results uncovered variables like (AGEHH), (EDUHH), (EXTEN) and (MKTDS). And from the double hurdle model (FMSZE), (FRSZE), (EXTEN), (OFINC) and (TRPLU) are found to be detrimental. Thus, the study recommends that investment in extension services or the facilitation of nongovernment extension, facilitation of an off farm income activity , enhancing the educational capability of the rural farm household and creating and sustaining a well-functioning markets in their vicinity is quite an important tools for improving agricultural productivity and increasing .farmers' incomes by so helping them have access to rural financing and helping them to properly utilize the borrowed finance.

Keywords: *Rural Financing; Probit; Southern Ethiopia; Access; Utilization.*

1.0 Introduction and Background

Financial services are critical enablers for sustainable economic growth and therefore, poverty reduction and food security in the Ethiopian economy in general and in the agricultural sector in particular. Credit is used for investments to increase the productivity of agricultural operations or to diversify the economic activities of rural households. Sustainable utilization of modern farm inputs (agricultural

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intensification) is a function of financial incentives to farmers, affordability and availability of modern farm inputs. If correctly used, credit should increase the size of farm operations, introduce innovations in farming, encourage capital formation, improve marketing efficiency and enhance farmers' consumption (AEMFI, 2010; Samuel, 2006; FDREMA, 2014).

In theory, agricultural intensification can allow for productivity gains without expansion onto marginal lands and the subsequent environmental problems of soil degradation, erosion, water pollution, and desertification. Poor capital markets in developing countries limit farmers' access to the funds required for agricultural intensification. Many academics suggest that the provision of credit to rural areas of developing countries would allow landowners to increase crop yields by employing more sophisticated inputs and techniques. Presumably, the productivity increases would limit encroachment onto marginal lands and landowners would have access to inputs that would allow them to minimize land degradation. As a result, the production increases would be sustainable.

In Ethiopia, agriculture is a detrimental sector of the Ethiopian economy due to its huge contribution to the gross domestic product, export earnings and creation of employment opportunities. It accounts for 46.3% of the GDP, 83.9% of exports, and 80% of the labor force. Many other economic activities depend on agriculture, including marketing, processing, and export of agricultural products. Production is overwhelmingly of a subsistence nature, and a large part of commodity exports are provided by the small agricultural cash-crop sector (EEA, 2015). Although potential exists for self-sufficiency in grains and export development in livestock, grains, and vegetables, a large part of the agricultural sector is underdeveloped. One of the principal causes of the prevailing problems of agriculture is the low level of utilization of output-enhancing inputs and the means to acquire the yield-enhancing agricultural inputs. (Adelek et al, 2010)

Thus, the provision of credit services to the agrarian economy and its sustainable utilization of rural households has been considered a powerful instrument to lift poor rural households out of poverty. Among the many fold benefits of access and utilization of rural financial services, the prominent ones are: it contributes to alleviating poverty and improving development outcomes, it also empowers the rural poor to excessive consumption smoothing, start or expand a business, cope with risk and increase and diversify household income, it enables them to access technology innovations and more inputs which are essential to increase production, decreases the gap among the diverse rural farm households. It enables rural farm households to easily capture market opportunities. Obviously, access to rural finances can help the

rural economy in many ways. Credit access can significantly increase the ability of households to meet their financial needs such as the purchase and use of improved agricultural inputs. Again, access to credit by rural households has the potential to accelerate the adoption of modern agricultural technologies that may increase the income of the smallholder farmers and help break the poverty cycle they often find themselves in.

The question of rural financing has profound implications both at the micro and macro level. When credit is allocated poorly and unduly, farm households will be adversely affected as poor investment projects are undertaken and the nation's resources are squandered, it raises costs for successful borrowers, erodes the fund that would be available for future investment, reduces banks' flexibility in redirecting towards alternative activities.

Access and utilization of credit by rural households is a key ingredient in the promotion of agricultural production and transformation. Credit availability benefits the farm household by alleviating capital constraints on agricultural production activities and also emboldens the farm household to undertake risky activities.

Be this as it may, however, there exists a wide disparity naming farmers in the study area both in their access to and utilization of agricultural financing. The causes of diversity are attributable to various demographic, social, economic, or institutional factors. Uncovering the reasons behind such diversity and understanding farmers' current level of access and utilization of agricultural rural credit services are of great necessity.

This study is thus intended to analyze the determinants of farmers' access and utilization of credit services in southern Ethiopia.

2.0 Objectives of the Study

The main objective of this paper is to assess farmers' access to and utilization of credit services and to identify the determinants of access and utilization of agricultural rural credit services that are of great necessity.

The specific objectives of the study are to:

- Assess whether or not rural financing is accessible
- Assess farmers' utilization of relevant agricultural credit, and
- Identify the determinants of access and utilization of agricultural financing in the study area

3.0 Research Questions

The study has the following research questions to answer

- What is the level of access to agricultural financing?
- What is the level of utilization of agricultural rural financing of farm households?
- What are the factors that influence access and utilization of rural financing?

4.0 Sampling Technique and Sample Size Determination

According to the Population and Housing Census of Ethiopia, there are a total of 239, 816 people living both in the rural and urban areas of the Boricha woreda. Since our study is at the household level, the study focused on the total number of households in the woreda. According to the census report, there are 47, 150 households in all the total rural kebeles of woreda. This makes up the total size of the target population of the study. The sample size for our study was determined by using the formula according to (Yamane, 1967; Cochran 1963):

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the total size of the target population, e is the level of error and given N = 47, 150 and e = 0.07 level sampling error

Then, $n = \frac{47{,}150}{1+47{,}150(0.07)^2} = \frac{47{,}150}{(1+47{,}150(0.0049)} = 203$

If we add 10% contingency $0.1 * 203 = 20$

Hence, the sample size is $n = 223$

5.0 The Model

In the field of agricultural economics and studies on the adoption of technologies, participation in a program, access to credit services and the like, the commonest practice is when the dependent variable is strictly measured as a dichotomous response variable [0 = non–adoption of innovation /non-participation in the program or no information seeking behavior and 1=adoption of innovation/participation in a program or revealed behavior of information seeking] whereby discrete regression models are used.

Discrete regression models are models in which the dependent variable assumes discrete values. The three most commonly used approaches to estimating such models are the linear Probability models (LPM), the logit model and the probit models.

The linear probability model has an obvious defect in that the estimated probability values can lie outside the normal 0-1 range and it also assumes that the marginal or incremental effect of explanatory variables remains constant, that is Pi= E (Y=1/X) increases linearly with X. Thus this model is discarded from the alternatives. The Logit and Probit models are the convenient functional forms for models with binary variable. The choice between the two is one of mathematical convenience. (Amemiya, 1981; Gujarati, 2007).

The econometric model applied for analyzing Determinants of Access and Utilization of Rural Financing is the double hurdle model. We are employing cross-sectional data for our analysis purpose where farm households have two sequential decisions to make, in which case it is desirable to use limited dependent variable models to analyze censored data because some households may report zero level of credit utilization. The Tobit model was widely used in early studies for this purpose, which treats all the zero observations as corner solutions

6.0 Model Specification

When we come to econometric modeling the level of access and utilization of rural credit service of rural farm households' farmers are expected to make two separate decisions and essentially, they must pass through two separate hurdles before they are observed with a positive level of credit utilization.

When we come to the double hurdle model, however, the specific double hurdle model can be given by.

$$Y_i = \begin{Bmatrix} \mathrm{y_i^*} = \beta \mathrm{X_i} + \epsilon_{1\mathrm{i}} \text{ if } \beta \mathrm{X_i} + \epsilon_{1\mathrm{i}} > 0 \; and \; \mathrm{D_i^*} = \alpha \mathrm{Z_i} + \epsilon_{2\mathrm{i}} > 0 \\ 0 \text{ if } \beta \mathrm{X_i} + \epsilon_{1\mathrm{i}} \leq 0 \text{ and } \alpha \mathrm{Z_i} + \epsilon_{2\mathrm{i}} > 0 \\ \text{or } \beta \mathrm{X_i} + \epsilon_{1\mathrm{i}} > 0 \; and \; \alpha \mathrm{Z_i} + \epsilon_{2\mathrm{i}} \leq 0 \\ \text{or } \beta \mathrm{X_i} + \epsilon_{1\mathrm{i}} \leq 0 \text{ and } \alpha \mathrm{Z_i} + \epsilon_{2\mathrm{i}} \leq 0 \end{Bmatrix} \quad \ldots (1)$$

The model assumes that the two error terms were jointly normal,

$$\begin{pmatrix} \epsilon_1 \\ \epsilon_2 \end{pmatrix} \backsim N(0, \Sigma), and \; uncorrelated \; , \Sigma = \begin{pmatrix} \delta_{\epsilon_1}^2 & 0 \\ 0 & 1 \end{pmatrix} \quad \ldots (2)$$

Where

D_i^* is a latent variable that takes the value 1 if a farmer decides to commercialize his/her produce of maize and 0 otherwise. Z is a vector of explanatory variables, α is a vector of parameters, y_i is an observed level of commercialization index, X is a vector of explanatory variables, β is a vector of parameters.

The log-likelihood function for the double hurdle model can be given by

$$Log\ L = \sum ln\left[1 - \Phi(\alpha Z_i')\left(\frac{\beta X_i}{\delta}\right)\right] + \sum ln\left[\Phi(\alpha Z_i')\frac{1}{\delta}\phi\left(\frac{Y_i - \beta X_i'}{\delta}\right)\right] \quad \ldots(3)$$

Under the assumption of independency between the error terms $\epsilon_1\ and\ \epsilon_2$, the model is equivalent to a combination of a truncated regression model and a univariate probit model (Crag, 1971).

The specific model of credit service utilization decision can be given by:

$$D_i = \beta_0 + \beta_1 AGEHH + \beta_2 SEXHH + \beta_3 EDUHH + \beta_4 FMSZE + \beta_5 FRSZE + \beta_6 EXTEN + \beta_7 MKTDS + \beta_8 OFINC + +\beta_9 TRPLU + \varepsilon_i \quad \ldots(4)$$

$$y_i = \beta_0 + \beta_1 AGEHH + \beta_2 SEXHH + \beta_3 EDUHH + \beta_4 FMSZE + \beta_5 FRSZE + \beta_6 EXTEN + \beta_7 MKTDS + \beta_8 OFINC + +\beta_9 TRPLU + \varepsilon_i \quad \ldots(5)$$

Where

D_i is the binary dependent variable that takes the value 1 if the farmers have access to agricultural credit service and 0 otherwise, Y_i is the amount of credit level used as discussed above.

AGEHH age of the household, **SEXHH** represents sex, **EDUHH** is the education of the household, **FMSZE** is family size, **FRSZE** farm size, **EXTEN** represents extension, **MKTDS** is market distance, **OFINC** is off-farm income and **TRPLU** is the tropical livestock unit.

7.0 Description of Variables and Expected Sign

The description of these explanatory variables, their measurement and the expected sing of their relationship with the dependent variables are presented in the Table 1.

Table 1: Description of Independent Variable and Hypothesis

Dependent variable: Access and utilization of credit				
Variables	**Type of variable**	**Description**	**Measurement**	**Hypothesis**
AGEHH	Continuous	Age of the household head	Number of years	Negative
SEXHH	Dummy	Sex of the household head	1 for male and 0 otherwise	Positive
EDUHH	Continuous	Education level of the household head	Years of schooling	Positive
FMSZE	Continuous	Family size	Number of individuals	Positive
FRSZE	Continuous	Farm size	Number of hectares	Positive
EXTEN	Dummy	Access to extension	1 if there is access and 0 otherwise	Positive
MKTDS	Continuous	Distance to the nearby market	Number of hours	Negative
OFINC	Dummy	Off-farm income	1 if there is off-farm income and 0 otherwise	Negative
TRPLU	Continuous	Tropical livestock unit	Scale/weight	Positive

8.0 Results and Discussion

It is revealed from the probit regression result of Table 2 below that the likelihood ratio chi-square of 33.24 with a p-value of 0.0000 tells us that our model as a whole is statistically more significant than a model with only the constant term. The explanatory variables put together do explain the variation in the dependent variable.

Table 2: Estimation Result of the Probit Model

Dependent variable				
Independent variables	**Coefficients**	**Stand error**	**Z-stat**	**P value**
AGEHH	-.0266091	.0110607	-2.41	0.016***
SEXHH	.1670821	.4181925	0.40	0.689
EDUHH	.0782813	.0456411	1.72	0.086***
FMSZE	-.0267964	.0650153	-0.41	0.680
FRSZE	.0312013	.2411386	0.13	0.897
EXTEN	.9000755	.0178748	50.35	0.000*
MKTDS	-.2860813	.0209181	13.68	. 0.000*
OFINC	.1594086	.2770815	0.58	0.565
TRPLU	-.0021276	.0527243	-0.04	0.968
Constant	1.640583	.923175	1.78	0.076
Number of obs = 203				
LR chi2(9) = 33.24				
Prob > chi2 = 0.000				
Log likelihood = -96.705149				

, **, * significant at 1%, 5% and 10 % respectively*

Source: *own survey and calculation, 2019*

The probit regression of participation in the commercialization decision results in Table 2 above which uncovered that from the total of nine explanatory variables used in the estimation of the probit model, four of them are found to be significant at one per cent and ten per cent level of significance, besides, they are of the expected sign. These are AGEHH, EDUHH, EXTEN and MKTDS.

The above table depicts only the direction of the relationship between the dependent variable and a set of independent variables. Thus, it only reveals the direction of the relationship pertaining to access to financial services in the rural area without duly revealing quantitative determinations. In order to interpret the quantitative implications of the determinants of access to finance, we need to compute

the partial effects, using marginal effects for continuous explanatory variables and average effects for the binary explanatory variable. The partial derivatives (marginal effects) of the variables on the factors determining the probability of farmers' access to rural finance are computed at the means of the variables for all observations and this is displayed in Table 3 below.

Table 3: Marginal Effect of the Probit Model

Dependent variable				
Independent variables	**dy/dx**	**Stand error**	**Zst at**	**P value**
AGEHH	-.0077917	.00323	-2.41	0.016 ****
SEXHH*	.0516427	.13577	0.38	0.704
EDUHH	.0229223	.01329	1.72	0.085 ***
FMSZE	-.0078465	.01903	-0.41	0.680
FRSZE	.0091363	.07062	0.13	0.897
EXTEN*	.0428203	.08363	0.51	0.609
MKTDS	-3241.574	420.0001	7.72	0.000****
OFINC*	.0451353	.07566	0.60	0.551
TRPLU	-.000623	.01544	-0.04	0.968

(*) dy/dx is for discrete change of dummy variable from 0 to 1

, **, * significant at 1%, 5% and 10 % respectively*

Source: *own survey and calculation 2019.*

The age of the household head is found to be significant and negative. It thus negatively and significantly affects the probability of access to rural finances. An increase in age deters access to rural financial services. The intuitive explanation for this is that younger farm household heads are prone to capture any possible advantage that may abound in the rural areas for the youth, generally, are energetic, motivated and daring for any plausible change and productivity-enhancing activities. According to the result above, an increase in the age of the household head by one year decreases the probability of access to rural financing by nearly 8%, keeping all other factors constant.

The education of a farmer has been assumed to have a positive influence on access to rural financing. It is very much intuitive that the education level of a farmer increases his or her ability to obtain; process and use information relevant to on-farm and off-farm activities and any production-enhancing activities to which using financial aids and services are not an exception. The justification for this is that higher education influences respondents' attitudes and thoughts making them more open, rational and able to analyze the benefits of financial aid and credit services. According

to the table above, a one-year increase in education, keeping all other factors constant, increases the probability of access to finance by 23%.

Market proximities reduce travel costs and deterrence of distance barriers. A very close market in the vicinity of farmers' residences does provide farmers with opportunities pertaining to information and related agenda on agricultural practices. In collaboration with other institutional variables or alone, it can channel the information and the means by which credits and other incentives to the farming community can be accessed. This is evidenced by the negative and significant relationship between market distance and access to agricultural finance. The model result revealed that for the average farm household head and keeping all other factors constant, an increase in market distance by one hour decreases the probability of access to agricultural finance by 32 %.

8.1 Estimation result of the double hurdle model

From the estimation result of the double hurdle model, it is understood that as a whole, it is credible as can be evidenced from the likelihood ratio chi-square of 110.02 with a P-value of 0.0000. This tells us that the model as a whole, i.e. the explanatory variables put together, is statistically more significant than a model with only the constant term.

Table 4: Estimation Result of the Double Hurdle Model

Dependent variable				
Independent variables	**Coefficient**	**Stand error**	**Z-stat**	**P value**
AGEHH	-.0118948	.0132544	-0.90	0.369
SEXHH	.3963226	.4963285	0.80	0.425
EDUHH	.0575872	.0513183	1.12	0.262
FMSZE	0.1269308	.0737947	1.72	0.085*******
FRSZE	1.330672	.2750524	4.84	0.000 *****
EXTEN	.7352563	.3451025	2.13	0.033 **
MKTDS	-.0317119	.0233998	-1.36	0.175
OFINC	.5289888	.3036444	1.74	0.081 *******
TRPLU	.1161919	.0584951	1.99	0.047******
Constant	.6450314	1.074306	0.60	0.548
Number of obs =203				
Wald chi2(9) =110.02				
Prob>chi2= 0.000				
Log likelihood = -395.65704				

, **, * significant at 1%, 5% and 10 % respectively*

Source: *own survey and calculation 2019.*

Besides, as it was argued in the econometric modelling section, Table 4 revealed that the factors that are detrimental to access to rural finance and the factors that are detrimental to how much to borrow are not the same.

From Table 4, it can be underscored that five variables are significant at various levels of significance. These are the family size of the household **(FMSZE),** farm size of the household **(FRSZE),** participation in an extension visit **(EXTEN),** off-farm income (OFINC) and the tropical livestock unit **(TRPLU).**

Family size is a great source of human capital for the farmer and it is intuitively assumed to have a significant influence on farmers' decision to look for various sources of rural financing for every industrious endeavor which is at the disposal of the rural household. This is justified by the double hurdle estimation result of the above table. According to Table 4, the family size significantly and positively affected the level of credit services that rural households get. Keeping all other factors constant, an increase in the family size by one unit will increase the amount of credit received by an average rural household head by 0.12 units.

Physical factors such as farm size play a critical role in affecting the level of credit obtained in rural areas. Many studies have reported a positive relationship between farm size and access and the level of credit received in a rural household. The result in the above table has also confirmed this notion. Farm size positively and significantly affected the amount borrowed at one level of significance. An increase in the farm size by one hectare, increases the amount borrowed by 1.33 units.

The extension system and extension services in the rural community, as a facilitating service system comprising diverse actors, have already been proven as the most detrimental and effective institutional service that can reform the rural household in many respects. The extension system contributes to achieving a better performance of the rural household's agricultural production and productivity and food security by so training, informing and inspiring farmers to have access to and utilize any financial services available at their disposal. This is justified in the above table as the extension participation significantly and positively affected the level of rural financing at a five per cent level of significance. Accordingly, an average farm household who attends and participates in extension services is nearly 70 per cent better off in acquiring rural financial services.

The detrimental role of off-arm income and tropical livestock unit is positive and significant at a ten and five per cent level of significance respectively. This is attributable to the obvious fact that a majority of the resource-poor farmers in Ethiopia lack and could use tropical live stocks as collateral and as incentives to work with them and improve their lives and livelihoods. Besides, farmers who are involved in off-farm

income generating activities, are generally informed, industrious, and risk takers than otherwise which in turn will increase their chance and level of benefiting from any rural financial services.

9.0 Conclusion and Recommendation

Agriculture is the major contributor to the Ethiopian economy, to GDP, employment and export. Its productivity is hampered by many factors though. Agricultural finance is the provision of multiple types of services dedicated to supporting both on- and off-farm agricultural activities and businesses including input provision, production, distribution, wholesale, processing and marketing. Financial services are critical enablers for sustainable economic growth and therefore, poverty reduction and food security in the Ethiopian economy in general and in the agricultural sector in particular. Credit is used for investments to increase the productivity of agricultural operations or to diversify the economic activities of rural households. Sustainable utilization of modern farm inputs (agricultural intensification) is a function of financial incentives to farmers, affordability and availability of modern farm inputs. If correctly used, credit should increase the size of farm operations, introduce innovations in farming, encourage capital formation, improve marketing efficiency and enhance farmers' consumption.

This research, however, paid an emphasis on the importance of rural financing and its determinants to have access to and benefit from rural financing. Predominantly, the article is aimed at assessing farmers' access to and utilization of relevant agricultural financing and identifying the determinants of access and utilization of rural financing. To this end, the study used a credible and rigorous econometric analysis. The econometric model applied for analyzing the determinants of access and utilization of rural financing is the double hurdle model. The study employs cross-sectional data for our analysis purpose where farm households have two sequential decisions to make, in which case it is desirable to use limited dependent variable models to analyze censored data because some households may report zero levels of credit utilization. Thus, the supremacy of the double hurdle model over and above the Probit model is justified.

From the econometric model results, both model results of the probit model and the double hurdle model have been proved to be relevant and statistically significant implying that the explanatory variables put together do explain the variation in the dependent variable of both access and the level of utilization.

The probit regression of participation in rural financing access decision results uncovered that from the total of nine explanatory variables used in the estimation of the probit model, four of them are found to be significant at one per cent and ten per cent levels of significance, besides they are of the expected sign. These are the age of the household head (**AGEHH),** education level of the household head **(EDUHH)**, extension participation (**EXTEN)** and proximity to the nearest market (**MKTDS).** And from the double hurdle model in Table 4 above, it can be underscored that five variables are significant at various levels of significance. These are, the family size of the household **(FMSZE),** farm size of the household **(FRSZE),** participation in an extension visit **(EXTEN),** off-farm income **(OFINC)** and the tropical livestock unit **(TRPLU).**

Thus, the study recommends that investment in extension services or the facilitation of nongovernment extension, facilitation of an off-farm income activity, enhancing the educational capability of the rural farm household and creating and sustaining well-functioning markets in their vicinity are quite important tools for improving agricultural productivity and increasing farmers' incomes by so helping them have access to rural financing and helping them to properly utilize the borrowed finance.

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The Relationship between Working Environment and Employee Turnover Intention: A Case of the Hawassa Industrial Park, Hawassa, Ethiopia

*Estifanos Mathewos**

ABSTRACT

The objective of the study is to analyze the relationship between the working environment and employee turnover intention in Hawassa Industrial Park, Hawassa, Ethiopia. To this end, the researcher used descriptive and inferential statistics with a mixed research approach. An enumerator-assisted questionnaire was used to gather data from the sampled industry employees. The qualitative data that were collected through a semi-structured interview were analyzed using narration for triangulation. The result indicated that the working environment and employee turnover intention have a positive and significant relationship. Employees have a plan to leave their current job due to a lack of motivation at the workplace. Therefore, it is recommended that Hawassa Industry Park employers should give the 'freedom of job' in the industry park, and reduce the workload and difficulties of the jobs of employees in general.

Keywords: *Turnover Intention; Employee; Working Environment; Hawassa Industrial Park.*

1.0 Introduction

The business world today is very competitive and only firms with the appropriate human resources can keep up with the competition. However, retaining employees is one of the biggest challenges that companies are facing (Terera & Ngirande, 2014). According to Deloitte (2011), employee turnover has a positive impact on organizational productivity. Organizations may lay off employees who are not very productive hence replacing them with employees who have the required skills and knowledge hence increasing productivity. Employees are the backbone of any business's success, so they must be motivated and retained at all costs in order for the organization to be globally competitive in terms of providing quality products and

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services to society. And, in the long run, the employees' returns on investment would be realized. Managers should investigate the causes of employee turnover and recommend the best approach so that they can retain employees in their organizations and increase their competitiveness in this globalized world (Kuria et al., 2012).

Employee turnover can be detrimental to a company's efficiency if skilled workers leave (Armstrong, 2009). A major issue with employee turnover is that the organization loses its most experienced and skilled employees, in whom it has invested heavily in training on various organizational job task functions (Maxwell, 2010). Similarly, the HIP incurs costs in terms of time and money to train newly hired employees in order for them to effectively adapt to the organization's working environment and demonstrate the necessary skills and experience.

However, there was a large turnover rate with an attrition rate of 92% in the HIP (Fortune, 2019). The report also explained that most workers, perhaps with the exception of managers, abandon their jobs within a year. Previous researchers such as Sustainability Agency (2017) assessed the workers' satisfaction and the human resource structure of factories in the HIP. Similarly, Gizaw (2015) conducted a study on the prospects and challenges of industrial zone development in Ethiopia. The researchers did not focus on issues related to employees' working environment and turnover. Therefore, this study tried to analyze the relationship between the working environment and employee turnover in Hawassa industrial park, Ethiopia.

2.0 Literature Review

2.1. Working environment

Employees must have the tools they need to do their jobs. This includes adequate lighting, workspace, and ergonomically correct seating, as well as the proper equipment, machinery, and computer technology. Poor working conditions caused by physical elements result in low productivity and job dissatisfaction. The latter, especially when left unaddressed, makes employees feel unappreciated, and they eventually leave (Bratton, 2003).

Homer (2007) contends that a safe working environment leads to an increased level of employees' job satisfaction and helps the organization retain employees for a long time. Unsafe working environments like non-standard work environments have a wider range of types and styles. Some nonstandard environments have a lot in common with standard ones. Spencer (2001) indicated that poor furniture and working equipment lower the level of employees' job satisfaction and this plays a role in the realization of increased employee turnover rates.

2.2. Employee turnover

Employee turnover is a reduction in the number of employees through retirement, resignation, reassignment, transfer or other means than layoffs, and refers to the number or percentage of workers who leave an organization and are replaced by new employees (Ruth, 2016). Employee turnover is the percentage or number of employees who leave a company or an organization and are replaced by new workers. It is the rate at which employees leave an organization. Armstrong (2012) states that employee turnover is known as labor turnover or attrition. Therefore, organizations need to develop a strategy that helps them in retaining qualified employees.

Kazi & Zedah (2011) posit that labor turnover is the rotation of workers around the marketplace between firms, jobs and occupations and between the states of employment and unemployment. Employee turnover refers to a measurable incidence of people joining and leaving the organization. It occurs when employees leave an organization and have to be replaced (Mathis & Jackson, 2013).

According to Kossen (2002), staff turnover is the amount of movement in and out of an organization (of employees). Staff turnover is the percentage of employees who leave during a given time period but before the end of their contract. Turnover is defined as a decrease in the number of employees due to retirement, resignation, reassignment, transfer, or other means other than layoffs (Mani & Kumar, 2006). In addition, it refers to the number or percentage of employees who leave a company and are replaced by new employees (Ruth, 2016).

Turnover refers to retirement, resignation and redundancy. Employee turnover is considered to be one of the persisting problems in organizations (Armstrong, 2009 cited in Hana & Lucie, 2011). The turnover means that another organization may gain a new knowledge employee who can become its competitive advantage. The loss of knowledge thus is a threat to the former organization, which increases the significance of knowledge continuity. Turnover can be classified as internal or external. Internal turnover involves employees leaving their current position, and taking a new position within the same organization. Both positive enforcement (such as increased employee motivation and commitment) and negative consequences (such as project/relational disruption) of internal turnover exist, and thus, this form of turnover may be as important to monitor as its external counterpart turnover. Internal turnover might be moderated and controlled by typical human resource mechanisms, such as an internal recruitment policy or formal succession planning (Hana & Lucie, 2011). Internal factors such as facilities in the organization and external factors (attractive factors such as salary and other benefit packages in the external market) should be taken into account to reduce the turnover rate.

Employee turnover is the replacement cycle that occurs whenever a position is vacated, either voluntarily or involuntarily (Woods, 2006). Price (1977) defines "turnover" as "the ratio of the number of organizational members who left during the period under consideration divided by the average number of people in that organization during the period." When an employee chooses to leave their job, this is referred to as voluntary turnover. Involuntary turnover occurs when a company terminates a working relationship through layoff or discharge. Although the company cannot control all employee turnover, the rate of voluntary turnover can and should be a priority for managers. By distinguishing between voluntary and involuntary turnover, Griffeth & Gaertner (2000) propose focusing on the part of the turnover that is of real concern to an organization. In other words, did the employee choose to leave the job, or did the employer make the decision? Then, voluntary resignations are further classified as functional (exit of subpar performers) or dysfunctional (exit of effective performers). Finally, unavoidable resignations over which the employer has no control are excluded (family move, childbirth, serious illness or death). As a result, the group of avoidable resignations becomes the primary focus. It also implies that, in order to make an informed decision, turnover rates must be calculated down to the department level in order to identify which areas are the most problematic.

Most of the above scholars have defined staff turnover in terms of the indefinite period (permanent) employment contract made between the employer and employee. As a result, they have assumed the in and out movement of all staff without considering the type of employment. However, Loquercio's (2006) definition of turnover excludes the expected termination of contractual employees which is much more expected and the general characteristics of most NGOs. Staff turnover that can occur in any organization might be either voluntary or involuntary.

Voluntary turnover refers to termination initiated by employees, whereas involuntary turnover refers to termination initiated by the employer, which could be due to long-term illness, death, relocation to another country, or employer-initiated termination. Typical human resource mechanisms, such as an internal recruitment policy or formal succession planning, can help to moderate and control turnover. Employee turnover has been a phenomenon that has been elusive in management circles. Human resource practitioners and strategic managers have been unable to predict and control (Ongori, 2007). Employee turnover has also been defined as the rotation of workers around the labor market; between firms, jobs and occupations; and between the state of employment and unemployment (Abassi *et al.*, 2000). Managers have referred to turnover as the process associated with filling a vacant position and according to Ongori

(2007), each time a position is vacated, either voluntarily or involuntarily, a new employee who is hired must be trained and this cycle is referred to as turnover.

3.0 Research Methodology

The study employed a correlational research design with a mixed research approach. The mixed research approach refers to the type of data being collected (quantitative data involve numeric scores, metrics, and so on, while qualitative data includes key informant interviews). This is because the qualitative research approach enables us to make a subjective assessment of the respondents. It is true that a good description provokes the `why' questions of explanatory research. The quantitative approach helps to quantify or objectively measure certain variables in numeric terms, which makes the descriptive analysis easy and manageable (Creswell, 2012).

In order to determine the sample size, the numbers of Hawassa Industry Park employees were taken from the reports of the industry park. According to the Hawassa Industry Park Report (2022), there are 22,735 employees working under 22 companies. Accordingly, the sample size was determined by using the formula developed by Yamane (1967) as follows:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{22{,}735}{1 + 22{,}735(0.07)^2}$$

$$n \approx 203$$

Where: $\boldsymbol{n}$ = Sample size, $\boldsymbol{N}$ = Total Population, $\boldsymbol{e}$ = Sampling Error

The researcher used a stratified sampling technique because the target population of the study was heterogeneous. It was easier to obtain the desired representative sample since a stratum is more homogeneous than the total population. After the sample size was determined, the proportion sampling technique was used to distribute the sample to each stratum.

The study used the questionnaire as a tool for data collection. The questionnaire consists of five-point Likert scale-type questions. The questionnaire was pre-tested by administering it to 30 respondents who were not included in the main analysis. The data collected through the questionnaire was edited, coded, and entered into the computer using the Statistical Package for Social Science (SPSS) Software Version 26. The analysis techniques were performed using descriptive statistics such as frequency,

percentage, mean and standard deviation to summarize. Furthermore, inferential statistics like correlation.

4.0 Results and Interpretation

The socio-demographic characteristics of HIP employees including sex, age, educational level and work experience have been analyzed.

Table 1: Distribution of Respondents by their Characteristics

Variables	Categories	Frequency(n)	Percentage (%)
Sex	Male	84	41.4
	Female	119	58.6
	Total	203	100
Age	18-20	35	17.2
	21-25	69	34.0
	26-30	27	13.3
	31-35	65	32.0
	36-40	7	3.4
	Total	203	100
Educational level	Secondary school complete	47	23.2
	Certificate	58	28.6
	Diploma	45	22.2
	Degree	37	18.2
	Masters	16	7.9
	Total	203	100
Work Experience	Less than a year	43	21.2
	1-2	102	50.2
	Above 2 years	58	28.6
	Total	203	100

Source: *Own survey data, 2022*

The result in Table 1 shows that 58.6% of sample respondents were female, while 41.4% were male. This indicates that the majority of the employees in the study area were female. That means males have less involvement in the industry park. The results of the qualitative data from key informant interviews revealed that the majority of employees in the manufacturing sector of Hawassa industrial park were females.

Concerning the age of the respondents, 34% of the sample Hawassa industrial park employees were in the age range of 21-25 years and 32% of them were in the age range of 31-35 years. The other, 17.2% and 13.3% of employees fall under the age range of 18-20 and 26-30 years, respectively. The result showed that the majority of employees working in the industry park were young adults or in the age group of early working age.

Regarding the educational status of employees in the study area, 28.6% of them were certificate holders, 23.2% were secondary school completed, 22.2% of them had a diploma and 18.2% of them were degree holders. This implies that more than half of employees in the study area were certificate and secondary school complete. The key informants also informed that since the work is labor intensive, a high level of education status was not a criterion in the industry. With regard to the work experience of sample employees, 50.2% of sample respondents have stayed in the organization from 1-2 years, the next group consists of 28.6% who have stayed for more than two years, and the remaining 21.2% of respondents have stayed for less than a year. The result indicated that the majority of sample respondents had a maximum of two years of stay in the park. This shows that the working duration of employees in the organization was small. This implied that there is a high turnover rate in Hawassa industrial park.

Table 2: Perception of Respondents on Working Environment

S. No.	Working Environment	SDA	DA	Un	A	SA
1	The company provides occupational safety tools to its employees on the job.	18.2%	26.6%	12.3%	34.5%	8.4%
2	The relationship b/n top management and employees is adequate.	22.2%	29.6%	18.2%	27.1%	3.0%
3	You have all of the necessary working equipment at your workplace.	25.1%	25.6%	15.3%	29.6%	4.4%
4	Employees do not work beyond their capabilities.	11.8%	51.7%	14.8%	17.7%	3.9%
5	My immediate superior handles employee issues fairly.	18.7%	38.4%	15.8%	18.7%	8.4%
Overall mean (SD)		2.65(.896)				

***Note: SDA** = Strongly disagree, **DA** = Disagree, **Un** = Undecided, **A** = Agree, **SA** = Strongly agree, **SD** = Standard Deviation.*

***Source:** Own survey, 2022*

In line with item 1, as summarized in Table 2, 44.8% of sampled respondents disagreed that HIP gives occupational safety tools at work place, while 42.9% of them

agreed with the idea. The result implies that the majority of sampled respondents disagreed that HIP gives occupational safety tools at the workplace.

Regarding item 2, the result of Table 2 indicates that 51.8% of sampled respondents disagreed that the relationship between top-level managers and employees is good enough, while 30.1% of them agreed with the idea. This disclosed that in the Industry Park the relationship between top-level managers and employees is not good enough.

On the subject of item 3, as summarized in Table 2, 50.7% of sampled respondents disagreed that in their workplace, they have all the necessary working equipment, while 34% of them agreed with the idea. The result implies that the majority of sampled respondents disagreed that in their workplace, they have all the necessary working equipment. This implies that HIP has limitations to fulfill necessary working equipment requirements.

Concerning item 4, as presented in Table 2, 63.5% of sampled respondents disagreed that employees work not beyond their capacity, while 21.6% of them agreed with the idea. The result implies that the majority of sampled respondents disagreed that employees work not beyond their capacity. This indicates that in the study area employee work beyond their capacity.

With respect to item 5, the result of Table 2 indicates that 57.1% of sampled respondents disagreed that their immediate superior deals with employees' problems fairly, while 27.1% of them agreed with the idea. The result implies that the majority of sampled respondents disagreed that their immediate superior deals with employees' problems fairly. This revealed that the employees' immediate superior has limitations to deal with employee problems fairly.

In summary, the overall perception of employees (Mean= 2.65) regarding the working environment indicated that the majority of employees were not comfortable with the working environment. The key informants also added that the working condition of the HIP was mostly, not safe for its employees because they have to stand long hours in a high-temperature factory shed where sufficient safety tools are not supplied. In addition, their immediate supervisors and top-level managers did not have a good relationship with their employees and the employees' problems were not fairly dealt with by their supervisors immediately regarding the safety of their working environment. Concerning item 1, as presented in Table 3, 73.3% of sampled respondents agreed that they would like to work for some other organization, while 9.9% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that they would like to work for some other organization.

Table 3: Perception of Respondents on Employee Turnover Intention

S. No.	Turnover Intention	SDA	DA	Un	A	SA
1	I would like to work for some other organization.	3.0%	6.9%	16.7%	58.1%	15.3%
2	I will probably resign myself from the current organization.	0.5%	21.2%	26.1%	41.9%	10.3%
3	I will look for another job in other organizations soon.	3.4%	8.4%	25.1%	44.3%	18.7%
4	I have actually looked for other jobs in other organizations.	8.9%	15.8%	21.7%	36.0%	17.7%
5	I don't like to continue in the organization for a long period.	24.1%	7.4%	8.4%	30.5%	29.6%
Overall mean (SD)		3.51(.408)				

***Note: SDA** = Strongly disagree, **DA** = Disagree, **Un** = Undecided, **A** = Agree, **SA** = Strongly agree, **SD** = Standard Deviation.*

***Source:** Own survey, 2022*

In line with item 2, the result of Table 3 indicates that 52.2% of sampled respondents agreed that they will probably resign themself from the current organization, while 21.7% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that they will probably resign themself from the current organization.

Regarding item 3, as summarized in Table 3, 63% of sampled respondents agreed that they will look for another job in other organizations soon, while 11.8% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that they will look for another job in other organizations soon.

With respect to item 4, as presented in Table 3, 53.7% of sampled respondents agreed that they have actually looked for other jobs in other organizations, while 24.7% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that they have actually looked for other jobs in other organizations.

On the subject of item 5, the result of Table 3 indicates that 60.1% of sampled respondents agreed that they don't like to continue in the organization for a long period, while 31.5% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that they don't like to continue in the organization for a long period.

The overall mean regarding turnover intention (Mean = 3.51) indicates that the majority of respondents had the intention to leave their current job. The results of key

informant interviews revealed that employees' intention to leave their job is high and the industries in Hawassa Industrial Park have less commitment to change the gaps in the increasing rate of employee turnover intention. They also added that industries have a low level of commitment to retain their existing employees because they believe that they can easily replace employees from the local job market where there is plenty of unemployed workforce in the area to replace the employees that left their job from a low level of job satisfaction and less commitment of their employers to provide a convenient environment for employees regarding promotion, training, incentives to motivate them as well as the poor working environment.

Table 4: Correlation Analysis Result

Variables		Work Environment	Turnover Intention
Work environment	Pearson Correlation	1	-.824**
	Sig. (2-tailed)		.000
	N	203	203
Turnover intention	Pearson Correlation	-.824**	1
	Sig. (2-tailed)	.000	
	N	275	203
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: *Model output, 2022*

The results of Table 4 showed that there is a statistically significant negative correlation between the work environment and turnover intention ($r = -0.824$, $p < 0.01$). The magnitude of the correlation coefficient between the work environment and turnover intention was 0.824, indicating a very strong relationship. This implied that as the working environment becomes good, the probability of employee turnover intention decreases.

5.0 Conclusion and Recommendations

Employees' intention to leave their job at the Hawassa industrial park is high. The majority of employees did not speak good things about the Hawassa industrial park. The working condition of the Hawassa industrial park was mostly, not safe for its employees because they have to stand for long hours in a high-temperature factory shed where sufficient safety tools are not supplied. Therefore, the industry park employers in the study area should create a conducive working environment, must recognize the

staff's work, should give the 'freedom of job' in the industry park, and reduce the workload and difficulties of the jobs of employees in general.

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Factors Influencing Brand Equity towards Laptop Computers: Evidence from Hawassa University Students

*Mesfin Dagne**

ABSTRACT

The concept of branding is an important issue for developing trust between companies and customers. Nowadays, laptop computers can be properly utilized by students. Therefore, this study has been conducted with the prime objective of identifying the factors that affect brand equity toward laptop computers among Hawassa University students. The researcher has applied a multi-stage sampling technique to get 230 representative students to achieve the study's objective. A cross-sectional survey research design was adopted. The data collected through questionnaires were entered into SPSS software version 21 and analyzed using inferential statistics such as ordered logistic regression. The cumulative findings revealed that brand loyalty, perceived quality, and brand awareness are the major factors that affect brand equity. The study recommends that marketers or brand managers focus on brand loyalty, perceived quality, and brand awareness since these dimensions have a high significance in brand equity building.

Keywords: *Brand Equity; Brand Awareness; Brand Associations; Perceived Quality; Brand Loyalty.*

1.0 Introduction

In today's tough competitive world, everything can be easily done by employing laptop computers. Thus, this powerful tool can be properly utilized by students. The use of computers in education started in the 1960s. With the arrival of convenient microcomputers in the 1970s, computer use in schools has become widespread from primary education to the university level. It wasn't until 1981 that the first commercial portable computer became available (Webopedia, 2008). The next big event in the

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history of laptops came in. Although the personal computer (PC) industry began in the early 1970s, it was not until the summer of 1995 that Microsoft and Intel became the standard for the software (Windows) and hardware (Intel processors) used in laptops (Metafacts, 2009).

Since the 1980s, the notion of brand equity has grown in prominence, and the discipline has evolved significantly, with conceptual models (Aaker, 1991; Keller, 1993) being replaced by an increasing number of empirical models (Yoo *et al.*, 2000). Because of the growing scientific and corporate interest in brands, the concept of customer-based brand equity (CBBE) has become a core marketing concept. Brands distinguish themselves from the other elements of the marketing mix because they are capable of including the positive effects of all marketing activities, transforming them into effective quality signals (Erdem *et al.*, 2006), and they can remain on the market in the long term until products transform or disappear (Kapferer, 2005).

Several studies have reported that students need laptops to make learning easier regardless of their brand. However, modern students have grown up with technology and the convenience of a personally configured computer that students naturally use as a life tool. However, the marketer does not know the purchasing criteria of laptop brands set by the customers to make decisions. Commoditization of the laptop market created a challenge for manufacturers to identify the internal motivation among the consumer base that influenced their purchase of one brand over another. Therefore, this study aims to identify the factors influencing brand equity toward laptop computers among Hawassa University graduate students, Hawassa Ethiopia.

2.0 Literature Review

2.1 Brand awareness

Brand awareness is defined as "the capacity of a potential consumer to recognize or recall that a brand belongs to a specific product category" (Aaker, 1991). Brand awareness occurs when people are exposed to a brand. As a result, the first stage in developing brand equity is to raise brand awareness. To assess brand awareness, we must first assess brand recognition and recall (Keller, 1993; Aaker, 1996). Brand awareness means how a customer can distinguish and remember the unknown from known brands in purchase decision situations. This action can show the relationship between a brand and its associations in memory, such as name, logo, and sign (Bother, 2007).

2.2 Brand association

Brand associations represent what a brand means for a consumer and are "anything linked in memory to a brand" (Aaker, 1991). Any interaction or encounter a consumer has with a brand has the potential to generate, alter, or reinforce specific favorable or bad associations (Keller, 2003). Associations must be original, strong, and beneficial in order to have a good impact on brand equity. Aaker defines brand associations as "anything linked in memory to a brand" (Aaker, 1991). Brand associations are believed to contain the brand's meaning to consumers (Keller, 1993). Brand association is a set of information nodes attached to the brand in the mind of consumers, classified as attributes, attitudes, & benefits related to the brand. It is helpful to customers to retrieve information about some brands from their memory. When confronted with the brand, the associated benefits, experiences, or features will be reflected in the customer's mind (Keller, 2008).

2.3 Perceived quality

The perceived quality of a brand is defined as the consumer's judgment about a brand's overall excellence or superiority concerning its intended purpose relative to alternatives (Zeithaml, 1988; Aaker & Jacobson, 1994). Perceived quality is thought to be a sort of association worthy of being elevated to the status of a distinct dimension of a brand's equity (Pappu & Quester, 2006). The customers will have subjective satisfaction at the comprehensive quality or recognition level against the product or service offering under such a brand, perceived quality (Hu *et al.*, 2010).

2.4 Brand loyalty

The essence of brand equity is brand loyalty. It is characterized as "a firmly held commitment to rebuy or repertories a favored product/service continuously in the future, resulting in similar repeated brand or brand set purchasing despite situational pressures and marketing efforts with the potential to promote switching behavior" (Oliver, 1997). According to Gil *et al.* (2007), loyalty is a crucial dimension of equity, and if brand loyalty is built, brand equity will follow. They define brand loyalty in terms of consumer perception. Brand loyalty provides significant value to a brand or company since it produces a group of purchasers who will remain loyal for a long time and are less likely to move to a competitor due to pricing.

2.5 Brand equity

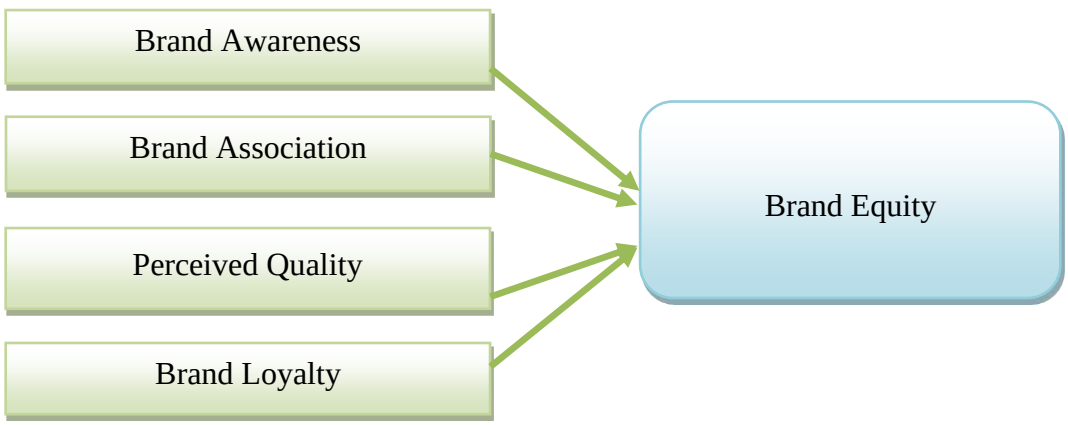
Brand equity has reaped considerable attention. Operationalization of customer CBBE usually falls into two groups: consumer perception and consumer behavior, e.g.,

Srivastava *et al.* (1991) claimed that the level of consumer perception could measure CBBE. While Farquhar (1989) claimed that brand equity is reflected by the change in consumer attitude while purchasing a product. Later researchers, besides using two approaches: consumer perception and consumer behavior, combined the two approaches, and some related brand equity to another variable as antecedents and consequences of brand equity, e.g., Keller (2003) mentioned brand knowledge as a combination between brand awareness and brand image, evaluated only perceptual dimensions and proposed a concept of global brand equity using brand strength. While Aaker (1996) incorporated the measurement and suggested measuring the four dimensions of brand equity: brand awareness, brand association, perceived quality, and brand loyalty. Considering its comprehensiveness, this study is based on the concept of brand equity, based on the four dimensions model of CBBE, in which the dimensionality has been tested by some researchers (Cobb Walgren *et al.*, 1995; Kim & Pike, 2010).

2.6 Conceptual framework

This study tried to identify the factors influencing brand equity toward laptop computers. It situates the topic under study within prior theoretical and empirical studies and explains key constructs and terms. The following self-developed conceptual framework is constructed in various theoretical and empirical studies. The selection of the variables under each category has been made as per the identified research gaps and according to the research hypothesis under study.

Figure 1: Conceptual Framework



***Source**: Adapted from (Cobb Walgren et al., 1995; Kim and Pike, 2010)*

3.0 Hypothesis

H_{01}: Brand awareness has no significant effect on brand equity.
H_{02}: Brand association has no significant effect on brand equity.
H_{03}: Perceived quality has no significant effect on brand equity.
H_{04}: Brand loyalty has no significant effect on brand equity.

4.0 Research Methodology

The study employed a cross-sectional survey design. In a cross-sectional survey, information on all variables would be collected at a specific time. Cross-sectional surveys are useful in assessing a population's practices, attitudes, knowledge, and beliefs. For a survey on the students in a university, the number of students to be selected in the sample has to be determined before starting the survey. For multi-stage sampling, sample sizes for all the stages should be specified in advance. To determine the size of a planned sample, importance should be given to the required precision, error of estimation, costs of sampling, financial resources, and the time available for the survey (Poduri, 2000). This research was conducted at Hawassa University. According to Hawassa university's registrar of 2013/14, the total numbers of graduate students were 1670. That was the studied population from which sample sizes were drawn. In order to draw a sample size from the whole population, a statistical formula, which was modified by (Yamane, 1967) was used.

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{1670}{1 + 1670(0.07)^2}$$

$$n \approx 238$$

Where: $\boldsymbol{n}$ = Sample size

$\boldsymbol{N}$ = Population Size

E = Precision error

The study used a multi-stage sampling technique. In the first stage of sampling, a stratified random sampling technique was used to classify the departments and schools using eight colleges. In the second stage, Probability Proportional to Size (PPS) sampling techniques were applied to get the proportional sample size from each

college. Accordingly, 60 students were selected from the Technology Institute, 16 students from Natural and Computational Science, 21 students from Medicine and Health, 36 students from the College of Agriculture, 23 from Forestry and Natural resources, 43 students from Business and Economics, 15 students from Social Science and 16 students from Law and Governance. Thus, the study sample would form 230 respondents. In the third stage, individual students from the selected college would be chosen by systematic random sampling technique. The data was collected via a closed-ended questionnaire and analyses using ordered logistic regression analysis with the help of SPSS-21 software.

5.0 Results and Interpretation

This section examines the relationship between selected brand equity measurement variables and brand equity itself among Hawassa University graduate students. The independent variables were brand awareness, brand association, perceived quality, and brand loyalty.

Table 1: Results of the Ordered Logistic Regression Model

Variables	B	S.E	Wald	P-value	Odds Ratio
Brand Awareness	0.282	.270	1.091	.296	1.326
Brand Association	0.874**	.299	8.559	.003	2.396
Perceived Quality	1.247***	.296	17.758	.000	3.479
Brand Loyalty	1.342***	.298	20.249	.000	3.827

***Note**: B = Ordered logit coefficient, S.E = Standard Error, ** p<0.01 *** p<0.001*

The significant predictor variables in the bivariate analyses were selected for the ordered logistic regression. According to the ordered logistic regression output in Table 1, three predictors included in the model significantly affect brand equity. Since it has no value to present one of the insignificant variables (namely: brand awareness). The following few paragraphs describe only three of the four predictors.

It is evident from Table 1 that brand association has a positive and significant effect on brand equity. The ordered logit coefficient and P-value (B=.874, P<0.01) revealed that brand association has a statistically significant effect on brand equity, brand awareness, perceived quality, and brand loyalty in the group. It can also be concluded from the values of the odds ratio that if the students increase their agreement on the brand association by one unit, the response variable brand equity will

be expected to change by 2.396 in the ordered logit scale regardless of other independent variables in the model. More generally, if the students were to increase their agreement on the brand association score, they would be more likely to agree on brand equity.

According to the ordered logit model Table 1, the ordered logit coefficient and p-value (B=1.247, P<0.001) show that perceived quality has a statistically significant effect on brand equity given brand awareness, brand association, and brand loyalty in the group. The odds ratio values of the perceived quality show that with a one-unit increase in perceived quality, the brand equity level is expected to change by 3.479, given the other variables in the model are held constant.

The relationship between brand loyalty and brand equity is positive and significant (B=1.247, P<0.001). As shown in Table 1, since the P-value is less than 0.001, the regression coefficient for brand loyalty has a statistically significant effect on brand equity given brand awareness, brand association, and perceived quality in the group. It can also be concluded from the values of the odds ratio that if students were to increase their agreement on the way to brand loyalty by one unit, the response variable brand equity, will be expected to change by 3.827 in the ordered logit scale while the other variables which were included in the model are held constant. More generally, if a student were to increase his agreement on brand loyalty score, it can be expected that the students are more likely to agree on brand equity.

6.0 Conclusion and Recommendations

Branding plays a very vital role in today's competitive environment. Respondents purchase and use the most reputed and well-known brands of laptops. The major factors influencing graduate students towards brand equity were brand loyalty, perceived quality, and brand association. All these impacts were positive, but the levels of impact were different. Among the three factors, brand loyalty was the most significant brand equity. Then, it was followed by perceived quality, but brand association was the factor that had the least effect on brand equity. Therefore, the researcher recommends that marketers enhance laptop brand consumers' brand loyalty to increase the brand equity of their products. Likewise, laptop producers should not underestimate the value of other dimensions, as they are the main part of brand loyalty formation, which enhances brand equity. They should focus on high quality and maintain relationships with their loyal customers through loyalty programs or augmented products. Quality and loyalty dimensions should be the main focus of brand managers.

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Organizational Justice Perception and Its Impact on Deviant Workplace Behaviour in the Case of Hawassa University Teachers, Ethiopia

*Mengistu Anisa**

ABSTRACT

Deviant workplace behavior is a prevailing and costly phenomenon in organizations. It includes a wide range of negative acts conducted by employees to harm the organization and its members. It is found in all types of organizations and in all levels of positions. The purpose of this study is to find out the relationship between justice perception of teachers and their deviant workplace behaviors. Specifically, status of justice perception and deviant workplace behaviors were observed. In this paper three forms of justice (distributive, procedural, and interactional justice) used as independent variable were as deviant workplace behavior used as dependent variable. Methodologically, to conduct this study online survey was applied for the time being difficult to get respondents personally because of worldwide pandemic covid-19. Data were analyzed by using descriptive and inferential statistics by the help of SPSS version 20. Descriptive statistics result shows that deviant workplace behavior are sever in the University context while justice perception of teachers were low. Correlation result shows the relationship between organizational justice perception and deviant behaviors were negative. The impact relation also shows us the decrease in perceived justice of teachers increase in their involvement in deviant workplace behavior. These indicate that since teacher perceive they are treated unfairly involvement in deviant workplace behavior is usual business. There for, as a suggestion University management should aware unfair treatment of teachers to reduce or to avoid deviant workplace behavior involvement and to improve the performance of the University.

Keywords: *Deviant Workplace Behavior; Organizational Justice; Distributive Justice; Procedural Justice; Interactional Justice.*

1.0 Introduction

1.1 Background of the study

Deviant Workplace Behavior (DWB) has been defined as voluntary behavior that violates significant organizational norms and in doing so, threatens the well-

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being of an organization, its members, or both (Robinson & Bennett, 1995). Hollinger & Clark (1983) define deviant workplace behavior as an act by the employee, which violates the standardized norms of the organization. According to the authors, there is a need to identify the deviant behaviors, which may affect the organization's productivity negatively (Robinson & Bennett, 1995). The deviant workplace behavior phenomenon has been the topic of several studies and this concept may arguably be considered the most fully developed among all other constructs of deviant behavior (Bennett & Robinson, 2000; Robinson & Bennett, 1995). The concept of property deviance and production deviance was first introduced by (Mangione & Quinn, 1974). However, these mentioned frameworks and classifications do not account for deviant acts of an interpersonal nature. Robinson and Bennett argued that an accurate typology of employee deviance should take into account not only the behaviors directed towards organizations, but also those that are directed towards individuals. Consequently, (Robinson & Bennett, 1995) empirically developed a comprehensive typology of deviant workplace behavior that includes all possible negative behaviors with the aid of a multidimensional scaling procedure and thereby validated potential methods for measuring workplace deviance. According to the forms of workplace deviance, production deviance and property deviance fall on the axis of organizational deviance from the minor to severe pole. Similarly, political deviance and individual aggression lie on the axis of interpersonal/individual deviance. One of the purposes of this study was to identify those workplace deviant behaviors in the case of Hawassa University teachers, Ethiopia.

Some researchers have explored that deviant workplace behavior occurs because of only individual attributes while others have explored situational factors like organizational inequities (Greenberg, 1990) inducing deviance. A few researchers have suggested a wide range of reasons for why employees engage in deviant workplace behaviors, (Fox *et al.,* 2001). Researchers in this direction have verily paid attention and noticed why employees get involved in deviant acts. This contention suggests that experiencing injustice is one of the big reasons for workplace deviance (Ambrose *et al.,* 2002). There is a body of research, known as organizational justice, which investigates how employees assess what is fair in an organization. The broad idea behind organizational justice is that employees are active observers in organizations – they see how rewards (and punishments) are allocated. Such allocations may be perceived as fair or unfair based on three things: whether someone deserves what they received (distributive justice), whether the allocation process was fair (procedural justice), and whether someone was treated with respect (interactional justice) (Colquitt *et al.*, 2001). Thus, to restore their sense of injustice; subordinates may often move and

decide to engage in acts of deviance (Henle, 2005). Hence, this paper is a small attempt to identify whether or not the organizational justice perception among university teachers explains workplace deviant behavior in Southern Ethiopia

1.2 Objectives of the study

Based on the background mentioned, the main aim of this study was the justice perception of university teachers and the deviant workplace behavior in the case of Hawassa University, Ethiopia. Specifically, the study attempted to achieve the following objectives.

- To study the overall status of organizational justice perception and deviant workplace behavior in the case organization.
- To investigate the relationship between perceived organizational justice and deviant workplace behavior in the case organization.
- To study the impact of perceived organizational justice on deviant workplace behavior.
- To suggest a workable solution for reducing deviant workplace behavior and enhancing organizational justice.

1.3 Hypothesis

To achieve the objective of the study, the researcher proposes the following hypothesis, which is tested according to the sample information by statistical methods. All the null hypotheses were analyzed by applying correlation and regression analysis techniques with a view to accept/reject them in support of their respective alternative forms of hypotheses.

H_1: Distributive justice would have a negative and significant relationship with workplace deviance behavior.

H_2: Procedural justice would have a negative and significant relationship with workplace deviance behavior.

H_3: Interactional justice would have a negative and significant relationship with workplace deviance behavior.

1.4 Research needs

Even if many studies are conducted in deviant workplace behavior, what forces the employees to behave in this manner remains unanswered because such behavior's severity has become high in different organizations. Moreover, most of the literatures remains industry specific. As a result of the same, a generalized picture has been

created regarding the nature of deviant workplace behavior. Given this understanding, it is important to study the deviant workplace behavior among service providers, particularly university teachers. Teachers are in the most significant jobs where one deviant behavior may dilute the reputation of the teacher himself as well as the university. These kinds of risks associated with the job may create a negative mindset if proper measures are not taken. It is important to judge this as it may help to devise new HR policies and practices to reduce the impact of this kind of behavior. Therefore, this study helps university managers to establish a just and fair environment to reduce deviant behavior and enhance positive organizational outputs.

2.0 Review of Literature

In this part, the researcher gives emphasis to those past studies related to the objective of current studies. Reviewing deviant workplace behavior, organizational justice and its relation with deviant workplace behavior are the major concern of this part.

2.1 Definition and typology of workplace deviant behavior

Robinson & Bennett (1997) define workplace deviance as- voluntary behavior that violates significant organizational norms and in doing so, threatens the well-being of an organization, its members, or both. Organizational deviance includes acts directed against the company or its systems, whereas interpersonal deviance consists of acts that inflict harm upon specific individuals. Workplace deviance includes a wide range of negative work behaviors, from subtle expressions of rebellion, such as gossiping and taking unapproved breaks, to more aggressive actions, such as aggression and violence (Bennett & Robinson, 2003). The distinction between organizational and interpersonal deviance has been empirically validated in a number of studies (Aquino *et al.,* 2001; Aquino *et al.*, 1999; Bennett & Robinson, 2000). The following authors proposed typologies of deviant behavior in different periods: Mangione & Quinn (1974) first introduced the concept of property deviance and production deviance. Wheeler (1976) distinguished serious and non-serious organizational rule-breaking. Hollinger & Clark (1982) built up a framework that was based on property deviance and production deviance. Robinson & Bennett's (1995) typology consists of two dimensions: the severity of the deviance and whether the deviance is intended to harm an individual or the organization as a whole. They then labeled the four quadrants formed by these dimensions production deviance, property deviance, political deviance, and personal aggression. Production deviance refers to

behaviors that directly interfere with work being performed in the organization – reading a newspaper instead of working, chatting excessively with co-workers, and so on. Property deviance refers to employees destroying or misusing an organization's property. Political deviance refers to milder interpersonal harmful behavior. The last quadrant, personal aggression, is more harmful interpersonal behavior.

2.1.1 Production deviance

Production deviances are "behaviors that violate the formally prescribed norms delineating the minimal quality and quantity of work to be accomplished". Being late to work, leaving early, taking excessive breaks, withholding effort, wasting resources, using drugs and alcohol in the workplace, and calling in sick when well (absenteeism) are forms of production deviance (Robinson & Benett, 1995). Withholding effort describes the incidence where an individual gives less than their full effort on a job-related task. An employee might withhold effort because he has negative views about the group or the organization (Kidwell, 1995). All these behaviors have an impact on the productivity of organizations. A survey disclosed that 29 per cent of supermarket employees have called in sick when they were well. Lateness and absenteeism are closely linked to each other. Those employees who are absent frequently also tend to be unpunctual (Everton *et al.,* 2005). A study of employees' reactions to frustrations at work (Storms & Spector, 1987) found that when employees perceived their organization as a frustrating place, they were more likely to call in sick when they were well, come back late from breaks, and engage in other similar behaviors. They called these "withdrawal behaviors" because such behaviors allow employees to withdraw physically and emotionally from the organization. Along with technological advancements used in organization, cyberloafing is also included as one of the production deviance recently studied by researchers (Lim, 2002).

2.1.2 Property deviance

Property deviance describes "those instances where employees acquire or damage the tangible property or assets of the work organization without authority" (Robinson & Benett 1995). Property deviance harms organizations and is quite severe. Sabotaging equipment, accepting kickbacks, lying about hours worked, releasing confidential information, intentional errors, misusing expense accounts, and stealing from the company are forms of property deviance. Some of these acts are connected with direct costs for the organization since equipment has to be replaced. Furthermore, they can have consequences for productivity because work cannot be performed until the equipment is replaced (Robinson & Benett, 1995; Everton *et al*., 2005).

2.1.3 Political deviance

Political deviance is "the behavior as engagement in social interaction that puts other individuals at a personal or political disadvantage." Workplace incivility, showing favoritism, gossiping about co-workers, and competing non-beneficially are forms of political deviance (Robinson & Benett, 1995). Workplace incivility is bad-mannered and disrespectful behavior that harms, whether it is intentional or unintentional. There are numerous examples including being interrupted while speaking, receiving humiliating notes, and not being thanked when helping co-workers. Incivility is prevalent; in a survey, more than 55 per cent of workers confessed to having said something hurtful to co-workers. The consequences of such behavior are serious. Those who were or still are targets of this type of behavior are less satisfied with their jobs and are subsequently more likely to resign. Besides, they are more likely to be depressed or anxious. Workplace incivility can also result in other types of deviance. Absenteeism, stealing, doing work wrong intentionally and aggressive behavior are plausible outcomes. The consequences of workplace incivility are stronger, the stronger the incidences are. Even a relatively small incident can lead to a chain of events resulting in a very grave incident (Everton *et al.*, 2005).

2.1.4 Personal aggression

Violence that is initiated by co-workers can happen everywhere: no industry, no organization and no employee can exclude the occurrence of such behavior. Personal aggression is "behaving in an aggressive or hostile manner towards other individuals." Sexual harassment, rape, verbal abuse, physical assaults, sabotaging the work of co-workers, stealing from co-workers, destroying the property of co-workers, and endangering co-workers are forms of personal aggression (Robinson & Benett, 1995; Everton *et al.*, 2005). Employees who have been the target of aggression by co-workers have more physical and emotional health problems and are less committed to their organizations. They tend to be depressed more often and have less job satisfaction than those who have not been victims of aggression. If the victims of such behaviors receive support, they report higher well-being and possess more positive feelings than those not supported (Everton *et al.*, 2005). While usually, individuals have the greatest costs from these types of behavior, in the end, organizations face costs as well. The costs result from lower productivity, lost work time, inferior quality, medical and legal expenses, and a damaged public image (Fleet & Griffin, 2006). There are approximately 300,000 incidences of workplace violence reported in the United States every year and even more, are never reported (Magyar, 2003). Workplace homicide is the fastest growing kind of homicide in the US (Fleet & Griffin, 2006).

2.2 Antecedents of deviant workplace behavior

Even if the objective of this study were focus on organizational justice and workplace deviant behavior, it is essential to review other antecedents besides organizational justice. Different antecedents cause different types of deviant behavior. Nevertheless, indicating the factors linked to deviant behavior is a reliable advent to controlling the phenomenon (Robinson & Greenberg, 1998; Robinson & Bennett, 1995). The factors may be individual, social, interpersonal or organizational. An individual does not work for months or even years in an organization, without being influenced by his thinking, his beliefs, and his aspirations (Surowiecki, 2004). In predicting deviant workplace behavior, individual variables explain only a small part of the variance. In order to predict deviance, not only individual factors but also situational factors have to be taken into consideration. "Neither apples (people) nor barrels (organizational environment) by themselves account for as much variance in workplace deviance as both factors together." The situational factors include both social and interpersonal factors, and organizational factors (Robinson & Greenberg, 1998). Employees' behaviors in organizations are influenced by factors such as compensation, organizational goals, job design, and socialization. Norms and values imposed by organizations can induce an otherwise moral individual to commit unethical and deviant acts (Alzola, 2007). The Stanford Prison Experiment has shown that in the right situation, individuals are able to become sadistic and behave brutally towards others. Although the experimenters used several personality tests, they "were unable to predict (or even postdict) who would behave in what ways and why" (Alzola, 2007). Organizations offer an environment in which individuals can display deviant behaviors. Organizations provide people towards whom individuals can commit acts of interpersonal deviance (e.g., aggression). Individuals who already possess a predisposition towards deviant behavior could be stimulated by organizational settings to commit such behavior. Moreover, for individuals who were not prone to engage in deviant acts, organizational factors are often the trigger. Pressure and stress in the organization, counter norms, perceived unfair treatment, types of supervision, unfavorable culture and ethical climates, and the environment organizations operate in are some examples of possible triggers for deviance. Organizational variables are more likely to cause organizational deviance (Robinson & Bennett, 1995).

2.3 Organizational justice and deviant workplace behavior

Organizational justice is a composite construct. It has been found to affect employees' behavior in different ways. Keeping that in mind, researchers (Cropanzano

et al., 2002; Greenberg, 1990) have elaborated three dimensions of organizational justice. The first dimension is related to resource allocation (distributive justice); the second is concerned with the process/procedure used (procedural justice) within the workplace, and the third is concerned with the interactions taking place between the supervisor and their subordinates (interactional justice). Even if there are other dimensions of organizational justice, most researchers focus on these three inclusive ones. In this study also, an attempt has been made to find out the relationship between those justice dimensions with workplace deviant behaviors in the case of Hawassa University teachers.

2.3.1 Distributive justice and deviant workplace behavior

The equity theory (Adams, 1963) suggests that individuals need to maintain a view of their social and organizational worlds as just and predictable places. People assess the fairness of outcome distribution by comparing their contributions and outcomes against that of a referent (Adams, 1965; Cropanzano & Greenberg, 1997). Inequitable outcome allocation provokes perceptions of injustice, which not only creates psychological distress but also evokes behavioral responses among individuals. In other words, people not only express dissatisfaction over the violation of distributive justice norms but also react in some way. Deviant behaviors are one such reaction. The act can either be carried out directly (e.g., stealing) or symbolically (e.g., personal attack) (Greenberg & Alge, 1998). Early research on distributive justice shows that inequity in resource allocation is a primary motivation for various types of deviant acts. It is expected that actions taken as the result of an inequity assessment would be directed toward equity restoration (Adams, 1963). Distributive injustice was an essential cause for workers to commit theft, sabotage, or mutilation, as workers felt that the organization owed them.

Hollinger & Clark (1982) found that perceived inequities result in employee property and production deviance in a variety of industries. Due to its focus on outcome fairness, distributive justice was found to relate to certain behavioral outcomes, such as work performance and withdrawal, actions shown to be effective in restoring equity. Therefore, distributive justice should have implications for behavioral reactions which is why the researcher considers this study as a predictor of deviant behavior.

2.3.2 Procedural justice and deviant workplace behavior

Procedural justice refers to the fairness of processes and procedures adopted within the workplace for the allocation of outcomes and for making important

decisions (Cropanzano *et al.,* 2002; Greenberg, 1990). The perceived injustice in organizational policies and procedures may tend employees to violate significant organizational norms discretionally (Pan *et al.,* 2018; Shkoler & Tziner, 2017). It means the injustice perception in policies and procedures might result in adverse consequences. Studies (e.g., Robinson & Bennett, 1995) have empirically evidenced that unfair policies and procedures for the allocation of resources (procedural justice) might cause destructive behaviors which may be in the form of organizational and interpersonal deviance. Unjust procedures adopted for the allocation of resources and rewards may cause retaliation in employees.

Researchers (Hershcovis *et al.,* 2007; Khan *et al.,* 2013) have argued that an individual who perceives injustice in procedures adopted for resource allocation and interpersonal treatment, tends to perpetrate workplace aggression. Based on the notion of exchange relationships and the norm of negative reciprocity, the perceived injustice in policies and procedures of the organization might lead employees to involve in some harmful acts. These harmful acts include sabotage, aggression, theft, withdrawal, and bullying (Kelloway *et al.,* 2010; Khattak *et al.,* 2018), which may either be directed towards organization (organizational deviance) or towards members of the organization (interpersonal directed). Therefore, in this study, an attempt was made in procedural justice to predict both those deviant behaviors towards organization and interpersonal.

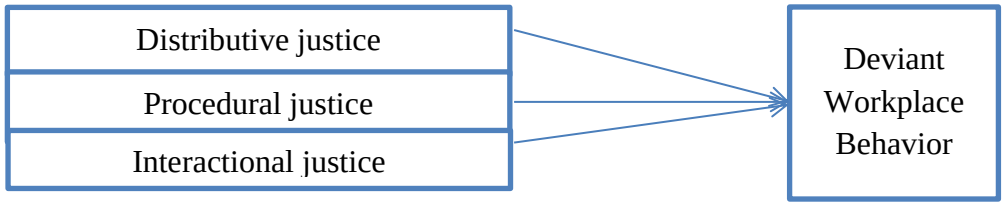
2.3.3 Interactional justice and deviant behavior

Colquitt (2001) defined it as the extent to which employees perceive that they are treated with dignity in their interpersonal interactions, such as being spoken to politely, without improper remarks or prejudicial statements. From the social exchange perspective, interactional justice, which generally reflects the quality of the exchange between the individual and his/her supervisor, has been found to be strongly and consistently associated with supervisor-directed workplace aggression (Baron *et al.*, 1999; Dupré & Barling, 2001). In addition, Jones (2009) found that interactional injustice from authority was significantly related to supervisor directed retaliation. When employees experience interactional injustice, they will be motivated to resolve this injustice.

2.4 Conceptual model

Based on the above literature on the justice perception and deviant workplace behavior, the researcher develops the following models tested by empirical studies.

Figure 1: Conceptual Model Developed by the Researcher



3.0 Methodology

3.1 Description of the study area received

Hawassa University (HU) is found in Hawassa City, southern part of Ethiopia. It was established in April 2000. Since 1976, the different colleges of HU started with the College of Agriculture. Merging three colleges has formed the university: Hawassa College of Agriculture, Wondogenet College of Forestry and Dilla College of Teacher Education and Health Sciences. HU has seven campuses (four in Hawassa and three outside of Hawassa – Wondo Genet, Awada and BensaDaye), five colleges and one Institute. In addition, it has a comprehensive specialized hospital. The current student population is 23,537 (undergraduate) and 1919 (postgraduate). There are 75 undergraduate, 80 masters and 7 PhD programmes. HU established seven technology villages (field sites). These have been established to extend outreach services to the community and are meant for the centre of technology transfer, field trials and also to disseminate the applied research results. The locations of the field sites include Dale, Borecha, Hawassa Zuria, Hawassa City, Hula, Wondogenet and Ziway (http://www.hu.edu.et/).

3.2 Research design

A descriptive research design was employed in order to describe the characteristics of respondents and to determine the rates, mean and standard deviation of the variables used. Experimental or explanatory research will be used in order to explain the relationship between variables and to analyse the cause and association among the variables of the study.

3.3 Sampling

Nowadays, all employees are stay at home because of the worldwide virus called Corona or COVID-19. Based on that, the researcher used a convenience-sampling method without concerning the method to determine the sample size. To get

appropriate respondents, the researcher used different social media like Facebook, WhatsApp and Telegram.

In addition, some respondents were reached through direct mailing and the researcher asked the identified respondents to share the questionnaire with others. Even if the researcher made the effort to get many responses, the study response was very low compared to the number of teachers in HU. The reason is, since most of the teachers are at home, they replied that poor internet connection leads to the document not opening. Others did not reply at all. Therefore, as a result, this study may not represent the real condition of the university as a whole with high accuracy.

3.4 Major variables and measures

Organizational justice instruments developed by Moorman were used in the current study to examine the relationship between organizational justice perception and workplace deviant behavior among teachers at HU. The scale is a self-reported questionnaire which encompasses 20 items divided into four domains; distributive justice (5 items), procedural justice (6 items), and interactional justice (9 items). (Moorman, 1991). The organizational justice scale is a five-point Likert scale (1-5) ranging from strongly disagree to strongly agree. Workplace Deviance constructs were evaluated using the scale developed by Bennett & Robinson (2000). This measure assessed two dimensions: (i) interpersonal deviance and (ii) organizational deviance. The response description against each item was obtained on a 5-point Likert-type scale ranging from never (1) to always (5).

3.5 Data collection

Currently, because of the spread of Coronavirus (COVID-19) like other countries, all Ethiopian universities are under lockdown. Therefore, the researcher used teachers who connected with emails and other social media. The questionnaire developed on the Google doc was sent to respondents on different social media and email.

3.6 Data analysis

After the data were collected by the researcher for analysis purpose, the researcher applied Statistical Package for Social Sciences (SPSS). Statistical Package for Social Sciences (SPSS) were used for preliminary data analysis such as descriptive statistics and reliability test. In addition, correlation and regression were used to test the relationship among the variables of the study.

4.0 Analysis and Interpretation

4.1 Demographic characteristics of respondents

Data were gathered by sending a questionnaire to teachers teaching at Hawassa University, Ethiopia. Questionnaires were sent to many teachers via different social media and email and only 96 of them responded appropriately. For some of the non-responses, the respondents' reason given was that they are at home with poor internet connection and cannot open the google drive questionnaire. Other respondents either could not see the questionnaire or found difficulty in opening the file because of poor internet connection as the others said. Of the 99 respondents, 78% are male and 22% are female. 54 % of respondents are in the age group 31-40, 22% of them in the 41-45 age group, 12% of the teachers are aged below 30 and 10% above 45. As many as 42% of the teachers are not married and 58% of them are married. They also ranged in teaching experience as 46% of the teachers have an experience of 10-12 years, 20% more than 12 years and the rest below 10 years of teaching experience.

4.2 Reliability analysis

Reliability is an indicator of a measure's internal consistency. Consistency is the key to understanding reliability. A measure is reliable when different attempts at measuring something converge on the same result. The coefficient alpha (α) is the most commonly applied estimate of a multiple-item scale's reliability. Coefficient alpha ranges in value from 0, meaning no consistency, to 1, meaning complete consistency (all items yield corresponding values). Scales with a coefficient between 0.80 and 0.95 are considered to have very good reliability. Scales with a coefficient between 0.70 and 0.80 are considered to have good reliability, and an value between 0.60 and 0.70 indicates fair reliability. When the coefficient is below 0.6, the scale has poor reliability. Most statistical software packages, such as SPSS, will easily compute the coefficient. (Zikmund *et al.,* 2013). The reliability analysis of organizational justice, distributive justice, procedural justice and interactional justice and deviant workplace behavior (towards individuals and the organization) has been calculated through SPSS software and the result is given in Table 1.

Table 1 shows the reliability analysis of each study dimension. The Cronbach Alpha value indicates by how much an instrument is stable. By using Cronbach's alpha, the reliability of an instrument can be calculated. This table shows that distributive justice has a Cronbach's alpha of 79.5%, procedural justice has 76.7% and interactional justice has 93.4%. These are the three dimensions of organizational justice, which is the independent variable. Deviant workplace behavior toward

individuals has a Cronbach's alpha of 80.2% and deviant workplace behavior toward organizations has 87.5%. These are the dependent variables, and the overall reliability is 0.796.

Table 1: Reliability Analysis

Dimensions	No. of Items	Cronbach Alpha
Distributive justice	5	0.795
Procedural justice	5	0.767
Interactional justice	5	0.934
Deviant workplace behavior toward individuals	8	0.802
Deviant workplace behavior toward organizations	8	0.875
Overall reliability	31	0.796

Source: Computed from collected data, 2020

4.3 Status of justice perception and deviant workplace behavior

One of this research's objectives was to find out the status of perceived justice and deviant workplace behavior in the case of Hawassa University teachers. To achieve this objective, the researcher applies descriptive statistics, particularly mean and standard deviations. The mean and standard deviation of the status of each dimension in the study area are depicted as follows.

Table 2: Descriptive Statistics of the Status of Both Justice Perception and DWB

Dimensions	N	Mean	Std. Deviation
Distributive justice	96	2.90	.708
Procedural justice	96	2.41	.529
Interactional justice	96	2.53	.783
DWB toward individuals	96	2.70	.482
DWB toward organizations	96	2.91	.608
Overall justice perception	96	2.59	.520
Overall deviant workplace behavior	96	2.81	.472

Source: Computed from collected data, 2020

The descriptive Table 2 shows the status of both Hawassa University teachers' justice perception and deviant workplace behavior. Accordingly, in terms of justice perception, teachers indicate that they perceive a good situation of distributive justice with a mean value of 2.90 followed by interactional justice with a mean value of 2.53. Procedural justice occupies the least according to the respondents' response with a

mean value of 2.41. Overall justice perception is a mean value of 2.59, which is lower than overall deviant workplace behavior, which is 2.81. The deviant workplace behaviors directed towards the organization (DWBO) and towards individuals' (DWBI) mean scores were 2.91 and 2.70 respectively. It can be seen from the table, that deviant workplace behavior directed towards an organization (DWBO) is more prevalent as compared to deviant workplace behavior directed towards people (individuals) in the workplace. Deviant workplace behavior directed towards the organization means that the target of the deviant workplace behavior is the organization and not the individuals. It means that teachers in the university are found to indulge more in those deviant workplace behaviors that aim to harm the university rather than harming the other teachers or co-workers. Thus, teachers reported behaviors that directly interfere with the work being performed at the university and affect the performance of the organization and its growth. They might indulge in sabotaging equipment, stealing from organization property, lying about the hours worked, and so on. Clearly, these acts bring direct costs for the university in having to replace the stolen or damaged equipment and thereby hampering productivity because work cannot be done until replacement equipment arrives. Hence, the first objectives of the study, to identify the overall status justice perception and deviant workplace behavior among teachers working at Hawassa University, Ethiopia were achieved through descriptive data analysis. Results reveal that deviant workplace behaviors are quite prevalent among teachers at the university and that too up to a high extent. Using the internet in the workplace and withdrawal behavior incidences are high as compared to other organizational-oriented deviant behavior. Again, deviant workplace behavior directed towards the organization is more prevalent as compared to the deviant workplace behavior directed towards other individuals working at the university. Thus, deviant behaviors like lying about hours worked, neglecting to follow the boss's instructions, calling sick when they were not, using the internet for personal reasons during work hours and covering up mistakes are found to be quite prevalent in the organizations thereby calling university management for an immediate action.

4.4 Correlation analysis

The other objective of this paper is to determine the relationship between deviant workplace behavior and perceived organizational justice. For this purpose, Pearson correlation coefficients were computed amongst all study variables. To accomplish this, the researcher applied correlation analysis with the help of SPSS. The Pearson correlation coefficient can take values from -1 to +1. A value of +1 show that the variables are perfectly linear-related by an increasing relationship, a value of -1

show that the variables are perfectly-linear related by a decreasing relationship, and a value of 0 shows that the variables are not linear-related by each other. It is considered a strong correlation if the correlation coefficient is greater than 0.8 and a weak correlation if the correlation coefficient is less than 0.5 (Karl Pearson, 1936).

Table 3: Correlation Coefficient of Study Variables

		DJ	PJ	IJ	DWBI	DWBO	Over all OJ	Over all DWB
DJ	Correlation	1						
	Sig.							
PJ	Correlation	.148	1					
	Sig.	.149						
IJ	Correlation	.318	.602	1				
	Sig.	.002	.000					
DWBI	Correlation	.006	-.062	-.085	1			
	Sig.	.955	.546	.409				
DWBO	Correlation	-.128	-.309	-.259	.489	1		
	Sig.	.215	002	.011	.000			
Over all OJ	Correlation	.598	.741	.898	-.069	-.202	1	
	Sig.	.000	000	.000	.503	.048		
Over all DWB	Correlation	-.086	-.230	-.211	.826	895	-.165	1
	Sig.	004	024	.039	.000	.000	.108	

Correlation is significant at the 0.05 level (2-tailed)

Note: *DI= Distributive Justice, PJ= Procedural Justice, IJ= Interactional Justice, DWBI= Deviant Workplace Behavior toward Individual, DWBO= Deviant Workplace Behavior toward Organization, OJ= Organizational Justice and DWB= Deviant workplace behavior.*

The relationship was examined by applying the correlation analysis technique between overall organizational justice perception and overall deviant workplace behavior variables. The results in Table 3 show that there is a significant and negative correlation between overall deviant workplace behavior and overall organizational justice perception (r = -.165). This result indicated that the higher the organizational justice perception by the university teacher, the lower is the tendency for them to get involved in deviant workplace behavior or vice versa. Although the strength of the relationship is small, but still, it is reflecting a negative relationship as expected. Overall organizational justice perception and deviant workplace behavior dimensions

(DWBI & DWBO) have negatively correlated with a correlation value of (r = -.069 and r = -.202). Deviant workplace behavior toward the organization (DWBO) has relatively the highest negative correlation with other justice variables (r = -.309), with procedural justice, followed by interactional justice (r = -.259), and distributive justice (r =- .128).

It means that a positive change in the organizational justice perception induces a negative change in DWBO among university teachers. Also, deviant workplace behavior directed towards organizations tends to correlate more negatively with overall organizational justice perception (.202) as compared to deviant workplace behavior directed towards other individuals (r = -.069). These results depicted a negative change or decrease.

Organizational justice induces a higher negative change in deviant workplace behavior directed towards organizations as compared to deviant workplace behavior directed towards other employees at the university. All the three dimensions of organizational justice perception (DJ=Distributive justice, PJ=Procedural justice and IJ= Interactional justice) were significantly and negatively correlated with overall deviant workplace behavior. The strength of the relationship of the dimensions of perceived organizational justice with overall deviant workplace behavior decreases from procedural justice (r = -.230) to interactional justice (r =-.211) and distributive justice (r = .086).

This mean overall deviant workplace behavior has a high negative correlation with procedural justice, interactional justice and with distributive justice, respectively. The above table also shows the negative correlation between the perceived organizational justice dimensions and deviant workplace behavior dimensions. Results revealed that among organizational justice dimensions, procedural justice (PJ) was most strongly and negatively correlated with deviant workplace behavior toward the organization (DWBO) (r =-.309) followed by deviant workplace behavior toward the individual (DWBI) (r = -.062). It was strongly related with DWBO as compared to DWBI.

This result reveals that university teachers' propensity to engage in deviant workplace behaviors (like DWBO and DWBI) decreases with an increase in their ability to strike a balance between organizational justices. This shows that an increase in inter teacher perception leads to a decrease in deviant workplace behavior, which directly targets the organizations. Interactional justice (IJ) also negatively correlated with DWBO (r = -.259) followed by DWBI (r =- .085). It is strongly related with DWBO in comparison to DWBI. However, the distributive justice (DJ) dimension was a minor correlation with either DWBO or DWBI.

4.5 Regression analysis

Regression analysis is concerned with the study of the dependence of one variable, the dependent variable, on one or more other variables, the explanatory or independent variables, with a view to estimating and/or predicting the (population) mean or average value of the former in terms of the known or fixed (in repeated sampling) values of the latter (Gujarati, 2003). Whenever the researchers seek to find the impact of one or more variables on other variables, regression analysis was used. In this paper, regression analysis is used to know the impact of organizational justice perception on deviant workplace behavior among university teachers in the case of Hawassa University, Ethiopia. Based on the result, the researcher tests the proposed hypothesis of this study.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.385[a]	.149	.121	.570

a. Predictors: (Constant), Interactional justice, Distributive justice, Procedural justice

The purpose of this table is to show the overall impact of the independent variable on the dependent variable. In other words, the variation in the dependent variable is explained by the independent variable.

That means in this study, the case R Square value shows that 14.9% of the variation on the dependent variable (deviant workplace behavior) is explained by the independent variables (distributive justice, procedural justice and interactional justice).

Table 5 shows how significantly the model explains the dependent and independent variables. Based on that, in the current study, the variables significantly explain each other as indicated by Sig. value (.002). That means the independent variable (distributive justice, procedural justice and interactional justice) significantly explains the dependent variable (deviant workplace behavior).

Table 5: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.221	3	1.740	5.349	.0002[b]
	Residual	29.935	92	.325		
	Total	35.156	95			

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	SE	Beta		
1	(Constant)	3.357	.340		9.862	.000
	Distributive justice	-.112	.087	-.123	2.194	.031
	Procedural justice	-.259	.139	-.226	-1.869	.025
	Interactional justice	-.151	.098	-.194	-1.541	.027

a. Dependent Variable: DWB

Most of the time, researchers use this last regression output table to develop the equation and to test the impact of independent variables on the dependent one. 3.357 is constants which are factors that affect the dependent variable permanently. That means, even if low impact is on the other independent variables, the dependent variable affected by those factor in constantly. Accordingly, in the current study as depicted in the table, the equation and the relationship between each variable are shown as follows.

Equation

Y = 3.357-0.112(X1)-0.259(X2)-0.151(X3)

Where

Y = Dependent variable, in this case, deviant workplace behavior

X1 = Distributive Justice

X2 = Procedural Justice

X3 = Interactional Justice

Distributive justice (X1) and deviance workplace behavior: the Table 6 explains the findings of the regression analysis of distributive justice and workplace deviance, which shows the value of Beta and the P-value. Distributive justice is one of the dimensions of the independent variable and workplace deviance is taken as the dependent variable. The result of the regression analysis of these variables shows the value of -0.112 which shows that the 11.2% variation in dependent variable deviant workplace behavior is due to the independent variable, in this case, distributive justice and the remaining variation due to other factors. Beta of distributive justice and deviant workplace behavior is -0.112. The negative sign shows the fact that a decrease in the independent variable (distributive justice) will increase the dependent deviant workplace behavior variable and vice versa. The P-value for these variables is 0.031< 0.05 which means that there is a significant relationship between interactional justice and workplace deviance. In this way, these results supports the hypothesis (H3) that

states that there exists a negative and significant relation between interactional justice and workplace deviance.

Table 7: Over all Organizational Justice and Deviance Workplace Behaviour

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	SE	Beta		
1	(Constant)	46.958	4.589		10.233	.000
	Distributive justice	-.184	.107	-.179	-1.711	.041

a. Dependent Variable: Overall deviant workplace behavior

Note: R2 value is =0.280

Table 7 shows the model summary of the regression for overall deviant workplace behavior and overall organizational justice. The R square value (coefficient of determination) indicates how much of the total variation in the dependent variable (deviant workplace behaviour) is explained by the independent variable (organizational justice). The R Square value is .280; means 28% of the variation in the dependent variable (overall deviant workplace behaviour) is explained by the independent variable (overall organizational justice variable). From the Table, it is clear that there is a significant relationship between the overall deviant workplace behaviour and overall organizational justice as p=0.41 which is < .05. In addition, the negative sign of the slope indicates that this relationship is negative. In other words, an increase in the overall organizational justice of university teachers positively explains a decrease in overall deviant workplace behavior. Hence, based on that, the researcher can conclude that overall organizational justice negatively and significantly explains overall deviant workplace behavior.

5.0 Discussion

One of the great challenges facing organizations today is to maintain high workplace justice which is one great predictor of employees' deviant workplace behavior. In this respect, the current study aimed to examine the relationship between university teachers' perception of organizational justice and deviant workplace behavior in the case of Hawassa University, Ethiopia. The result indicates that there was a significant negative relationship between organizational justice perception and deviant workplace behavior. These results are in congruence with Mathur and

Padmakumari (2013) who detected that when teachers are treated fairly and valued by their supervisors and organizational management; they exert their maximum efforts to show positive behaviors such as less absenteeism and improvement in work outcomes. In other words, organizational injustice conveys a message to an employee's perception that the organization, superiors and colleagues (Greenberg, 2004) are not treating him or her fairly.

Comparable to this study result, early research on distributive justice shows that inequity in resource allocation is a primary motivation for various types of deviant acts. As mentioned in the result, distributive justice results from situations where individuals form a judgment of an unfair outcome. It is expected that actions taken as the result of an inequity assessment would be directed toward equity restoration (Adams, 1963). The social exchange theory has often been used in research on organizational behavior to explain the relationship between employees' perceptions and behavioral reactions (Robinson & Rousseau, 1994; Rousseau, 1995). This theory proposes that the parties in any given relationship seek balance and fairness in it. Employees who feel that they have been mistreated by the organization are likely to intensify their negative perceptions of it (Kickul, 2001) and may look for ways to retrieve the benefits they feel entitled to, in order to protect themselves from future mistreatment (Turnley *et al.,* 2004). Therefore, the result of this study also reveals that distributive justice should have implications for deviant workplace behavioral reactions.

The result of this study indicates the negative relationship between procedural justice and deviant workplace behaviors. The empirical findings of the study also supported these findings. When an employee perceives that the policies and procedures of an organization are unfair, they are more likely involved in deviant acts. These findings are in line with the findings of (Park *et al.*, 2015) and (Wu *et al.*, 2017). Like other study findings, therefore, the issue of procedural injustice is noticeable among university teachers at Hawassa University, Ethiopia. Furthermore, as depicted by (Eder & Eisenberger, 2008) these negative behaviors affect not only the performance of individual employees but also deteriorate the performance of the organization as a whole. Employees, while having the intention of revenge in the case of procedural injustice, will have no concern with the achievement of individual and organizational objectives. Therefore, it will certainly lead to poor performance and failure of the organization. In light of these, some scholars suggest that actions taken in response to procedural injustice should be intended toward organization-focused outcomes such as low organizational commitment and physical property destruction (Aquino *et al.,* 1999).

Among others, one of the findings of this study indicates an inverse relationship between interactional justice and deviant workplace behavior. According to Bies & Moag (1986), interactional justice refers to the quality of interpersonal treatment that employees experience when procedures are enacted. More specifically, Colquitt (2001) defined it as the extent to which employees perceive that they are treated with dignity in their interpersonal interactions, such as spoken to politely, without improper remarks or prejudicial statements. From the social exchange perspective, interactional justice, which generally reflects the quality of the exchange between the individual and his/her supervisor, has been found to be strongly and consistently associated with deviant workplace behavior (Baron *et al.*, 1999; Dupré & Barling, 2001). In addition, Jones (2009) found that interactional injustice from authority was significantly related to supervisor-directed revenge. When employees experience interactional injustice, they will be motivated to resolve this injustice.

Generally, previous research has shown that organizational justice perception explains the negative relation with deviant workplace behavior. A related study carried out by Skarlicki & Folger (1997) gives further support to the present research. Surveying manufacturing employees, his findings revealed that employees' feelings of less fairness in their jobs (distributive justice), less fairness in allocation policies (procedural justice) and less fair interpersonal treatment (interactional justice) were found to report more engagement in deviant workplace behaviors. The findings of this research are also in contention with the research done by (Ambrose *et al.,* 2002). Moreover, substantiated by the work of Ferris *et al.,* (2012), the present finding gets further support. Suggesting that perception of injustice can lower self-esteem, which leads to deviant behaviour. Support for the present research can also be found in the study done by Ahmadi *et al.,* (2011). They found that distributive justice and interactional justice had a negative relationship with cyberloafing, a form of organizational deviance.

6.0 Conclusion

Considering the importance of teaching staff in universities, this research is investigating the effect of organizational justice perception on university teachers' deviant workplace behavior in the case of Hawassa University, Ethiopia. To achieve this study objective, the researcher developed an online questionnaire with the help of Google drive, since most of the respondents are out of the workplace at this time because of the worldwide transmitted pandemic virus Corona (COVID-19). Organizational justice has three dimensions namely distributive justice, procedural

justice and interactional justice, used as an independent variable of this study. In this study, the focus was on deviant workplace behavior toward individual and organization dimensions. All the variables' reliability is checked through Cronbach Alpha and all the variables are reliable.

Descriptive statistics show that the status of justice (procedural justice, interactional justice and distributive) is very low at the university, while a relatively high level of deviant workplace behavior is observed. Deviant workplace behavior directed towards the organization (organizational deviance) is more prevalent as compared to the deviant workplace behavior directed towards people (individual deviance) at the university. This means that teachers found to indulge more in those deviant workplace behaviors aim to harm the organizations rather than harming the other teachers or co-workers. Thus, teachers reported behaviors that directly interfere with the work being performed in the organization and affect the performance of the university and its growth, for example leaving early, using the organization's internet in the workplace, calling in sick when they are well and so on. They might involve in sabotaging equipment, stealing from the organization's property, lying about the hours worked and so on. Clearly, these acts bring direct costs to the university.

From the correlation analysis, it is discovered that distributive justice, procedural justice and interactional justice are negatively correlated with deviant workplace behavior. The correlation analysis just shows the positive and negative association among other variables. A high negative correlation was found between procedural justice and the deviant workplace behavior of teachers followed by interactional justice and deviant workplace behavior. A relatively low correlation was found between distributive justice and deviant workplace behavior. Based on that, the overall justice perception variable is negatively correlated with overall deviant workplace behavior.

The regression analysis is conducted to investigate the impact of one variable. In this case, the organizational justice perception of university teachers on other deviant workplace behavior. From the regression analysis, it is found that procedural justice has a highly negatively impact on deviant workplace behavior. Similarly, interactional justice negatively affects the workplace deviance of Hawassa University teachers and this relationship is also significant. Although the negative effect of distributive justice is found in the deviant workplace behaviors of teachers. Moreover, the impact of procedural justice and interactional justice is maximum on deviant workplace behaviors of teachers. Therefore, from the data analysis, it can be concluded that overall, organizational justice does have a significant and negative impact on the deviant workplace behavior of the teachers in Hawassa University, Ethiopia.

7.0 Suggestion and Further Research

Based on the finding of the study and conclusion addressed, the researcher provides the following suggestions in order to enhance organizational justice and to minimize deviant workplace behavior. In order to attain distributive justice, distribute rewards equitably; do not allow reward programs to be disputed. Teachers should receive organizational outputs like promotions, salary increments, training and development opportunities, incentives and others based on fairness rather than other subjective measures. In other words, the university management should attain distributive justice by maintaining the balance between what the teacher provides and what their outcome should be. In this way, Hawassa University managers can minimize deviant workplace behavior.

The management must follow the organization's policies and procedures in all respects to attain procedural justice if they are serious about the achievement of organizational goals. Therefore, a positive perception will be developed in the minds of university teachers, that their organization cares about their wellbeing, which may further lead to hard work, high commitments, motivation and reduced deviant workplace behavior. Moreover, employees will not only perform according to standards but will perform creatively and will certainly move beyond the set standards. In order to enhance procedural justice, whenever the university can, allow teachers to be heard in processes. The manager should make sure that the procedures are unbiased and as valid as possible. In addition, Hawassa University managers should make sure that the procedures allow for corrections if errors occur. In order to maximize interactional justice, Hawassa University managers should be be respectful of other teachers' dignity, and be sure to have "face time" with them. Communicate that incivility will not be tolerated. For any decision, if possible, announce the reason why a decision was made.

Despite maintaining organizational justice, the findings regarding the incidence of deviant workplace behaviors could possibly motivate organizations, specifically the human resource departments and recruitment agencies, to utilize measures to reduce deviant workplace behavior. Conducting frequent background checks while hiring teachers assumes that somebody who has been antisocial in the past will act in the same way in the future. The more the organizations conduct business in an ethical manner, the more positive that impact will be on the future of the country's economy. The more ethical the teachers in the university context, the less will be the incidences of deviant workplace behaviors to achieve a fast developing

economy. Therefore, in the university context, appropriate HR policies and practices could be a mechanism in the development of a formal program to promote, communicate, and align just and fair activities with the support of the university to reduce deviate workplace behavior.

Finally, this study implies that there is a further need to explore the relationship of organizational justice perception on deviant workplace behavior. If the study is conducted on universities throughout the country instead of one specific university then the results might be more impactful. In this study, the researcher applies only online questionnaires for data collection because of the difficulty to get people personally as a result of this current worldwide contagion COVID-19 but for future researchers when conditions become smooth to talk with people by eliminating "social distance issues," interviewing and observations are an important method to get appropriate data. The relationship between organizational justice perception and deviant workplace behavior is negative proved in this study so it implies that universities' management should take proper measures to maintain organizational justice in the teaching environment so that teachers can perform their jobs in a fair environment, which in return, might improve the overall performance of the university by reducing deviant workplace behavior.

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Microfinance Landscape: Technology Disruption & Challenges in adoption

Nidhi Nalwaya and Ajay Trivedi***

ABSTRACT

The advent of digital technologies in the progression of a digitally literate population and an enabled microfinance sector in India in the last few years for the customary microfinance institution (MFI) borrowers has been set in motion by the internet revolution and the evolution into a more tech savvy, social media-friendly community has been propelled by growth in mobile penetration across rural markets as the advancement towards experience-driven customer continues. India's rural consumption saga has become a highly pursued-after strategic priority for both developmental institutions and banking and financial services companies equally. Many companies whether Indian or multinational have started initiatives to empower millions of women focusing on rural areas and last-mile connectivity or a technology-enabled distribution platform's enterprise to empower rural retailers so as to remove dependency on wholesale channels and provide financial assistance using digital channels are some examples in this direction. MFIs also have now begun to adapt to new technology trends for faster loan origination, efficient customer service and flexible loan requirements using alternate channels. The drive towards realizing a digital economy was further propelled by the governments' Digital India program. The shift from the traditional banking system to a digital model was aided by Aadhaar, which provided a supporting ecosystem for enabling technology players to launch electronic 'know your customer' (e-KYC) and authentication services. This conceptual paper shares insights on Future roadmap & challenges faced by MFI in adoption of Technology in India.

Keywords: *Microfinance, MFI, Fin-tech, Digitization, Digital Finance Services*

1.0 Introduction

1.1 Global outlook of the MFI sector

Globally, the microfinance sector has advanced rapidly over the past few decades since its inventor Mohammed Yunus, associated with Grameen Bank, set the base for modern-day concepts of micro financing. The concerted efforts taken by global bodies like the World Bank, United Nations and several governments across

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the world to alleviate poverty and provide affordable credit to the financially excluded has led to growth of the microfinance sector.

The World Bank Group is committed to increasing the access to finance for the world's poor. Through International Finance Corporation (IFC), its sister organization, the group has invested over USD320 million in debt and equity in fin-tech companies around the globe1,The UN Capital Development Fund (UNCDF) offers last mile finance models through innovative financing solutions for financial inclusion . Various governments and their central banks have set the required framework to support the digital revolution presented by fin-tech innovations.

For instance, Tunisia has passed a Start-up Act to boost growth innovative entrepreneurship in the technology sector development of regulatory sandboxes, in countries such as Nigeria, Kenya and Mauritius and in Europe, the revised Payment Services Directive (PSD2) has made open banking Application Program Interfaces (APIs) a norm for facilitating access to account information through APIs. Increasing internet and mobile coverage across the world since the late 2000s has also enabled the development of financial technologies that have spurred the microfinance sector. Since 2014, the mobile coverage gap has reduced to 10 per cent of the global population and with mobile technology and data science on the growth path the world is getting interconnected by the second.

2.0 Objectives of the Study

The objectives of this conceptual study focus on the impact of technology utilization in the Microfinance Sector in India.

- To comprehend the role of technology and digital systems in the MFI Sector.
- To garner an understanding of the benefits and constraints in the technical implementation and adoption of DFS in the MFI Sector in India.

The concept of Innovation is regularly a prospect even for MFIs towards risk mitigation, even though it involves some potential unwanted side effects. While the effect of risk factors on MF continues to be an under investigated field, it is always a case that money intermediation is inherently a risky business, Technology (ie M-banking, mobile payments, PDA…), cutting through complexity, de-atomizes the business model, making it rigorous and more robust to external shocks, albeit requiring initial investments on both sides, concerning not only MFIs but also increasingly sophisticated clients. Technology stands out as a big disrupting factor, which segments haves from haves not, so creating a market barrier among different MFIs.

3.0 India Outlook

The adoption of Technology has been a primary facet of the Indian microfinance sector starting from the new millennium. Some NGOs like Pradan initiated pilot project namely Computer Munshi (CM) to improve the book-keeping quality of microfinance collectives or for that matter e-Gama, a pilot program of setting up village information centres certainly prove that technology adoption has been on the schedule of the MFI sector. Management Information Systems (MIS), Loan Management Systems (LMS) and Customer relationship management (CRM) software are the key forms of software adopted by MFIs since the start of the new millennium. The banking correspondent evolution and the Rangarajan committee report in 2008 suggested the need for leveraging technology-based solutions for financial inclusion. It formed the basis for formation of a Financial Inclusion Technology Fund (FITF) for investing in information and communication technology. However, the big push for MFIs to invest in technology came when the RBI allowed NBFCs to become Banking Correspondents (BCs) for commercial banks in 2016.

MFIs which had access to technology were able to take advantage of this regulatory intervention and make head way in the market thereby creating competition and ensuring that more MFIs were investing in technology. Another major push came with the telecom revolution that resulted in mobile penetration to the depths of the country. The other catalyst of technology advancement in MFIs was the Govt of India promoting growth of financial technology through the JanDhan, Aadhaar-Mobile (JAM) trinity, which comprises the paperless, cashless and approval layers allowing lenders to unbundle their services and rollout products in collaboration with financial technology companies to create products and value for different customer needs.

The government led initiatives in the country have proved a major boost to the digital push in the banking and financial sectors, a few of the same are as below:

- **Aadhaar card authentication**: The Aadhar authentication APIs for customer identification offer a solution for the borrower which does not need the personal presence of the borrower to prove his/her identity and thereby the microfinance lender can authenticate the customer's identity in real time
- **E-KYC:** digitizes the KYC process through a paperless solution allowing the MFI to authenticate the identity of the customer in real time and electronically reduce the turnaround time to loan approval and disbursal
- **E-signatures**: offer convenience to the customer by allowing the applicant to legally sign a form/ document anytime, anywhere electronically resulting in improved efficiency

- **Unified Payment Interface (UPI)**: Aadhaar-Enabled Payment System (AEPS) and Aadhar Payment Bridge System (APBS) provide the cashless layer for direct disbursement and repayment of loans to the customer's account reducing leaks and fraudulent activities
- **Digi Locker**: is a dedicated cloud storage linked to the customer's Aadhaar number allowing for digital issuance and verification of documents.

In the present times technology is truly the most potent transmittable tool within an interconnected world, even while subject to extraordinary and more often than not awe-inspiring movement of capital, merchandises, people and their know-how, a universality which denotes the software, Information and communication technologies (ICT) are substantial drivers in the fast growing microfinance industry. MFIs provide financial services to the poor, which are unbanked, in order to eradicate poverty and to promote economic development in developing nations. As the industry matures, MFIs face an increasingly competitive environment that forces them to balance the dual goals of sustainability and outreach.

The Digital financial services (DFS) which are providing digital access to and use of financial services by the BFSI customers are a boon to the excluded and underserved populaces. Therefore, these services must be suited to the customers' requirements and also delivered with responsibility so that the cost is both affordable to the customers and justifiable for the providers.

The three key components of DFS are as under:

- A digital transaction platform
- Retail agents
- The usage by customers and agents of a digital connected device like a mobile phone so as to transact using the digital platform.

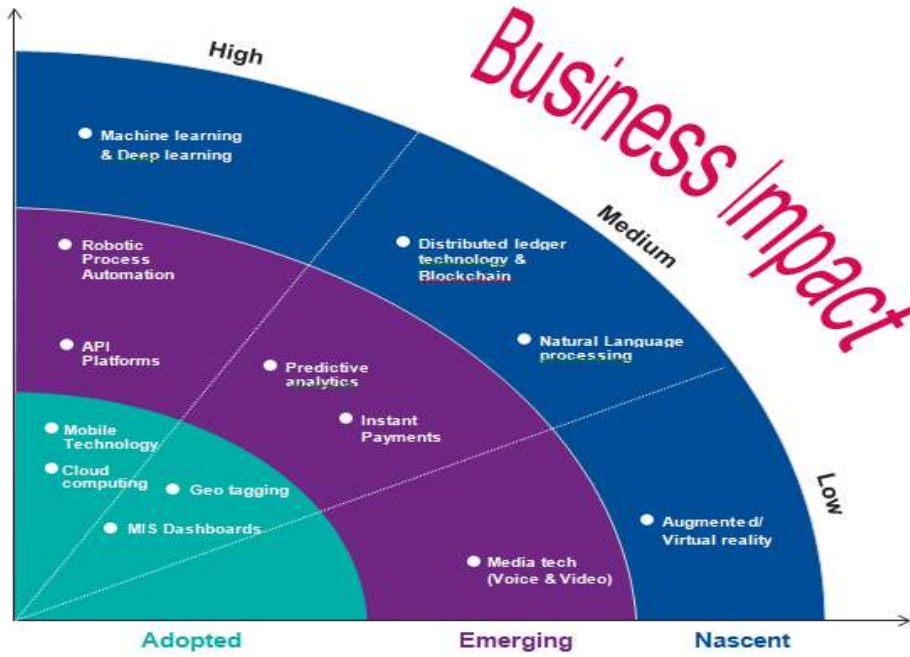
4.0 Disruptive Technology in Microfinance

The emergence of DFS provides an exceptional opportunity for the MFIs to develop better service delivery, improve transparency and accountability, enhance operational efficiencies and lead to lesser costs of operation. Delivering financial services by using technological innovations, inclusive of mobile money, shall be a catalyst for the provision and use of a varied set of other financial services by the MFIs. The part of the population which is presently excluded can thereby relish expanded access to money transfer, micro-savings, and micro-insurance services.

For the micro-entrepreneurs, the adoption of DFS by the MFIs, along with providing efficient access to finance, can open up opportunities to adopt electronic

payment systems, secure a varied menu of financial products and a chance to build a financial history. Innovations in electronic payment technology like mobile and prepaid services will enable the MFI members to lead more secure, empowered and included lives.

Figure 1: Disruptive Technology in Microfinance



Source: *home.kpmg/in*

The benefits of technology implementation by the MFIs are countless such as:

- The MFI members can be empowered through access to digital financial services in many ways. The growth in quantum of different financial services generally expands over time as the customers gain familiarity with and trust in the digital transactional platform.
- Normally, lower costs of digital transactional platforms, both to the MFIs and the customers; permit the customers to transact locally in consistent and small amounts, thereby assisting them to manage their irregular income and expenses.
- Additional financial services fashioned as per the requirement of the members' needs and financial circumstances are conceivable for the MFIs using the payment, transfer, and value storage services rooted in the digital transaction platform itself and the data generated within it.

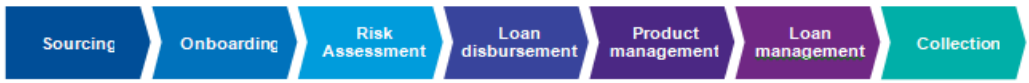
- The MFIs can gain reduced risks of loss, theft, and other financial crimes posed by cash-based transactions as well as reduced costs relative to transactions in cash.
- Digital transformation will lead to the promotion of economic empowerment by assisting asset accumulation for the womenfolk and will thus result in increasing their economic participation and welfare.

Apparently, there could also be diverse risks that the MFIs may encounter due to digital transformation, such as novelty risks for the members resulting from their lack of awareness about digital products and services, thus the creation of susceptibility to exploitation and abuse, also, agent-related risks due to the offering of services by the fresh entrants which may not be regulated according to consumer protection provisions and the far-reaching digital technology-related risks which can lead to disrupted service and loss of data, inclusive of payment instructions in addition to the risk of privacy or security breach as a result of digital transmission and storage of data. Yet, customer uptake of digital financial services in different markets puts forward that on balance, these risks do not offset the benefits of being financially included, specifically due to the existence of appropriate regulation and supervision.

5.0 Fin-tech in the Microfinance Lending Value Chain

Microfinance companies are putting to use and updating themselves to novel technologies and solutions for enhanced client outreach, decision-making and operations. Technology is nowadays transforming the way financial services are delivered and these disruptions are having an effect on the technology backdrop of the microfinance sector.

Figure 2: Microfinance Lending Value Chain



Source: *www.oecd.org/competition*

6.0 The Challenges in Technology Implementation and Adoption for MFIs

1. **Digital Adoption:** The trials faced by MFIs are exceptional as they frequently have to deal with employees and business correspondent partners who have limited and minimal formal education and financial literacy. This inadequate understanding of the banking infrastructure and digital services available leads to restricted adoption in the ecosystem. When the ecosystem continues to be cash based, even the customers who receive loans disbursed directly into their bank accounts end up withdrawing these amounts to expend in cash. Since customers

fail to see any worth in holding their money in digital format, the loan repayments are thus made in cash.

The expenses of motivating the adoption of digital by any MFI include:

- Direct transaction linked costs like e-KYC and mandate associated (setting/default) charges etc.
- Indirect costs which are imperceptible kike the costs for educating employees, educating customers and promotional activities for digital channels

2. **The Human Touch:** The microfinance sector has always been characterized by its high-touch delivery model. With technology making inroads into the sector, there are mixed responses on how the customer service equations are changing. The field agents or the on-ground employees are the most significant interactive channels for the target segment of the MFIs in order to comprehend the financial options that the MFIs provide. Consequently, any technology implementation must be about upholding the customer connect as well as using the resources of the company in the most optimal way.

Similarly the repayment challenge as regards Big data, the ML generated algorithms based on different sources of data fail to take into consideration some human assessment aspects that the field agents are capable of. Consequently it is demonstrated that much of the algorithm-based lending runs a risk of higher default rates. While the Self-Help Group (SHG) or Joint Lending Group (JLG) structures ensure that there are group guarantees providing the peer pressure to repay the loan and the center meetings reinforce the repayment habit, MFIs have to take a multipronged approach for finding an answer to this conundrum. In this scenario of the human touch decreasing it is essential to ensure that the loan is employed productively and with responsibility, inter alia having a trickle-down effect on the repayment rate. Continuing high customer interaction through the imparting of entrepreneurship training which is aimed at developing financial skills and market orientation delivers the push to the borrowers for putting to use the loan money to productive use and responsibly develop their businesses.

3. **Digital Talent Gap:** While digital adoption rates and internet connectivity across the country see an incremental steadiness, there is a lack of talent which can adapt to the up-to-date and latest digital interventions in value chain. This is mostly due to the fact that the geographic concentration of NBFC-MFIs are mainly the rural and semi-urban regions and the staff requirements are directly recruited from the locally existing pool of applicants and where significant digital skill gaps prevail. According to a latest report, only 19.3% of the rural population in the age group of 14-29 was able to operate a computer as compared to 52.9% in urban areas.

4. **Technology Partnership:** There are still many parts of the country that lack adequate infrastructure. As per a World Bank report, roughly around 30 per cent of villages do not still have access to all-weather roads and during the monsoon season these areas are cut off , most of the north-eastern regions of India are also not fully linked and face issues pertaining to electricity, internet and payment infrastructure.
5. **Regulations:** As regards Data Security many concerns have been voiced related to the lack of specific IT guidelines, that are inclusive of business continuity, data protection and security and cyber security, especially for MFIs this would mean a breach in security which consequently may lead to MFI customer's lack of confidence in sharing personal data with lenders.
6. The Personal Data Protection Bill may resolve some of the concerns voiced and the MFIs will be required to comply and upgrade their IT infrastructure accordingly. Fin-tech companies, too, will be required to make their solutions compliant with the bill in order to be relevant and competitive in the market. Challenges for provisioning a consent-based framework for the protection of personal information like "right to be forgotten", ensuring a secure and encrypted database for storing personal data and the format of the consent will require significant design and implementation work.

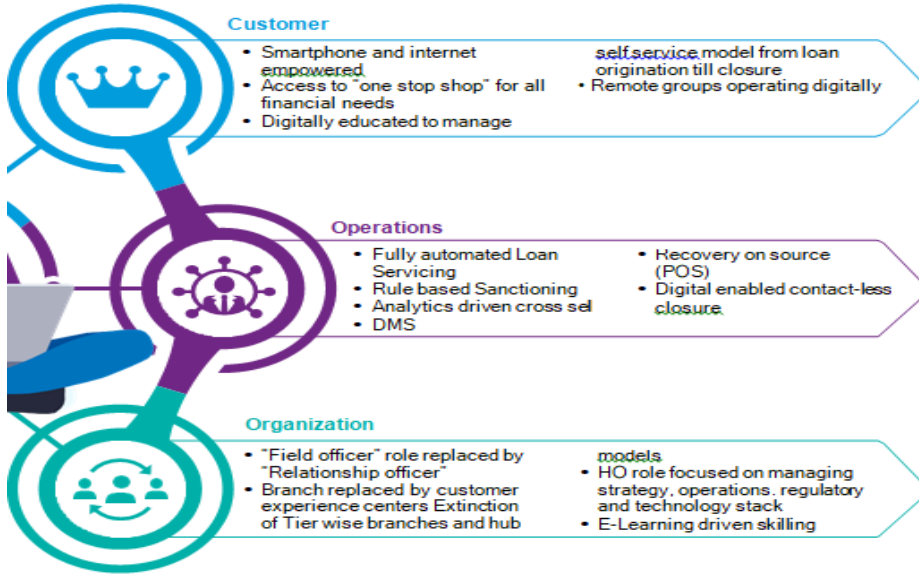
7.0 Microfinance Institutions – The Roadmap Ahead

The ongoing increase in literacy and penetration of cell phones amongst the poor and rural regions also will increase the customer's exposure and their expectations from microfinance institutes shall also change. Like an expectation for personalized solutions delivered through automated analytics, Machine Learning and Artificial Intelligence that are directly connected to their life or business events. Unrelenting digitization could be erroneously perceived as diminishing human connection. The successful players can deliver competitively priced and high-quality solutions through intuitive and user friendly platforms. Furthermore, as innovations reduce the cost to serve, many new entrants are expected to raise the competition in the microfinance sector.

Improved and incremental adoption of digital solutions all across the value chain shall aid the MFI companies to increase the overall productivity and efficiency in operations. Manpower expenditure is a major spend category for MFI companies. In the last few years the MFIs in the country have fashioned their distinctive space as vital intermediaries with a substantial value proposition to their client base and

providing a host of financial products even in the remotest areas by use of their extensive network and infrastructure. The MFIs have also gained experience in providing financial services to low income and rural populations and have gained in critical areas of performance, such as ready access to an established client base, experience in cash management, established internal audit and monitoring systems, experienced field staff and local branches, client discernments for new product development, and experience in client relationship management.

Figure 3: Microfinance Institutions Roadmap



Source: *SIDBI Microfinance pulse report*

Despite significant positive achievements, the challenge for the MFIs is their high transaction costs--large volume of resources traditionally needed to support large number of small transactions resulting in high costs with low returns per transaction as a unique feature of their operations. For disabling this challenge, the adoption of digital technology is the foremost enabler which has proven its potency, it is scalable, secure and cost-effective, and going forward it should be sustainable also. Financial institutions cannot compete with each and every fin-tech opportunity simultaneously, so a protocol of prioritization about the significant to the trivial is necessarily critical for all the MFIs which are looking for the most value out of their investments and activities. It would include evaluating multiple factors, such as the MFI's future roadmap in terms of product mix, target customer segment, organizational capabilities

and target book size, and align with specific initiatives that might not be big today but will be a significant focus area in the future.

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The Role of Community Participation in Local Economic Development: The Case of Bensa Woreda, Ethiopia

*Tesfaye Boke**

ABSTRACT

The objective of the study is to examine the role of community participation in local economic development in the case of Bensa Woreda, Ethiopia. To this end, the researcher used descriptive statistics with a mixed research approach. An enumerator-assisted questionnaire was used to gather data from the sampled households. The qualitative data that were collected through a semi-structured interview were analyzed using narration for triangulation. The result indicated that community participation is vital for development at local, regional and national levels and is accepted as one of the development criteria. In line with technical challenges and problems, there are no trained and devoted community participation professionals at different offices. Therefore, it is recommended that the current program does not empower the community as much as needed and that there has to be a role for stakeholders to ensure that this gap should be filled.

Keywords: *Community Participation; Local Development.*

1.0 Introduction

Local economic development has three important dimensions. First, it is assumed that the community will play an active role in the economic development process and gain access, participation, and ownership of the economic activities in the locality. Second, it is argued that community development strategies and community-building activities can contribute to sustained economic development and vice versa. Third, the field looks for outcomes relating to community building and community development in addition to economic outcomes. In this sense, the community is treated as an input and an output in community economic development (Guzmán & Auspos, 2011).

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Community participation plays a significant role in developmental activities by mobilizing active local participants (Samah & Aref, 2011). Theoretically, entrepreneurship expansion of small and micro enterprises is to be fully owned by the local community. Moreover, the local development works must create employment opportunities for the local community. New businesses must flourish; small, medium and large industries must also emerge from the community's effort for participatory local economic development. However, in African countries, including Ethiopia, the local community's direct involvement in the developmental project is insufficient. Development is inseparably linked with community participation. Without a plurality of actors and approaches, development cannot be realized. However, community members often complain that there is a problem involving the community in decision-making. The works undertaken by the community and the effects of the participatory works are not as visible. It created a gap in participatory development activities and sustainability (OECD, 2010).

Previous researchers such as Dinberu (2014) and Lisanu (2017) studied community participation issues explored in different country areas. However, they did not examine the contribution of community participation in local economic development. Therefore, the current study tried to assess community participation and its contributions to local economic development in the case of Bensa Woreda, Sidama Regional State, Ethiopia.

2.0 Literature Review

2.1 Participation in local economic development

Participation is not a new concept in development activities. According to Caroline (1987), community participation has been an essential component since the early 1950s. The importance of participation in urban development activities has lagged. One reason may be that rural projects are mainly production-oriented, and it is quite evident that the beneficiaries, as producers, must be involved in the development of production systems. In urban projects, beneficiaries have been seen primarily as consumers of services, and their role in developing supply systems has been accorded less importance. Benefits derive from cost reduction and resource mobilization and better targeting of project measures to peoples' real needs through their involvement in the planning phase. Furthermore, participation enhances the ownership of the facilities by the user community and thus ensures a more extensive and efficient use of facilities, better maintenance, and more reliable operation (Ayman, 2011).

Participation is now widely recognized as a basic operational principle of

development, but the debates around this approach are fervent. Conventionally, the participatory approach is considered a reaction to the shortcomings of top-down development practices, externally imposed and expert-oriented (Chambers, 1983 cited in Nour, 2011). The advantage of these new approaches is that they are centered on the role of the local community as a primary actor that should be allowed and enabled to influence and share the responsibility and possibly, the costs of the development process affecting their lives (Kothari *et al.*, 2001).

2.2 Community participation

The word community is a multidimensional and complex concept that is defined differently by different scholars, in the sociological point of view, community mean a group of people who live in the same place, share an interest, a neighborhood or a common set of circumstance (Macmillan English Dictionary, 2007). The characteristics and behavior of communities differ from one community to another depending on the historical background.

From a political point of view, a community can be defined as a political constituency that has the right to participate in political activities such as electing its leader and making the decision to run its government. In defining community, I decided to choose the meaning as defined by a sociologist.

Therefore, a community is defined as a group of people who share the same characteristics. My focus on community is based on the community in the way it is organized as one element of that group of people.

According to ILO (2010), local economic development is a locally owned, participatory development process undertaken within a given territory or local administrative area in partnership with both public and private stakeholders. The local economic development approach makes use of local resources and competitive advantages to create decent employment and economic growth. Although primarily an economic strategy, local economic development simultaneously pursues social goals of poverty reduction and social inclusion. Its design and implementation structures create space for dialogue between different groups within the community and enable them to actively participate in the decision-making process. Target groups at various levels are involved, such as local government authorities, employers' organizations, trade unions, the local business community, and other social partners, such as indigenous peoples' associations, or civil society organizations representing women and youth.

Nel (2001) argues that local economic development, internationally, has emerged as a result of the increasing decentralization of power and decision-making to

the local level which came as the result of the neo-liberal era which strived for a reduction in the role of the central state in the economy. Local economic development has also emerged due to economic changes within localities, varying from de-industrialization to local innovation which requires local leadership initiative, response and direction (Nel, 2001).

According to Morgenrood (2007), the generic definition adopted is appropriate, it is an "approach towards economic development which allows and encourages local people to work together to achieve economic growth and development thereby bringing economic benefits and an improved quality of life for all residents in a local municipal area."

3.0 Research Methodology

The research design employed in this study was descriptive. A descriptive research design aims to accurately and systematically describe a situation or phenomenon. The researcher also used a mixed type of research approach. This approach helped the researcher to collect both quantitative and qualitative data. The qualitative approach involves a subjective assessment of attitudes, opinions, and behavior, whereas the quantitative approach is concerned with generating data in a numeral form (Kothari, 2012). The qualitative data helps triangulate the findings from the quantitative data. This is because it is believed that the weakness of one method is supplemented by the strength of the other (Creswell, 2009).

The sampling frame for the study was a complete list of households in four kebeles. Accordingly, the sample size was determined by using the formula developed by Yamane (1967) as follows:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{4678}{1 + 4678(0.07)^2}$$

$$n \approx 196$$

Where: $\boldsymbol{n}$ = Sample size

$\boldsymbol{N}$ = Total Population

$\boldsymbol{e}$ = Sampling Error

The researcher used probability proportional to the size sampling technique to decide the sample size for each Kebele. Selection of respondents for the survey was selected by employing a systematic random sampling technique.

The study used questionnaires as tools for data collection. The data that was collected through the questionnaire was edited, coded, and entered into the computer using Statistical Package for Social Science (SPSS) Software Version 26. The analysis techniques were performed using descriptive statistics such as frequency, percentage, mean and standard deviation to summarize. Furthermore, inferential statistics like correlation.

4.0 Results and Interpretation

The socio-demographic characteristics of HIP employees including sex, age, educational level and work experience have been analyzed.

Table 1: Background Characteristics of Respondents

Variables	Category	Frequency (n)	Percentage (%)
Sex	Male	180	89.6
	Female	21	10.4
	Total	201	100
Age	25-34	56	27.9
	35-44	118	58.7
	45-54	17	8.5
	55-64	10	5.0
	Total	201	100

***Source**: Own Survey Data, 2022*

Sex refers to the physical and physiological difference between males and females. These characteristics are included in this study to show that the respondents are either male or female. As the results of Table 1 show, 89.6% of respondents in the study area were male, whereas 10.4% of them were males. This indicated that the majority of respondents in the study area were male.

Age is the number of years that is a continuous variable referring to someone who has lived since she/he was born. In connection to age distribution, 58.7% were found in the age category of 35-44 years, and 27.9% of them were in the age category of 25-34 years. The other 8.5% and 5% of sampled respondents were in the age group of 45-54 and 55-64. This indicated that the majority of respondents in the study area rely on 35-44 years old.

Table 2: Social Characteristics of the Respondents

Variables	Category	Frequency (n)	Percentage
Marital Status	Married	178	88.6
	Widowed	23	11.4
	Total	201	100
Education Level	No formal education	22	10.9
	1-8	34	16.9
	9-12	43	21.4
	Certificate/Diploma	29	14.4
	Degree and above	73	36.3
	Total	201	100

***Source**: Own Survey Data, 2022*

Marital status is a person's state of being married or not. As far as marital status is concerned, 88.6% of sampled respondents were married, whereas 11.4% of them were widowed. This implies that the majority of sampled respondents were married. The key informants indicated that marital status is a certain individual commitment to involve in social, economic and environmental issues for both individual and communal benefit. Most of the time, people who are married are likely to be involved in various issues rather than single people who do not always get involved in issues happening in their community. So married people are more responsible and committed to being involved in any activity for their family, community and environment than single persons.

Education is a certain individual level of learning that indicates whether she/he attended formal education. Also, it is the process of receiving or giving systematic instructions, especially at a school or university. Hence, the result of Table 2 shows that 36.3% of sampled respondents have a first degree and above, 21.4% of them attended grades 9-12, 16.9% of them attended grades 1-8, and 14.4% of them attended certificates/diplomas. This indicated that the majority of respondents were at least first-degree holders.

Occupation refers to the respondents' principal work or business, especially as a means of earning, a living; any activity in which a person engaged, possession, settlement, or use of land or property. As the results of Table 3 present, sampled respondents were asked about the main types of occupation they have. Accordingly, 48.8% of sampled respondents replied that their main type of occupation is government employee followed by self-employed (25.4%). The other 12.9% and 5%

are daily laborers and unemployed, respectively. This indicated that the majority of the respondents were government employees which is a dominant economic activity in the study area.

Table 3: Economic Characteristics of Respondents

Variables	Categories	Frequency (n)	Percentage
Occupation	Government employee	98	48.8
	NGO employee	9	4.5
	Self-employee	51	25.4
	Daily laborer	26	12.9
	Unemployed	10	5.0
	Student	7	3.5
	Total	201	100
Income in Birr /month	Below 10000	124	61.7
	10000-20000	63	31.3
	Above 20000	14	7.0
	Total	201	100

***Source**: Own Survey Data, 2022*

It is expected that members with high monthly incomes are more likely to participate in local economic development activities than those with smaller monthly incomes. Thus, regarding sampled respondents' current monthly income, 61.7% of them had a monthly income of below 10,000, 31.3% of them had a monthly income of 10,000-20,000, and 7% of the sampled respondents had a monthly income above 20,000. The result indicated that the majority of sampled respondents had a monthly income below 10,000.

4.2 Status of community participation in local economic development

The results of Table 4 indicated that 60.7% of sampled household heads have a medium community participation level, 31.8% have a low participation level, and 7.5% have a high participation level. The result indicates that the participation level of the community in local economic development is medium.

Regarding the way of participation, 40.8% of sample respondents participated by raising money, 37.3% participate as a workforce, 17.4% of them participate by sharing experiences, and 4.5% participate by supporting materials.

Table 4: Community Participation Level and ways of Participation

Variables	Categories	Frequency (n)	Percentage (%)
Community participation level	Low	64	31.8
	Medium	122	60.7
	High	15	7.5
	Total	201	100
Main way of participation	Raised money	82	40.8
	Sharing experience	35	17.4
	As a workforce	75	37.3
	Supporting material	9	4.5
	Total	201	100

***Source**: Own Survey Data, 2022*

The results of Table 5 indicated that the available type of community programs was presented, among them, 25.9% of them indicated public toilet construction, 28.4% indicated green development, 22.4% of them indicated supporting elders, and 19.9% indicated pure drinking water. Regarding the type of community program, the respondents participate in, 30.3% of them participated in supporting elders, 29.9% of them participated in green development, and 16.9% participated in public toilet construction.

Table 5: Types of Community Programs Available and Community Participation

Variables	Categories	Frequency (n)	Percentage (%)
Types of community programs available in your area	Pure drinking water	40	19.9
	Supporting elders	45	22.4
	Public toilet construction	52	25.9
	Green development	57	28.4
	Others	7	3.5
	Total	201	100
Types of community programs the respondent participates in	Pure drinking water	36	17.9
	Supporting elders	61	30.3
	Public toilet construction	34	16.9
	Green development	60	29.9
	Others	10	5.0
	Total	201	100

***Source**: Own Survey Data, 2022*

4.3 The contribution of community participation in local economic development

Table 6: Perception of Respondents on the Role of Community Participation

S. No.	Statements	SDA		DA		N		A		SA	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1	Community participation helped me to have an awareness	36	17.9	26	12.9	38	18.9	87	43.3	14	7.0
2	Community participation helped me to know the importance of conducting it	7	3.5	25	12.4	47	23.4	78	38.8	44	21.9
3	Community participation helped me to provide new ideas	11	5.5	25	12.4	53	26.4	64	31.8	48	23.9
4	Community participation helped me to have self-reliance	8	4.0	23	11.4	41	20.4	88	43.8	41	20.4
5	Community participation can ensure project responsiveness	12	6.0	27	13.4	35	17.4	89	44.3	38	18.9
6	Community participation assists in breaking the mentality of dependency	13	6.5	23	11.4	36	17.9	93	46.3	36	17.9
7	Community participation can enhance the goal of sustainability	11	5.5	10	5.0	31	15.4	97	48.3	52	25.9

***Source**: Own survey data, 2021*

Concerning item 1, as presented in Table 6, 50.3% of sampled household heads agreed that community participation helped them to have an awareness of the problems and solutions of local economic development, while 30.8% of them disagreed with the idea. The result implies that almost half of the respondents agreed that community participation helped them to have an awareness of the problems and solutions of local economic development.

In line with item 2, the results of Table 6 indicates that 60.7% of sampled household heads agreed that community participation helped them to know the importance of conducting local economic development, while 15.9% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that community participation helped them to know the importance of conducting local economic development.

On the subject of item 3, as presented in Table 6, 55.7% of sampled household heads agreed that community participation helped them to provide new ideas in development plans, while 17.9% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that community participation helped them to provide new ideas for development plans.

With respect to item 4, the results of Table 6 indicate that 64.2% of sampled

household heads agreed that community participation helped them to have confidence in the fairness of the local economic development activities, while 15.4% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that community participation helped them to have self-reliance in the fairness of the local economic development activities.

Regarding item 5, as presented in Table 6, 63.2% of sampled household heads agreed that community participation can ensure project responsiveness to people's needs, while 19.4% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that community participation can ensure project responsiveness to people's needs.

On the subject of item 6, as presented in Table 6, 64.2% of sampled household heads agreed that community participation assists in breaking the mentality of dependency, while 17.9% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that community participation assists in breaking the mentality of dependency.

Regarding item 7, as summarized in Table 6, 74.2% of sampled household heads agreed that community participation can enhance the goal of sustainability, while 10.5% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that community participation can enhance the goal of sustainability.

4.4 Challenges that hinder community participation in local economic development

Concerning item 1, as presented in Table 7, 59.7% of sampled respondents agreed that females were not actively participating in local economic development, while 24.4% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that females were not actively participating in local economic development.

In line with item 2, the results of Table 7 indicate that 62.7% of sampled respondents agreed that young-aged groups of the community were not actively participating in local economic development, while 20.9% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that young-aged groups of the community were not actively participating in local economic development.

On the subject of item 3, as summarized in Table 7, 70.2% of sampled respondents agreed that low-educated community members were not actively participating in local economic development, while 10.5% of them disagreed with the

idea. The result implies that the majority of sampled respondents agreed that low-educated community members were not actively participating in local economic development.

Table 7: Challenges of Community Participation

Item no	Statements	SDA		DA		N		A		SA	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1	Females were not actively participating	2	1.0	47	23.4	32	15.9	97	48.3	23	11.4
2	Young aged groups of the community were not actively participating	1	0.5	41	20.4	33	16.4	100	49.8	26	12.9
3	Low-educated community members were not actively participating	4	2.0	17	8.5	39	19.4	92	45.8	49	24.4
4	Unmarried groups of the community were not actively participating	15	7.5	12	6.0	32	15.9	74	36.8	68	33.8
5	Low-income community members were not actively participating	2	1.0	13	6.5	18	9.0	91	45.3	77	38.3
6	Those community members who had high mobility of living had low participation	54	26.9	70	34.8	22	10.9	34	16.9	21	10.4
7	Those community members who had no savings had low participation	8	4.0	16	8.0	45	22.4	84	41.8	48	23.9
8	Members of the community who were not well informed did not actively participate	2	1.0	44	21.9	29	14.4	100	49.8	26	12.9
9	Local working culture challenged the community to the adoption of new development programs	45	22.4	65	32.3	41	20.4	31	15.4	19	9.5
10	The existence of political intervention hinders the community to participate	2	1.0	8	4.0	17	8.5	76	37.8	98	48.8

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree
Source: *Survey data, 2022*

Regarding item 4, the results of Table 7 indicate that 70.6% of sampled respondents agreed that unmarried groups of the community were not actively participating in local economic development, while 13.5% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that unmarried

groups of the community were not actively participating in local economic development. With respect to item 5, as presented in Table 7, 83.6% of sampled respondents agreed that low-income community members were not actively participating in local economic development, while 7.5% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that low-income community members were not actively participating in local economic development.

In line with item 6, the result of Table 7 indicates that 61.7% of sampled respondents disagreed that those community members who had high mobility of living had low participation on local economic development, while 27.3% of them agreed with the idea. The result implies that the majority of sampled respondents disagreed that those community members who had high mobility of living had low participation in local economic development.

Concerning item 7, as presented in Table 7, 65.7% of sampled respondents agreed that those community members who had no savings had low participation on local economic development, while 12% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that those community members who had no savings had low participation in local economic development.

On the subject of item 8, the result of Table 7 indicates that 62.7% of sampled respondents agreed that members of the community who were not well informed did not actively participate in the local economic development, while 22.9% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that members of the community who were not well informed did not actively participate in the local economic development.

With respect to item 9, as summarized in Table 7, 54.7% of sampled respondents disagreed that the local working culture challenged the community to the adoption of new development programs, while 24.9% of them agreed with the idea. The result implies that the majority of sampled respondents disagreed that the local working culture challenged the community to the adoption of new development programs.

Regarding item 10, the result of Table 7 indicates that 86.6% of sampled respondents agreed that the existence of political intervention hinders the community to participate in local economic development, while 5% of them disagreed with the idea. The result implies that the majority of sampled respondents agreed that the existence of political intervention hinders the community to participate in local economic development.

5.0 Conclusion and Recommendations

Most communities are not active participants in economic development activities. The reason is that there is no awareness creation work from the side of the government and the committees. Hence, the communities did not know that participatory effort toward local economic development will really change and improve life. Therefore, communities are not fully involved in their locality's economic development. Few communities are participating but the majority are not. Especially, the lack of participatory effort in planning the local economic development is damaging the community's initiative to be participating in development programs. Hence, a wide movement of awareness creation must be done. Motivating the community in collective decision-making and image building by the concerned bodies is necessary to attract the communities towards communal development agendas.

The community has not been involved in playing a great role in local economic development projects. Most community members are unaware of the benefits of the participatory development approach. A lack of knowledge in this regard on their part may have contributed to their misunderstanding and misconception. Launching training programs or workshops may help change the mindset of the community members regarding participatory practices in development interventions. The study also recommends that community leaders should be empowered so that they are able to participate in development projects.

Participatory local community economic development works and fundraising systems should be supported by community mobilization and the local communities must contribute resources voluntarily. The current program of local economic development has limited room to be the community movement agenda by empowering the community. As the literature indicates, empowerment is the best way to bring about community participation in local economic development. Therefore, it is clear that the current program does not empower the community as much as needed and that there has to be a role for stakeholders to ensure that this gap should be filled.

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Practices and Challenges of Supply Chain Management: Evidence from the Hawassa Industry Park

*Gobena Beri**

ABSTRACT

The study's main objective is to assess the practices and challenges of supply chain management in the Hawassa Industry Park garment industry. The study used a descriptive research design with a quantitative approach. The data were collected through questionnaires from company employees. The data were analyzed using descriptive statistics with the help of SPSS software version 26. The study's major findings indicate that the garment industries under Hawassa Industrial Park practice supply chain management in a good condition. The main challenges that hinder the smooth application of supply chain management in the industry were the degree of willingness to share needed information, the level of establishing relationships based on shared risks and rewards, the degree of adequacy of information systems, and the degree of employee resistance to change. Thus, the researcher recommended that industries improve and invest in information technology facilities to enhance information sharing internally and externally.

Keywords: *Hawassa Industry Park; Garment Industry; Supply Chain Management.*

1.0 Introduction

Textile and Apparel production is an important catalyst for developing countries' industrialization. It has played an important role as a springboard for economic development. Due to its low fixed costs and labor-intensive manufacturing, it is often a starter industry for countries seeking to industrialize (Gereffi *et al.*, 2011). As a result of globalization, emphasis on time and quality-based completion, and contribution to environmental uncertainty, organizations now find that it is no longer enough to manage their own business but also the supply chain. They must be involved in integrating and coordinating the flow of materials along the chain and

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competing along the supply chain on time and product quality. This is because, these days, for customers getting 'defect-free' products faster than the competitor is not a 'competitive advantage', but rather a 'requirement' (Mentzer *et al.*, 2001).

The Textile and garment industry is characterized by low qualities of raw material and accessories, utilization of unacceptable levels of machinery and equipment, shortage of skilled manpower, application of an improper methodology of production techniques, and unbalanced supply and high demand in the market (Negede *et al.*, 2011).

Even though Supply Chain Management is no longer a new strategy, some serious practical problems still have yet to be addressed. As Fawcett and Magnan (2017) explained, challenges in implementing SCM are a lack of top management support, unwillingness to share information, lack of trust among supply chain members, and others. Most of the research on supply chain management was carried out in developed countries with different economic, political, technological, social, legal, and cultural statuses. However, different researchers identified problems related to implementing and managing the supply chain (Hussain & Mohammed, 2010; Naude & Badenhorst, 2011).

There is little empirical evidence on supply chain management practices and challenges targeting garment industries, particularly in the Hawassa industry parks. Therefore, the main objective of this study is to assess the practices and challenges of supply chain management in the garment industry of Hawassa Industry Park.

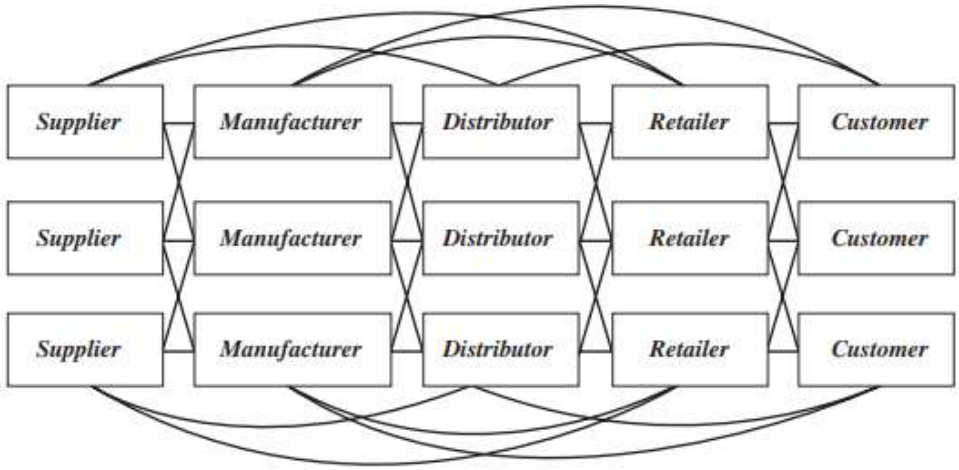
2.0 Literature Review

2.1 Supply chain

A supply chain includes all parties involved in fulfilling a customer request, either directly or indirectly. Not only does the supply chain include the manufacturer and suppliers, but also transporters, warehouses, retailers, and even customers. The supply chain encompasses all functions involved in receiving and fulfilling a customer request within each organization, such as a manufacturer. New product development, marketing, operations, distribution, finance, and customer service are examples of these functions. A dynamic supply chain is one in which information, products, and funds are constantly exchanged between stages (Cavinato & Joseph, 2002).

The objective of every supply chain should be to maximize the overall value generated. The value (also known as supply chain surplus) a supply chain generates is the difference between what the value of the final product is to the customer and the costs the supply chain incurs in filling the customer's request (Mendi, 2013).

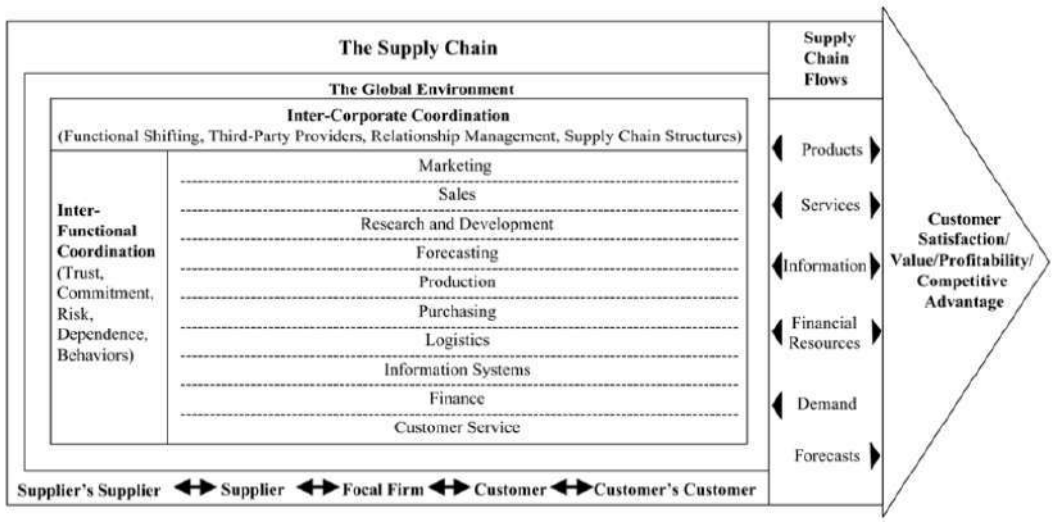
Figure 1: Stages of Supply Chain



2.2 Supply chain management

Supply chain management consists of managing the flow of resources across the enterprise for efficient business processes. These resources can be people, materials, information, and other organizational assets such as vehicles and machinery (Vivik, 2009).

Figure 2: A Model of Supply Chain Management



The term Supply Chain Management was coined in the 1980s, making it a relatively new discipline within management theory, with tools and concepts still in development. According to (Tan, 2002), the concept of SCM has received increasing attention in recent years from academicians, consultants, and business managers alike. Furthermore, as many organizations have begun to recognize that SCM is the key to building a sustainable competitive edge for their products and/or services in an increasingly crowded marketplace, (Li *et al.*, 2006) identified SCM as the key to building a sustainable competitive edge for their products and/or services. According to (Burgess *et al.*, 2006; Harland *et al.*, 2006), the academic debate over the last 20 years has contributed to the development of SCM understanding and its relevance to firm strategy.

2.3 Supply chain management practices

SCM practices have been defined as an organization's activities to promote the effective management of its supply chain. SCM practices are multidimensional, affecting partners' performance in the supply chain. These SCM practices were seen and discussed by different researchers from different perspectives. Donlon (1996) discusses the most recent evolution of SCM practices, such as supplier collaboration, outsourcing, cycle time compression, continuous process flow, and information technology sharing.

According to Arawati (2011), SCM dimensions include: strategic supplier partnership, which fosters trust and collaboration among supply chain partners and customers; lean manufacturing is associated with the continuous pursuit of process improvement, a philosophy of eliminating all non-value adding activities and reducing waste within an organization. Keeping products semi-finished allows for greater flexibility and customization in finishing the final products, as well as allowing a company to respond to the market demand more quickly. Innovation and new technology: the application of the most recent scientific or engineering discoveries to the design of operations and production processes is referred to as new technology and innovation.

2.4 Challenges of supply chain management

Supply chain management executives face distinctive challenges, with respect to integrating supply chain strategies (Hussain & Mohammad, 2010). The implementation of SCM is not an easy task. As Handfield and Nichols (2002), explained, managers who decided to do so will most likely face at least three challenges categorized into several categories, i.e. information systems, inventory management, and in establishing trust between SC members.

In some cases, the information is available but the supply chain members are unwilling to share it as a result of a lack of trust and the fear that the information will be exposed to competitors. Regarding inventory management, although it has been shown to be improving, the need to accelerate late shipments never seems to disappear entirely. The reasons for late shipments are; slowdown because of customs crossing international borders, adverse weather patterns, poor communication and simple human error, which are always inevitable (Handfield & Nichols, 2002).

3.0 Research Methodology

The study adopted a descriptive research design. Since descriptive research design is a type of research design that aims to obtain information to systematically describe a phenomenon, situation, or population.

The quantitative type of research approach was used in this study. Quantitative research is concerned with numbers, logic, and an objective viewpoint. Quantitative research emphasizes numerical and static data, as well as detailed, convergent reasoning rather than divergent reasoning. That is the spontaneous, free-flowing generation of a variety of ideas about a research problem.

The Hawassa Industrial park is the study area of this particular research. The population of the study is therefore all factories inside this park which are 22 apparel-producing companies. The sampling frame of this study is, therefore, composed of 82 employees who have been working in the factory's supply chain department. These employees have direct or indirect tasks with logistics activities within the applicable area which is the scope of the study and the researcher has collected data from every employee of the mentioned department using the census method.

The data were collected using a questionnaire. Closed-ended questionnaires were prepared and pre-tested before main data collection. The questionnaire includes supply chain management practices such as strategic supplier partnership, customer relationship, level of information sharing, level of information quality and lean internal practices. The questionnaire also includes questions related to supply chain challenges. Among 82 questionnaires distributed, 73 of them were properly filled and returned with a response rate of eighty-nine per cent.

Quantitative data needs to be processed to make it useful, that is, to turn it into information. Thus, the study used statistical software called Statistical Package for Social Science (SPSS) software version 26 to code, enter, edit, and analyze the data. The

researcher applied descriptive statistics such as frequency and percentage to analyze the data. The analyzed data were presented using tables.

4.0 Results and Interpretation

4.1 Supply chain management practices

As was briefly mentioned in the literature part of this study, the most common supply chain management practices are supplier and customer relationships, internal operation, information sharing, information technology and training. This study focused on the Hawassa Industrial Park Supply Chain Management practices from these five perspectives. For each practice, different items were developed and measured based on their mean and group mean values.

Table 1: Perception of Respondents' Supplier and Customer Relationship

Item no.	Statements	1		2		3		4		5	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1.	The level of cooperation with suppliers	2	2.7	5	6.8	14	19.2	39	53.4	13	17.8
2.	Contacting end users of your product to get feedback on the product quality	2	2.7	9	12.3	16	21.9	30	41.1	16	21.9
3.	The establishment of a quick ordering system with our major customer	2	2.7	5	6.8	29	39.7	32	43.8	5	6.8
4.	The extent to share our demand forecast with our major supplier	2	2.7	5	6.8	27	37.0	25	34.2	14	19.2
5.	The degree to regularly solve problems jointly with our suppliers	1	1.4	1	1.4	21	28.8	36	49.3	14	19.2
6.	The degree to share our inventory level with our major supplier	1	1.4	2	2.7	28	38.4	35	47.9	7	9.6

***Note**: 1= Very low, 2= Low, 3= Moderate, 4= High, 5= Very high*
***Source:** Survey data, 2022*

In line with item 1, as summarized in Table 1, 71.2% of sampled respondents responded that the level of cooperation with suppliers was high. The result implies that

the majority of sampled respondents responded that the level of cooperation with suppliers was high.

With respect to item 2, the result of Table 1 indicates that 63% of sampled respondents responded that contacting end users of their product to get feedback on the product quality was high, while 15% of them responded low. The result implies that the majority of sampled respondents responded that contacting end users of their product to get feedback on the product quality was high.

On the subject of item 3, as summarized in Table 1, 50.6% of sampled respondents responded that the establishment of a quick ordering system with their major customers was high, while 9.6% of them responded low. The result implies that the majority of sampled respondents responded that the establishment of a quick ordering system with their major customers was high.

Regarding item 4, the result of Table 1 indicates that 53.4% of sampled respondents responded that the extent to share their demand forecast with their major supplier was high, while 9.6% of them responded low. The result implies that the majority of sampled respondents responded that the extent to share their demand forecast with their major supplier was high.

Concerning item 5, as summarized in Table 1, 68.5% of sampled respondents responded that the degree to regularly solve problems jointly with their suppliers was high, while 2.7% of them responded low. The result implies that the majority of sampled respondents responded that the degree to regularly solve problems jointly with their suppliers was high.

With respect to item 6, the result of Table 1 indicates that 57.5% of sampled respondents responded that the degree to share their inventory level with their major supplier was high, while 4.1% of them responded low. The result implies that the majority of sampled respondents responded that the degree to share their inventory level with their major supplier was high.

Concerning item 1, as presented in Table 2, 72.6% of sampled respondents responded that the level of information sharing on production and sales forecast planning with suppliers was high, while 1.4% of them agreed with low. The result implies that the majority of sampled respondents responded that the level of information sharing on production and sales forecast planning with suppliers was high. In line with item 2, the result of Table 2 indicates that 79.5% of sampled respondents responded that the level of trust among their firm's supply chain members was high, while 4.1% of them agreed with low. The result implies that the majority of sampled respondents responded that the level of trust among their firm's supply chain members was high.

Table 2: Perception of Respondents' Information Sharing

Item no.	Statements	1		2		3		4		5	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1.	The level of information sharing on production and sales forecast planning with suppliers	1	1.4	1	1.4	18	24.7	32	43.8	21	28.8
2.	The level of trust among your firm's supply chain members	1	1.4	2	2.7	12	16.4	34	46.6	24	32.9
3.	The level of information sharing across functional areas of the organization	1	1.4	3	4.1	26	35.6	32	43.8	11	15.1
4.	The level of information sharing with suppliers on inventory and quality of raw material	1	1.4	3	4.1	26	35.6	29	39.7	14	19.2
5.	The extent to share information about issues that affect our business	2	2.7	7	9.6	23	31.5	32	43.8	9	12.3
6.	The level of timely information exchange between us and our trading partners	2	2.7	3	4.1	24	32.9	26	35.6	18	24.7

***Note**: 1= Very low, 2= Low, 3= Moderate, 4= High, 5= Very high*
***Source:** Survey data, 2022*

Regarding item 3, as summarized in Table 2, 58.9% of sampled respondents responded that the level of information sharing across the functional areas of the organization was high, while 5.5% of them agreed with low. The result implies that the majority of sampled respondents responded that the level of information sharing across the functional areas of the organization was high.

Concerning item 4, as presented in Table 2, 58.9% of sampled respondents responded that the level of information sharing with suppliers on inventory and the quality of raw material was high, while 5.5% of them agreed with low. The result implies that the majority of sampled respondents responded that the level of information sharing with suppliers on inventory and the quality of raw material was high.

The result of Table 2 on item 5 indicates that 56.1% of sampled respondents responded that the extent to share information about issues that affect their business was high, while 12.3% of them agreed with low. The result implies that the majority of sampled respondents responded that the extent to share information about issues that affect their business was high.

As presented in Table 2 on item 6, 60.3% of sampled respondents responded that the level of timely information exchange between them and their trading partners was high while 6.8% of them agreed with low. The result implies that the majority of sampled respondents responded that the level of timely information exchange between them and their trading partners was high.

Table 3: Perception of Respondents' Training Information Technology

Item no	Statements	1		2		3		4		5	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1.	The level of creating a friendly information system with suppliers and customers	2	2.7	5	6.8	28	38.4	24	32.9	14	19.2
2.	Degree of stable procurement through network with our major supplier	1	1.4	1	1.4	24	32.9	37	50.7	10	13.7
3.	The level of IT-based automated ordering	2	2.7	7	9.6	29	39.7	22	30.1	13	17.8
4.	Adequacy of IT system through the supply chain	2	2.7	5	6.8	22	30.1	32	43.8	12	16.4
5.	Up to datedness of IT technologies throughout the supply chain	1	1.4	5	6.8	24	32.9	32	43.8	11	15.1
6.	The level of IT-based production	2	2.7	7	9.6	22	30.1	29	39.7	13	17.8

Note: 1= Very low, 2= Low, 3= Moderate, 4= High, 5= Very high
Source: Survey data, 2022

Concerning item 1, as presented in Table 3, 52.1% of sampled respondents responded that the level of creating a friendly information system with suppliers and customers was high, while 9.5% of them agreed with low. The result implies that the majority of sampled respondents responded that the level of creating a friendly information system with suppliers and customers was high.

In line with item 2, the result of Table 3 indicates that 64.4% of sampled respondents responded that degree of stable procurement through networking with their major supplier was high, while 2.7% of them agreed with low. The result implies that the majority of sampled respondents responded that the degree of stable procurement through network with their major supplier was high.

Regarding item 3, as summarized in Table 3, 47.9% of sampled respondents responded that the level of IT-based automated ordering was high, while 12.3% of them answered low. The result implies that the majority of sampled respondents responded that the level of IT-based automated ordering was high.

Concerning item 4, as presented in Table 3, 60.2% of sampled respondents responded that the adequacy of the IT system through the supply chain was high, while 9.6% of them answered low. The result implies that a greater number of sampled respondents responded that the adequacy of the IT system through the supply chain was high.

On the subject of item 5, the result of Table 3 indicates that 58.9% of sampled respondents responded that the up to datedness of IT technologies throughout the supply chain was high, while 8.2% of them answered low. The result implies that the majority of sampled respondents responded that the up to datedness of IT technologies throughout the supply chain was high.

With respect to item 6, as presented in Table 3, 57.5% of sampled respondents responded that the level of IT-based production was high, while 12.3% of them answered low. The result implies that the majority of sampled respondents responded that the level of IT-based production was high.

Table 4: Perception of Respondents' Internal Operation

Item no	Statements	1		2		3		4		5	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1.	The level of data integration among internal functions	3	4.1	11	15.1	27	37.0	25	34.2	7	9.6
2.	The degree of integrative inventory management	2	2.7	6	8.2	32	43.8	29	39.7	4	5.5
3.	The extent of the utilization of periodic interdepartmental meetings among internal functions	2	2.7	9	12.3	24	32.9	31	42.5	7	9.6
4.	The degree to regularly measure and evaluate customer satisfaction	3	4.1	9	12.3	23	31.5	29	39.7	9	12.3
5.	Level of regularly anticipating customer needs	3	4.1	7	9.6	28	38.4	26	35.6	9	12.3

***Note**: 1= Very low, 2= Low, 3= Moderate, 4= High, 5= Very high*
***Source:** Survey data, 2022*

With respect to item 1, the result of Table 4 indicates that 43.8% of sampled respondents responded that the level of data integration among internal functions was high, while 19.2% of them answered low. The result implies that a greater number of sampled respondents responded that the level of data integration among internal functions was high.

On the subject of item 2, as summarized in Table 4, 45.2% of sampled respondents responded that the degree of integrative inventory management was high, while 10.9% of them answered low. The result implies that a greater number of sampled respondents responded that the degree of integrative inventory management was high.

Regarding item 3, the result of Table 4 indicates that 52.1% of sampled respondents responded that the extent of the utilization of periodic interdepartmental meetings among internal functions was high, while 15% of them answered low. The result implies that the majority of sampled respondents responded that the extent of the utilization of periodic interdepartmental meetings among internal functions was high.

In line with item 4, as summarized in Table 4, 52% of sampled respondents responded that the degree to regularly measure and evaluate customer satisfaction was high, while 16.4% of them answered low. The result implies that the majority of sampled respondents responded that the degree to regularly measure and evaluate customer satisfaction was high.

Regarding item 5, the result of Table 4 indicates that 47.9% of sampled respondents responded that the level of regularly anticipating customer needs was high, while 13.7% of them answered low. The result implies that a greater number of sampled respondents responded that the level of regularly anticipating customer needs was high.

In line with item 1, as summarized in Table 5, 28.8% of sampled respondents responded that the level of adequacy of training for management was low, while 23.2% of them answered high. The result showed that the level of adequacy of training for management is moderate.

With respect to item 2, the result of Table 5 indicates that 37% of sampled respondents responded that the degree of providing diversified skill training for employees was low, while 24.6% of them answered high. The result implies that the degree of providing diversified skill training for employees was moderate.

On the subject of item 3, as summarized in Table 5, 35.6% of sampled respondents responded that the level of providing training to downstream supply chain members was low, while 28.8% of them answered high. The result implies that the Level of providing training to downstream SC members was moderate.

Regarding item 4, the result of Table 5 indicates that 37% of sampled respondents responded that the level of providing training to upstream supply chain members was low, while 20.5% of them answered high. The result implies that the greater number of sampled respondents responded that level of providing training to upstream supply chain members was moderate.

Table 5: Perception of Respondents' Training

Item no.	Statements	1		2		3		4		5	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1.	The level of adequacy of training for management	3	4.1	18	24.7	35	47.9	12	16.4	5	6.8
2.	The degree of providing diversified skill training for employees	3	4.1	24	32.9	28	38.4	12	16.4	6	8.2
3.	Level of providing training to downstream SC members	4	5.5	22	30.1	26	35.6	21	28.8	0	0.0
4.	Level of providing training to upstream SC members	3	4.1	24	32.9	31	42.5	13	17.8	2	2.7

***Note**: 1= Very low, 2= Low, 3= Moderate, 4= High, 5= Very high*
***Source:** Survey data, 2022*

4.2 Challenges of SCM

The third part of the conceptual framework developed for this study is the challenges to SCM which consist of uncertainties and the bullwhip effect. Concerning item 1, as presented in Table 6, 37% of sampled respondents responded that the level of providing training to upstream SC members was low, while 20.5% of them answered high. The result implies that a greater number of sampled respondents responded that the level of providing training to upstream SC members was low.

In line with item 2, the result of Table 6 indicates that 41.1% of sampled respondents responded that the degree of willingness to share needed information was high, while 21.9% of them answered low. The result implies that a greater number of sampled respondents responded that the degree of willingness to share needed information was high.

Regarding item 3, as summarized in Table 6, 42.5% of sampled respondents responded that the level of establishing relationships based on shared risks & rewards was high, while 15.1% of them answered low. The result implies that a greater number

of sampled respondents responded that the level of establishing relationships based on shared risks & rewards was high.

Table 6: Perception of Respondents' Challenges to SCM

Item no	Statements	1		2		3		4		5	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
1.	Degree of willingness to share needed information	1	1.4	15	20.5	27	37.0	23	31.5	7	9.6
2.	Level of establishing relationships based on shared risks & rewards	0	0.0	11	15.1	31	42.5	24	32.9	7	9.6
3.	The degree of adequacy of information systems	0	0.0	5	6.8	34	46.6	25	34.2	9	12.3
4.	Degree of employee resistance to change	2	2.7	11	15.1	34	46.6	21	28.8	5	6.8
5.	Level of employee loyalty/motivation/empowerment	2	2.7	12	16.4	26	35.6	27	37.0	6	8.2
6.	Level of clear guidelines for managing supply chain alliances	1	1.4	8	11.0	30	41.1	30	41.1	4	5.5
7.	Level of trust among supply chain members	0	0.0	4	5.5	28	38.4	34	46.6	7	9.6
8.	The level of product quality and design	0	0.0	1	1.4	23	31.5	46	63.0	3	4.1
9.	The level of affordability of the cost of the product	0	0.0	1	1.4	32	43.8	37	50.7	3	4.1

***Note**: 1= Very low, 2= Low, 3= Moderate, 4= High, 5= Very high*
***Source:** Survey data, 2022*

Concerning item 4, as presented in Table 6, 46.5% of sampled respondents responded that the degree of adequacy of information systems was high, while 6.8% of them answered low. The result implies that a greater number of sampled respondents responded that the degree of adequacy of information systems was high.

On the subject of item 5, the result of Table 6 indicates that 35.6% of sampled respondents responded that the degree of employee resistance to change was high, while 17.8% of them answered low. The result implies that a greater number of sampled respondents responded that the degree of employee resistance to change was high.

With respect to item 6, as presented in Table 6, 45.2% of sampled respondents responded that the level of employee loyalty/motivation/empowerment was high, while 19.1% of them answered low. The result implies that a greater number of sampled

respondents responded that the level of employee loyalty/motivation/empowerment was high. In line with item 7, the result of Table 6 indicates that 46.6% of sampled respondents responded that the level of clear guidelines for managing supply chain alliances was high, while 12.4% of them answered low. The result implies that a greater number of sampled respondents responded that the level of clear guidelines for managing supply chain alliances was high.

On the subject of item 8, the result of Table 6 indicates that 56.2% of sampled respondents responded that the level of trust among supply chain members was high, while 5.5% of them answered low. The result implies that a majority of sampled respondents responded that the level of trust among supply chain members was high.

With respect to item 9, as presented in Table 6, 67.1% of sampled respondents responded that the level of product quality and design was high, while 1.4% of them answered low. The result implies that the majority of sampled respondents responded that the level of product quality and design was high.

5.0 Conclusion and Recommendations

The garment industries under the Hawassa Industrial Park practice supply chain management in a good condition. The supplier and customer relationship, internal operation, information sharing, information technology, and training were practised at a satisfactory level. However, the main challenges that hinder the smooth application of supply chain management in the industry were the degree of willingness to share needed information, the level of establishing relationships based on shared risks and rewards, the degree of adequacy of information systems, and the degree of employee resistance to change. As a result, the researcher recommended that businesses improve and invest in IT infrastructure to improve information sharing both internally and externally. This can be accomplished by either hiring IT specialists or outsourcing. More importantly, industries must transform their relationships with suppliers from a simple buy-sell relationship to a modern supply chain relationship by establishing strategic or long-term relationships, contracts, and continuous information sharing in order to minimize supply uncertainty, which resulted in demand and supply mismatches and customer dissatisfaction in the case company.

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High-Performance Work System: The Contemporary Route towards Leveraging Optimum Organizational Potential

*Grahadish Sarma**

ABSTRACT

This article is devised to understand the intricacies of a High-Performance Work System (HPWS) which is comparatively, a modern evolutionary resultant of Human Resource Development Metrics and its analysis. A High-Performance Work System is a specific combination of HR activities, workflow patterns and processes that anchors employees' skills, knowledge, organizational commitment, performance and long-term association. The concept of a High-Performance Work System can be understood as a subset of the open and closed system theory of Management propounded by Chester Barnard which was further advanced by Kurt Lewin in his action research model of organizational development. The management function in this paradigm of action research is positioned at the system's boundary, rather than in a more traditional organizational 'pyramid.' The multiple complicated systems at work in organizations are depicted using a series of simple diagrams. The principal task determines the ordering of different activities, which is problematic in human services because there may be contradictory perspectives on this from the inside and outside. Case studies show how insufficient task specification can cause problems, as well as how organizational architecture (where system boundaries are set) can help or hinder task completion.

Keywords: *High-Performance Work Systems; Organization, Employees.*

1.0 Introduction

Employee skill set, tacit and implicit knowledge, dedication, involvement, and adaptability are all enhanced by a high-performance work system (HPWS), which is a specialized blend of HR practices, work structures, and processes. The system is the most important notion in HPWS. HPWS is made up of a number of interconnected subsystems that work together to achieve an organization's goals, big or small. Though it may be impossible to enumerate all of HPWS' "best practices," there are a few key

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components. Workplace design, HR practices, leadership positions, and information technology are among them.

1.1 Evolution of HPWS from the classical era of management

1.1.1 Understanding HPWS from the lens of C. I barnard

Barnard conceived organizations as cooperative systems, which he defined as a complex of physical, biological, personal, and social components in a specific systematic relationship due to the cooperation of two or more people for at least one specified goal. Basically, Barnard says, we form cooperative relationships to do tasks we couldn't do on our own. In biological terms, he saw organizations as living organisms trying to live in a hazardous environment. Similarly, he realized that an organization is not self-sufficient and that it must rely on resources from the outside world to function, as well as to regulate its actions. For example, in order to function and achieve its objectives, an organization requires capital, labour, equipment, and resources.

1.2 Inducement contribution theory

The theory of inducement and contribution is a key part of Barnard's overall management theory. The inducement-contribution theory isn't as difficult as it appears. It's essentially a theory of motivation at its most fundamental level. According to the theory, an organizational member will contribute in exchange for incentives. As long as the inducements received are greater than the payments required, the member will continue to participate in the exchange. All of this boils down to the reality that an employee will stay with an organization if it is worthwhile for him to do so. You will stay if the income, perks, and job satisfaction are higher than the perceived cost of your employment to the company.

Besides this, Barnard also laid due importance on organizational authority, organizational climate and all other PESTEL factors. Further, the Action Research model formulated by Kurt Lewin paved the way for catering toward organizational sufficiency with the aid of external agencies, and consultants, which currently spearheads the model of high-performance work systems in the corporate world to flourish in a comprehensive and collective manner.

2.0 Review of Literature

The most underlining issue with a toxic and underperforming organization is employee absenteeism, a type of withdrawal behavior in which employees avoid

unpleasant work situations by failing to show up for work (Harrison & Martocchio, 1998). Employee absenteeism is thought to be a major contributor to productivity and firm performance decline (Neuborne, 2003). Absenteeism rates in Europe range from 3 to 6% of working time and are estimated to cost around 2.5 per cent of GDP (Eurofound, 2010). Employee absenteeism is a severe problem for businesses since it is often viewed as one of the first steps in the quitting process (Bowen, 1982), as employees try to put more psychological and physical distance between themselves and the company (Farrell & Peterson, 1984).

As a result, not only because of the repercussions of absenteeism, but also because of the need to find ways to reduce it, it may have negative consequences for both the individual and the business (e.g., reduced productivity), but it also has the advantage of allowing the management to intervene early in the withdrawal process to prevent absenteeism and turnover (Allisey *et al.*, 2014). HPWS use has been linked to lower employee absenteeism for more than two decades, according to empirical data (e.g., Zatzick & Iverson, 2011; Richardson & Vandenberg, 2005; Guthrie *et al.*, 2009). The stress model offers a primary reason why employees are more prone to be absent from work, according to the absenteeism literature (Johns, 1997; Schaufeli *et al.*, 2009). Employees with more resources, on the other hand, are less likely to experience job-related stress, according to prior studies (Hobfoll & Freedy, 1993).

3.0 Contemporary Outlook of the High-Performance Work System

In general, companies strive to achieve a competitive advantage by combining important competitive challenges (worldwide business, dissemination of technology, nurturing change, responding to customer needs, mobilizing and developing intellectual capital, and lowering costs) with employee concerns (managing a demographically rich workforce, caring for employee rights, acknowledging new work modules, and maintaining a work-life balance).

However, today's successful firms go beyond just balancing these demands; they develop work environments that integrate these demands in order to get the most out of employees in order to meet the company's short- and long-term needs. Microsoft, Tesla, and many other companies can be cited as perfect examples.

As interaction and understanding each other's potential are a pre-cursor to constitute a High-Performance Work System at your workplace, there are certain principles upon which the foundation of the entire HPWS lays. Let us discuss them in the points to follow.

3.1 Motivation of Employees through training

Continuous effective training of employees can be called to be the cornerstone of HPWS. Employees who are well oriented with their job and the expectations that they are expected with tend to be engaged and motivated and gel well in the system**.**

3.2 Business acumen

Employees who are believed to be a part of an HPWS should necessarily have a thorough understanding of the business and hold synergy as a prime factor to define organizational success besides individual goals and accomplishments.

3.3 Work culture fit recruitment

Companies that use a high-performance work systems strategy must hire people that are a good cultural fit in addition to having the needed skill set. These employees have the potential to be long-term team members who contribute to your company's growth if you get it right.

To be effective, the recruitment process must include questions that will allow you to analyze how well an employee will fit into your firm.

Why are you interested in working for this company?

What words would you use to characterize our culture? Is this the information you're looking for?

In what kind of surroundings do you flourish?

Tell me about a time when you worked for a company where the culture didn't suit you.

3.4 Acknowledgement of human capital

Employees are more likely to submit suggestions to improve the firm if they are given timely and meaningful information about the company's performance, plans, and strategy. Information sharing leads to better cooperation in the implementation of large organizational changes. If management provides enough information, employees are more committed to new courses of action.

3.5 Rewarding performance with a standard norm

Employees' personal ambitions and management's organizational goals cannot, of course, go hand in hand. Employees, by their very nature, want outcomes that benefit them personally rather than the organization as a whole.

Employees and the organization will benefit when their aims and those of the organization are aligned in some way. Employees are more likely to pursue outcomes that benefit both themselves and the organization when rewards are linked to performance.

3.6 Egalitarianism

Employees' fair and equal treatment and attention is a doctrine that an employer always needs to follow for harboring a successful High-Performance Work System

4.0 Metrics of High-Performance Work System

- **Work Structure-** Work structure includes the flow of work, division of work, formation of self-managed teams, staffing, technology, etc.
- **HR Activities-** This comprises training and development needs of an organization, performance-based compensation, equity, etc.
- **Pattern of Leadership**- Leaders and their contributions have been immensely regarded as pivotal as far as sustainability of a High-Performance Work System. Delegated & Collegial modes of leadership have been found highly conducive in a typical HPWS environment.
- **Response to Information & Technology**- Communication & Technology has been at the helm of affairs as far as an HPWS is concerned. Agility towards the rapid flow of information and getting aided from technology to disseminate the same amongst the member groups play an important role in the efficiency of an HPWS.
- **Strategic Fit: *Internal & External-*** All the internal elements of a working system should fall in sync to complement and reinforce each other. External fit, on the contrary, looks after the competitiveness of the firm in the market, organizational virtues, perception of potential employees etc.

5.0 High Performance Work System as a Global Phenomenon

- **Dr. Reddy's Laboratories-** Be it the first of its kind, Dr. Reddy's Laboratories (India) have successfully deployed the concept of Self-Managed Teams along the lines of High-Performance Work Systems. Some of its contributing factors were a skill-based progression system for employees; more than 150 tier III employees have completed their higher education as a part of the Training & Development Program of the organization. The impact has been witnessed in terms of growth in

organizational capability and employee empowerment as a force to reckon with in society.

- **Southwest Airlines**- Glassdoor ratings in 2019 suggested the company rating of Southwest Airlines, majorly referred to as a prime low-cost air carrier service provider in the United States, to be 4.7 and the CEO rating to be 94%. Occasionally, the organization has been criticized as being less ambitious, but it has deeply subscribed to the concept of an open and interactional culture where employee communication does not get hindered by the shackles of hierarchy.
- **Walmart**- Walmart, the largest employer in the world has always believed in the concept of internal fit and keeping everything lean in matters of cost, inventory, logistics, etc. The operational success of Walmart lies in the way it tightens its control of employee-related expenses and activities. It has managed to score tremendous revenue year after year. Leadership has been benevolently transactional at Walmart, thus avoiding unionization but recognizing employees wherever it felt necessary.
- **Costco Stores**- Costco stores have adopted the High Road approach to achieve organizational effectiveness. It believes in the long-term association with employees and characterizes itself as a perpetually learning organization. In the last couple of years as Bloomberg reports, Costco has outperformed Walmart financially on various occasions.
- **Toyota**- A leading automobile brand based out of Japan is regarded as the pioneer for its lean production techniques and has also successfully delved into delivering quality products, achieving production of scale with a highly efficient workforce which has been intensively subjected to various skill improvement programs. The employees at Toyota are generally trained to be proactive in their orientation to functional competence and response to changing markets.
- **IPO Pang Xingpu**- A consultancy firm for Business Ventures in China has had more than 35 years of experience in catering to the consultancy needs of blooming businesses in China. In the last couple of decades, the firm has overseen the elevation of China as a terrific investment global space for foreign investors. Thanks to their active participation in trade associations and legal organizations, a merger of more than 500 entities deal closed successfully. The firm has invariably paid due attention to the training needs of the organization at the operational as well as personal level. It boasts to be one of the few companies in China that holds a multilingual staff despite the majority being Chinese.

- **AZTech-TIM Coalition:**- The AZTech TIM Coalition brings together a variety of incident management disciplines to share the best practices, exchange ideas, and give training. Only transportation agencies were involved when the TIM Coalition was formed. AZTech hired a retired police chief to supervise field operations and bring a unique viewpoint to transportation agencies and first responders by seeing all aspects firsthand, in order to garner buy-in from other stakeholders. AZTech also made a determined effort to give TIM strategy training and communicate the value of the TIM partnership. Law enforcement, TMC operators, public information personnel, and towing agencies have all joined the TIM Coalition over time.

6.0. Discussion

High-performance working systems entail the creation of a series of interconnected processes that, when combined, have an impact on the organization's performance through its people in areas like productivity, quality, and customer service, as well as growth, profits, and, ultimately, the delivery of increased shareholder value.

This is accomplished through 'improving employee capabilities and igniting employee excitement,' with leadership, vision, and benchmarking as the starting point, in order to create a sense of momentum and direction among employees at all levels of the business. HPWS also emphasizes the concept of continual performance assessment and evaluation in order to enhance and develop future performance. High-performance work systems (HPWS) make sure that business and human resources issues are strategically linked. These connections make it easier to catalyze organizational changes in terms of structures, procedures, and systems, as well as alter HR strategy and processes to deal with them. People's competencies and abilities are developed, a holistic performance management system is implemented, and employees are motivated through a complete compensation and reward management system.

The HPWS stream focuses on organizing systems, namely the organization's operations or production systems, as its name suggests. HPWS research is based on socio-technical systems theory and delves into the interrelationships between people, processes, and technology. MacDuffie (1995) stressed "organizational logic" in support of HPWSs being matched to flexible production systems and control-oriented human resource strategies being matched to traditional mass production methodologies. Because the organizing system is the focal point, human resource strategy principles — broad themes that theoretically govern the selection and grouping of human resource activities — are also emphasized in the HPWS stream, rather than the human resource activities themselves. HPWSs ensure that employees' skill levels are improved by giving them

discretion and the opportunity to use their skills in conjunction with other workers, as well as creating an incentive system that boosts employee enthusiasm and commitment. HPWSs are known for focusing on work system performance, emphasizing human resource management concepts, and defining human resource tasks in considerable parity.

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