Effect of Integrated Employee Training on Sustainable Mobility of Matatu Saccos in Public Transport Sector in Nairobi County, Kenya

Priscilla Wambui Muhoro, Anita Wanjugu Wachira, David Kiarie Mburu

Abstract — **This study was carried out to assess the effect of integrated employee training on sustainable mobility of Matatu Sacco in public transport sector in Nairobi County. Training in transport sector is of paramount importance as it makes the drivers more responsible which in turn reduces road accident, vehicle maintenance and enhances proper handling of passengers and creates an improved public image for the sector. The study comprised of 177 Sacco Managers representing all the Matatu Sacco registered by NTSA in Nairobi County in 2015.NTSA, 2015. The study was guided by positivism philosophy where census was applied and adopted mixed method research design. Data from the Sacco Managers was collected using a structured questionnaire, while an interview schedule was used for the representatives from both the MoT and VOA. Data was analyzed using descriptive and inferential statistics, and the results revealed that influence of integrated employee training, had significant influence on sustainable mobility of Matatu Saccos in public transport sector in Nairobi County, Kenya. The results also revealed that there has been training of simple technical skills, such as, maintenance of vehicles and first aid to the drivers. It can be concluded that training drivers on safety improves public image in Matatu Saccos. Recommendations can be made that it is important to conduct training needs assessment before training employees to ensure missing gaps or mismatch on the skills are well filled or captured to ensure training objectives are achieved effectively. This would enable both the ministry of transport and Sacco management to develop competent training programs for its employees.**

Index Terms — **integrated employee, training, sustainability, mobility, Public Transport.**

I. Introduction

Public transportation services of any Nation plays a key role to social economic development, hence various countries have taken keen interest towards improving and developing the public transportation service Litman Todd [1] through the use of several strategies one of them being training of drivers and other employees in the transport sector. Training involves the acquirement capabilities of employees to perform their jobs; that is, they improve their effectiveness and productivity. Although training is often considered for new employees only, ongoing training is essential to keep up with changes to the working and corporate strategies [2]. In Kenya the transport sector plays a critical input to the development of other sectors of the economy. Training Strategy is a key element in executing differentiation in an organization. Strategic employee training is a form of training in which the organization deals with the main issues, thus arming the employees with tools and information necessary to complete their responsibilities effectively. This leads to motivation, leads to job satisfaction and finally increased productivity. It's tempting to shelve staff training indefinitely, waiting until there is more time or more money. But for organization to succeed, its employees' skills must be complete and up to date. One of the most important investments an organization can make is its business is employee development. It is, therefore, better to create an overall training policy to coxswain the plans for staff development. Before the training program is executed, there must be mutual agreement from the senior management in the organization [3]. The management need to support the plan fully and agree to milestones, costs, dates, and deliverables.

Sustainable mobility has become a growing concern among current organizations to provide and satisfy the needs of both the current and future generation [4]. The use of sustainable mobility as a measure in the transport sector is more critical where the usual operation is more compounded [5]. The absence of public transport makes some areas unbearable to live, and unreachable. The study looked at the sustainable mobility of the public transport sector regarding environmental sustainability, economic sustainability, and social sustainability [6].

Also, Cross and O'Driscill [7] noted three types of training as On-the-employment Training by peers or Group Training by the Management, Live Instructor Training by an Outside Professional and Electronic Instruction Video-Based/Computer-Assisted.

Employee commitment is also required as in most cases; employees will respond favorably to investment in their development. 'Today's employees look beyond their pay cheques; but value and embrace opportunities to learn new skills' [3]. An effective training policy is important for the success of the organization since it can serve as a means to develop the staff and also become a retention and an effective recruiting tool. It can also make sure that employee's performance is evaluated, which in turn ensures that appropriate training and development take place. Developing a training policy gives the organization a competitive advantage and helps to propel the organization into the future.

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The training policy needs to be comprehensive, and every employee needs to understand it so that they get the appropriate training at the right time [8]. Hence, the current paper seeks to examine the effect of employee training on sustainable mobility of Matatu Public Savings and Credit Cooperative Societies in Nairobi County.

II. Literature Review

Sal [9] carried out a study to investigate the correlation between training, progress, and employees' performance and performance in selected Jordanian Private Sector transportation companies located in Southern region of Jordan. The objectives of his study were to determine the training impact and development on employees' performance. His study also sought to explore different training methods and development and recommend a well-structured training process that can be used to improve the training and development at the sector. Subjects for that study consisted 254 employees which made up 60% of the total targeted population of 420 people. The findings of the study indicated that training and development were positively correlated and claimed a statistically significant relationship with employee performance and productivity.

Jjingo [10] conducted a study to evaluate the impact of training on employee performance in Kampala public sector in Uganda. The study sought to find out the relationship between training, training tools, and the employees' performance. In that study a target of 40 respondents was used. The study found that most of the organizations meet their needs for training in an ad hoc and random way while others set about identifying their training needs, then intelligently design training activities and finally assess the results of training. The study concluded that if an organization invests in the right type of employee training it can enhance employee performance as well as competencies and skills. Also, training seems like a useful means of coping with changes fostered for technological innovation; market competition; organizational structuring and most importantly, it plays a key role to enhance employee performance.

In a study conducted by Anitha and Kumar [11] on the impact of training on employee performance in the private insurance sector, Coimbatore district, the main objectives were, to investigate the impact of training on employees' performance, to study the factors determining the employee productivity through training and to examine the effect of other Human Resource Management (HRM) practices on employees'" performance." The sample size was 75. The results of the study revealed that when training is given to the employees in the Private Insurance Sector, Coimbatore District it improved the performance level of the employees. The increase is manifested in employee productivity after the training. The education level, staff category, and the employees work experiences are the factors determining the growth of employees' performance in the organization after undertaking training.

Kamau [12] did a study on the relationship between training and development practices and employee performance at Kenya commercial bank. This study was guided by one research objective which was to find out the relationship of training and development on employee performance among the Kenya commercial bank employees. A descriptive survey design was used. The target population of the study included all employees currently employed in Kenyan branches by Kenya commercial bank. To collect the data Simple stratified random sampling was used from different employees. A semi-structured questionnaire was used and was analyzed using means, frequency, and standard deviation. The findings confirmed that employees of commercial bank perceived employee training and development as key in their performance. The programs prepared the bank employees to work together in teams, have given them accuracy in processing their work and knowledge in aspects of quality. Training has also enlightened them on what is expected of them in their various departments, and this has not only helped in the elimination of job discrepancies but has also helped to minimize risks as well as to ensure harmony and consistency across the entire team. The training that is given upon rolling out new services and products and other technological changes such as the adoption of new systems has also helped the bank employees to deal with the changes better. The training also helped the employees to tie their efforts toward attainment of the entire organization's mission and vision and work hard towards attaining this. The study findings concluded that there was a strong significance between training and performance of employees

Adongo [13] carried out a study on the impact of job training on employee performance in the mobile telephone industry. The objectives were to look at how the aspect of job training, and technological change affects the performance of the employees. The study also sought to determine if Telkom Orange train their employees and how effective the employee training and development is for the organization. It targeted a population of 419 employees including 44 top management employees, 165 middle-level employees and 210 junior employees from the entire department of Mass market and Customer care, Information Technology, finance and account and human resource. Using proportionate sampling, the sample size consequently comprised 22 top-level managements, 81 middle-level employees and 102 junior employees to make a total of 205 employees. The findings of the study were that the job training influences employee performance. The study also found that the training activities have been a long human resource management tools at Telkom Orange.

A. Conceptual Framework

Conceptualized relationship between employee training and sustainable mobility is as shown in Figure 2.1.

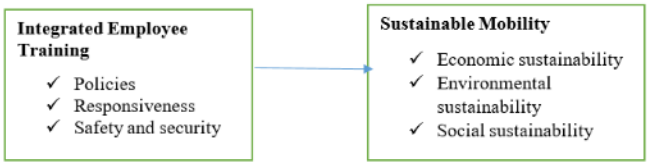

Fig. 1. Conceptual Framework.

III. Research Methodology

The methods used were guided by the positivism research philosophy which articulates and affirms that facts is

grounded on natural phenomena viewed together with their properties and relations and presents scientific methods as one of the approaches to be used in solving human problems [14], [15]. A mixed method research design was adopted encompassing the positivism philosophical assumptions basing on non-experimental, descriptive and causal design approaches to meet the objective of assessing the effect of integrated employee training on sustainable mobility of Matatu Sacco's in's in Nairobi County.

The target population of was the 177 registered SACCOs in Nairobi County, NTSA [16]. Two representatives were also included as key informants: one from the Ministry of Transport and the other from the Vehicle Owners Association. A census approach was adopted thus all the 177 registered matatu SACCOs were included. The method was adopted as it is most appropriate in such cases were the population is not too large unlike in a sample survey whereby only a subject of elements is carefully chosen for inclusion and enumeration, a census generally is not affected by the sampling error [17].

A. Data collection instruments

Data was collected using semi-structured questionnaires and interview guide from the key informants. The semi-structured questionnaire had open-ended and close-ended questions and also included a Likert scale question which had a five-point scale ranging from 1-5 with strongly disagreed too strongly agreed for collecting qualitative data and a semi-structured interview guide was also administered concurrently [18].

A pilot study was carried out to assess the validity and reliability of the data collection instruments. Both the interview guide and the semi-structured questionnaire were assessed for content validity which was achieved by using experts' opinions that the content in the instruments measure the constructs they are meant to measure and adjustments done to ensure content validity. Construct validity was also checked to assess the degree to which inferences can legitimately be made from the operationalization in your study to the theoretical constructs on which the construct operationalization was based. Construct validity was assessed by examining convergent validity and discriminant validity. Convergent validity was assessed using AVEs to assess the extent to which items (indicators) that are meant to measure the same constructs actually correlate while discriminant validity was assessed by calculating squared multiple correlations to assess that the items that measure different constructs are actually not related [19]. The reliability of the research instruments was also assessed using Cronbach Alpha to check for internal consistency [20].

B. Data analysis

To analyze qualitative data, transcription was first carried out. This entailed the transformation of the hand-written responses from respondents to organized typed text. All responses to the interview guide were written out in full during transcription as this allowed the researcher to read the data repeatedly. This made the researcher more conversant with the data, and the themes began to emerge [20].

Descriptive and inferential analyses were carried out on the quantitative data that was coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 23. The descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Mean and standard deviations were also used as a measure of central tendencies and dispersion, respectively. To test the hypothesis, assess and draw conclusions on the objective which was to examine the effect of integrated employee training on sustainable mobility of Matatu Sacco's in's in Nairobi County, a regression mode was fitted and the estimated coefficients used to draw conclusions. The regression model was fitted based on Ordinary least squares (OLS). The R-square of the model was used to determine the variation in sustainable mobility of Matatu Sacco's that is explained by the variation of the predictors (integrated employee training) in the model. The model fitted is given by the equation below:

$$Y = \alpha + \beta X + \varepsilon$$

where
Y = Organization performance (sustainable mobility);
α = Constant term;
β= Beta coefficient of integrated employee training;
X2= Integrated Employee Training.

IV. Findings and Discussion

A. Factor Analysis for Integrated Employee Training

To examine the interrelationship between attributes of integrated employee training, KMO and Bartlett's were adopted, as shown in Table 1.

TABLE 1: KMO AND BARTLETT'S TEST FOR INTEGRATED EMPLOYEE TRAINING

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.851
Bartlett's Test of Sphericity	Approx. Chi-Square	362.379
	Df	10
	Sig.	0

As shown in Table 1, KMO coefficient of 0.851, depicted that a sample of 135 was appropriate to execute exploratory factor analysis since KMO value was greater than 0.5. Further, Bartlett's coefficient of 362.379 and p-value of 0.000. Hence, there was significant interrelationship between attributes of integrated employee training, and exploratory factor analysis was appropriate in the study. Results for construct loadings are summarized in Table 2.

TABLE 2: TOTAL VARIANCE EXPLAINED BY INTEGRATED EMPLOYEE TRAINING

Component	Initial Eigenvalues	Extraction Sums of Squared Loadings

	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.388	67.751	67.751	3.388	67.751	67.751
2	0.68	13.603	81.354			
3	0.416	8.328	89.683			
4	0.275	5.495	95.178			
5	0.241	4.822	100			

Table 2 depicted a maximum of one factor was obtained, the factor had Eigenvalue, which was greater than 1. The factor had loadings of 3.388, representing 67.751 percent of the variance. The factor accounted for 67.751 percent of the variance in the construct. Further, sum of square loadings ranged 0.68 and 0.416. Four factors accounting for 95.178 percent of variations and they were retained since their factor loadings were greater than 0.7.

Figure 2 presents the scree plot showing eigenvalue and integrated employee variable components. The scree graph was used to determine how many factors to retain.

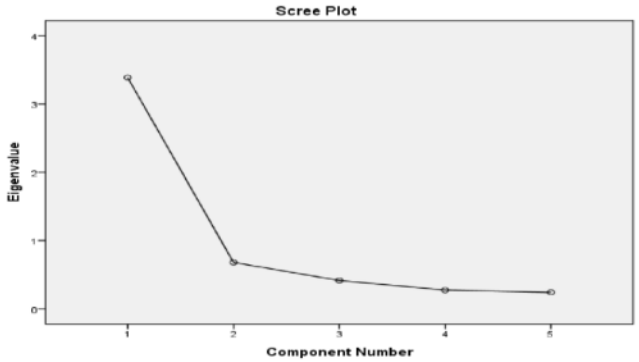

Fig. 2. Eigen Values for Extracted Integrated Employee Training.

The curve flattened at factors 4 and 5. According to the scree plot, 4 factors were retained because it is at the fourth factor that the scree plot takes an elbow shape. The results presented in Table 3 reveals that four attributes of integrated employee training were retained for subsequent analysis since their component loadings were greater than 0.7.

TABLE 3: EXTRACTED COMPONENTS FOR INTEGRATED EMPLOYEE TRAINING

	Component Loading
Training drivers on simple technical skills, e.g., maintenance of vehicles increases competitiveness	0.855
Training drivers and other employees on first aid enhances customer satisfaction	0.877
Training drivers and other employees on communication, work relationship skills & ethics increases customer satisfaction	0.874
Training drivers on safety improves Matatu Sacco's in public image	0.842

As indicated in Table 3 retained attributes on training drivers and other employees on first aid enhance customer satisfaction (0.877). Training drivers and other employees on communication, work-related skills, and ethics increase customer satisfaction (0.874). Training drivers on simple technical skills, e.g., maintenance of vehicles increases competitiveness (0.855) and training drivers on safety improves Matatu Sacco's in public image (0.842). This calls for development of a coherent training curriculum for all stakeholders involved in management of Matatu Sacco's ins in Kenya. This would create platform for achievement of higher levels of customer satisfaction and will aid in improvement of sustainable mobility indicators.

B. Descriptive Statistics on Integrated Employee Training

The main objective of this research study examined the effect of integrated employee training on sustainable mobility of Matatu Sacco's in's in Nairobi County. Respondents rating on a five point Likert scale was sought and summarized, as shown in Table 4.

TABLE 4: DESCRIPTIVE RESULTS FOR INTEGRATED EMPLOYEE TRAINING

	Percentage (n=135)					Mean	Std. Dev
	SD	D	N	A	SA		
Training drivers on simple technical skills, e.g., maintenance of vehicles increases competitiveness	8.1	14.8	25.2	28.1	23.7	3.4	1.2
Training drivers and other employees on first aid enhances customer satisfaction	6.7	15.6	26.7	28.9	22.2	3.4	1.2
Training drivers and other employees on communication, work relationship skills & ethics increases customer satisfaction	10.4	13.3	32.6	28.1	15.6	3.3	1.2
Training drivers on safety improves Matatu Sacco's in public image	5.2	12.6	28.9	31.9	21.5	3.5	1.1
Training drivers on basic management e.g. security of passengers increases customer satisfaction	3.7	8.1	17	40	31.1	3.9	1.1
Overall average						**3.5**	**1.2**

*SD- Strongly Disagree, D- Disagree, N-Neutral, A-Agree, SA-Strongly agree.

A majority agreed that integrated employee training had an effect on sustainable mobility in Matatu Sacco's in's in Nairobi County (mean = 3.5, standard deviation = 1.2). Majority of those interviewed neither agreed nor disagreed that training drivers on simple technical skills, e.g., maintenance of vehicles increases competitiveness or training of drivers and other employees on first aid enhances customer satisfaction (mean = 3.4, standard deviation =1.2). A big number 31.9 percent agreed, and 21.5 percent strongly agreed that training drivers on safety improve Matatu Saccos in

public image. Further, 40 percent agreed, and 31.1 percent strongly agreed that training drivers on basic management, e.g. security of passenger's increase customers' satisfaction.

These findings agreed with resources based theory which calls for the incorporation of training programs to induce requisite employee skills which may aid in achievement of organization goals. Development of human capital will motivate and encourage the employee to align their aspirations with organizational goals and objectives. The findings concurred with Sal [9] who found that development of employee skills impacted positively on their organizational commitment and employee motivation. Similar findings were reported in Uganda by Jjingo [10] who reported that incorporation of alternative employee training tools had significant contribution to employee performance. Indeed, use of technology-supported approaches increased more employee's participation in training. Similar opinions were echoed by Kamau[12] who found substantial contribution of training and development on employee performance in Kenya commercial bank. Studies indicate that one of the key reasons why people stop using PSV vehicles is poor drivers' behaviour or create negativity in Matatu usage. Trained drivers ensure passengers safety; they maximize fuel efficiency and adhere to schedules ensuring passengers are not left by the roadside and get to their destinations on time.

C. Skills Drivers Trained on

The study explored types of skills trained on as shown in Fig. 3.

Fig. 3. Skills Drivers Trained in.

According to the results, majority of the respondent's 65.9 percent had been trained simple technical skills such as basic mechanic, 12.6 percent on safety, 18.9 percent on first aid, 5.2 percent on communication while 4.4 percent on work-related skills and ethics. These findings showed that most drivers were equipped on troubleshooting skills in case of their matatu breakdown. This would enhance service delivery. Similar sentiments were echoed during an in-depth interview as:

According to the informant (KI_1):

"There is a need for training of the drivers and other employees. Drivers should be trained in new technology, customer care, driving skills, simple mechanics and how to help customers booking outside the station".

Further, informant (KI_2) held the opinion that.

"There is a need to train drivers and other employees since this will help in having qualified drivers on the roads, who are well equipped to observe traffic rules to the fullest. Further, if other employees receive training, they will treat customers with courtesy".

D. Effect of Integrated Employee Training on Sustainable Mobility

The hypothesis stated that integrated employee training had no significant effect on sustainable mobility of Matatu Saccos in public transport sector in Nairobi County. Simple linear regression was adopted to test for the significant effect of integrated employee training on sustainable mobility.

TABLE 5: MODEL SUMMARY ON THE EFFECT OF IET ON SUSTAINABLE MOBILITY OF MATATU SACCO'S IN PUBLIC TRANSPORT SECTOR IN NAIROBI COUNTY

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.825	0.681	0.678	0.633

Model summary on the effect of IET on sustainable mobility in Table 5, documented an R squared of 0.681, hence 68.1 percent of changes in sustainable mobility of Matatu Sacco's in public transport Sector in Nairobi County is associated with integrated employee training while other factors excluded in the model can explain the remaining percentage.

Analysis of variance was adopted to examine the goodness of fit on the effect of integrated employee training on sustainable mobility of Matatu Saccos in public transport sector in Nairobi County. Research findings are tabulated in Table 6.

TABLE 6: ANOVA ON THE EFFECT OF IET ON SUSTAINABLE MOBILITY OF MATATU SACCO'S IN PUBLIC TRANSPORT SECTOR IN NAIROBI COUNTY

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	113.669	1	113.669	283.358	0.00
Residual	53.353	133	0.401		
Total	**167.022**	**134**			

Study findings in Table 6, the F-statistics of the regression result, $F(1, 133) = 283.358$ is statistically significant ($p<0.05$), proving a significant effect of integrated employee training on sustainable mobility of Matatu Sacco's in public transport sector in Nairobi county. Thus, the model is good and significantly fitted and that the coefficient of the model is not equal to zero.

Regression coefficients results on the effect of integrated employee training on sustainable mobility is as in Table 7.

TABLE 7: REGRESSION COEFFICIENTS ON THE EFFECT OF IET ON SUSTAINABLE MOBILITY OF MATATU SACCO'S IN PUBLIC TRANSPORT SECTOR IN NAIROBI COUNTY

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.07	0.067		-1.035	0.302
Integrated Employee Training	1.091	0.065	0.825	16.833	0.000

Research findings in Table 7 revealed that there exists a statistically significant positive relationship between integrated employee training and sustainable mobility of Matatu Sacco's in public transport sector in Nairobi County, Kenya ($\beta = 1.091$, $t = 16.833$, $p<0.05$). This implies that unit

increase in integrated employee training increases sustainable mobility of Sacco's in Nairobi County by 1.091 units. Thus, the study failed to accept the null hypothesis (H02) at 95% confidence interval by concluding that "integrated employee training has no significant effect on sustainable mobility of Matatu Sacco's in public transport sector in Nairobi, Kenya." These findings mirrored Sal [9] who reported positive and significant relationship between training, development, and performance in Jordanian private sector. Also, the study concurred with Jjingo [10] who argued that through training employees' skills and competencies are tailored towards organization needs. Similarly, Anitha and Kumar [11] reported significant influence of employee training on organization performance in private insurance sector. The following regression equation was obtained.

$$\text{Sustainable mobility} = -0.07 + 1.091 \times \text{Integrated Employee Training}$$

V. Conclusion and Recommendations

Regarding the influence of integrated employee training, it was concluded that it had significant influence on sustainable mobility of Matatu Saccos in public transport sector in Nairobi County, Kenya. It can also be concluded that there has been training of simple technical skills, for instance, maintenance of vehicles increases competitiveness and also training drivers and other employees on first aid which has enhanced customer satisfaction. It can be concluded that training drivers on safety improves public image in Matatu Saccos. Further, conclusions can be made that it is also important to conduct training needs assessment before training employees to ensure missing gaps or mismatch on their skills are well filled or captured to ensure training objectives are achieved effectively. This would enable both the ministry of transport and Sacco management to develop competent training programs for its employees. Monitoring and evaluation should be conducted before training, in between training and after the training. This enables the transport sector employees in Nairobi County to have a competitive advantage over other interims of customer service compared to other employees in other counties. If the jobs or responsibility for employees in the transport sector do not motivate to learn new skills and abilities, then new approaches such as job redesign including job enlargement could be the solution. The management of the Saccos should, therefore, consider the nature of the relationship they develop with the employees to enhance customer service, work relationship skills, safety techniques, and customer security. Once employee training is conducted in the right way, customer satisfaction, company image, quality of the services rendered, competitiveness, and innovativeness would be enhanced.

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