

ASSESSMENT OF PERSONAL DISCIPLINE ON PERFORMANCE OF TEA PROCESSING FIRMS IN KENYA

^{1*}George Muturi Wanjobi, ²Dr. Jackson Ndolo (PhD) & ³Dr. Henry Yatich (PhD)

¹PhD Student, Mount Kenya University

²Lecturer, KCA University

³Lecturer, Mount Kenya University

*E-mail of corresponding author: gmuturi34@gmail.com

Publication Date: June 2023

ABSTRACT

Purpose of Study: The purpose of the study was to establish the influence of personal discipline on performance of tea processing firms in Kenya. The research was guided by Deming's quality improvement theory.

Statement of the Problem: In Kenya, tea industry can generate up to USD 8.54 billion annually to the economy (KTDA report, 2019). However, this is not the case in Kenya as tea quality continues to decline in the tea processing firms fetching small prices at the global markets hindering their potential performance.

Methodology: Pragmatism research philosophy was employed in this research. Further, explanatory research design was deemed appropriate for the research. The study population under consideration was 66 operations managers of all the tea producing companies. A census of all the 66 operations managers was conducted. Utilizing structured questionnaires, both

quantitative and qualitative data was gathered for analysis. Data analysis was undertaken utilizing SPSS Version 23.0.

Result: The findings revealed that there was a positive and significant relationship between personal discipline and performance of tea processing firms in Kenya where (β =.415 and p=.031). The study concludes that personal discipline is a significant component of Kaizen systems that influence tea production.

Conclusion: The study also concludes that personal discipline is related to how workers in tea processing firm plan their work and deliver it as per the requirements of the firm. It also entails attention to how tea is picked, packaged and processed to enhance its market competiveness. Discipline is essential for task efficiency and accomplishment in an organization.

Recommendation: The study recommends for the need to cultivate virtue of timeliness in task accomplishment among workers of tea processing firms. This can be conducted through workshops, close mentorship programs and support for employees' growth and welfare programs. Thus, training of personnel on the maintenance of tea production equipment is essentially important in ensuring that costs arising from breakdowns are minimized.

Keywords: Personal discipline, tea processing, tea production, Performance

INTRODUCTION

The performance of tea producing companies aligns to their sustainability (Kumar, Bhavan, Velmurugan & Subashini, 2018). It is evidenced that improvement in the performance of tea processing firms increases their ability to operate efficiently, pay for suppliers, meet operational cost and enhance their sales revenue (Hong & Yabe, 2015). However, it is the cost of producing tea, price of tea, quality of tea and others determine the performance of tea in any given producing country worldwide. Thus, to stimulate the performance of tea firms, new ways of production, processing and distribution might be required. These processes shall go a long way in minimizing cost of tea production by improving efficiency and enhancing quality of tea. Production, processing and distribution processes may require the use of technologies and other innovations and one of the innovations is the use of Kaizen Systems in tea production.

In production industries the simplification of production process is aimed at expanding productivity (Terziovski, 2011). The teamwork as recommended by Kaizen version seeks to

gain advantages associated with staff member spirits through positive participatory monitoring, team job and also employee involvement. On the other hand, individual discipline attempts to incorporate monitoring skills, technical elements and spirit of process improvement toward high quality improvement of product and services (Golas *et al.*, 2016). TPM (Complete Productive Maintenance) is a thorough system which assures that production centers are extraordinary to effectively and efficiently achieve tasks. The TPM procedure is set to reduce regular equipment break downs, enhance speed and reduce manufacturing flaws and errors.

The TPM mechanism is additionally set to boost security of the production setting by limiting prospective threats as well as mishaps (Nallusamy, 2016). Kaizen depicts constant upgrading of products and services, and value of manufacture through innovation processes founded on cooperative working situations. Kaizen aims at improving performance of a firm through improved standards activities (Misiurek, 2016). Kaizen systems aim to improve individual operations and processes by eliminating waste and improving their quality standards (Rewers, *et al.*, 2016). The Kaizen approach has been inculcated in firms across the globe as a tenent to foster firm performance through improved production. It is characterized by quality cycles, teamwork, personal discipline and total productive maintenance systems (Rewers, *et al.*, 2016; Ranaweera, 2015). KAIZEN stipulates that employees partake in contributing their aptitude, capability, understanding, teachings and unsolicited contributions to their organizations (Macpherson *et al.*, 2016).

Kaizen Systems have been employed in Japan to enhance productivity efficiency in the automobile sector. Toyota Motors have employed Kaizen System for very long time to enhance motor productivity and quality (Nakamori, Takahashi, Han & McIver, 2019). Kaizen Systems in Japan has also penetrated to the agricultural sector focusing on continuous improvements and efficiency in the sector. It has been employed to boost labor demand in Japanese farms in the face of a severe labor shortage. In one farm in Kanazawa, there are two main parts to the system. One is a cloud-based system in which workers collect data about individual fields and rice paddies using smartphones (Chiarini, Baccarani & Mascherpa, 2018). The other involves employees from Toyota coming to farms and identifying practices that are wasteful or inefficient.

In India, many tea firms are implementing Kaizen System to fasten their production ability in order to expand their market competitiveness globally (Gautam, Kumar & Singh, 2012). Among the notable challenges facing tea processing in India include limited customer service considerations, slow production operations and ballooning operational expenses (Gautam, et al., 2012). Basing on Jadhav, *et al.* (2014), Kaizen systems have been employed in India to minimize human intervention, fasten task productivity, increase work efficiency, cut on tea processing costs and to improve tea quality. Kaizen seeks to improve productivity while enhancing quality of products.

Though, Kaizen is globally recognized as quality management tool, the application and use of Kaizen in Africa remains very low. In South Africa, numerous automotive companies spend lots of resources in procuring equipment and maintenance without considering the value of teamwork in facilitating decision-making and worker capacity building (Adeyemi & Chucks, 2012). South Africa has been in the frontline in implementing Kaizen suggestion system to enhance production capacity of automotive firms. However, the automotive organizations have not realized the fruits brought by Kaizen Systems because of underdeveloped use of teamwork to enhance work productivity. Malawian Government has been employing Kaizen to enhance quality assurance in the health sector. However, Kaizen systems have not been employed in the tea sector to enhance quality and productivity (Honda, 2012).

Though Kaizen system is not very popular in Kenya, some big multinational firms particularly in the manufacturing sector are operating under guidance of Kaizen Systems. Moreover, the KAM has been organizing training workshops and seminars on the importance of Kaizen systems in the manufacturing sector (Ngothi, 2015). Kaizen system has been applauded in enhancing quality management of automotive products in the automotive industry. However, little is known on role of Kaizen system in promoting the growth of tea processing companies in the tea sector. In conducting this study, the researcher wished to determine the role of Kaizen Systems in expanding tea sector in Kenya.

Kenya's tea market is characterized both local and foreign tea processing firms (KTDA report, 2019). There exist 66 tea producing companies in Kenya grouped regions. Aberdare Ranges has 21 tea processing firms, 16 in Mt. Kenya Region and Nyambene Hills, 13 in Kericho

Highlands, 11 in Kisii higher regions and 5 in Nandi Highlands and Western higher regions. Thus for the study, tea processing firms are ranked as per region (KTDA report, 2019).

Nonetheless, at the Mombasa Tea auction, 6 firms only make up to 66.7% of the total tea transactions. Undoubtedly, big tea buyers largely influences the prices of tea at auction centers, high volume buyers strongly influence auction prices. Additionally, many of multinational firms buy Kenyan tea in bulk and take them to tea processing firms (Cheserek, Elbehri & Bore, 2015). Thus, multi-nationals firms are able to increase the profitability of tea by undertaking value addition through blending and repacking, representing 80 per cent of the market rates (Njogu, Kariuki, Kamau & Wachira, 2015).

STATEMENT OF THE PROBLEM

Globally, firms are experiencing an exponential turbulent headwind environment. Learning from derivatives introduced by The Scientific Management such as TQM and Quality Control Circles, The Japanese theory of Kaizen has permeated many institutions all over the world (Chiarini, et al., 2018). Joint forces have been adopted across all cadres of establishments to foster notions and ventures to establish a flexible learning organization that can endure unpredictable situations (Nakamor, 2019). Though an abundance of fruitful projects and developments have been reported and embraced in establishments, majority of the joint forces are often temporary thus they split shortly after conceptualization to execution phases (Davoudi & Fartash, 2012). However, in some establishments, not all joint forces are disbanded; they may proceed to other projects developed by the organization (Chiarini, et al., 2018). Regardless of this burgeoning of teams to promote organizational progress, they are not adequately educated on major challenges they might encounter in internal processes and outcomes of a Kaizen system (Suárez-Barraza & Lingham, 2018).

In Kenya, tea industry can generate up to USD 8.54 billion annually to the economy (KTDA report, 2019). However, this is not the case in Kenya as tea quality continues to decline in the tea processing firms fetching small prices at the global markets hindering their potential performance. In 2003, using a sample of 100 cups to taste and analyze the tea quality in those cups, there were 70 outstanding cups (KTDA report, 2016). In 2008, out of 100 sample cups tested, 55 outstanding cups met the quality standard laid. In 2015 out of the same quantity of

100 sample cups, only 45 outstanding quality cups were established. This is a clear indication that the quality of tea in the country is declining (Tea Research Institute, 2018).

In 2019, tea farmers in Chinga Tea Factory, Kangaita Tea Factory and Michimikuru Tea Factory had their annual bonus payments dropped by more than Sh10 per kilo compared to what they earned in 2018 (KTDA report, 2019). Slowness in implementing technological innovation in the tea sector including fermentation technological innovations, pruning technological, weighing technological and information systems is undermined the profitability of tea producing industries in Kenya, particularly the small sized tea firms including Kapkatet Tea Company, Mudete tea Factory Company and Kathangariri tea Factory Company (KTDA report, 2019).

However, the current performances of tea processing firms have been on decline in Kenya, owing to reduced quality and low production. Exportation of Kenyan tea to major global markets reduced significantly by 30 percent in 2018 compared to the preceding years of 2017 and 2016 (KTDA report, 2019). Quality of tea is a critical determinant of tea prices in the international market, where quality tea attracts good prices compared to low quality tea (Ateka, Onono & Etyang, 2018). There is need to employ Kaizen systems in enhancing the efficiency of tea production and competitiveness of Kenya's tea produce globally. A necessity to undertake an equivalent research is required focusing on Kaizen systems and performance of tea producing companies in the Kenyan situation. Due to the knowledge gaps regarding impact of Kaizen Systems on performance tea producing companies, there is need to analyze personal discipline and performance of Kenyan tea producing firms.

RESEARCH OBJECTIVE

To establish the influence of personal discipline on performance of tea processing firms in Kenya.

HYPOTHESES

- H₀ Personal discipline does not significantly influence performance of tea processing firms in Kenya.
- H_a Personal discipline significantly influence performance of tea processing firms in Kenya.

THEORETICAL LITERATURE

The study was anchored on Dynamic Capabilities Theory. This notion was set up by Teece *et al.* in (1997). The dynamic capabilities looks on how precious capabilities like human skills and financial resources can be utilized to the advantage of firm growth (Wang, Senaratne & Rafiq, 2015). Dynamic capacities approach opines to use capabilities to the advantage of the firm. Dynamic assets help a firm change its asset blend and along these lines keep up the supportability of the association's upper hand which in any case may be immediately disintegrated. Dynamic resources assist a company transform its source mix as well as likewise therefore protect the sustainability of the firm's competitive advantage which otherwise might be rapidly degraded.

The underlying foundations of dynamic capacities are situated in transformative financial matters and quickly the pith of dynamic abilities approach is that serious achievement emerges from the nonstop improvement, arrangement and reconfiguration of firm-explicit resources (Wheeler, 2002). Dynamic capacities endeavors good use of resources (Teece, 2014). While the RBV stresses asset decision or the choosing of suitable assets, dynamic abilities underline asset improvement and recharging. As indicated by Kim, Song and Triche, (2015), assets controlled by a firm act as one of the significant dynamic traits to the business entity, and along these lines might be especially helpful to firms working in quickly evolving situations.

The postulation is useful to the study by highlighting the importance of training workers and automating tea processes to enhance operational performance. The theory guides the fifth objective; to determine the situational impact on Kaizen Systems and performance of tea producing companies.

EMPIRICAL LITERATURE

Personal discipline entails a guiding set of ideologies and philosophies that incorporate the integral management systems, current upgrading efforts, and technical equipment among workers. Indicators for personal discipline at work entail timeliness in task completion, efficiency and delivery (Mackelprang & Nair, 2010). This method emphasizes on long-term gains as a result of task completion, and a constant development to structures, programs and produces (Golas et al., 2016). It has a positive influence on quality control, procuring tasks,

and work culture with an idea that includes cost, meeting delivery schedules, employee's empowerment and expertise improvement, supplier relationships and production of new merchandises.

Personal discipline refers to a problem-solving management approach that refines quality and facilitates efficient supply, production and distribution of items (Burch, 2008). Because of personal discipline, individuals within the organization involved are dedicated to their work and resources, progressions are fully exploited for maximum yield and efficiency (Mackelprang & Nair, 2010). Personal discipline has played a significant role since it permits an organization to provide high quality products/services.

Belekoukias, *et al.* (2014) did an investigation on role of lean techniques and devices on execution exhibition of assembling associations. This paper examines the effect of five fundamental lean techniques that is JIT, autonomation, kaizen and absolute profitable upkeep. Auxiliary condition demonstrating (SEM) was utilized to cross confirm the discoveries of the relapse and relationship investigations. The outcomes showed that JIT and mechanization have the most grounded noteworthiness on task execution but kaizen, TPM and VSM revealed a small impact on task execution.

Ali (2017) undertook a research on the directing job of the board responsibility on the connection among kaizen and upper hand the instance of Khartoum Industrial Companies. The examination received an elucidating study configuration to gather information for investigation. An overview poll was utilized to gather information from ten assembling organizations from various industry types. Various leveled relapse examination demonstrated that kaizen rehearses by and large are decidedly and essentially influenced association upper hand. In the nick of time end up being emphatically and altogether identified with upper hand.

Shambaro and Kisimbii (2017) conducted research on the impact of Gemba Kaizen Principles on the growth of Maternal Child Healthcare Projects in Kenya. The research utilized descriptive research design. The chi-square technique was done to predict the linkage of predictor and outcome elements. From study's findings, it was found that just in Time significantly impacts performance of maternal child healthcare projects in the county. Mwikali (2017) did a study to set up the impacts of kaizen system on execution of Roto Molders Ltd. The examination utilized a contextual investigation look into plan while the information was dissected by utilization of substance examination since it is subjective information. It was found that kaizen system improves execution of Roto Moulders Ltd.

Manese (2014) conducted a study to evaluate JIT technique reception and execution of significant Kenyan oil firms. The examination configuration utilized right now an unmistakable study inquire about plan with a representation of a contextual investigation. The investigation outlines some parts of JIT rehearsed in the association. They included; set-up time decrease, smoothed line generation, JIT buying, Work group quality control and Flexible workforce. The investigation showed that the best execution pointers respondents experienced after using Just in Time (JIT) procedures led to improved firm performance.

CONCEPTUAL FRAMEWORK

Independent Variable





RESEARCH METHODOLOGY

Pragmatism study paradigm was adopted in this research. Pragmatism was adopted due to its inclination of allowing the researcher utilize more than one research method or technique simultaneously (Collis, J. & Hussey, R. (2014). The paradigm employs structured approaches to study population so as to ensure that the population is as representative as possible (Eriksson & Kovalainen, 2015). The study employed explanatory research design. In this study, the design establishes the cause and effect linkage between performance of tea, and personal

discipline. Explanatory research design is appropriate when establishing the relationship between variables. The study population was 66 tea producing companies in Kenya comprising 17 large size tea firms, 21 medium size tea firms and 28 small size medium firms.

Kenya Tea Development Agency groups tea firms into three categories (large, medium and small) based on annual sales revenue of each of the tea firm. The units of observation were one operation manager from each of the tea processing firm. As a result, the study's target population was 66 operations managers. Operations managers oversee daily operations of the tea firm and thus resourceful in understanding the function of Kaizen systems in catalyzing performance of tea producing firms. The study conducted a census of all the 66 operations managers of tea producing firms that were included in the study. Operations managers' one from each of the tea processing firm filled a questionnaire. Census is more suitable in a small population hence allows a researcher to include the entire population. The tea processing companies' operations managers. As a result, the study included all 66 tea processing companies. Because the target population is small and thus manageable, a census of all operations managers was conducted.

The study employed structured questionnaires in collecting data. Structured questionnaires were created according to the purposes of the study. Questionnaires are suitable and efficient for vast geographical areas (Sekaran & Bougie, 2016). According to Ekinci (2015) structured questionnaires are suitable in measuring opinions and perceptions of persons under study. The questions in the survey were on a 5-point Likert scale. The likert scale has been designed based on how questions are reframed in the questionnaire. Ott and Longnecker (2015) describe data analysis as an approach of subjecting collected data to mathematical inquiry so as to help interpret and understand the study. The quantitative data was gathered using the Likert scale questionnaire. The quantitative data assembled from the questionnaire were analyzed using SPSS Version 23.0. Secondary data from KTDA financial reports on the performance of tea processing firms were analyzed using Microsoft excel application and presented using trend graphs.

The statistics that needed to be created included both descriptive and inferential results. The specific descriptive outcome comprised the averages and SD. Inferential included the Pearson

Correlations to check the association between variables and regression approaches. The ANOVA test was employed to check the satisfactoriness of the model. The coefficients of the equation assessed the link between quality cycle and the performance of tea companies. The level of confidence to be used in this study was 95%. The particular multiple regressions equation is;

 $\mathbf{Y} = \boldsymbol{\beta}_0 + \boldsymbol{\beta}\mathbf{X} + \boldsymbol{\varepsilon}$

Where;

Y = Performance of tea processing firms as the dependent variable

X = Personal Discipline

 ϵ = refers to the error term

In the model, β_0 = the constant value while the coefficient β_i is the slope of the coefficients showing effect of independent variable X on the dependent variable (Y). The error (ϵ) term shows the unexplained factors in the model.

FINDINGS AND DISCUSSION

Regarding study response rate the researcher administered Sixty six questionnaires to the respondents out of which 60 of them were found acceptable yielding a response rate of 90.1%. When the response rate is above 50%, it is considered as satisfactory (Mugenda et al., 2003 and Kothari, 2004). Most of the tea processing firms (48.3%) were aged 31-45 years. It was also established that 25.0% of the firms were aged 46 years and above while 20.0% were aged 16-30 years. Only 6.7% of the firms were aged 15 years and below. The age of the firm may define firms' capabilities in terms of resources and innovation capacity in the efficient production of tea. This is supported by the assertion by Coad, Holm, Krafft and Quatraro (2018) that there is an adverse as well as the convex connection between firm age and success gauged by return on properties, return on equity, or gross profit margin, recommending that more youthful companies begin to see a decline in their success from the get-go but they may come to be profitable once more at aging.

Majority 56.7% of the tea processing firms acquired the Kaizen system 3-5 years ago. It was also established that 23.3% of the tea processing firms acquired Kaizen 2 years ago while

11.7% acquired the Kaizen 6-9 years ago. Only 8.3% of the tea processing firms acquired Kaizen 10 years ago. The results imply that Kaizen process is a relatively new concept in tea production in Kenya. According to Kakowska and Wodarkiewicz-Klimek (2021), the Kaizen system aims to reduce waste by eliminating overproduction, improving quality, becoming more efficient, reducing idle time, and eliminating unnecessary activities. As a result, the higher the efficiency and performance, the longer the company uses the system. All of these factors add up to cost savings and the potential for profit.

Results of Descriptive Analysis

The study investigated the personal discipline as measure of Kaizen system. Table 1 shows the descriptive summary statistics of personal discipline.

Personal discipline	Ν	Min	Max	Mean	SD
This firm supplies tea products to the market in time	60	1	5	4.0	1.0
Tea production process is keenly monitored by line	60	1	5	28	1.0
managers and employees	00	1	5	5.0	1.0
Due care is undertaken by firm's workforce when					
transporting tea produce from farm to processing plants	N 60 60 60 k 60 k 60	1	5	3.7	1.2
in order to minimize damage					
JIT has helped enhanced task scheduling by minimizing	60	1	5	26	1.0
time wastage in sorting raw and processed tea	00	1	5	5.0	1.2
The application of the statistical process control to check					
system functionality of the tea processing machines has	60	1	5	3.8	1.0
enhanced operational efficiency					
The use of JIT has enhanced employee cross-training					
where employees can perform certain tasks when	60	1	5	3.8	1.0
required.					

Table 1: Descriptive Summary Statistics on Personal discipline

1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

Source: Researcher (2021)

Majority of the tea processing firms agreed that their firm supplies tea products to the market in time as shown by mean of 4.0 and SD1.0. It was also indicated that tea production process is keenly monitored by line managers and employees as indicated by mean of 3.8 and SD 1.0. Respondents also agreed that due care is undertaken by firm's workforce when transporting tea produce from farm to processing plants in order to minimize damage as shown by mean of 3.7 and SD 1.2.

Descriptive results indicated further that JIT has helped enhanced task scheduling by minimizing time wastage in sorting raw and processed tea as shown by mean of 3.6 and SD 1.2. Moreover, it was noted that the application of the statistical process control to check system functionality of the tea processing machines has enhanced operational efficiency as indicated by mean of 3.8 and SD 1.0. The use of JIT has enhanced employee cross-training where employees can perform certain tasks when required as agreed by majority of tea processing firms.

Discipline is essential not only for a person's overall success, but also for the success and progression of a company. Proper management of discipline causes prepared teamwork and awareness of the policies developed to accomplish business objectives and also purposes. As a result of personal discipline, individuals within the firm involved are committed to their job as well as sources, procedures are fully manipulated for maximum return and effectiveness.

Personal discipline plays a significant role since an organization can deliver high quality products and services with minimal environmental situations. The results agree with the findings by Belekoukias, *et al.* (2014) who did an investigation on role of lean techniques and devices on execution exhibition of assembling associations and established that just in time has great influence on task execution in a firm. In a similar line, Ali (2017) indicated that employee decline in terms of time and task accomplishment positively impacts firm productivity and competitive advantage in a study on the effect of management commitment on the relationship between kaizen and competitive advantage.

The study investigated the performance of tea processing firms after the introduction of Kaizen system. Key performance measures were profitability, Annual sale volume of tea, tea market prices at the auction market, quality of tea produced in this company and the turnaround time

in processing raw tea. Table 2 shows the descriptive summary statistics of performance of tea processing firms.

Performance indicators	Ν	Min	Max	Mean	SD
Profitability of the company	60	1	5	3.8	1.1
Annual sales volume of tea sold by the company	60	1	5	3.7	1.1
Tea market prices at the auction market	60	1	5	3.9	0.9
Quality of tea produced in this company	60	1	5	3.7	1.2
The turnaround time in processing raw tea	60	1	5	3.7	1.2

Table 2: Descriptive Summary Statistics on Performance of Tea Processing Firms

1: Greatly declined; 2: declining; 3: stagnated; 4: Improved; 5: Greatly improved.

Source: Researcher (2021)

Majority of respondents agreed that profitability of the company greatly improved after introduction of Kaizen as shown by mean of 3.8 and SD1.1. It was also indicated that annual sales volume of tea sold by the company greatly improved after introduction of Kaizen as shown by mean of 3.7 and SD 1.1. The tea processing firms also indicated that tea market prices fetched good prices at the auction market as shown by mean of 3.9 and SD 0.9. Further, quality of tea produced in the company greatly improved as shown by mean of 3.7 and SD 1.2. It was also noted that the turnaround time in processing raw tea improved as shown by mean of 3.7 and SD 1.2 after introduction of Kaizen system.

Correlation Analysis

The study had sought to establish the impact of personal discipline on performance of tea processing firms in Kenya. Table 3 shows correlation matrix.

		Performance of tea	Personal			
Variables		processing firms	discipline			
Performance of tea processing	Pearson					
firms	Correlation	1.000				
	Sig. (2-tailed)					
	Pearson					
Personal discipline	Correlation	.441**	1.000			
	Sig. (2-tailed)	0.000				
** Correlation is significant at the 0.01 level (2-tailed).						
* Correlation is significant at the 0.05 level (2-tailed).						

Table 3: Multiple Correlation Matrix

Source: Researcher (2021)

Outcomes of relationship evaluation revealed a rather solid favorable as well as considerable organization in between individual discipline and efficiency of tea processing companies in Kenya with (r=.441, P= 0.000) at 95% confidence degree. The results imply that individual self-control among employees in the tea industry and also efficiency of tea handling companies in Kenya move in the same instructions, that is as individual technique among workers in the tea handling companies boosts, performance of tea processing companies in Kenya likewise raises and also vice versa. Discipline is crucial not only for the success of the general life of a person but for the success and progression of success of a company. Proper management of discipline leads to ready teamwork as well as observation of the rules established to achieve business objectives and purposes.

Because of personal discipline, persons within the firm involved are committed to their work and resources, processes are fully exploited for maximum yield and efficiency. Personal discipline plays a significant role since an organization can deliver high quality products and services with minimal environmental situations. The results agree with the findings by Belekoukias, *et al.* (2014) who did an investigation on role of lean techniques and devices on execution exhibition of assembling associations and established that just in time has great influence on task execution in a firm. In the same line, Ali (2017) in a study on effect of the commitment of management to the relationship between kaizen and competitive advantage, found that employee decline in terms of time and task accomplishment positively impacts firm's productivity and competiveness advantage.

Regression Analysis

The section presents the regression analysis of the study. Key statistical vales include model summary, analysis of variance tests and regression coefficients.

Table 4: Model Fitness: Personal discipline and Performance of tea processing firms

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.436 ^a	.190	.176	.93556
a. Predictors:	: (Constant), P			

Source: Researcher (2021)

The model fitness results registered the coefficient of determination R Square of .190, R of .436a and Adjusted R Square of 0.176. The model revealed that personal discipline explains 19.0% of the variation in performance of tea processing firms in Kenya. This means 19.0 percent of performance of tea processing firms in Kenya is affected by personal discipline. The results in addition show that the adjusted R squared is .176 implying that; personal discipline in exclusion of constant variable explains performance of tea processing firms in Kenya by 17.6%. The remaining (82.4%) can be explained by the other factors not included in the regression model under investigation. The average deviation of the independent variable from line of the best fit is (.93556). Personal discipline entails a guiding set of ideologies and philosophies that incorporate the integral management systems, current upgrading efforts, and technical equipment among workers. Indicators for personal discipline at work entail timeliness in task completion, efficiency and delivery (Mackelprang & Nair, 2010). This method emphasizes on long-term gains as a result of task completion, and a constant development to structures, programs and produces. It has a significant influence on quality control, procuring tasks, and work culture with an idea that includes cost, meeting delivery schedules, employee's empowerment and expertise improvement, supplier relationships and production of new merchandises.

Model		Sum of Squares	df	Mean Square	F	Sig.	
	Regression	11.914	1	11.914	13.612	.000 ^b	
1	Residual	50.765	58	.875			
	Total	62.679	59				
a. Depe	ndent Variabl	e: Performance of tea	a process	ing firms			
b Predictors: (Constant) Personal discipline							

Table 5: ANOVA: Personal discipline and Performance of tea processing firms

Source: Researcher (2021)

The results show that the model was statistically significant in explaining the influence of personal discipline on performance of tea processing firms in Kenya as indicated by F (1, 58) = 13.612, P<0.000. This means that personal discipline is a satisfactory predictor explaining performance of tea processing firms. Personal discipline plays a significant role since an organization can deliver high quality products and services with minimal environmental situations. Discipline is crucial not just for the success of the general life of a person but also for the success and progression of an organization. Proper management of technique leads to prepared collaboration and observation of the regulations established to attain business goals and also purposes.

 Table 6: Regression Coefficient: Personal discipline and Performance of tea processing

 firms

Model		Unstar Coef	idardized ficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	2.148	.491		4.374	.000
	Personal discipline	.604	.164	.436	3.689	.000
a. Dependent Variable: Performance of tea processing firms						

Source: Researcher (2021)

Performance of tea processing firms = 2.148 + .604X

Where X= Personal discipline

The regression coefficient results show that personal discipline positively and significantly influences performance of tea processing firms in Kenya. (β =.604, p=0.000). This implies that a unit change in personal discipline leads to a positive change in performance of tea processing

firms in Kenya by .604 units. Personal discipline refers to an incorporated, problem-solving management method directed towards improvement of quality and suitable supply, manufacture and distribution processes. Because of personal discipline, persons within the firm involved are committed to their work and resources, processes are fully exploited for maximum yield and efficiency.

Hypothesis Testing

H₀: Personal discipline does not significantly influence performance of tea processing firms in Kenya

The hypothesis was tested through numerous straight regressions. The choice to either accept or deny the void hypothesis was based on the t-statistic worth. If the computed t-statistic value is more than the vital t-statistic value of 1.96, after that H_0 is rejected but if it is less than 1.96, after that H_0 is not turned down. The null hypothesis was that personal self-control does not significantly affect performance of tea processing companies in Kenya. The results reveal that the t-statistic value was 2.097 > 1.96. The null hypothesis was for that reason rejected. The research study for this reason adopted the alternate theory that there is individual technique significantly affect efficiency of tea processing firms in Kenya.

CONCLUSION

Personal discipline has a positive and significant influence on performance of tea processing firms. The results thus concludes that personal discipline is related to how workers in tea processing firm plan their work and deliver it as per the requirements of the firm. It also entails attention to how tea is picked, packaged and processed to enhance its market competiveness. Discipline is essential for task efficiency and accomplishment in an organization. Because of personal discipline, persons within the firm involved are committed to their work and resources, processes are fully exploited for maximum yield and efficiency.

RECOMMENDATIONS

It was established that personal discipline positively and significantly influences performance of tea processing firms. Personal discipline guides how tea is cultivated, picked, packaged and processed to enhance its market competiveness. Personal discipline plays a significant role since an organization can deliver high quality products and services with minimal environmental situations. The study recommends for the need to cultivate virtue of timeliness in task accomplishment among workers of tea processing firms. This can be conducted through workshops, close mentorship programs and support for employees' growth and welfare programmes.

REFERENCES

- Adeyemi, A. C., & Chucks, O. K. (2012). Adopting the Kaizen suggestion system in South African Lean automotive components companies. *Science Journal of Business Management*, 2012.
- Ali, O. A. I. (2017). The Moderating Role of Management Commitment on the Relationship between Kaizen and Competitive Advantage: Case study Khartoum industrial companies (Doctoral dissertation, Sudan University of Science & Technology).
- Ateka, J. M., Onono, P., & Etyang, M. (2018). Productivity and its determinants in smallholder tea production in Kenya: evidence from Bomet and Nyamira counties of Kenya.
- Belekoukias, I., Garza-Reyes, J. A., & Kumar, V. (2014). The impact of lean methods and tools on the operational performance of manufacturing organisations. *International Journal* of Production Research, 52(18), 5346-5366.
- Burch, M. K. (2008). Lean longevity: Kaizen events and determinants of sustainable improvement. University of Massachusetts Amherst.
- Cheserek, B. C., Elbehri, A., & Bore, J. (2015). Analysis of links between climate variables and tea production in the recent past in Kenya. *Donnish Journal of Research in Environmental Studies*, 2(2), 5-17.
- Chiarini, A., Baccarani, C., & Mascherpa, V. (2018). Lean production, Toyota production system and kaizen philosophy. *The TQM Journal*. The TQM Journal, https://doi.org/10.1108/TQM-12-2017-0178 Permanent link to this document: https://doi.org/10.1108/TQM-12-2017-0178.
- Coad, A., Holm, J. R., Krafft, J., & Quatraro, F. (2018). Firm age and performance. *Journal of Evolutionary Economics*, 28(1), 1-11.

- Coad, A., Segarra, A., & Teruel, M. (2013). Like milk or wine: Does firm performance improve with age?. *Structural Change and Economic Dynamics*, 24, 173-189.
- Cooper, D. R., Schindler, P. S., & Sun, J. (2011). *Business research methods* (Vol. 9). New York: McGraw-Hill Irwin.
- Davoudi, S. M. M., & Fartash, K. (2012). The impact of knowledge sharing on organizational commitment of employees: case study of Iranian manufacturing companies. *Pacific business review international*, 5(2), 1-10.
- Deming, W. E., (1993). The New Economics for Industry, Government, and Education. Boston, Ma: MIT Press. p. 132. ISBN 0262541165.
- Dul, J., & Ceylan, C. (2014). The Impact of a creativity-supporting work environment on a firm's product innovation performance. *Journal of Product Innovation Management*, 31(6), 1254-1267.
- Ekinci, Y. (2015). Designing research questionnaires for business and management students. Sage: California.
- Eriksson, P., &Kovalainen, A. (2015). *Qualitative methods in business research: A practical guide to social research*. Sage Publication. California.
- Field, A. (2013). Discovering statistics using IBM SPSS statistics. Sage: California.
- Gautam, R., Kumar, S., & Singh, S. (2012). Kaizen implementation in an industry in India: a case study. *International Journal of Research in Mechanical Engineering & Technology*, 2(1), 25-33.
- Golas, H., Mazur, A., Gruszka, J., & Szafer, P. (2016). Application of the suggestion system in the improvement of the production process and product quality control. In *Materials Science and Engineering Conference Series* (Vol. 145, No. 6, p. 062005).
- Golas, H., Mazur, A., Gruszka, J., & Szafer, P. (2016). Application of the suggestion system in the improvement of the production process and product quality control. In *Materials Science and Engineering Conference Series* (Vol. 145, No. 6, p. 062005).
- Hall, S. (2015). *The financial effects from continuous improvement adaptions* (Master's thesis).Chalmers University of Technology. University of Nairobi.

- Han, J. H., Jung, J. T., & Joo, H. K. (2015). A Study on Effects of Creativity to Organizational Innovation. *Indian Journal of Science and Technology*, 8(24), 1-13.
- Honda, S. (2012). Inspired by Sri-Lankan practice: scaling-up 5S-KAIZEN-TQM for improving African hospital service. JICA Research Institute, editor. Scaling up South-South and triangular cooperation. Tokyo: JICA Research Institute, 107-27.
- Hong, N. B., & Yabe, M. (2015). Resource use efficiency of tea production in Vietnam: Using translog SFA model. *Journal of Agricultural Science*, 7(9), 160-172.
- Jadhav, G. S., Jamadar, V. M., Gunavant, P. S., & Gajghate, S. S. (2014). Role of Kaizens to Improve Productivity: A Case Study. In *Applied Mechanics and Materials* (Vol. 592, pp. 2689-2693). Trans Tech Publications.
- Macpherson, W., Lockhart, J., Kavan, H. and Iaquinto, A. (2015) 'Kaizen: a Japanese philosophy and system for business excellence', *Journal of Business Strategy*, Vol. 36, No. 5, pp.3–9.
- Misiurek, B. (2016). Standardized Work with TWI: Eliminating Human Errors in Production and Service Processes. CRC Press. New York: Productivity Press. ISBN 9781498737548.
- Nakamori, T., Takahashi, K., Han, B. T., & McIver, D. (2019). Understanding KAIZEN practice in Japanese overseas manufacturing: a framework. *International Journal of Knowledge Management Studies*, *10*(3), 271-298.
- Nallusamy, S. (2016). Enhancement of Productivity and Efficiency of CNC Machines in a Small Scale Industry Using Total Productive Maintenance. *International Journal of Engineering Research in Africa*, 25.
- Sanyal, S., & Hisam, M. W. (2018). The impact of teamwork on work performance of employees: A study of faculty members in Dhofar University. *IOSR Journal of Business and Management*, 20(3), 15-22.Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. Essex. *Financial Times/Prentice Hall*, 1-2.

- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students*. London. Pearson education.
- Saunders, M., Lewis, P., & Thornhill, A. (2016). Research methods for business students (Seventh). *Nueva York: Pearson Education*.
- Sekaran, U. & Bougie, R. (2010). Research methods for business: A skill building approach (5th ed.). Chichester: John Willey & Sons Ltd.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Slaichová, E., & Marsíková, K. (2013). The effect of implementing a maintenance information system on the efficiency of production facilities. *Journal of competitiveness*, 5(3).
- Stam, E. (2010). Growth beyond Gibrat: firm growth processes and strategies. Small Business Economics, 35(2), 129-135.
- Suárez-Barraza, M. F., & Lingham, T. (2018). Kaizen within kaizen teams: continuous and process improvements in a Spanish municipality. *Asian Journal on Quality*, 9(1), 1-21.
- Suhag, K. A., Solangi, S. R., Larik, R. S. A., Lakho, M. K., & Tagar, A. H. (2017). The relationship of innovation with organizational performance. *International Journal of Research-Granthaalayah*, 5(2), 292-306.
- Sulaiman, I. F., Hashim, C. N., Ibrahim, M. B., Hasan, S. S., & Oluwatosin, O. S. (2015). Impact of Creativity to Organizational Competitiveness. *International Journal of Humanities and Social Science*, 5(8), 106-113.
- Tea Research Institute (2018). <u>https://www.nation.co.ke/business/seedsofgold/quality-of-</u> Kenyan-tea-falling-as-Rwanda-surges/2301238-4810342-157rd3f/index.html
- Teece, D. J. (2014). A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, 45(1), 8-37.
- Terziovski, M. (2011). The effects of continuous improvement and innovation management practice on small to medium enterprise (SME) performance. *Journal of Operations Management*, 15, 1-18.

- Wang, C. L., Senaratne, C., & Rafiq, M. (2015). Success traps, dynamic capabilities and firm performance. *British Journal of Management*, 26(1), 26-44.
- Wheeler, B. C. (2002). NEBIC: A dynamic capabilities theory for assessing netenablement. *Information systems research*, *13*(2), 125-146.
- Yan, B., & Makinde, O. D. (2011). Impact of continuous improvement on new product development within SMEs in the Western Cape, South Africa. African Journal of Business Management, 5(6), 2220-2229.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2003). Business research methods (ed.). *Thomson/South-Western, Cincinnati, OH*.