

**THE EFFECT OF BACKGROUND MUSIC ON PERFORMANCE OF TAILORING  
WORKERS AT THE EXPORT PROCESSING ZONE IN KENYA**

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**ABSTRACT**

*The general objective of this study was to determine the role of background music in employee performance of tailoring workers at the Export Processing Zone (EPZ) in Kenya. The study adopted the positivist approach and was conducted in a natural setting comprising garment tailoring factories. The study design adopted was field experiment. The study population was the 22 garment factories at the EPZ from which three were selected as the study sample using systematic sampling. Each of the 3 factories had 1500 tailors, thus 357 estimated sample size was used for the study from the 4500 tailors, with 119 tailors from each factory, selected through a systematic sampling procedure. In factory one, music was played throughout the day, while in the second factory music was played on and off and in the third factory music was not played at all. The study found that background music, had a positive and significant effect on employee performance of tailoring workers at the EPZ and contributed up to 20.6% of changes in employee performance. This was indicated by a coefficient of correlation of 0.454, coefficient of determination of 0.203, adjusted coefficient of determination of 0.203 and p-value < 0.05.*

**Key Words:** Background Music, Employee Performance, Tailor, Factory, EPZ, Athi River

**INTRODUCTION**

Human Resources Management (HRM) functions are important in determining the Organizational success. Human Resource (HR) Department in any organization deals with

people. From the time the employees enter the organization to the time they leave the organization, the HR department handles all issues from recruitment, selection, orientation, training, wages and salary administration, benefits and incentives provision, performance evaluation, to communicating with them. Effective utilization of the Human Resource is the focus of the HR department.

Music listening is one of the activities people engage in to create an environment that is conducive for them to work. Shek and Schubert (2009), North and Hargreaves (1999) and Lesiuk (2005) have demonstrated that music is a significant factor in determining how employees perform their duties at work. Human beings have always worked; similarly, they have always made music. Music has accompanied people's lives from birth through to death.

### **Background Music**

Different scholars have defined music differently. According to Dorell (2005), music is a sound that we enjoy hearing. There are different genres of music that have developed over the years. Popular genres listed on the music genre list website include classical music, popular "pop" music, traditional music or folk music, hip-hop/hip-hop, jazz, country music, rhythm and blues, and rock music. This study categorized music types using Rentfrow and Gosling (2003) four music-preference factors namely: *Reflective and complex* (comprising classical, jazz, folk, and blues); *Intense and rebellious* (comprising rock, alternative and heavy metal); *Upbeat and conventional* (consisting country, pop, soundtracks, religious); and *Energetic and rhythmic* (rap, soul and electronic).

Background music is music that is intended to be heard but not actively or purposely listened to (Griffin, 2006). It does not require organized or analytical listening. In this study background music is defined as music intended to be heard but not to be actively listened to when the listener is performing a primary duty. Here, music accompanies the work that the listener is engaged in. For this type of listening to be effective, the music must be pleasing to the listener and the volume must not be invasive but be controlled to enable the listener to concentrate on the primary task (Griffin, 2006).

### **The Concept of Employee Performance**

Viswesvaran and Ones (2000) define work performance as scalable actions, behaviour and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals. Task performance is defined as the proficiency with which incumbents perform activities that are formally recognized as part of their jobs activities that contribute to the organization's technical core either directly by implementing a part of its technological process, or indirectly by providing it with needed materials or services (Juslin & Västfjäll, 2008). Task performance entails the accomplishment of duties and tasks that are specified in a job description.

Anything that takes one's attention away from work being performed can be a distraction. Distraction originates from unforeseen stimuli, which can be noise, visual disturbance, for example glare, or movement or being too hot or too cold. It can also stem from failure of services and systems, for example, equipment or networks that inhibit tasks from being performed effectively (Anderson, 2001). However, what would be distracting to some people may be considered an aid to concentration to others. For example, some people find it easier to

concentrate on work with the aid of background music, while for others find the music a significant source of distraction.

The degree to which distraction affects performance also lies upon other factors such as the individual's ability to concentrate at work, their motivation and the effectiveness of their coping strategies at the work environment. For any organization to experience a competitive advantage over the other players in the market, the work environment is important. A good working environment ensures minimal health problems, and an ergogenic atmosphere for work. Well-being is of primary importance to employers and employees today. Work pressure, strain, stress, burn-out, job dissatisfaction, anxiety and depression are growing problems in many organisations. It is important that work environment allows relaxed atmosphere to aid productivity (Mawson, 2002). The current study looked at performance in terms of quantity and quality of work produced under varying background conditions.

### **Tailoring Firms at the Athi River Export Processing Zone, Kenya**

In the early 1980s, textile was the leading manufacturing industry in Kenya in terms of both size and employment. The industry employed over 200,000 farming households that supplied cotton and about 30% of the labour force in the manufacturing sector (EPZA, 2005). The industry started declining in the mid 1980s due to dumping of foreign second hand clothes popularly known as *Mitumba*, in the local market and eventually collapsed in the 1990s. Since 2000, the African Growth and Opportunity Act (AGOA) programme and the government of Kenya supported the industry and as a result, the textile and apparel firms in the country have produced a large variety of textile products for export and local market.

The first EPZ program was established in Kenya in 1990 to provide an attractive investment opportunity for export-oriented business ventures within designated areas or zones (EPZA, 2013). This was intended to help the economy through increased productive capital investment, creation of jobs, technology transfer, and development of linkages and diversified exports. This scheme offers a range of attractive incentives to ensure low cost of operations, fast set up of businesses, smooth operations and high profitability. In Kenya, there are six EPZ centers located in strategic locations. They comprise of Nairobi, (Athi River Zone), Mombasa, Kilifi, Malindi, Voi and Kimwarerin Rift Valley region (EPZA, 2013). The EPZ Authority (EPZA) manages all these factories.

The study population is composed of the tailoring workers at the EPZ, Athi River. EPZ, Athi River Zone, is one of the largest export processing zones in the country. The factories produce high quality goods that meet the international standards. Currently, there are twenty-two (22) garments/apparel firms at the Athi River EPZ. The three factories sampled for this study are licensed to manufacture Knitted garments. The population of the workers in these factories is majorly composed of young and middle-aged people between the ages of 20-40 (Ireru, 2012)

All the garments produced are exported to the United States of America (US) under AGOA. The AGOA programme allows Kenya and other Sub-Saharan African countries to export identified goods at preferential terms to the US, exempting them from paying tax.

The sampled factories have a population of 1500 tailors each. They produce garments on mass production basis. In the three factories, work is divided into assembly section, cutting section, distribution section, stitching section, quality checking section, pressing area, printing area and packaging area. At the assembly area, materials are assembled and arranged, then moved to

cutting section. Here, materials are only cut according to what is to be made/sewn, and then moved to stitching, then to the quality check, where quality of the garments is assessed, before it goes to pressing area and packaging ready for shipment to the US market. In the three sampled factories, all managerial and other work related activities including payment of tailor's wages is similar. This study introduced background music within a work set up where workers are of different personality types and react differently to the same stimulus under similar circumstances, to examine the influence background music will have on employee performance.

### **Statement of the Problem**

An increasing number of people listen to background music at work. It is not unusual to enter an office or factory and find people wearing headphones and listening to their selected music. People store music in their digital gadgets and play them at their convenience. This has made it easy for people to access music whenever it is required. The increasing presence of music at places of work raises questions about benefits music has to man as he works. Though it is a normal practice to many, reasons for the liking of music at work are not clear. There are inconsistencies in the results of studies on the effects of music on work performance (Furnham, 1981).

Although music is said to enhance work performance (Watson, 2014), it is not clear which type of music is appropriate to employees doing tailoring work. Padmasiri and Dhammika (2014) did a study on the effect of music listening on work performance in a garment factory and found a significant effect. They used what they called relaxation music which negatively affected the performance of the workers and they concluded that relaxation music is not good for work. There

has not been any study so far done to investigate the effects of background music on factory workers' performance in Kenya.

### **Research Objective**

To establish the effect of background music on employee performance

### **LITERATURE REVIEW**

Background music in relation to work activities, according to Haake (2011), has a dual function: engagement in, as well as escape from work-related activities. Music is said to motivate and enhance one's performance and help them flee from those activities that may interfere with the execution of their duties like, gossiping, quarrelling and unnecessary movement. In Haake's study, respondents reported that they listen to music to engage in their work; they illustrated how music listening through headphones aided their concentration. They managed their stress levels and other work related burnouts by having control of their auditory environment. Many participants reported that background music helped them to be attentive on monotonous tasks, it provided clarity of thought, and aided the thinking process.

According to Watson (2014), an experiment was done by Mindlab International in which 26 participants were given a series of different tasks for five days in a row. The activities included spell-checking, equation solving, mathematical word problems, data entry and abstract reasoning. The workers completed these tasks while listening to one of four music genres or no music at all, to see which had the greater effect on accuracy and speed of correct responses (Watson, 2014). The study, found out that participants made the largest part mistakes when they

did not listen to any music at all. The study concluded that there were specific music genres that people love to listen to while doing certain tasks.

Kiger (1989) did a study to assess the differential effects of low information-load and high information-load on a reading comprehension task. Low information-load music was characterized as slow, soft and repetitive, whereas high information-load music had lively rhythmic changes with fast tempos (Kiger, 1989). The study found improvement of reading comprehension scores under the low information-load music compared to silence. High information-load music, however, extensively reduced reading comprehension performance. According to Kiger's information-load model, vocal music has a higher amount of information-load than instrumental music, and therefore will affect task performance negatively. Furnham, Trew and Sneade (1999), in a different study, established that there is no significant results to support that vocal music reduced performance more than instrumental music (Cassidy & MacDonald, 2007).

Another study by Hilliard and Tolin (1979) examined whether familiarity with background music stimulation had any effect on task performance (McDonald, 2013). They found that task performance in the company of familiar background music was higher than that in the company of unfamiliar music. Etaugh and Michals (1975) (cited by Hilliard and Tolin, 1979) proposed that the more often, undergraduates studied in the presence of music, the less background music impaired their performance (McDonald, 2013).

Jäncke and Sandmann (2010) recognized that music familiarity, as an important area of future research, after their exhaustive and highly controlled study yielded no significant results. They composed their own musical pieces, and controlled for the emotional complexity, tempo, and



semantic associations found in music. Despite controlling for all of these variables, they found no significant difference of positive background music on verbal learning tasks. They suggested use of more familiar music because familiar musical stimulation may induce stronger emotion and significance that may, in turn, affect employee performance.

On the other hand, a broad literature review by Uhrbrock (1961) (cited by Furnham and Bradley, 1997) reviewed findings pertaining to the effect of music on performance and motivation in an industrial setting. The study found no support for the claim that background music increased productivity. In fact, it established that, a small percentage of participants, 1-10%, did not like listening to music at work; music affected the overall quality of work negatively; and that background music increased output of young, inexperienced employees engaged in doing tasks that are easy and repetitive.

## **METHODOLOGY**

### **Research Design**

The study was conducted in a natural setting comprising garment tailoring factories. For this reason, the design of this study was field experiment. This design was considered appropriate because it did not change a study subject's behaviour. The study included a control group and two treatment groups. The two treatment groups were included to assess the effect of music on employee performance at different times of the day so as to obtain information on what time of day performance was enhanced or reduced when music was listened to. The factory set up at the Athi River EPZ was a convenient site for investigating the effects of background music on work performance of factory workers doing repetitive tasks.

The study was done in the three factories. The three factories include New Wide Garment EPZ (K) LTD 1, Mega Garment (A) LTD and Mega Garment (B) LTD. This study required cooperation from the management of the factories so as to get desired data. Each of the factories sampled had 1500 tailors working from 8am- 4:30pm with lunch break between 1:00PM and 2:00PM. The population of study was therefore 4500 tailors. Preliminary interview with the General Managers of the factories revealed that the tailors were between the ages of 20-40 years; the factories had similar set up of work stations, communication channels, hiring procedures, wages payment, safety measures, disciplinary procedures; and other human resources related aspects.

### **Sample Design**

The study used systematic sampling design to come up with a representative sample. According to Xu (1999), a population of 4500 requires a sample size of 357 at 95% confidence level and 0.5 margin of error. Therefore, 357 estimated sample size was used for the study. The study sample was divided by 3 (The number of factories) to get a total of 119 tailors per factory. A systematic sampling procedure was used to obtain 119 tailors from each factory. This was done by listing all the 1500 tailors for each factory and selecting every 12<sup>th</sup>.

### **Data Collection**

In factory one, music was played throughout the day, while in the second factory music was played on and off and in the third factory music was not played at all. The purpose of the variation was to assess the effect music has on performance at different times of the day. The research instruments included Rentfrow and Gosling preferred music checklist (Rentfrow &

Gosling, 2003), Eysenck's Personality Inventory, work behaviour checklist and the observation checklist. The Rentfrow and Gosling preferred music checklist was used to determine the type of music that participant prefer and that is the music that was played during the study.

Pilot study was done during the first week. Research tools were pretested before the collection of actual data, which was done in four phases. Phase one took one week and included physical observation of respondent's regular work behaviour and work performance in terms of output or number of garments produced in a day and the quality of the garments produced. Phase 2 also took one week. Here, respondents in factory one and two identified the music they love to listen to using Rentfrow and Gosling preferred music checklist. Different types of music were played from which the listeners selected the ones they preferred. Respondents filled a form/ checklist showing their preferred music. Results from the checklist were used to compile preferred music by the participants that were later used for the study.

In the third phase, the refined data collection tools were administered. Respondents were observed for a period of four weeks to ascertain their actual behaviour when their preferred music is played and when it is not played. In factory one, music was on throughout while in factory two music was on and off (e.g. Music was played in the morning, and off in the afternoon, and off in the morning and on in the afternoon for a period of four weeks) at intervals to ascertain their response to music and how it affected their performance.

The final phase was 2 weeks long, and the main activity was to conduct interview to debrief the respondents and detect those among the participants that would have guessed the research hypotheses so that they can be excluded from final data analysis.

## **Data Analysis**

Factorial analysis and simple regression analysis were used to establish the nature and magnitude of the relationships between the variables of the study and to test the hypothesized relationships. Descriptive statistics were computed to show the degree to which various measures of the variable either converge or diverge from the mean.

Factorial analysis was used to show the cause effect relationship between the study variables. Factorial Analysis usually provides the ability to study the simultaneous effects of two or more factors on the outcome variable. One of the common tasks in research is to compare the average response across levels of one or more factor variables (Carlberg, 2016). Factorial designs evaluate the effect of two or more categorical variables also called factors on a response variable by testing hypotheses about various averages. These designs allow for experimentation across a wide variety of conditions and they evaluate the interaction of two or more factors.

A factorial ANOVA compares means across two or more independent variables. Again, a one-way ANOVA has one independent variable that splits the sample into two or more groups, whereas the factorial ANOVA has two or more independent variables that split the sample in four or more groups. Study took place in three factories: in factory one, music was played throughout while in factory two, music was played at regular intervals i.e. on and off; and in the factory three, music was not played at all. Data gotten from the daily log of the three factories was huge and that is why factorial analysis was used to summarize the data and explain the correlation among the observed variables. Thereafter, linear regression analysis was used to establish the effect of background music on employee performance.

## **RESULTS**

To assess the effect of background music on the employee performance, it was necessary to gather specific data about the respondent's and their preference as far as music is concerned to understand them well. The frequency numbers presented were given according to the questionnaires received from the respondents and the specific answers to questions; some questions were left blank by the respondents. The following aspects were assessed:

### **Preferred Background Music**

The study sought to determine the type of background music that the respondents preferred. Here, respondents identified the music they love to listen to using Rentfrow and Gosling preferred music checklist. Different types of music were played from which the listeners selected the ones they preferred. Respondents filled a form/ checklist showing their preferred music. This was important in determining the type of music tailors at the EPZ factories preferred.

The findings for preferred music are presented in Tables 1, 2, 3 and 4:

*Table 1: Reflective and Complex Music*

<b>Reflective and Complex Music</b>	<b>Frequency</b>	<b>Percent</b>
Classical	100	28%
Jazz	168	47%
Blues	1	0.3%
No Preferred Music under this category	88	25%
<b>Total</b>	<b>357</b>	<b>100</b>

The findings presented in Table 1 indicate that majority of the respondents at 47% preferred Jazz, 28% classical, 25% preferred no music under reflective and complex music category while 0.3% preferred blues. These imply that tailors at the EPZ preferred jazz music in the reflective and complex category.

**Table 2: Intense and Rebellious Music**

<b>Intense and Rebellious Music</b>	<b>Frequency</b>	<b>Percent</b>
Rock	1	0%
Reggae	41	15%
Ragga	10	4%
Hip-hop and Rock	26	10%
Hip-hop and Reggae	39	14%
Hip-hop and Ragga	1	0%
Rock, hip-hop and Reggae	31	12%
Reggae, Ragga and Heavy Metal	1	0%
Rock, Hip-hop, Reggae and Ragga	1	0%
Hip-hop, Reggae, Ragga and Heavy Metal	1	0%
Prefer no music under this category	117	43%
<b>Total</b>	<b>269</b>	<b>100%</b>

Majority of the respondents at 43% preferred no type of intense and rebellious music, 15% preferred reggae music, 14% preferred hip-hop and reggae music, 12% preferred rock, hip-hop and reggae. Less than one percent of the respondents preferred a combination of hip-hop and raga, reggae; ragga and heavy metal; rock, hip-hop, reggae and raga and hip-hop; reggae, ragga and heavy metal. These imply that tailors at the EPZ preferred less of intense and rebellious music as indicated by the uneven preference to diverse forms of music under this category.

*Table 3: Upbeat and Conventional Music*

<b>Upbeat and Conventional Music</b>	<b>Frequency</b>	<b>Percent</b>
None	18	7%
Religious	80	30%
Country and Religious	60	22%
Religious and Pop	38	14%
Country, Religious and Pop	73	27%
<b>Total</b>	<b>269</b>	<b>100%</b>

The findings presented in Table 3 indicate that most of the respondent at 30% preferred religious music, 27% preferred country, religious and pop music, 22% preferred country and religious, 14% preferred religious and pop and 7% preferred none of the upbeat and conventional music. These imply that the EPZ tailors preferred more of religious music since up to 93% preferred religious music combined with another type of music. While probing them further on which type of religious music they preferred, respondents said they preferred East African gospel music. This could be because East African gospel music is mostly in the language they understand. Hence it speaks directly to their needs.

Language preferred in music was Kiswahili and other East African local languages. This study to some extent supports Dorell (2005) definition of music which says music is a sound that we enjoy hearing. From Dorrell's definition, it is evident that there are sounds that some people enjoy hearing while there are other sounds that are not enjoyed by other people. What will sound as music to one person may be noise to another because there are different types of music and perceived differently by people. According to Hilliard and Tolin (1979), performance in the presence of familiar background music is higher than that in the presence of unfamiliar music.

This study also supports Jäncke and Sandmann (2010) who suggest that listening to familiar musical stimulation evokes stronger emotion and meaning that may, in turn, affect work performance. If background music is positively related to employee performance, then playing upbeat and conventional music would have better results than all the other categories. This category was the most preferred by the tailors at the EPZ.

*Table 4: Energetic and Rhythmic Music*

<b>Energetic and Rhythmic Music</b>	<b>Frequency</b>	<b>Percent</b>
None	152	57%
Rap	1	0%
Rhumba	76	28%
Rap and soul	1	0%
Rap and rhumba	18	7%
Soul and rhumba	21	8%
<b>Total</b>	<b>269</b>	<b>100%</b>

The findings presented in Table 4 indicate that majority of the respondents at 57% did not prefer any music under energetic and rhythmic music category, 28% rhumba, 0% preferred rap music, rap and soul, 8% soul and rhumba while 7% preferred rap and rhumba. These imply that employees did not prefer energetic and rhythmic music.

Majority of the respondents preferred upbeat and conventional music mostly, religious music. This was followed by reflective and complex music where most respondents preferred Jazz music. The least preferred music was energetic and rhythmic music, which included the rap, soul, salsa, calypso, rhumba and dance hall. Music and life are inseparable. Scheirer (2000)



posits that, music is one of the most striking activities that separate humans from animals. Music plays a role in rituals of birth and puberty, at marriage and death, in initiations, and in rituals of livelihood for example hunting, farming, gathering, etc.

Notably, music plays a significant role in work productivity. From the above findings, it is important to consider that people's music or folk music plays an important role in their activities. Music that is understood in language, in context, and content speaks to the inner feelings or state of a person and aids productivity. Nzewi (1980) says that music is an ambiguous social organizer; it supervises the operations of established government, assists in maintenance of the law of land, safeguards and perpetuates traditions, discourages the degeneration of personal and corporate moral, promotes social equity and fights injustices, crowns rulers and welcomes births, buries the dead, enforces and enlivens all purposes of communal-get-together. This study confidently posits that familiar background music aids in one's productivity.

### **Age of the Respondents**

According to Lamere (2014), music is distinctive for a particular demographic. The study sought to determine the age of the respondents. It was important to determine the age of participants because research has shown that different groups prefer different types of music. The findings are presented in Table 5.

*Table 5: Age of the Respondents*

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
Below 30 years	62	61.39%
Above 30 years	39	39.61%
<b>Total</b>	<b>101</b>	<b>100%</b>

The findings in Table 5 indicate that majority of the respondents at 61.39% were aged below 30 years while 38.61% were aged above 30 years. The findings indicate that Athi River EPZ has a young workforce because most of the tailors are below 30 years of age. Age of the respondents was expected to be related to the type of background preferred by the employee. People who enjoy a certain genre of music always have other attributes in common: either they are of the same gender, same age group, similar academic qualification or background socialization. In a work set up, it is obvious that individuals will socialize. The current study concludes that the reason for liking a similar genre of music could be due to participants being in a similar age bracket. Most Participants are between the ages of 20 and 40 and so their level of exposure to music is therefore similar thus the choice of music preference.

### **Gender of the Respondents**

The study also sought to determine the gender of the respondents. The findings are presented in Table 6.

*Table 6: Gender of the Respondents*

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Female	63	62.4%
Male	38	37.6%
<b>Total</b>	<b>101</b>	<b>100%</b>

Majority of the respondents at 62.38% were female while 37.62% were male. It is expected that women and men prefer different types of background music, have different exposure to different types of music and therefore process music differently. Christenson and Peterson (1988) in their study found that male and female use and respond to music in different ways.

Dees and Vera (1978) also found that music for an all-male or an all-female gathering differed. They found that for male, music had less interference from the outside and was more of a common source of unity and participation, while females were more likely to use music as secondary gratification for example to improve mood, and feel less alone and as a general background activity. Furthermore, females generally indicate liking music more than male. For males, especially young males, music is often personal and of central importance in their lives.

### **Number of Years Worked at EPZ Factory**

The study sought to determine the number of years the respondents had worked at the EPZ factories. This was important in assessing the level of experience of the respondents. The findings are presented in Table 7.

*Table 7: Number of Years Worked at the EPZ Factory*

<b>Duration</b>	<b>Frequency</b>	<b>Percent</b>
Less than 10 years	98	49%
More than 10 years	101	51%
<b>Total</b>	<b>199</b>	<b>100%</b>

The findings in Table 7 indicate that majority of the respondents at 51% had worked at the EPZ factory for more than 10 years. 49% of the respondents had worked at the EPZ factory for less than 10 years. Since majority of the respondents had worked for more than 10 years, they were well experienced in their duties. The study data obtained was therefore reliable.

### **Enjoyment of Work**

The study sought to determine whether the tailors enjoyed working at their respective factories. Determining this was important in evaluating the attitude the respondents depicted at their work place. The findings are presented in Table 8.

*Table 8: Work Enjoyment*

<b>Enjoying work</b>	<b>Frequency</b>	<b>Percent</b>
Enjoy	96	95%
Don't Enjoy	5	5%
<b>Total</b>	<b>101</b>	<b>100%</b>

The findings indicate that 95% of the respondents enjoyed work while 5% did not enjoy work. This implied that the staff at EPZ had the right attitude for the job and therefore it would be possible to achieve higher productivity by adoption of work related incentives like background music.

### **Health Breaks at Work**

The study sought to determine whether the respondents had health breaks. The findings are presented in Table 9.

*Table 9: Having health Breaks at Work*

<b>Status</b>	<b>Frequency</b>	<b>Percent</b>
Have Health Breaks	92	91%
Don't have Health Breaks	9	9%
<b>Total</b>	<b>101</b>	<b>100%</b>

The findings indicate that most of the respondents (91%) had health breaks and 9% did not have health breaks. The fact that majority of the respondents had health breaks meant that the productivity of the respondents could not be hindered by lack of rest. Tailoring being a repetitive and tedious work, the tailors had enough time to eat, drink and rest hence fewer mistakes in their work.

### **Relationship with Colleagues**

The study sought to determine how well the tailors at EPZ were relating to tailors. The respondents were required to indicate whether the relationship was well or poor. The findings are presented in Table 10.

*Table 10: Relationship with Colleagues*

<b>Status</b>	<b>Frequency</b>	<b>Percent</b>
Relate well	101	97%
Poorly	3	3%
<b>Total</b>	<b>104</b>	<b>100%</b>

The findings indicate that majority of the respondents at 97% related well with the fellow staff with only 3% of the respondents who related poorly. The findings implied that the relationship between the tailors was good and they worked well together. Productivity of the tailors depended on each other. In case they didn't have a good relationship with each other, then the entire production line would be affected negatively.

#### **Relationship with Supervisor**

The study also sought to determine how well the respondents related with the supervisors. The findings are presented in Table 11.

*Table 11: Relationship with Supervisor*

<b>Status</b>	<b>Frequency</b>	<b>Percent</b>
Relate well	96	95%
Poorly	5	5%
<b>Total</b>	<b>101</b>	<b>100%</b>

Majority of the respondents at 95% related well with the supervisors while 5% related poorly. The fact that majority of the respondents related well implied that the supervisors and tailors had a good working relationship. Good supervisor-tailor relationship is crucial in ensuring productivity.

### **Productivity of the Respondents**

To determine the staff perception of their productivity, the respondents were required to rate their productivity as excellent, good, fair and bad. The findings are presented in Table 12.

*Table 12: Productivity of the Respondents*

Status	Frequency	Percent
Excellent	58	57%
Good	37	37%
Fair	6	6%
Bad	0	0%
Total	101	100%

The findings indicate that majority of the respondents at 57% rated their productivity as excellent, 37% as good, 6% fair and 0% as bad. The respondents perceived their performance positively. Positive attitude is necessary in achieving higher productivity. Production at the EPZ is predetermined. Tailors in a production line are required to produce a number of garments per day.

### **Love Listening to Music**

The study sought to determine whether the respondents loved listening to music by responding yes or no. The findings are presented in Table 13.

*Table 13: Love Listening to Music*

<b>Status</b>	<b>Frequency</b>	<b>Percent</b>
Love Listening to Music	100	99%
Don't Love Listening to Music	1	1%
<b>Total</b>	<b>101</b>	<b>100%</b>

The findings indicate that majority of the respondents at 99% loved listening to music while 1% did not love listening to music. Since the majority of the respondents preferred listening to music, it was expected that background music would therefore have a positive effect to their work performance. Music improves work performance by either reducing perceptions of fatigue or increasing work capacity (North & Hargreaves, 1998). A study by Fox and Embrey (1972) as cited by Pasick, (2014) found that factory workers performed at a higher level when upbeat, happy tunes were played in the background. This could explain why majority of respondents love to listen to music at work and also could explain why the respondent's music preference was upbeat and conventional music.

### **Type of Music Preferred**

The study required those who had indicated that they loved listening to music to indicate the type of music they preferred. The findings are presented in Table 14.



*Table 14: Type of music Preferred*

<b>Music Preferred</b>	<b>Frequency</b>	<b>Percent</b>
Any	2	2%
cool music	1	1%
E.A. Music	3	3%
Gospel music	56	58%
Old school	3	3%
Reggae	10	10%
Rhumba	6	6%
Rhumba, Benga	4	4%
RnB	1	1%
Rock	4	4%
Roots	1	1%
Soul, dancehall, bongo, gospel	1	1%
Trap	6	6%
<b>Grand Total</b>	<b>99</b>	<b>100%</b>

Majority of the respondents at 58% loved gospel music, 10% reggae, 6% rhumba, 6% trap, 4% rhumba and benga, 4% rock, 3% East African music, 3% old school, 2% any and 1% cool music, RnB, roots and a combination of soul, dancehall, bongo and gospel. The preference of gospel music by respondents indicated that gospel music was the most preferred music for tailors.

### **Reason for Listening to Music**

The study also intended to find out the reason why the respondents liked listening to music. Three options were provided and included to be happy, energized or any other. The findings are presented in Table 15.

*Table 15: Reason for Listening to Music*

<b>Status</b>	<b>Frequency</b>	<b>Percent</b>
To be happy	70	69%
To be energized	31	31%
Any other	0	0%
<b>Total</b>	<b>101</b>	<b>100%</b>

Majority of the respondents at 69% indicated that they listened to music to be happy, 31% to be energized and 0% indicated any other. Thus, the main motive for the respondents to listen to music was to be happy. Music is present in all human cultures and has been associated with emotion regulation and relaxation. Psychologists have often emphasized the fact that music, in its many forms and contents, stirs up powerful emotional reactions in people and the listener can change or release emotions, can enjoy, be comforted, or can even relieve stress (Juslin and Västfjäll, 2008) while listening to music.

Ciotti (2012) says music has a way of expressing ideas which cannot be put into words. He continues to say that, with so much of our work now being done at computers, music has become an important way to “optimize the boring.” Similarly, Sloboda (2005) argues that People listen to music precisely because of its emotion-inducing and mood-regulating properties. This could explain why majority of the responded cited being happy as the main reasons as to why they listen to music. Again, studies have indicated that listeners in a laboratory set up tend to like happy music more than sad sounding music (North & Hargreaves, 2008; Dibben & Williamson, 2007). Similarly, this could also be the reason as to why tailors in this study mentioned that they listen to music to be happy. Fast tempo and major mode types of music are linked with

happiness, whereas slow tempo and minor mode are linked with sadness. In this study, participants' choice of music was music in major mode and fast tempo.

### **Listening to Music at Work**

The study also sought to evaluate whether the respondents listen to music at the work place. The findings are presented in Table 16.

*Table 16: Listening to Music at Work*

<b>Status</b>	<b>Frequency</b>	<b>Percent</b>
Listen Music at Work	87	86%
Don't listen to Music at Work	14	14%
<b>Total</b>	<b>101</b>	<b>100%</b>

Majority of the respondents at 86% listened to music at work while 14% did not listen to music while at work. Studies have shown that it is possible for people to regulate mood on a daily basis wherever they are due to the development of small and mobile music listening devices (North & Hargreaves, 1999), as well as music listening capacities via the internet. This has led to an increase of individual listening. Individuals are able to choose or select music on their own and listen to the music using headphones. As a result, there is now increased opportunity for individualised listening in workplaces. Today, music can be found in digital form. Technological advances in digital music systems have made listening to music available and affordable. Good music, good listening device and good work environment will cumulatively contribute to an enjoyable experience at work.

### **Advice to Management on Listening to Music**

The respondents were also asked to advise the management of the factory on whether to play or not to play background music. The findings are presented in Table 17.

*Table 17: Advice to Management on Listening to Music*

<b>Advice to Management on Listening to Music</b>	<b>Frequency</b>	<b>Percent</b>
Don't Play Music	0	0%
Play Music	101	100%
<b>Total</b>	<b>101</b>	<b>100%</b>

The findings indicated that 100% of the respondents would advise the management to play background music while at work.

### **Employee Performance**

Respondents were observed for a period of four weeks. In factory one, music was played throughout while in factory two, music was on and off (e.g. Music was played in the morning, and off in the afternoon, and off in the morning and on in the afternoon for a period of four weeks) at intervals to ascertain their response to music and their resultant performance in terms of number of units produced. In the third factory, their performance was observed and no music was played. Here, Observation data sheet was used to collect required data on music played, time of day, and performance. Each factory observed had 119 workers. The findings are presented in Table 18.

*Table 18: Employee Performance*

<b>Units Produced</b>			
<b>Day</b>	<b>Factory One (Music)</b>	<b>Factory Two (Music on and off)</b>	<b>Factory Three (No Music)</b>
One	721	692	690
Two	727	699	700
Three	716	714	716
Four	713	711	708
Five	710	691	687
<b>Mean</b>	<b>717</b>	<b>701</b>	<b>700</b>

The findings in table 18 indicate that the average units produced by 119 tailors over one-week period were 717. At factory one, no music was played. In factory two where music was on and off, the average numbers of units produced were 701 by 119 tailors. At factory three where no music was played, average numbers of units produced were 700.

### **Factorial Analysis**

Factorial ANOVA analysis was used to determine the cause effect relationship between the study variables. The results are presented in Table 19

**Table 19: Tests of Between-Subjects Effects**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected					
Model	204.866a	1	204.87	58.02	0.000
Intercept	84486	1	88,610,000	25,090,000	0.000
X <sub>1</sub>	204.866	1	204.87	58.02	0.000
Error	787.476	223	3.531		
Total	111537	225			
Corrected					
Total	992.342	224			

a. R Squared = .206 (Adjusted R Squared = .203)

*X<sub>1</sub>*=Background music, *Y*= Employee performance

The findings in Table 19 on factorial ANOVA indicates an R square of 0.206 and adjusted R square of 0.203. This indicated that the independent variables had a relationship with employee performance. Background music explained 20.3% of variations in employee performance. Background music had a significant effect on employee performance ( $p < 0.05$ ) and thus were related. Since the background music was related to employee performance, it was possible to use regression analysis to test the study hypothesis.

### **The Effect of Background Music on Employee Performance**

The objective was to establish the effect of background music on employee performance. The hypothesis of the study was that there is a relationship between Background music and employee performance. The hypothesis was tested using simple linear regression analysis with employee

performance as the dependent variable and background music as the independent variable. The results are presented in Table 20, 21 and 22.

**Table 20: Model Summary of findings on the Effect of Background Music on Employee Performance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.454	0.206	0.203	1.87917

*a. Predictors: (Constant), Music*

*b. Dependent Variable: Employee performance*

As shown in Table 20, relationship between background music and employee performance is moderately strong ( $r=0.454$ ). The positive coefficient of correlation implied that background music has positive effect on employee performance. Therefore, background music improved employee performance at the EPZ tailoring factory.

The results of Analysis of Variance (ANOVA) are presented in Table 21.

**Table 21: ANOVA Results for the Effect of Background Music on Employee Performance**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	204.866	1	204.866	58.015	.000a
Residual	787.476	223	3.531		
Total	992.342	224			

*a. Predictors: (Constant), Music*

*b. Dependent Variable: Employee performance*

Furthermore, as presented in Table 20, background music has a significant effect on employee performance ( $R^2=0.206$ ,  $F=58.015$ ,  $p<0.05$ ) implying goodness of fit between the regression model data it was used to analyse. The results also indicate that 20.6% of variance in employee performance is caused by background music. Therefore, background music led to a significant increase in work performance of tailors at the EPZ.

The beta coefficients for the effect of background music on employee performance are presented in Table 22. The coefficients were used to predict employee performance because of background music.

**Table 22: Beta Coefficient for the Effect of Background Music on Employee Performance**

		Unstandardized		Standardized Coefficients		
		Coefficients				
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	696.964	0.774		900.33	0.000
	Music	2.136	0.28	0.454	7.617	0.000

**a. Dependent Variable: Employee performance**

Background music had a beta coefficient of 2.136 ( $t=7.617$ ,  $p<0.05$ ). The positive coefficient implied that playing preferred music when working led to increase in employee performance as measured by number of units produced. The p-value implies that background music has significant effect on employee performance. Regression equation for this study can be fitted as follows:  $Y= 696.964 + 2.316X_1$  where Y is employee performance and  $X_1$  is the background music.



## **DISCUSSION**

To establish the effect of background music on employee performance, simple linear regression was used. The study obtained a coefficient correlation of 0.454, coefficient of determination of 0.203 and adjusted coefficient of determination of 0.203. The positive coefficient of correlation implied that background music has positive effect on employee performance. The coefficient of determination implied that background music contributed up to 20.6% of changes in employee performance. Therefore, preferred background music at work will improve employee performance.

The study obtained a p-value of 0.000. The p-value which was less than 0.05 indicated that the relationship between background music and employee performance was significant at 95% confidence level. Therefore, preferred background music has a significant positive effect on employee performance. The positive relation was confirmed by positive coefficient on music of 2.136 and  $p < 0.05$ . Therefore, performance of tailoring workers at the EPZ Athi River improved tremendously with the introduction of background music in their activities.

In this study, the weather in the afternoon hours was generally hot thus energy levels of the participants would be drained affecting concentration and focus. Participants in this study, agreed that background music helped them to focus on their task at hand. They were more alert and experienced less fatigue, a fact which helped them to work for more hours beyond their normal duty, finished their scheduled work on time and they had more time left to help their colleagues to clear their work log and also to organize their work space for the next task. They were always ready for the next assignment regardless of the hot weather.

The findings agreed with those of Watson (2014) who concluded that there are specific genres that people love to listen to while doing certain tasks. A study by Oldham, Cummings, Mischel, Schmidtke and Zhou (1995) and another one by Lesiuk (2005) suggest that self-selected music listening increased work performance as well as feeling good. This study also supports a study by Pasick (2014) which showed that factory workers performed at a higher level when upbeat happy tunes were played in the background. North and Hargreaves (2008) also found that listeners in a laboratory set up also loved happy music.

Kiger (1989) considers such music to be high information load music and he says that this kind of music (music in fast tempo, major mode and with lyrics) may negatively affect performance. This study found that music with lyrics, did not affect tailoring workers negatively and that the more familiar they were with a particular type of music, the more they enjoyed it and even sung along thus increasing performance. Familiar music, which they love, communicates to their emotions, giving meaning to their thought and feelings. The study also supports a finding by Jancke and Sandmann (2010) who, after their study on unfamiliar music did not yield significant results, concluded that unfamiliar music should be abandoned all together for familiar music which they say may evoke meaning and increase productivity

The study concludes that background music positively affects employee performance. Tailoring workers do repetitive tasks and background music plays that companion or accompaniment part to them as they do their work. It is also evident that background music locks out other noises at work and helps one to concentrate with their work especially in an open work environment; unnecessary talking and movement can be tremendously reduced in a music listening work environment. Again, for music to be effective, it should match the listener's socio-cultural

background and age group i.e. background music should reflect familiarity and preferences; it should be functional for the activity in that the rhythm should approximate motor patterns involved; and the volume should not be loud but be controlled.

In this study, background music was determined by the tailors. Age group and gender of the tailors played a key role in their music preference. Music is a very powerful management tool for any company that wants to increase, not only the efficiency of the workforce, but also their mental and emotional state.

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