

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

INSTITUTE OF DISTANCE LEARNING

**CELLULAR PHONE USAGE AND PRODUCTIVITY AMONG EMPLOYEES IN A
GHANAIAN SME: AN ASSESSMENT**

BY

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**A DISSERTATION SUBMITTED TO THE INSTITUTE OF DISTANCE LEARNING,
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DECLARATION

I hereby declare that this submission is my own work towards the Commonwealth Executive MBA and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text

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DEDICATION

This work is dedicated to my wife, Alice Donya and my three lovely Children, Koby, Sena and Aseye

KNUST



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ABSTRACT

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The use of mobile phones in the manufacturing set up may be considered by some people as a distraction from work which may negatively affect productivity. Some also may be of the view that it will improve communication and as such impact productivity positively. A structured questionnaire with closed and opened ended question was used in collection of primary data. The questionnaire was validated by pre-testing it on a sample size of 10 staff. Sampling was aimed at 75 percent of the total workforce of 40 people. The questionnaire was administered to 30 employees of Healthilife Beverages Ltd. (both junior and senior ranks) that were available during the time of survey. The data collected was analyzed using Epi-Info software. Appropriate percentages and frequencies were computed to assist in analyzing the data. The survey results showed that the percentage of workers of Healthilife Beverages Ltd. who claimed their work output was not affected by making or receiving calls with their cell phones represented 86.7 percent and only 13.3 percent said cell phone usage during work impacted their output. The number of outgoing and incoming calls and the duration of calls made on mobile phones and the duration of calls translated into a considerable amount of time that was lost through cell phone conversations. This pointed to a negative impact of cell phone usage on productivity at Healthilife Beverages Ltd.

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CHAPTER 1

INTRODUCTION

1.1 Background to the study

The use of mobile telecommunication is growing so fast in a very distinctive way across the length and breadth of Africa and the demand for cell phones has exceeded the projections made by manufacturers particularly in Africa (Scott et al. 2004). The emergence of the use of mobile phones in the Africa was limited to the elite and wealthy upper class businessmen who could afford them. The high rate of diffusion of the mobile phone was attributed to the mass-market technology (Jagun et al. 2008). The price of cell phone was very high at the time of its introduction and only a few could afford it. The introduction of newer and more portable models of mobile phones and introduction of additional features like short text messaging, the radio, camera etc., caused the price drop of the older models which were generally bulky and could not be carried in the pocket. The fall in price and introduction of the cheap prepaid plans by mobile operators and improvement in service quality, have made the cell phone accessible and more affordable to a number of low income people. (Scott et al., 2004; Prieger, 2004; Chan et al, 2006)

There have been some interesting sociological researches but few successful studies on the economic impacts of mobile telecommunication on the individual, businesses and overall economic activity.

Healthilife Beverages Ltd. is a newly established company which started commercial production in February 2008. The company was set up to produce world class premium fruit juices, fruit drinks and cocoa beverages in Ghana. The company which is a new

entrant into an already vibrant market of fruit juices and beverage had to adopt a strategy of least cost of production through the use of advanced high speed and high volume technology and to attain the economics of scale a great deal of money was invested. The staff of Healthilife Beverages Ltd. is made up of both high skilled professionals and unskilled workers. The professionals are made up of engineers trained on Tetra Pak machines, food scientists, Technicians, machine operators, microbiologist, accountants and administrators. The unskilled workforce who form the majority of workers in Healthilife Beverages Ltd., are made up of loaders, line packers, cleaners and laborers. The use of cell phones in Healthilife beverages is not regulated by any company policy and the workers make and receive calls irrespective of position or rank in the organization. The rampant and uncontrolled use of cell phones by everybody has raised some concerns among the managers and hence the study.

1.2 Research Problem Statement

The Management of Healthilife Beverages recognizes the fact that mobile phones are very good simple and efficient communication tools that can be deployed in the day to day operations to enhance communication which is very important in dissemination of information in and around the company. However, Management of Healthilife Beverages in their effort to exploit the economic benefits of the mobile technology was also of the view that the use of mobile phones in the company by its workers especially those in the junior rank can adversely impact the productivity of the company hence the proposal for this study. The following instances are stated as negative impact of mobile phone usage on productivity. Using mobile phones during working hours could distract the worker from

assigned task and the employer is faced with increased cost or reduced revenue. Calls can interrupt important meetings. When a boss receives a call during a session with his subordinates or vice versa the other party will have to wait for the call to end or at least tolerate an interruption.

Addiction to Mobile phones can in a number of ways lead to neglect of core functions assigned to an employee especially when they feel they cannot do without the use of the hand set

1.3 Justification Of Study

Research in this area is necessary because a number of enterprises in Ghana are trying to drive down their cost of production in order to beat the competition they face with cheap imported goods coming into the country. For a manufacturing company like Healthilife Beverages Ltd., whose products face a lot of competition from cheap imported foreign products, eliminating waste in all forms, including time wasted in making unproductive cell phone calls will help in the company's drive to become the least cost producer. It is therefore important for management to find out if the use of the mobile phones was having any positive or negative impact on the business process. Hence this study to ascertain the impact of cellular phone usage on productivity at Healthilife Beverages.

1.4 Overview of Research Methodology

The research which was in the form of survey used closed and open ended questionnaire to collect data from the staff of Healthilife Beverages Ltd. The questionnaire was pretested after design to ensure the relevant data is captured. The target sample size of 75% of staff (30 employees) was used in the study. Sampling was done at random to

ensure fair representation of the population. Data collected include Demographic Data of the staff, cell phone ownership, the time spent on the cell phone, types of calls made and received, the frequency of calls made and received, the necessity of phones to the workers role, workers opinion on how cell phone affects their work output and efficiency etc. The data collected was analyzed statistically using Epi-Info software to obtain frequencies and percentages relevant for this study.

1.5 Research Objectives

The research objectives include:

- a. To assess the impact of mobile phone usage on productivity by the workforce of the company.
- b. Investigate the extent of mobile phone usage in Healthilife Beverages Ltd.
- c. Establish the factors contributing to the use of mobile phones at the workplace.
- d. Suggest measures to control the unproductive use of the mobile phones at the work places

1.6 Relevance Of The Study

The results of the study will equip management of Healthilife Beverages Ltd. with data that will help it to come up with cell phone policies and usage guidelines that will positively impact productivity.

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CHAPTER 2

LITERATURE REVIEW

2.1. Definition And History Of Mobile Phones

A mobile phone is “a long-range, electronic device used for mobile voice or data communication over a network of specialized base stations known as cell sites” (Wikipedia.org). The Oxford advance learner’s dictionary defines mobile phone as telephone that does not have wires and works by radio, that can be carried on you and can be used anywhere.

It is documented that the modern wireless phone was first patented by George Sweigert in USA in 1969 (Encyclopedia Britannica). It is believed that the initial idea behind developing mobile phones was to provide cars with phones and this might have accounted for the large sizes of handsets that were available initially (Thompson, 2006). Motorola is documented as having been the first company to look into the possibility of developing smaller and handier mobile phones (Thompson, 2006). Suffice it to say that from the issuance of the first patent to date, several transformations have occurred in the technology and outlook of the mobile phones finally resulting in the launch of the third generation (3G) mobile phones in 2001 in Japan (Wikipedia.org).

In addition to making voice calls, modern mobile phones have added features such as text messaging, call registers, music and video, radio and GPS navigation amongst a whole host of others (Wikipedia.org). It has been reported though that as at the end of 2007, the most common application of the mobile phone by subscribers was Short Message Service (SMS)

text messaging. Wikipedia reports that 74 percent of all subscribers used this data application

2.2 Cell Phone Usage In The World

Larry (2004) quotes ITU figures for mobile phone usage in the world as at 2004 to be approximately 1.5 billion which is one quarter of the human population. China, India and Russia were cited as the countries in which the growth in cell phone usage was remarkably high, accounting for about 79 percent of growth from 2000 to 2004. The number of cell phone lines the world over was estimated to have exceeded the fixed line phone in 2004. The USA accounted for 45 percent of the cell phone lines (Hahn et al., 2006).

The data below is a table culled from e-marketers on worldwide mobile phone subscription as at December, 2008 and projections till 2014.

Mobile Phone Subscriptions and Penetration Worldwide, 2006-2014 (millions and % of population)		
	Subscriptions	% of population
2006	1,960.0	30%
2007	2,281.8	34%
2008	2,591.3	39%
2009	2,824.5	42%
2010	3,022.3	45%
2011	3,203.6	47%
2012	3,363.8	49%
2013	3,351.0	51%
2014	3,685.6	53%

Source: Frost & Sullivan, "Visions 2009: Paradigm Shifts in Mobile & Wireless Communications," December 10, 2008

100535

www.eMarketer.com

2.3 Cell Phone Usage In The United States

In the United States of America there were fewer than 100,000 subscribers to mobile phone in 1985 and by 2004 there were over 159 million users (Hahn et al., 2006). By the year 2000, 35 percent of the American population was using mobile phones. This figure was 97 times higher than predictions for growth when mobile phones first started becoming popular in the 1980's (Thompson, 2006)

Fram (2009) indicated that "there were currently 20 percent of homes with only cell phones and no land lines and there were 17 percent of homes with land lines and no cell phones in the U.S.' He also mentions that in the first six months of 2003 six in every ten household had both landlines and cell phones while one in every fifty household had no phones at all.

King (2007) makes mention of a research findings in the U.S. that point out 3 technologies that have increase productivity as e-mails (70%), landlines (52%) and mobile telephony (52%). She was also of the view that improper management of softphones and instant messaging could negatively affect productivity.

A survey by Artificial life, suggest that 46 percent of phone users in the US use cell phones for entertainment purposes showing that the cell phone is becoming not only a tool for business but a multipurpose consumer gadget. (<http://www.cellular-news.com/story/33889.php>). Listening to music while on the job is said to improve the job satisfaction and or productivity and cell phones equipped with music player offer the needed job satisfaction. (<http://hrcch.com/news/hrm/101006a.asp>) However, the uncontrolled use can negatively impact productivity hence it was suggested that employer need to put in place regulations and policies on the use of cell phones at workplaces.

Cell phone sharing although not a prevalent practice happens in the U.S. and this was cited by Link et al (2007). This was prevalent in households where there were no landlines install particularly in New Mexico, Pennsylvania and Georgia.

2.4 Cell Phone Usage in Africa

Even though the use of cell phones in Africa has not been as widespread as in other areas of the world, as at 2007, analysts had put the number of mobile phone users in Africa at 250 million with 65million additional subscribers added in year 2007. Africa now has the fastest growth rate of mobile subscribers. (Nnamdi, 2008)

A study by Vodaphone (2005) makes the assertions that “The first cellular call in Africa was made in Zaire in 1987 and by the year 2005 there were over 52 million mobile users on the continent and in 19 African countries mobile phones accounted for at least three quarters of all telephones. The rapid spread of mobile in so many of its countries is a remarkable phenomenon especially in the context of their huge economic and social challenges”

The history of Mobile telecommunications in Africa and the developing world has been a successful one in the sense that it is one area of investments that continues to be profitable to the investors. Investments in large infrastructure have provided mobile communication service to the poor, a tool that has enabled millions of people to communicate better. The innovative and entrepreneurial use to which cell phone have been put in Africa has reached unimaginable height since the time of introduction of the gadget. It now extends beyond individual ownership to revenue generation, (Vodaphone, 2005). A typical example is ‘mobile to mobile’ business in Ghana where individual allow the use of their cell phones

for a fee. It may seem that extent to which the poor in Africa access telecommunication services may be low because of low Tele-density figures in Africa. However, the sharing of phones and access to public facilities makes the extent of access of telecom services high. Research shows that as at 2003, up to 80% of households made regular use of phones in some remote areas of Africa. (McKemey et. al. 2003). In other parts of the world such as Bangladesh cell phones have been put to economic use, whereby farmers use their cell phones to get the best price for their crops and live stock thus improving their income and wellbeing. Similarly, in Africa cell phones are put to economic use in Cote d'Ivoire, where farmers are able to monitor the price changes for coffee with the use of mobile phones and sell their produce when the coffee price was best for them. (Ahmed, 2000; Lopez, 2000)

Scott et al, (2004) provide the following statistics on the growing market for cellular phones in Africa, they claim that in 2001 access to telephone by Africans was less than 3 percent of the population and by 2004 the percentage had increased to 7percent. They put the growth rate of the cell phone subscribers at 35 percent per annum. The liberal regulatory environments, where operators have been given the freedom to respond to customer requirements is one of the reasons given for the fast growing usage of mobile phones in Africa.

The need to be constantly accessible and connected to friends and colleagues is one of the main reasons for mobile phone addiction in the youth in a study conducted in India (Chakraborty, 2006), even though there are no such studies in Africa the same assertion can be said of the youth in Africa. The youth in Africa are notable for “flashing/beeping”, text messaging and multimedia such as playing music, and listening to radio.

2.4.1 'Flashing' or 'Beeping'

The term “flashing” is used in Ghana to describe the practice where one mobile phone user calls another but intentionally drops the call after a few rings before the recipient has the chance to pick up the call. Interestingly, research has shown that this is a growing trend in developing countries in general where it is given other names such as “beeping” and “missed calling (Donner, 2007). Donner contends in his article entitled ‘The rules of beeping: Exchanging messages via intentional “missed calls” on mobile phones’ that “flashing” serves to send three major types of messages without the caller actually having to pay anything for it. According to him, the message sent serves one of the following purposes; i.e. to tell the recipient to call back immediately, to remind the recipient of a previous agreement made or just to let the person know that caller has the recipient on their mind.

It has been noted that sometimes, employees and or subordinates use “flashing” for official purposes. The employee or subordinate is reluctant to pay for a call he deems to be official and for which he would not be reimbursed and so resorts to “flashing” the boss or employer when he needs to communicate, and expects the boss or employer to call back to get the full details of the message. Donner describes this as a “special case of richer guy pays”. In his research in Rwanda, Donner however found that “flashing” in the business set up was not only restricted to employers and employees but was also used in some cases between businesses and their customers. In this particular arrangement, it was more often the case that the client did the “flashing” to request for a service. Indeed, most businesses said they would never use “flashing” to get to their customers because they thought it was a

definite put-off for their clients. Donner puts in aptly in what he calls Rule 3; “If you are asking for favorable treatment, do not send a call back beep” (Donner, 2007)

2.4.2 Text Messaging

One of the most popular uses of the mobile phone is for text messaging. Text messaging employs a Short Message Service available on most mobile phones. This facility allows the user to send text messages from his phone to that of the recipient without having to communicate verbally (Wikipedia.org). Text messaging is said to have grown from an average of 0.4 messages per user per month in 1995 to an average of 35 messages per user for the same period in 2000 (Wikipedia.org). Statistics show that text messaging is most popular in Europe and Asia. The Philippines in South East Asia is noted by Wikipedia as the “texting capital of the world” with Filipinos sending about 400 million text messages a day (Wikipedia.org) There is very little statistics on the growth of text messaging in Africa but if the global trend is anything to go by, it is to be believed that text messaging has also grown in Africa.

Text messaging is fast and less expensive than making actual calls and is believed by some to be a good tool in getting people involved in activities that they would otherwise not be involved in. This benefit is readily exploited by producers of reality shows and other activities that require the participation of some far away audience (Wikipedia.org).

In Africa where press freedom and multiparty democracy are relatively new concepts, text messaging has been used by the press during many general elections to relay information on election malpractices and results instantly from one point to another thereby improving transparency.

The use of text messaging by businesses to facilitate the dissemination of information is also said to have increased significantly in the 21st century.

Although text messaging has its advantages, there is growing concern on its negative social impact. Some of the most common concerns are the effect it has on people's command of their official languages. This is because 'Texters', especially the youth tend to use short forms and incorrect spellings of words in order to save time and money.

Texting while driving has been found to be a big distraction. Wikipedia Quotes the instance of the Chartsworth train collision in which 25 people died and notes that the conductor of the train was found to have been distracted by the 45 text messages he had sent while on duty (Wikipedia.org). Edgar Snyder and Associates, A US Based law firm that represents injured people reports on its website, that one insurance company, had found in January, 2007 that out of a total of 1,200 dangerous driving cases studied, 73 percent of them were caused by drivers who were talking on the phone while driving. They also report that studies done on the negative impact of texting while driving and have concluded that "texting while driving causes a 400 percent increase in time spent with eyes off the road"

2.5 Use Of Cell Phones And Productivity

It is recognized that the use of cell phones can be very useful for small businesses. The phones help the business owner to be in contact with clients and suppliers without always having to be on the job physically. However, most employers also tend to believe that constant use of the cell phones by their employees especially on the job tends to distract them and lower productivity (Thompson, 2006). Thompson in his research paper the effect

of cellular phone use in the modern workplace, contends that most of the calls received by employees while on the job have nothing to do with business. According to him, the mere receipt of a call, irrespective of whether the receiver picks it up or not may negatively impact productivity. This he says is because, deciding whether or not to pick up a call in itself can make an employee lose concentration (Thompson, 2006). This loss of concentration has more serious consequences if the employee is engaged in some production line activity. Thompson goes on to quote a research by Basex (2005) which found that American companies lost \$ 588 billion that year due to interruptions from cell phones and other electronic technological gadgets. The interruptions amongst other things caused workers to lose focus which consequently could lead them into not meeting deadlines. In his research, using different categories of workers, Thompson found that approximately 47 percent of his respondents found mobile phone calls disruptive. Majority of those who said they did not find it disruptive however admitted that they had put measures, such as putting their cell phones off in place. This confirmed that unconsciously, they did know that mobile phone calls could be disruptive. (Thompson, 2006)

Thompson does concede however that some available research suggests that not all phone interruptions are detrimental to productivity. He states that in cases where there is the need for immediate information to address a pressing issue, mobile phone calls may actually enhance productivity.

Youngbin et al, 1991, in their study identified productivity as a major reason for using cell phones by commuters who spend more than two hours on the road while convenience was given as reason for people who travelled less than two hours in their cars. They also give the following statistics for the usage of cellular phones. Heavy use of cell phone for

business was 71.8 percent among respondents and for personal activities 28.2 percent. Their survey also indicated the primary reason for getting a cellular phone associated with productivity was 36.7 percent and with convenience was 34.0 percent.

Research has shown a positive impact of cell phone communication on economic growth (Baliamoune, 2002). Reduction in transaction cost, widening of markets and becoming substitutes for expensive travels and better information flow are some of the economic benefits associated with cell phone. However, the face-to-face societal interaction has rather been on the decline thereby reshaping the culture (Diego, 2007). The other areas of increasing importance of mobile phones in Africa were identified as, improving efficiency of markets, promoting investment, improving government revenue through payment of taxes by mobile operator. (Scott et al., 2004)

A survey by Frempong et al. (2007), in Ghana on the use of mobile phones by micro entrepreneurs in semi urban and rural areas, found that these micro entrepreneurs in Ghana used the phones for checking of prices, ordering materials, contacting their clients and suppliers and checking customer orders. The frequency of use of the cell phones for business purposes though was low among the micro entrepreneurs, using the cell phones for the above business activities contribute to increased marginal profits, by cutting down on transportation cost, having easy access to their suppliers and clients.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Sampling Frame

The staff strength of the company stands at 40 employees and attempt was made to administer the questionnaire to at least 30 employees, which makes the sample size about 75 percent of the population.

3.2 Data Collection

A structured questionnaire, based on the theories in the literature reviewed (with closed and open ended questions) was designed and used in the collection of primary data. Questionnaire was designed to gather demographic data of the employees of Healthilife Beverages Ltd, to sample workers views on effect of mobile phone usage on their output and performance.

Demographic data collected was on gender and age. In an attempt to get data on the usage of cell phones by the staff of Healthilife Beverages Ltd., respondents were asked questions on the whether they owned mobile phone, the frequency at which the workers receive and make calls during their work hours, the average time that they spend making or receiving calls, how much time they spend on the average making call. What other uses they put their phones to. The category of people they call to distinguish the work related calls from social calls. They were also asked questions on whether mobile phone calls disrupt their work. What do they do when their work is disrupted by receiving mobile phone call?

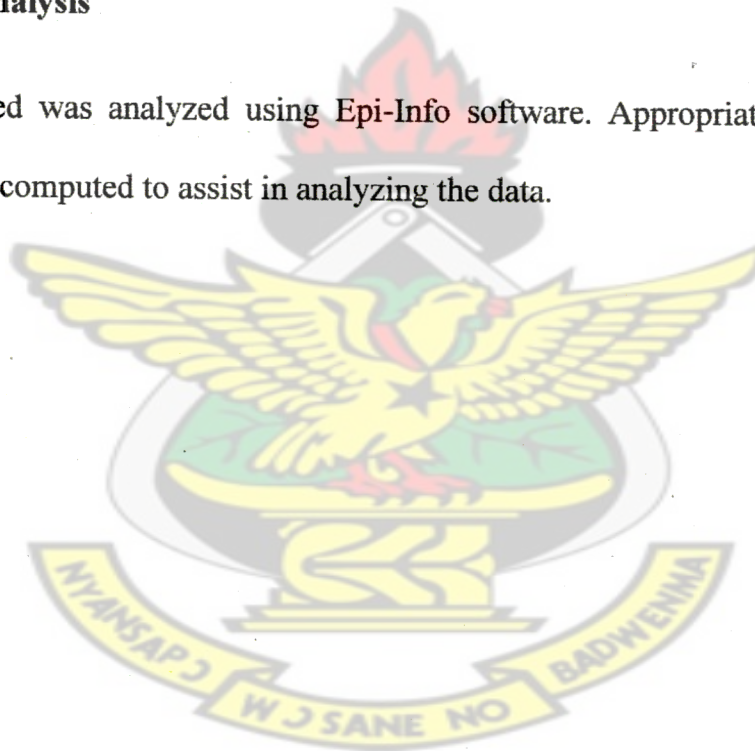
The questionnaire was validated by pre-testing it on a sample of the 10 staff. Sampling was aimed at 75 percent of the total workforce of 40 people. The questionnaires were administered to the 30 employees of the company (both junior and senior ranks) that were available during the time of survey.

3.3 Scope of study

The scope of the study was limited to the workforce of Healthilife Beverages Ltd. The research required conducting a survey involving at least 75 percent of the total workforce of Healthilife beverages ltd..

3.4. Data Analysis

The data collected was analyzed using Epi-Info software. Appropriate percentages and frequencies were computed to assist in analyzing the data.



CHAPTER 4

DATA ANALYSIS AND DISCUSSION

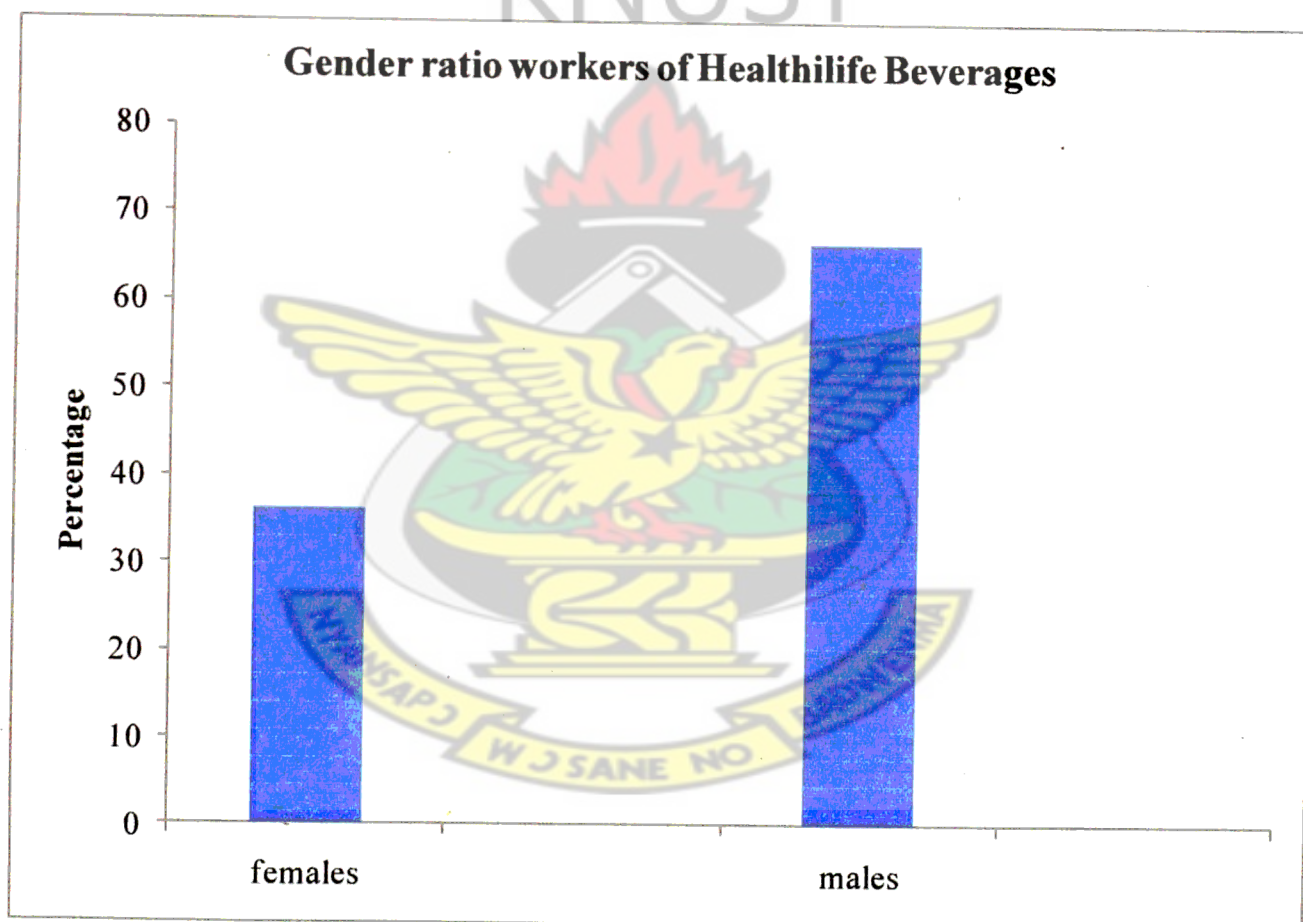
4.1 Demography Of Healthilife Workers

Demographic data collected from respondents for the survey shows that there were more males (63.3%) than females (36.7%) working at Healthilife beverages ltd as shown on Figure 1. This is attributable to the nature of work that is available at time of the survey. The operations at Healthilife Beverages Ltd. can be classified into beverage production process, which involve mixing machine operation, processing machine operation, filling machine operation, packaging machine operation and palletizing of finished product. The computerization and automation of these equipments require people with electrical and mechanical background, who must have good trouble shooting skills in programmable logic controllers (PLC). Warehousing, Sales, Administration and Accounting constitute the other sectors of Healthilife Beverages Operations. Some of the female employees work in the Quality Assurance department as analyst and a majority of them on the packaging lines, where finished products are packed into cartons and arranged on pallets. Females are also engaged in cleaning and sanitation within the factory and outside the factory premise. The male employees in Healthilife Beverages Ltd. are managers, machine operators, drivers and casual workers. The casual workers do manual works like palletizing, loading and offloading of trucks and drivers for some of the company's vehicles.

Data on table 1 and figure 2 shows that the ages of the respondents range from 19 to 45 years with the modal age group being 19 - 25years. Over 53.57 percent of the respondents

fall within the age bracket 19 – 25 years and 25 percent are within the 26-30 years age group. Over 75 percent of the workforce are below 30 years of age and can therefore be described as young and dynamic work force

Figure 1: Gender ratio of workers of Healthilife Beverages Ltd.



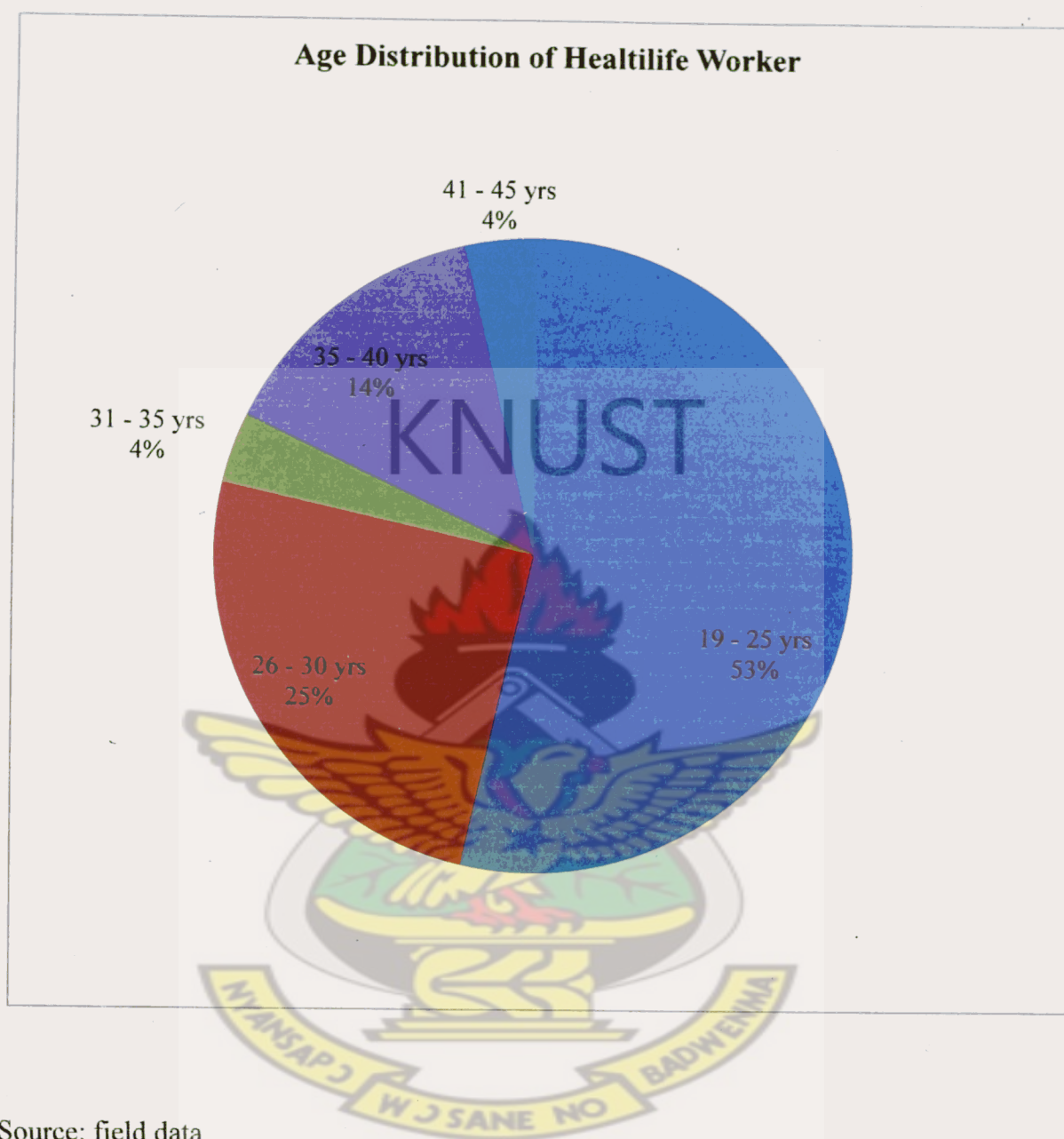
Source: field data

Table 1: Age Distribution of worker of Healthilife Beverages

Age group	Number of worker	Percentage
19 – 25	15	53.57
26 – 30	7	25.00
31 – 35	1	3.57
36 – 40	4	14.28
41 – 45	1	3.57

Source: field data

Figure 2: Age Distribution of worker of Healthlife Beverages

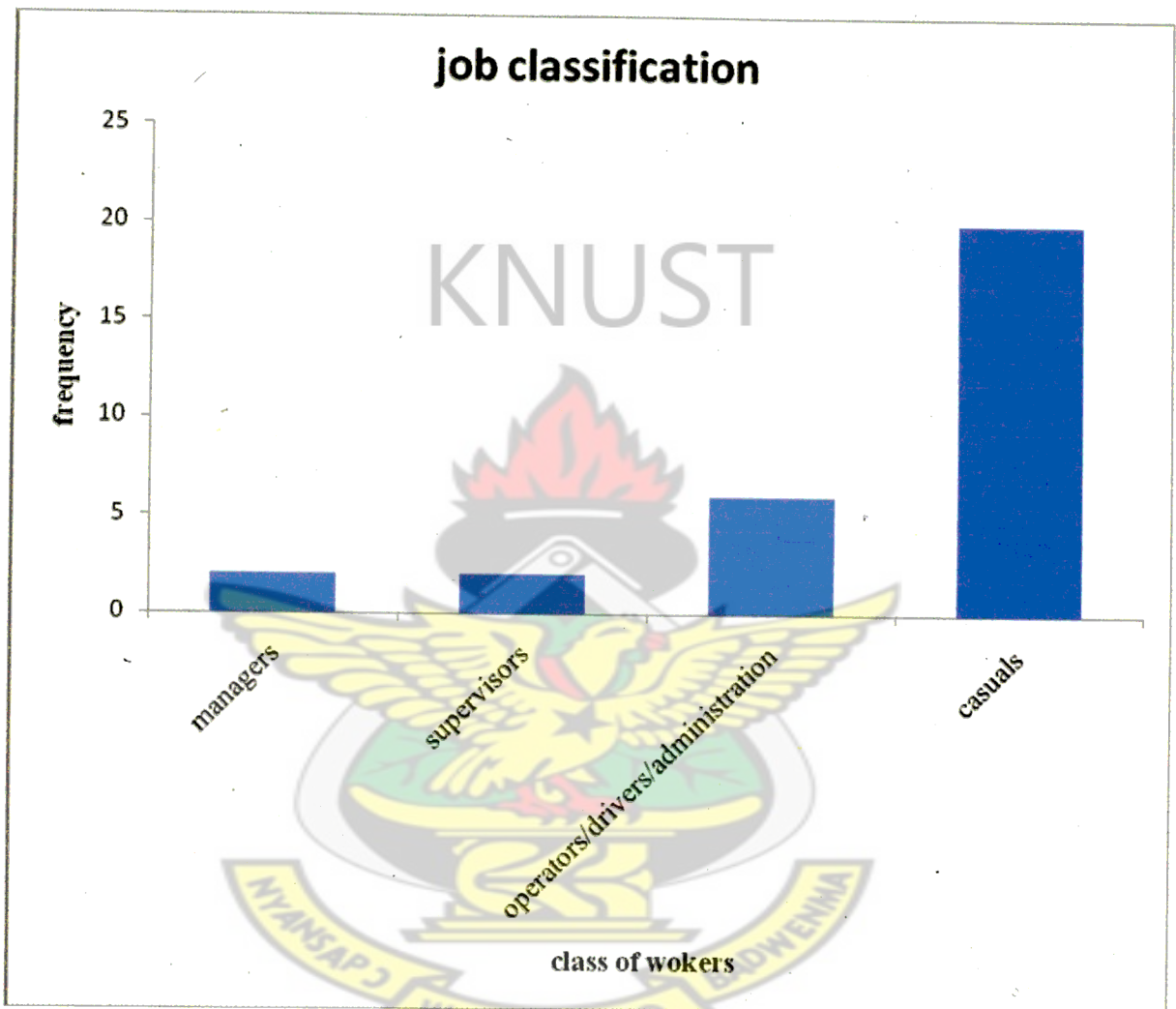


4.2 Job Classification and conditions of work

The majority of respondents were casual workers and they form 66.7 percent of the work force and they clearly outnumber the rest of the employees put together. They are followed by the 'others' which include drivers, machine operators and administrative staff, whose

responsibilities were not defined and they form 20 percent of the respondents may represent a group made up of the administrative and support staff.

Figure 3: Job classification of Healthilife beverages workers



Source: field data

Whereas managers form just 6.7 percent and supervisors form 6.7 percent. It is obvious from the data and graph on table 2 and figure 3 that the organizational structure is broad based and pyramidal with majority of worker at the bottom of the pyramid. The organizational structure is closer to a flat type of organization than a lean structure. The

Flat organizational structure has its advantage over the other organizational structures and the choice of organizational structure also depend the size and age of the organization. As the organization grows, a flat organization may tend to become hierarchical in nature, resulting in bureaucratic and complex systems. With a wrong organizational setup, jobs may not get completed on time within the limited budgetary resources of the company and it also affects the company's response time to changing conditions and customers reactions. An effective organizational structure will facilitate good working relationship between the various departments thus avoiding the bureaucracies associated with large institutions and hence enhances efficiency in the organization (Wikipedia.org). Refer to table 2.

Table 2: Job classification of Healthilife beverages workers

Job Class	Number of workers	Percentage
Managers	2	6.6%
Supervisors	2	6.6%
Others (machine operators, drivers and administrative staff)	6	20.0%
Casuals	20	66.6%

Source: field data

4.3 Duration of Work (work hours)

The respondents were asked to state the number of hours they worked in a day and this was to determine if work extended beyond the normal eight hours which could be due to delays caused by stoppages of machine as a result of breakdown, interruption due to call made or received etc.

The number of hours of work done within a day by workers in Healthilife Beverages is shown on table 3. Forty percent (40 %) of respondents answering the question claim they work more than eight hours per day and this can increase the companies overhead cost in running equipments on electricity, water and other amenities as well as increasing its wage bill by way of overtime payments.

Table 3: Number of hours worked in a day

Number of hours of work done in a day	Frequency	Percentage
More than 8 hours	12	40.0%
8 hours	17	56.7%
less than 8 hours	1	3.3%

Source: field Data

Respondent were asked if they work shifts in order to assess how the company was utilizing its manpower to address overtime issues. Shift work is a means by which the company schedules work for its' workers in order to overcome the problem of workers working beyond their normal working hours to reduce overtime claims.

Table 4: Proportion shift workers to none shift workers

Works Shifts?	Frequency	Percentage
yes	7	23.3%
no	23	76.7%

Source: field data

It was obvious that work was scheduled for the normal shift which ran from 8:00am to 5:00pm.

The number of workers who are engaged in shift work constitute 23.3 percent and those who are not engaged in shift work constitute 76.7 percent. As can be seen on Table 4

Table 5 below shows the number of workers engaged in morning and afternoon shift. Most of the workers who run shift reported for morning duties which mostly require cleaning, setting up and running of machines. The workers who reported to work in the afternoon took over from their colleagues in the morning shift to wind up production and clean up after production. The majority of workers worked on the normal shift which starts at 8:00am and ends at 5:00pm. The nature of operations does not allow for work to be

completed within 8 hours and as such work is scheduled into two shifts to avoid claiming unnecessary overtime.

Table 5: Proportion of workers running morning and afternoon shift

Type of shift	Frequency	Percentage
Morning	5	71.4%
Afternoon	2	28.6%

Source: field Data

4.4 Cell Phone Ownership And Usage

The answers to the question, whether the workers owned cell phones has shown that 96.7 percent of the sampled workers owned cell phones. This means that there was a high teledensity among the workers. The workers were not limited in assessing telecommunication and this is portrayed on the data in Table 6. The workers were accessible to each other even when they were not at their desk or workstation and this will ensure the smooth flow of information and directives at the right time.

Table 6: Cell phone ownership

Cell phone ownership	Frequency	Percentage
Cell phone owners	29	96.7%
Non cell phone owners	1	3.3%

Source: field Data

KNUST

In response to the question whether those who own cell phone switched off their phones during work hours, it was revealed that the majority of the respondents representing 80 percent kept their phones on while at work and 20 percent of the workers claimed they switched off their phones while at work. This indicates that 80 percent of the workers were likely to be making or receiving calls at the expense of company time or will be engaged in productive communication to enhance efficiency and productivity. This is represented in Figure 4 below.

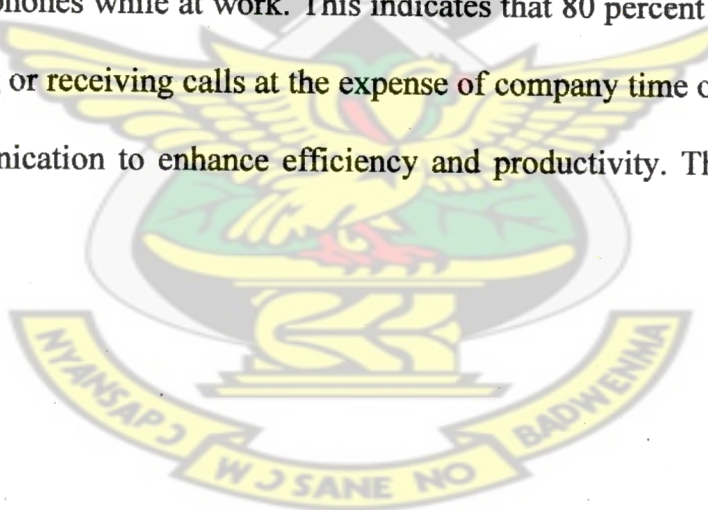
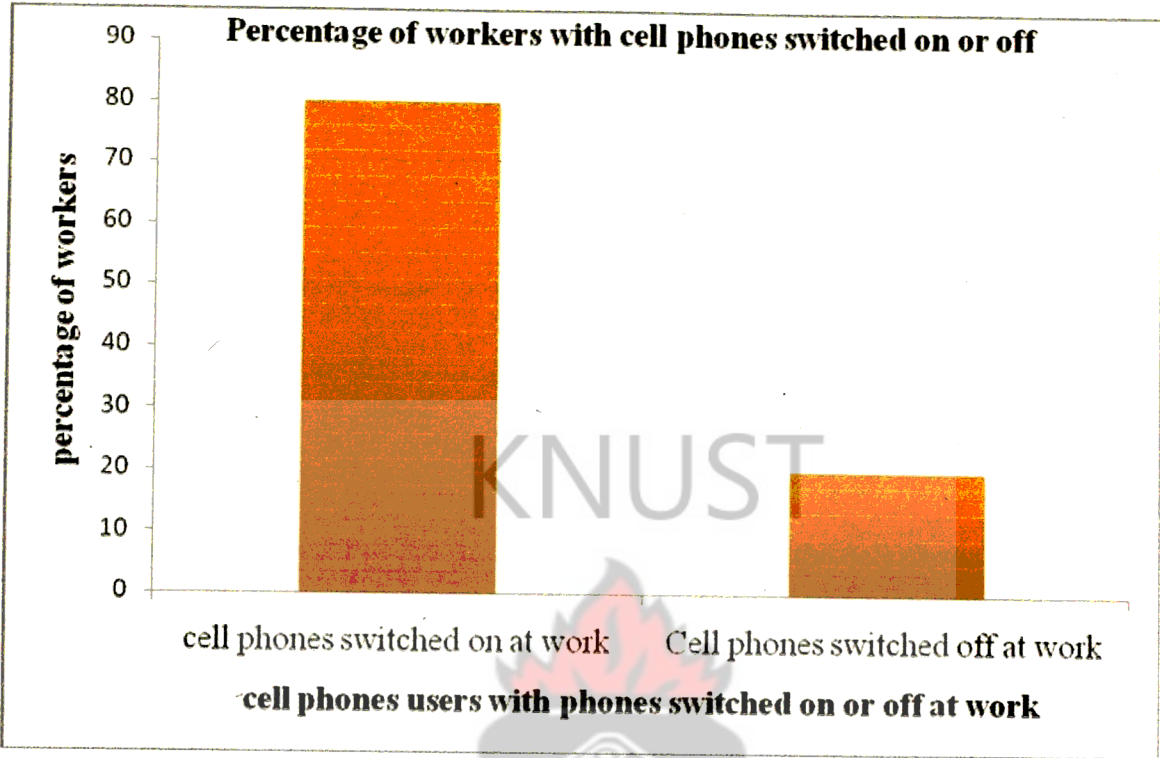


Figure 4: Percentage of workers with phones switched on or off while at work



Source: field Data

When asked if the use of cell phone was necessary for the performance of their work, about forty-seven percent of the respondents indicated that the cell phone was necessary for the performance of their work. As shown on Table 7.

This means that this group of workers may be relying on information from other people to get their job done. The other fifty-three percent of respondents claimed the use of cell phones was not necessary for their work, which implies that their phone was for purposes other than communicating on work related issues.

Table 7: Necessity of cell phone for work performance

Cell phone necessary for the performance of your work	Frequency	Percentage
yes	14	46.7%
no	16	53.3%

Source: field Data

KNUST

About forty-seven percent of the respondents did not think the cell phone was necessary for the performance of their work. This group of people depends on their cell phones to perform their job. It may be inferred that they use their cell phones to engage in productive communication like taking orders from customers, giving and receiving feedback from colleagues and superiors and issuing out of directives. Table 7 and figure 5 depict these findings.

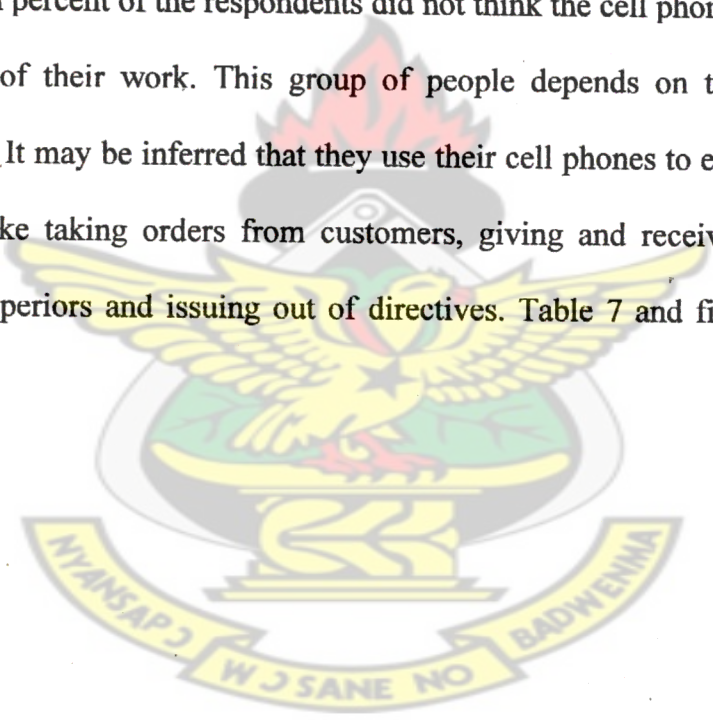
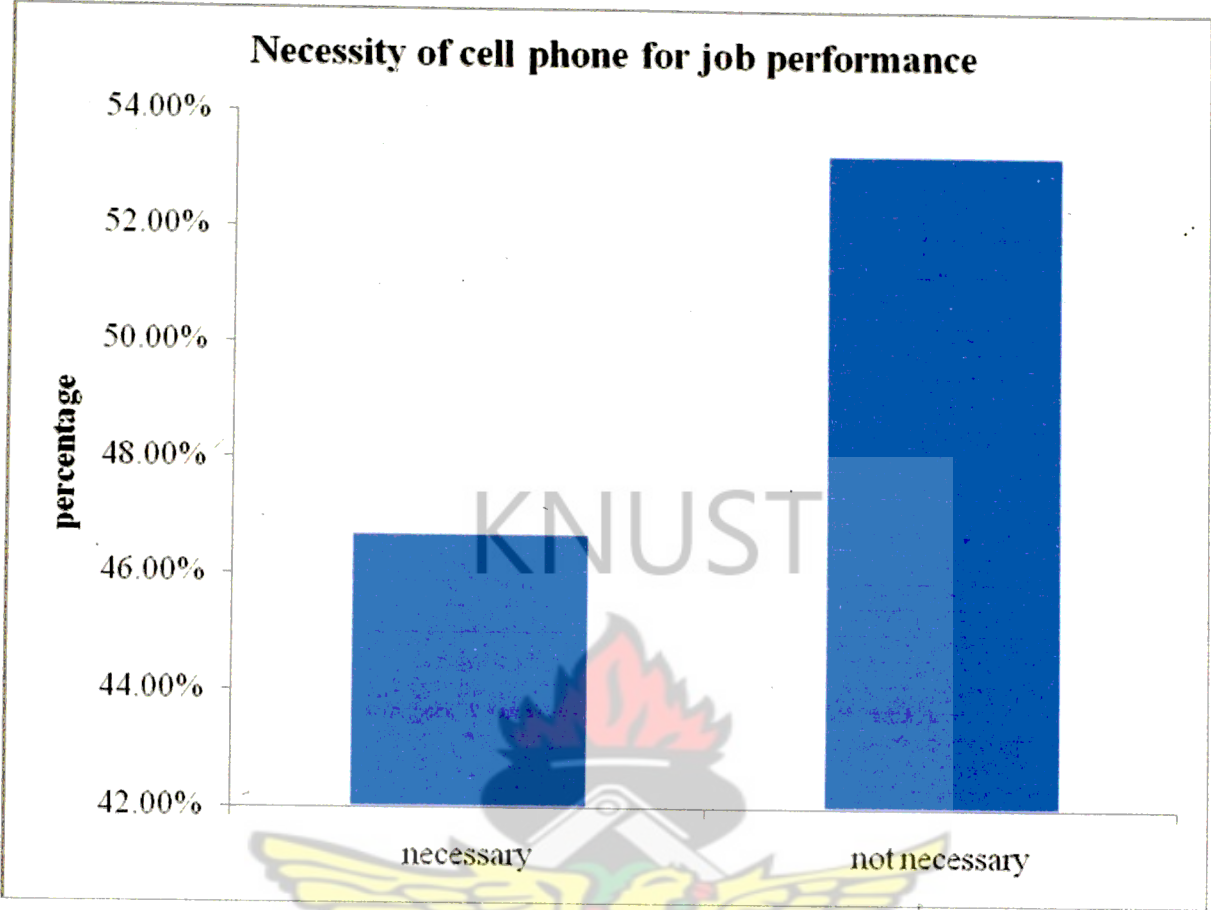


Figure 5: Necessity of cell phone for work performance



Source: field Data

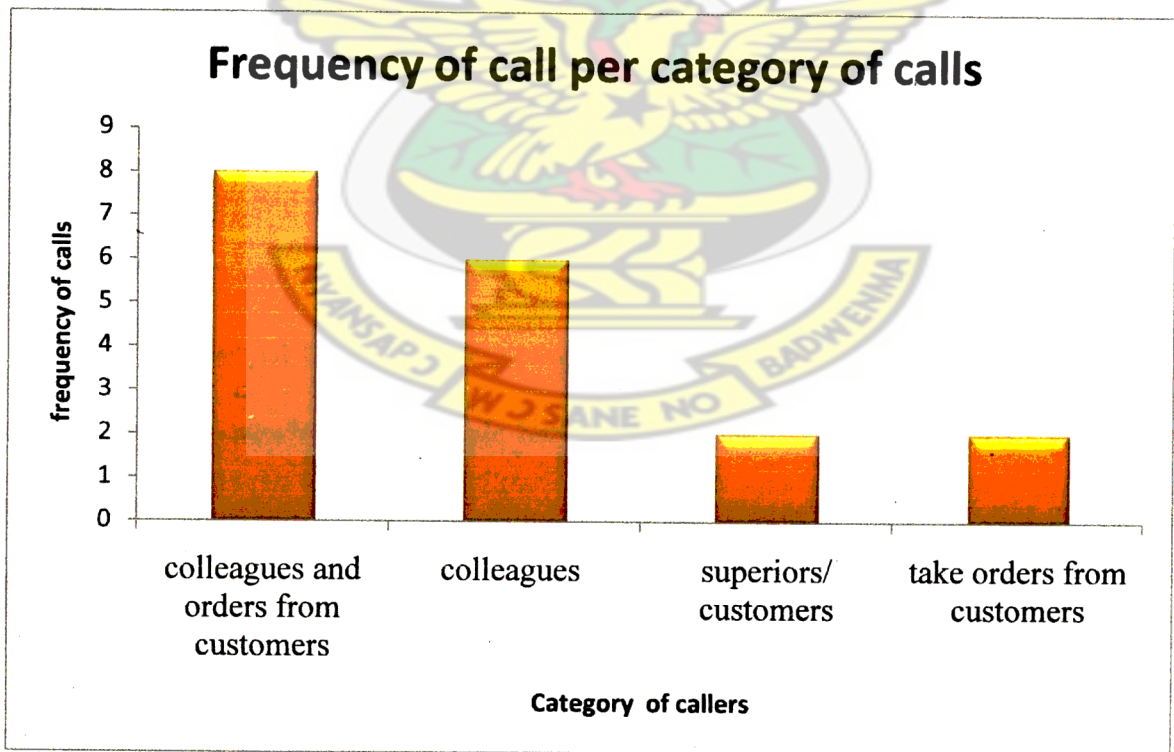
The data on Table 8 and Figure 6 shows that 44.5 percent of the respondents who claim their mobile phone help them with their work use their phones to communicate with their colleagues on the job and also make calls to their customers to take orders. 33.3 percent of the respondents communicate with their colleagues on the job, an indication that there is some level of coordination and team work at play for quick and easy resolution of issues that may come up during the course of their work.

Table 8: Calls that help with work performance

Calls that help with work performance	Frequency	Percentage
colleagues and orders from customers	8	44.5%
colleagues	6	33.3%
take orders from customers	2	11.1%
give feedback to superior/customers	2	11.1%

Source: field Data

Figure 6: Frequency of calls per call category that help with work performance



Source: field data

Of those respondents that said the use of the cell phone enhanced their work, 27.8 percent use their phones to communicate with their colleagues and give feedback to their superiors implying that the communication channel is both lateral and vertical which is essential for easy flow of information, clarity of instruction and for fast execution of job. Reaching out to their clients was very important for the sales team in the execution of their job. The number of respondents who made calls solely for the purpose of taking orders from customers represented 11.1 percent of respondents. The productivity of respondents who use their phones purposely to take orders from customers depended on the number of orders taken and successfully executed.

4.5 Average Number of Outgoing Calls per Day

Question number 9 (see questionnaire) was asked to determine the rate at which workers in Healthilife Beverages Ltd., were making calls. Table 9 and figure 7 show that the percentage of respondents who made between 1 to 3 calls in a day was 42 percent of the workers with cell phones. Respondents who claimed they make only one call or none at all were 32.1 percent. 10.7 percent of the respondents make more than five calls in a day. The percentage of respondents who made between three and five calls was 10.7 percent. The rest of the respondents who could not estimate the frequency and amount of time they spend on the cell phone form only 3.57 percent.

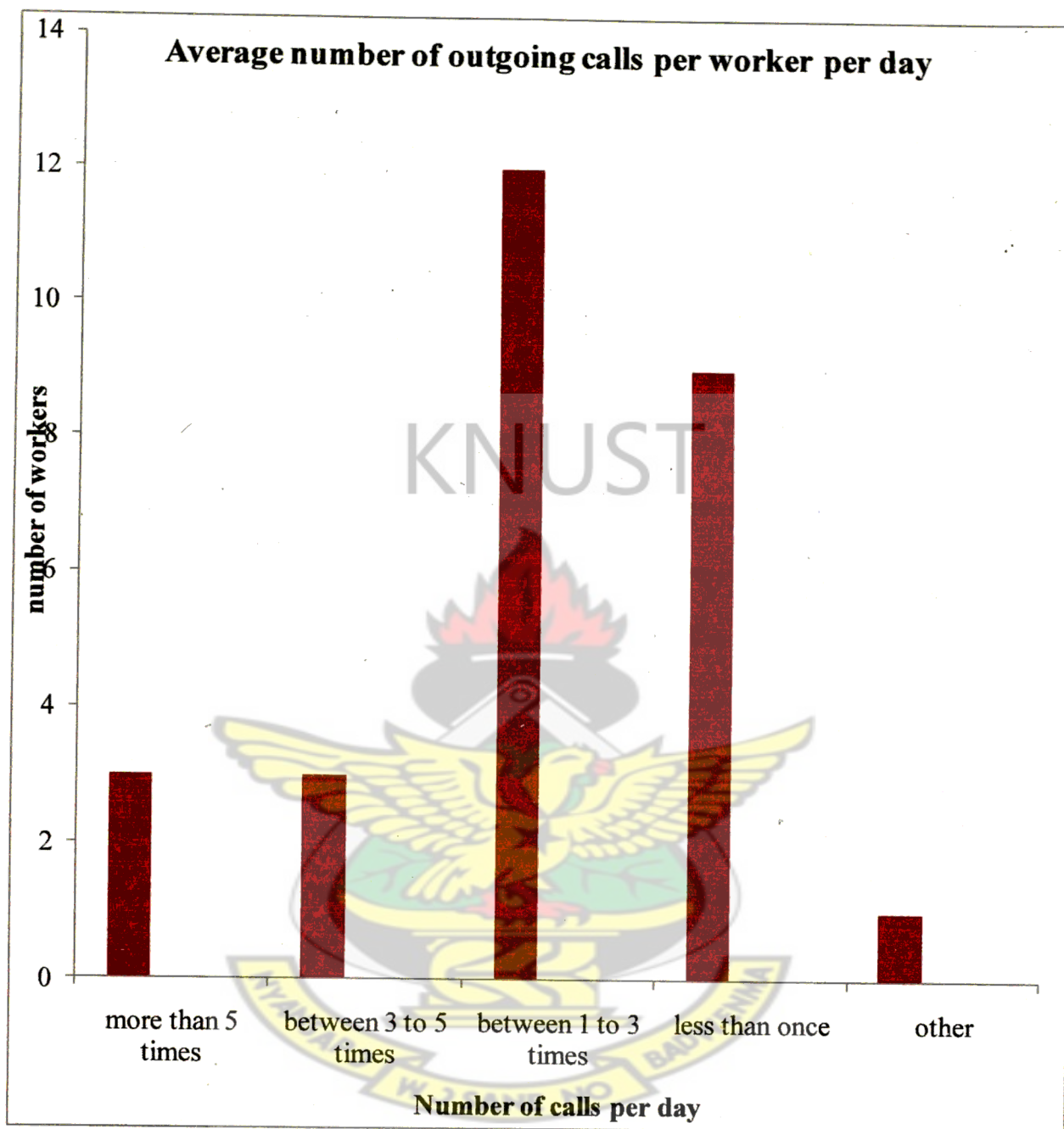
Table 9: Average number of outgoing calls per day

Number of times workers make calls	Frequency	Percentage
More than 5 times	3	10.71
Between 3 and 5 times	3	10.71
Between once and 3 times	12	42.85
Less than once	9	32.14
Other	1	3.57

Source: field Data

It can be deduced from the data on Table 9, that the frequency of mobile phone usage was moderately high among the workers of Healthilife beverages Ltd, and if these calls are not work related or calls that will improve the productivity of the workers involved, then the allocated time for effective job performance for these individuals will be adversely affected and daily targets may not be met.

Figure 7: Number of outgoing calls per day



Source: field data

4.6 Measure Of Difficulty Of Job Performance Without Cell Phone

The question of how difficult it was to perform ones duties without a cell phone was asked to identify cell phone users whose use of their phones aid their effectiveness and efficiency thereby contributing to higher productivity. Majority of respondents representing 56.6 percent were capable of working without their cell phone. The remaining respondents depended on their cell phone to perform their work. 16.6 percent would find it moderately difficult to perform their duties and 13.3 percent will find it very difficult to perform their work and 10 percent of the respondents said it was moderately easy to work without their cell phone. 3.3 percent of the respondents would find it impossible to work at all without their cell phones. It was obvious that cell phones were not necessary for those who did not have any difficulty in working without their cell phones in the performance of their work. Likewise those who found it moderately easy could do without the cell phones in their job performance. These categories of people i.e. those who found it moderately easy and very easy to work without their cell phone constitute over 60 percent of respondents that took part in the survey. However, this did not mean that those who said they used their cell phone to work were entirely telling the truth.

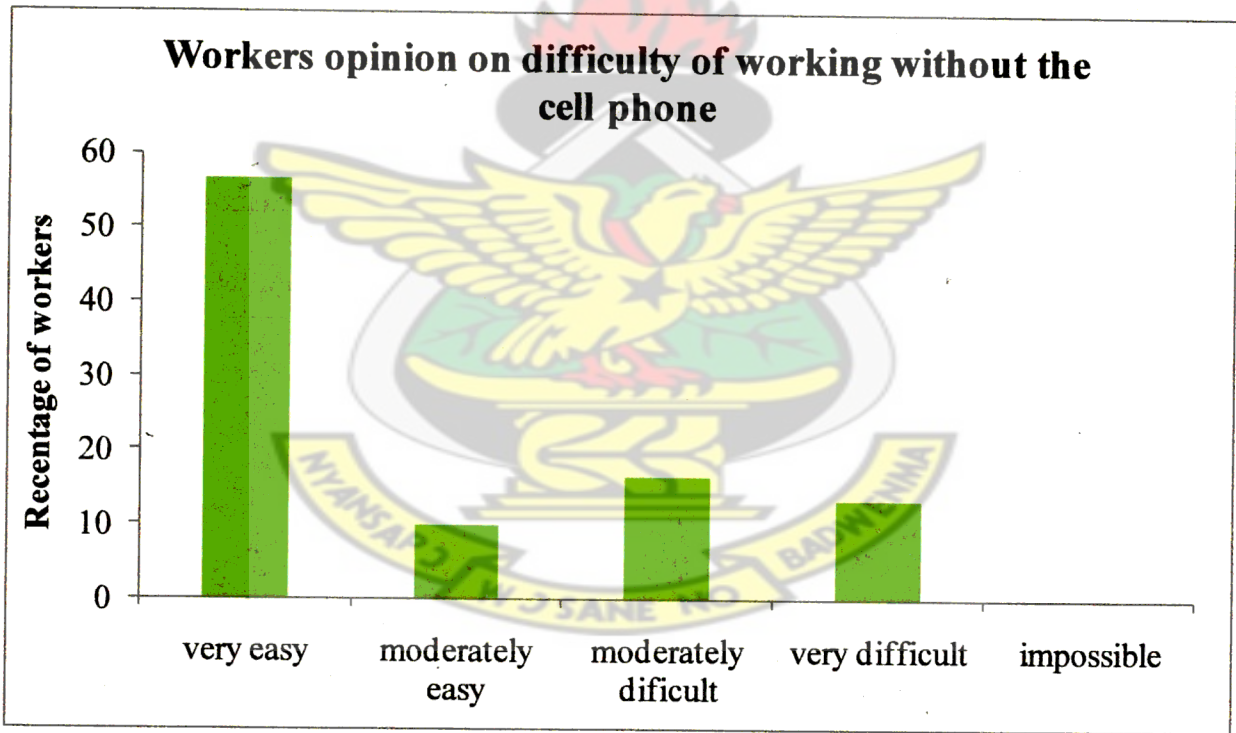
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Table 10: Worker opinion on the difficulty of working without cell phones

Difficulty of working without cell phones	Number of respondents	Percentage
it will be very easy	17	56.6
moderately easy	3	10.0
moderately difficult	5	16.6
very difficult	4	13.3
impossible	1	3.30

Source: field Data

Figure 8: workers opinion on difficulty of working without the cell phone



Source: field Data

Those who found it moderately difficult, very difficult and impossible to work without their cell phones put together represent about 33 percent of respondents and this implies that cell phone usage could positively impact productivity in the job performance of only these respondents. The answers to this question were to confirm the responses to the earlier question of whether cell phones were necessary for the performance of job. The 46.7 percent of respondents who said the mobile phones were necessary for the performance of their job was in agreement with the 43.4 percent of respondents who found it moderately easy to impossible to work without their cell phones. This is shown in table 10 and figure 8 above.

4.7 Categorization of People Called At Work

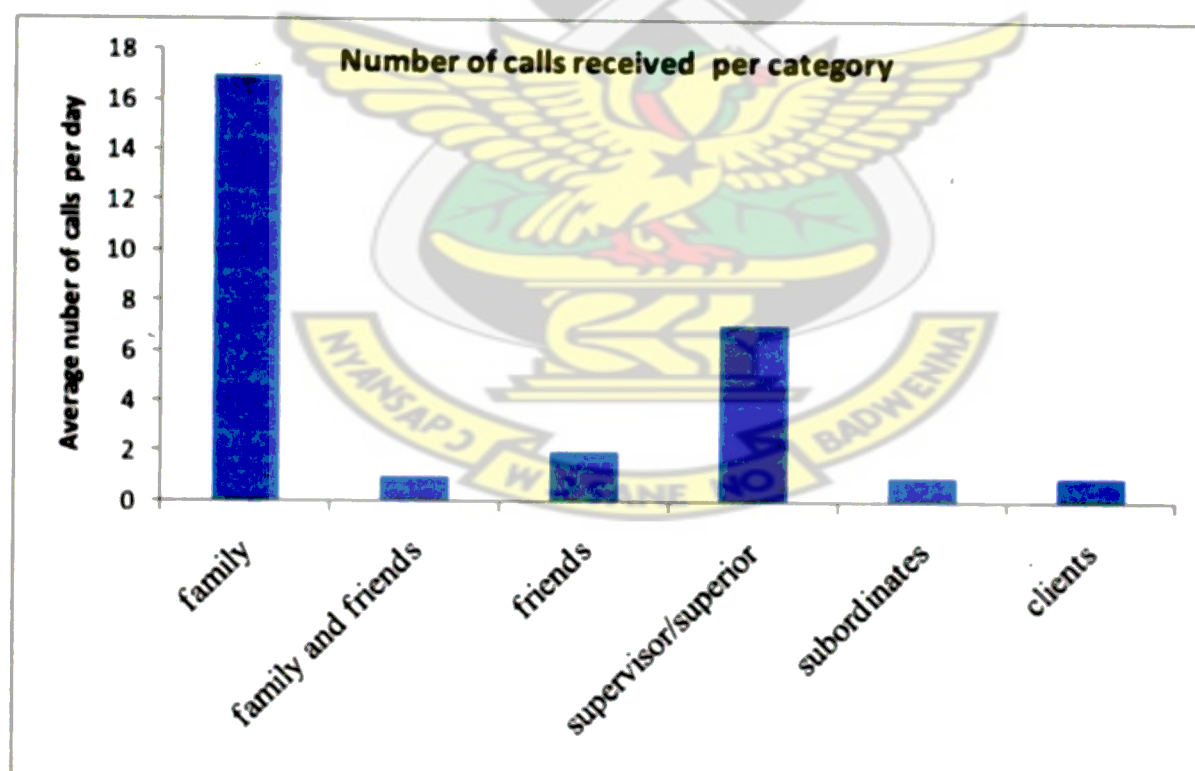
Grouping the responses to the question 'which category of people do you call from work with your cell phone?' into social and job related calls, the data gathered indicate that calls made to only families accounted for 58.6 percent, family and friends accounted for 3.4 percent. Respondents who called their friends only constitute 6.9 percent and the job related calls make up to 30.9% of the total calls made (Table 11 and Figure 9).

Table 1: Number of call per category of people called from work

Category of people called from work	Frequency	Percentage
family	17	58.6%
family and friends	1	3.4%
friends	2	6.9%
supervisor/superior	7	24.1%
subordinates	1	3.4%
clients	1	3.4%

Source: field data

Figure 9: number of calls per category of people called from work



Source: field data

Making a call is most of the time at a person's convenience. Unlike the process of making calls, receiving calls can be disruptive to a person chain of thought and concentration on a job. Unwanted disruptions can cause interruptions in work flow if not managed properly. Some interruptions are believed to provide timely information for job execution and real-time data for timely decision making (Thompson, 2006). Thompson suggests that it can take the knowledge worker up to 15 minute to return to the same level of productivity and in some cases of interruption, the work never gets completed. Looking at the numbers on Table 11, most of the calls received were social call i.e. calls to family and friends put together constitute 68.96% and these calls can cause a great deal of distraction or disturb the chain of thought and thereby affect efficiencies that may lead to shortfall in productivity.

4.8 Number of calls received in a day per call duration

Analysis of the data shows that 37.9 percent of respondents receive between 1 and 3 calls in a day, 24 percent receive less than one call in a day, 20.7 percent receive between 3 to 5 calls in a day and 17.2 percent of respondents receive more than 5 calls in a day as shown in the data on table 12 and figure 10 below.

Table 12: Number of calls received in a day per call duration

Number of calls received in a day	Frequency	Percentage
more than 5	5	17.2%
between 3 and 5	6	20.7%
between 1 and 3	11	37.9%
less than 1	7	24.1%

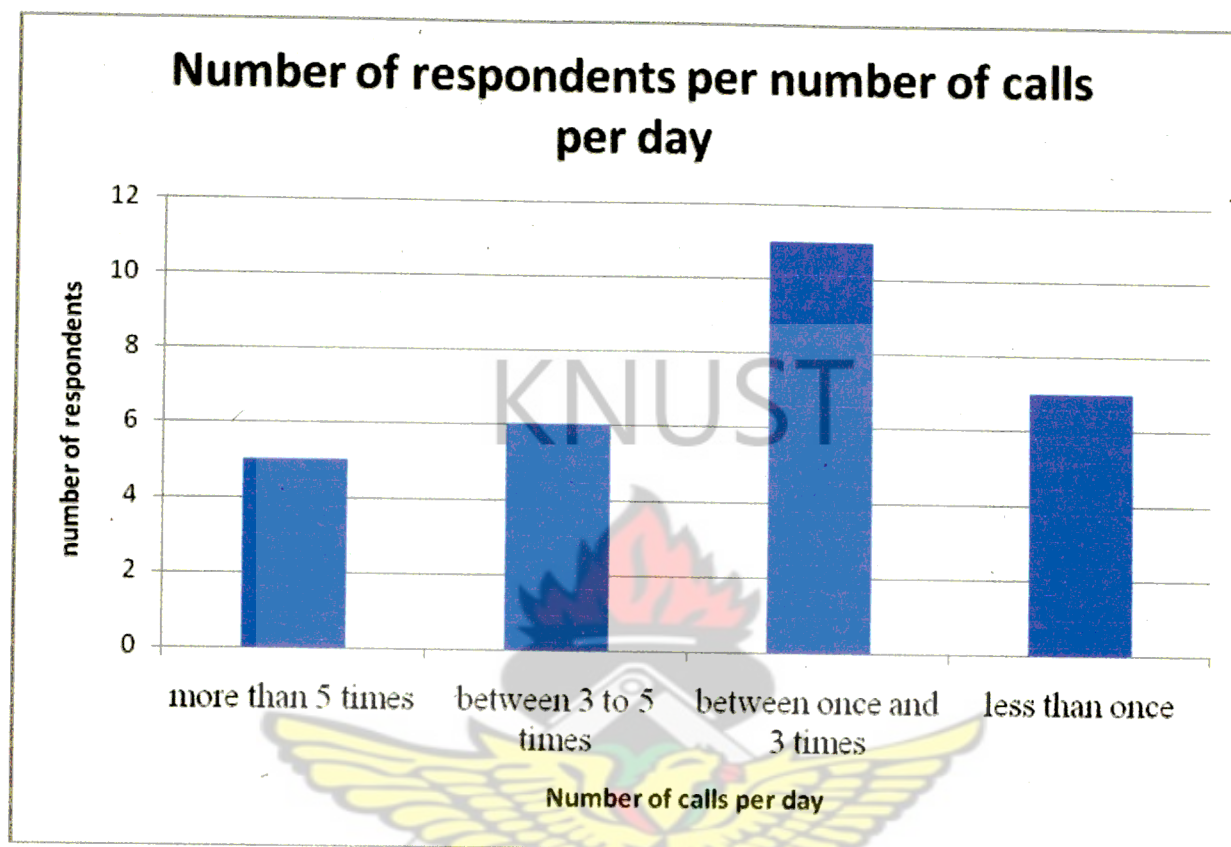
Source: field data

The number of calls received can be directly linked to work interruptions caused by receiving cell phone calls. Some of the calls received may be useful for job performance but some may not be useful and may negatively impact productivity. Over 50 percent of calls were coming from family and friends which means that these calls may not be contributing to efficiency improvement.

Tying the responses of this question to the difficulty of working without cell phones and bearing in mind that most of the calls were social calls with modal call rate of 1 to 3 times of calls per day, a lot of time may be wasted in receiving calls. Time is a valuable resource that cannot be regained. Peter F Drucker, in his book, *The Effective Executive*, made the following quotes "One cannot buy, rent or hire more time. The supply of time is totally inelastic. No matter how high the demand, the supply will not go up. There is no price for it. Time is totally perishable and cannot be stored. Yesterday's time is gone forever, and will never come back. Time is always in short supply. There is no substitute for time.

Everything requires time. All work takes place in, and uses up time. Yet most people take for granted this unique, irreplaceable and necessary resource.”

Figure 10: Number of calls received in a day per call duration



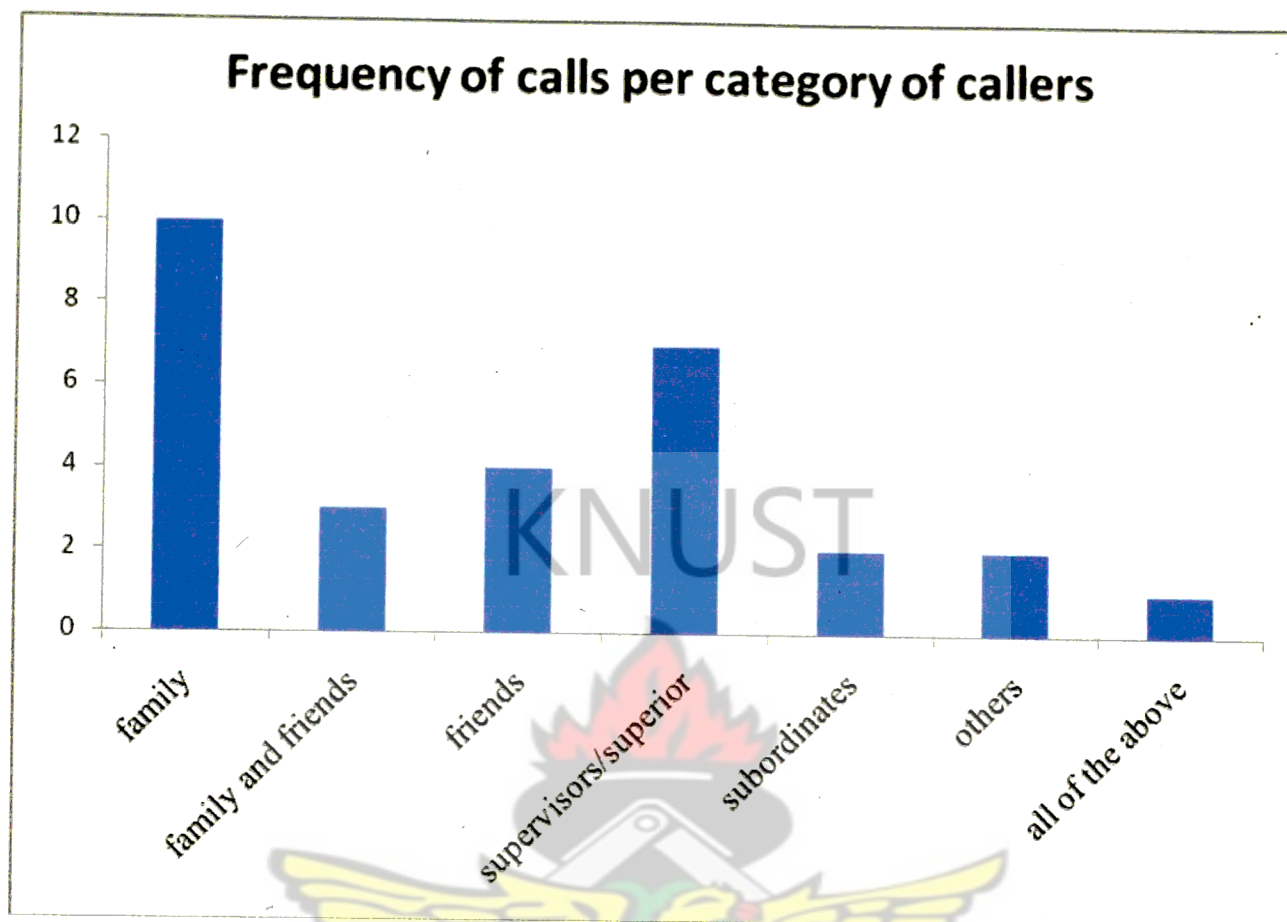
Source: field data

4.9 Category of callers per average number of calls in a day

In order to separate the useful interruptions from the non-beneficial interruptions the respondents were asked to state the category of people they receive calls from.

Most of the calls received were social calls which include calls from family and friends. These form 65.6 percent of the calls received. The job related calls received during work hours make up to 34.4 percent as shown on figure 11

Figure 11: frequency of calls per category of callers



Source: filed data

4.10 Actions taken to avoid interruptions

The question 'what do you do when you receive a call' was asked in order to ascertain how the workers handle their calls to avoid interruptions and to know if making or receiving calls can cause a stop in the work flow..

Data on Table 13 and Figure 12 show that 10.3 percent of the respondents stop work in order to receive or make calls especially with the casual workers who are engaged in manual work on the packing lines. Thompson (2006) indicated that an intrusion is an

interruption which temporarily stops the work flow and this has a bearing on productivity since it has some great deal of impact on how a worker will manage his time.

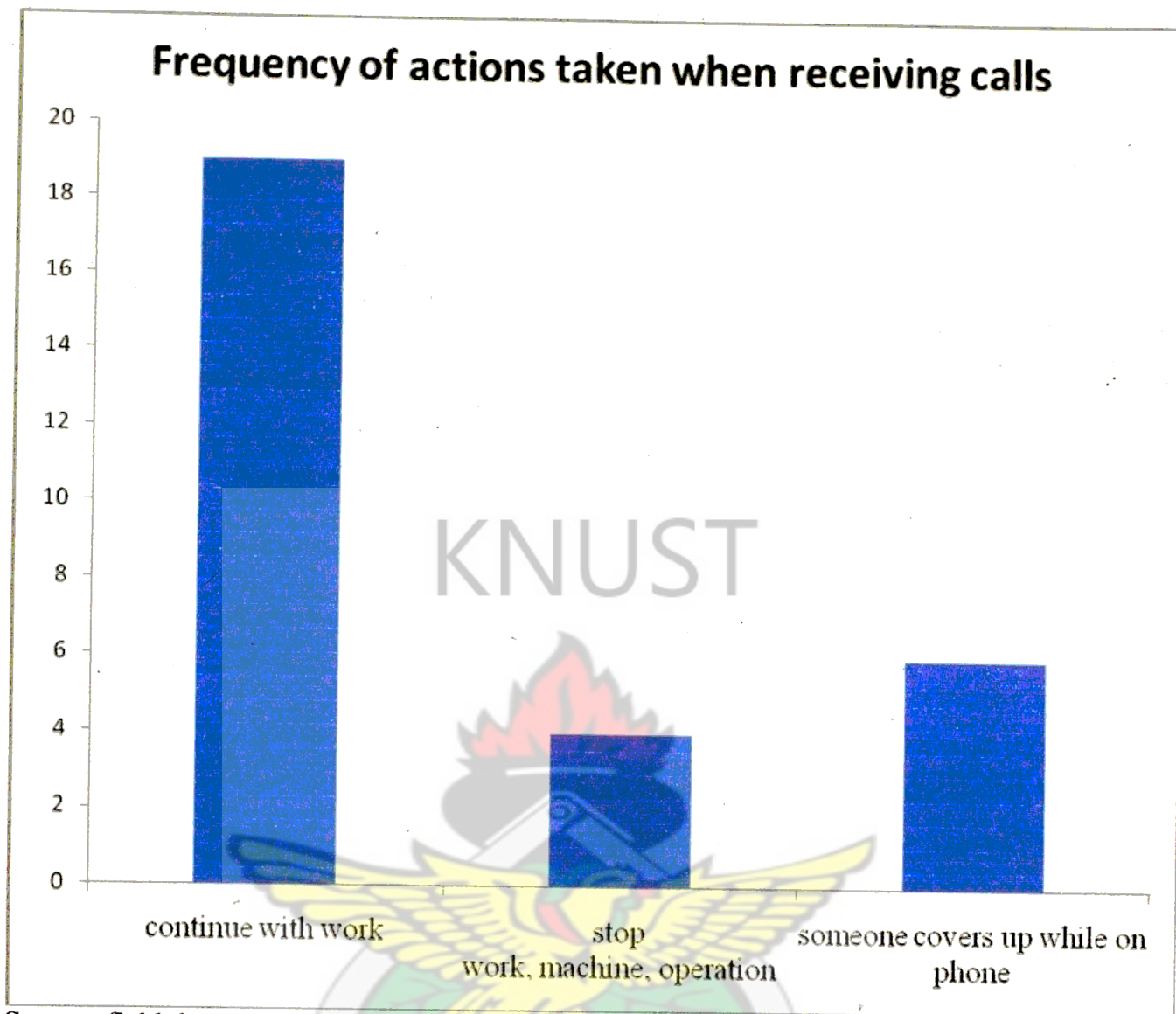
Table 13: Frequency of actions taken when workers receive calls

Actions taken when workers receive calls	Frequency	Percentage
Continue with work	19	65.5%
Stop work/machine/operation	4	13.7%
Someone covers up while on phone	6	20.7%

Source: field data

Sixty-six percent (65.5%) of the respondents claim they continue to work whenever they make or receive calls. These respondents fall into the class of workers who handle automated equipments or may be using earpieces to receive or make calls. About 20.7 percent of the respondents do not stop work but ask their colleagues to cover up for them whenever they have to receive or make calls whilst at work. This means that the work does not suffer any hold ups with the making and receiving of calls. The rest of the respondents actually have to stop their work to make or receive calls and they constitute 13.7 percent of the respondents.

Figure 12: Frequency of actions taken when workers receive calls



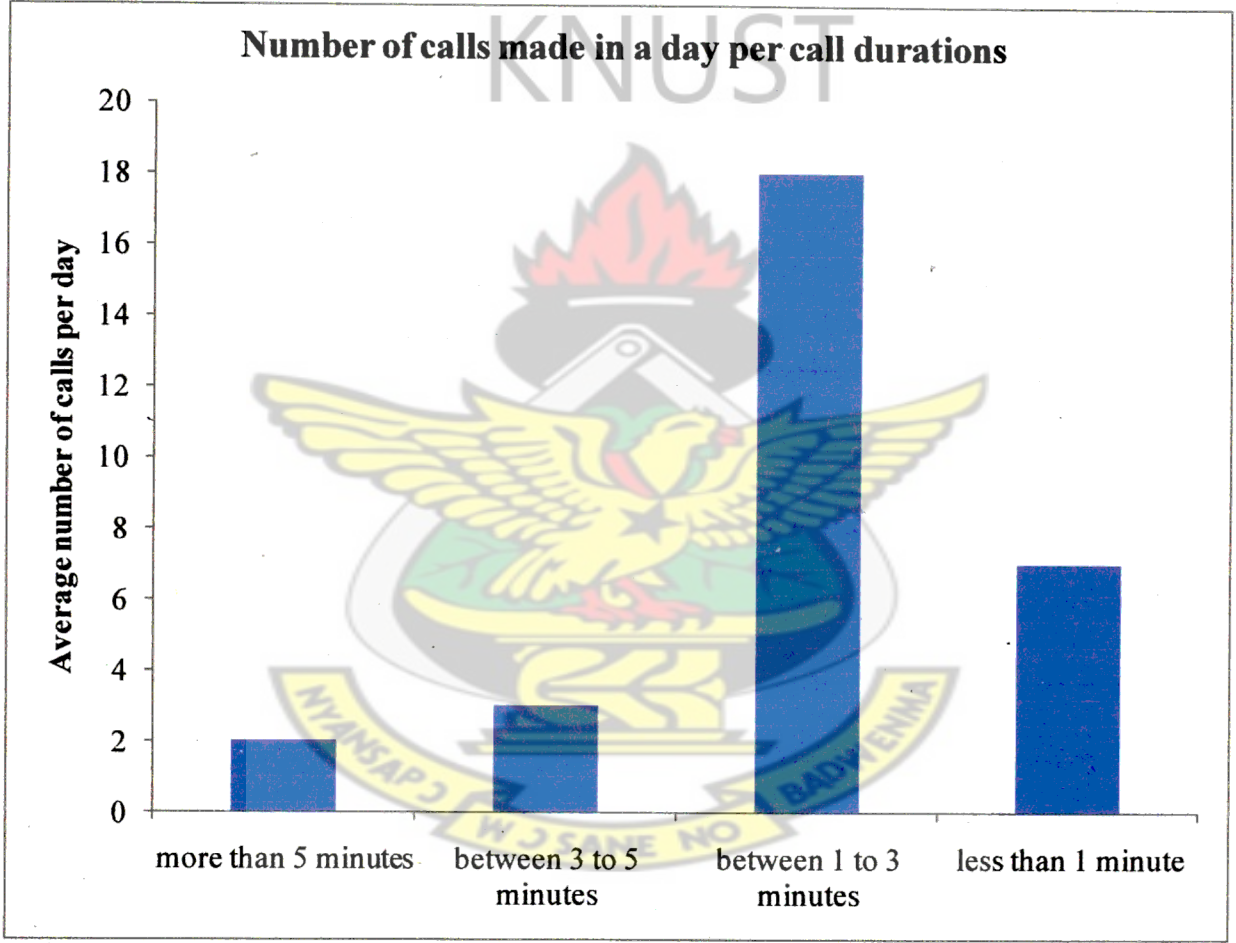
Source: field data

The time spent on making cellular phone calls can be translated into loss of profit. (Thompson 2006). Most of the workers spend between one to three minutes making calls in a day.

The data on Table 14 and Figure 13, give a picture of the percentage of respondents spending between 1 to 3 minutes on their cell phones making calls in a day and as high as 60 percent of the respondents were in this category of 1 to 3 minutes per call. 23 percent of

the staff who took the survey spend less than 1 minute on the phone in a day. Two of the respondents representing 6.7 percent spend more than 5 minute in making calls. Relating the amount of time with the frequency of making and receiving calls it became apparent that a considerable amount of time is spent on making and receiving cell phone calls which most of the time are call made to family and friends.

Figure 13: Number of calls made in a day per call duration



Source: field data

Table 14: Number of calls made in a day per call duration

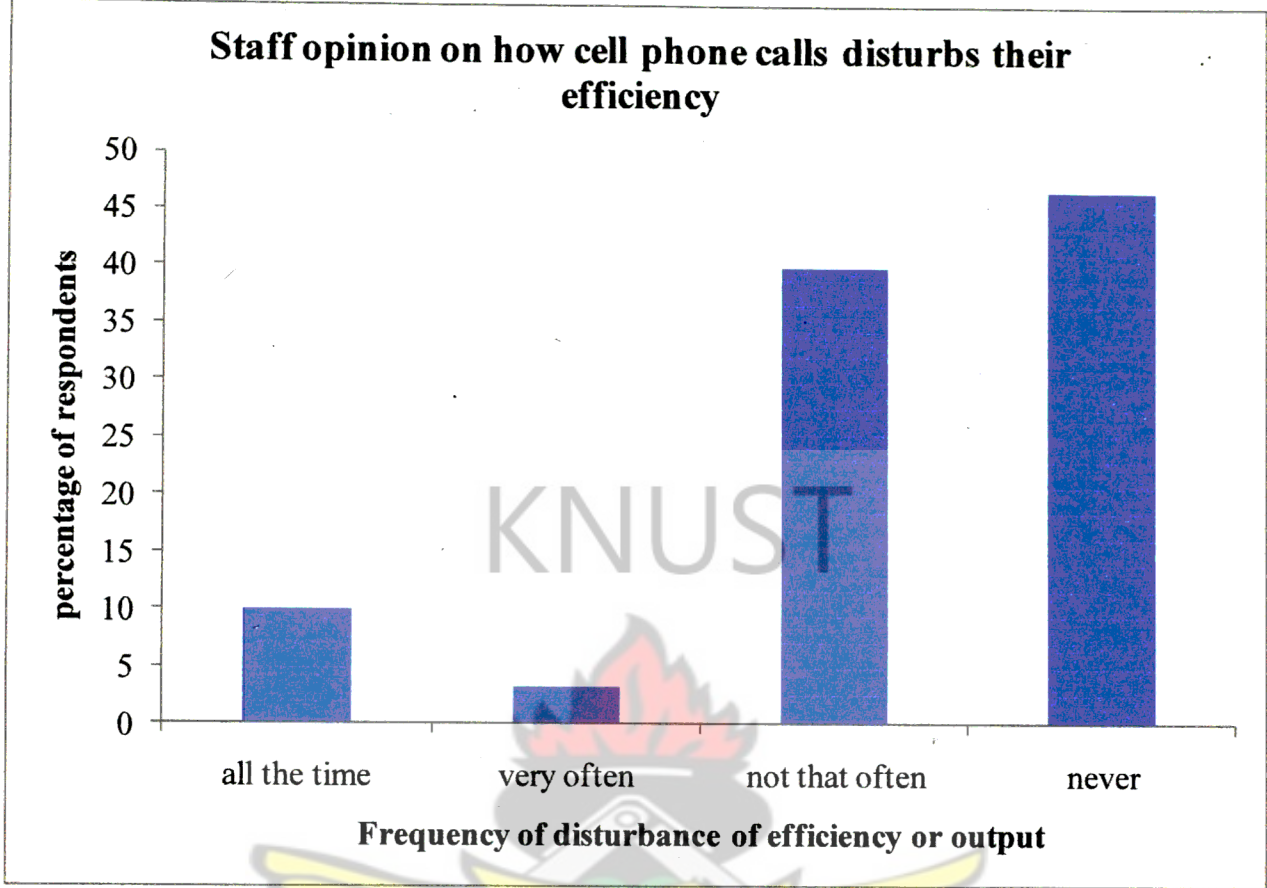
On the average, how long does a call last?	Frequency	Percentage
more than 5 minutes	2	6.7%
between 5 and 3 munites	3	10.0%
between one and 3 munites	18	60.0%
less than one munites	7	23.3%

Source: Field data

4.11 Staff opinion on whether cell phones calls disturb their efficiency

In the opinion of 40 percent of respondents, cellular phone calls did not disturb their efficiency that often which means that there are times their efficiency was affected. 10 percent of the respondents said receiving call on their cell phone disturbs their efficiency or output all the time. 3.3 percent of the respondents said the use of cellular phone very often disturbs their efficiency and or their output. An example could be when worker is called to his or her bosses' office irrespective of what the subordinate was doing. See Figure 14

Figure 14: Staff opinion on how cell phone calls disturb their efficiency



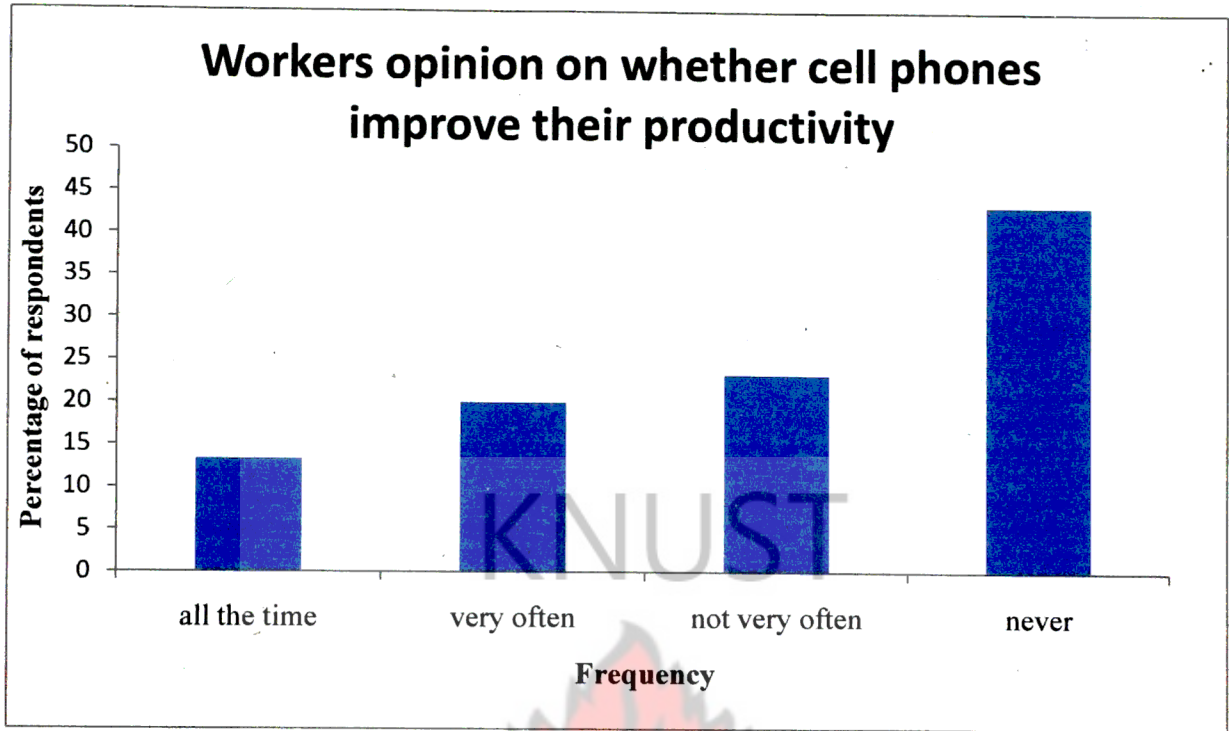
Source: field data

A good number of the respondents said that receiving cell phone calls did not affect their efficiency at all. According to figure 14, the respondents making this claim represent 46.7 percent of the work force that took part in the survey.

4.12 Staff Opinion on Whether Cell Phone Calls Improves Their Efficiency or Output

In the opinion of 10 percent of the respondents, making or receiving call improves their efficiency. This was comparable to the 10 percent of respondents who said cell phone calls disturb their efficiency or output.

Figure 15: Workers opinion on whether cell phone improved their efficiency



Source: field data

43.3 percent claim the usage of the cell phone never improved their output or efficiency. This is comparable to 46.7 percent of respondents who said cell phone calls did not disturb their work output (see figure 15). 23.3 percent of respondents said the phone calls did not very often improve their output or efficiency and 20 percent said their efficiency was improved very often by the use of the cell phone compared to the 3.3 percent who said cell phone calls often disturb their efficiency. 10 percent of the respondents were of the view that it improves their efficiency all the time.

4.13 Dissemination of Job Related Information by Cell Phone

The data on table 15 and figure 16 shows that 26.7 percent of the respondents very often use their phone for disseminating job information and 16.7 percent of the respondents do not do this very often. 10 percent of the survey respondents use cell phones to disseminate or receive information pertaining to work during working hours all the time.

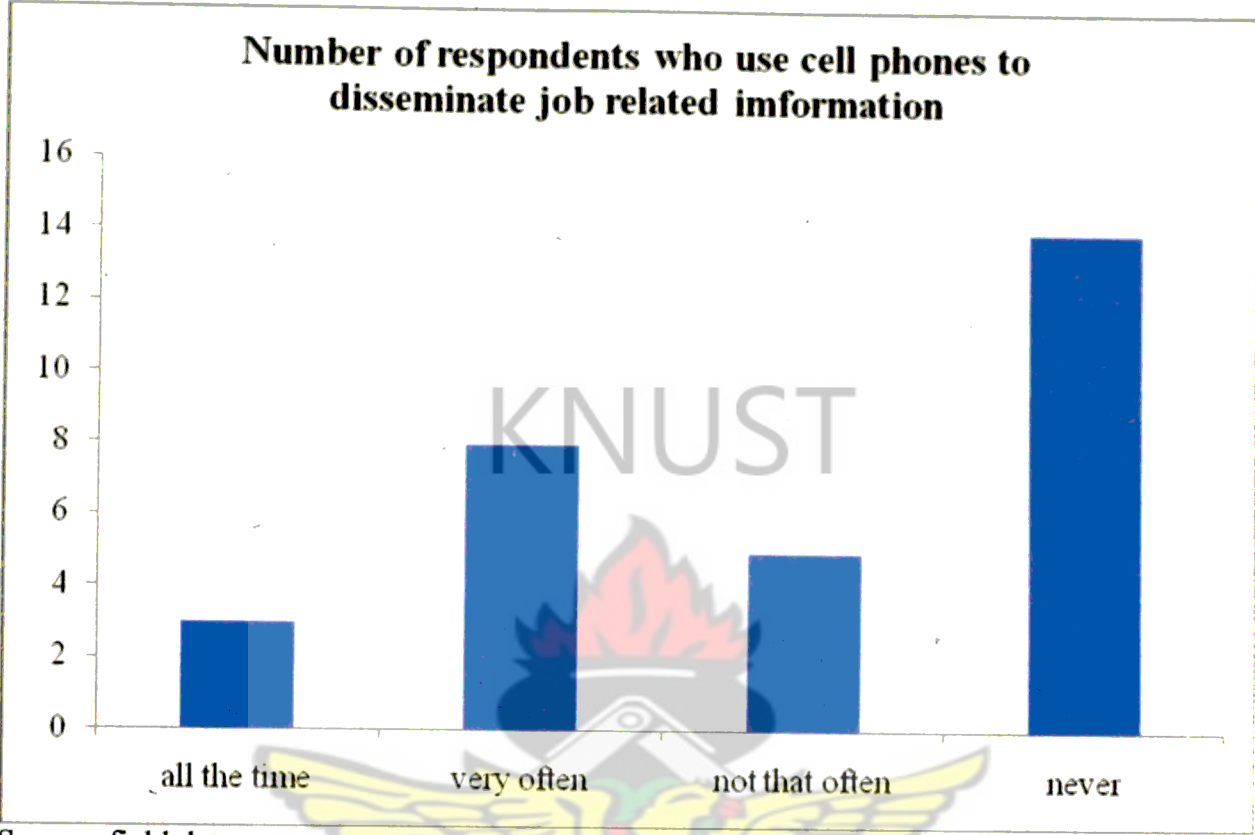
Table 15: The Rate Of Using Cell Phone To Disseminate Or Receive Information Pertaining To The Job.

Use of cell phone to disseminate or receive information pertaining to the job	Frequency	Percentage
all the time	3	10.0%
very often	8	26.7%
not that often	5	16.7%
never	14	46.7%

Source: field data

Less than half of the respondents (46.7%) do not in any way use their cell phone to send or receive job related information. This category of workers who form the majority may not be taking part in any decision making process. They represent the casual or temporal workers who are given verbal directives and are not communicated to by their superiors by cell phones. From the data on table 16 and figure 12, the respondents who use their cell phones to disseminate or receive information pertaining to their job all the time (10%) and very often (26.7%) are the ones that use their phones productively.

Figure 16: Number of respondents who use cell phones to disseminate job related information

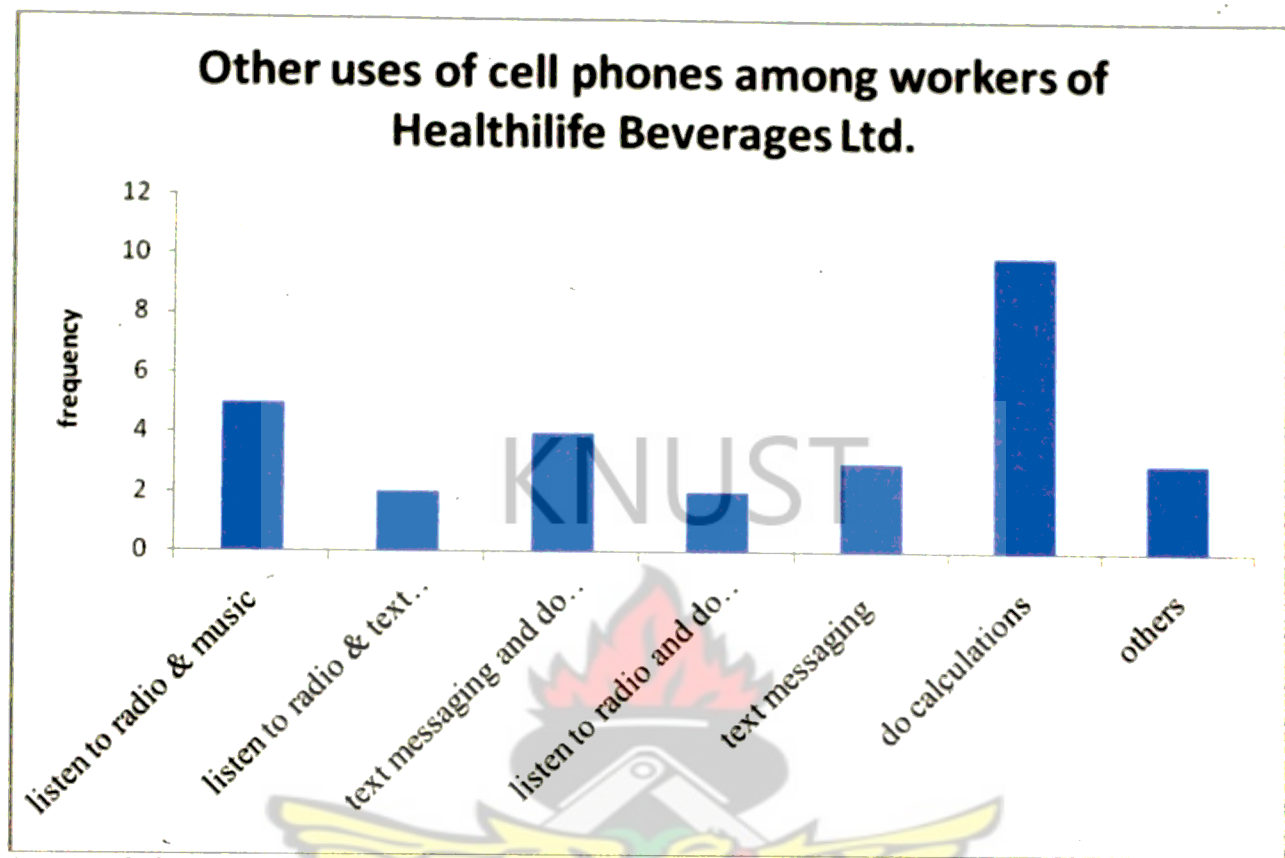


Source: field data

4.14 Other Uses of Cell Phones Among Healthilife Beverage Workers

Cell phones are constantly evolving with the latest gadgets having added and improved functions with more and attractive and sleek designs (Thompson 2006). The earlier designs were meant for cars and did not have text messaging functions, radios, calculators, calendars, music and video players. Some of these new features on cell phones if not used in a controlled manner can lead to serious neglect of assigned duties. Using cell phones to do calculations was very common among the respondents with 34.5 percent of them using the cell phones for this other purpose apart from making calls.

Figure 17: Other uses of cell phones among workers of Healthilife Beverages Ltd.



Source: field data

Using the cell phone as radio ranked second with 17.2 percent of respondents using the phones for that other purpose only. 10.3 percent of respondents were using the cell phones for text message only apart from making calls. 6.9 percent of respondents use their cell phones to listen to the radio and text messaging. Text messaging is an immediate and yet non intrusive form of communication where the recipients of the text message will response at their own convenience. However, 10.3 percent of them also use it for text messages and calculations as shown in figure 17.

4.15 Mode of Measurement of Work Output

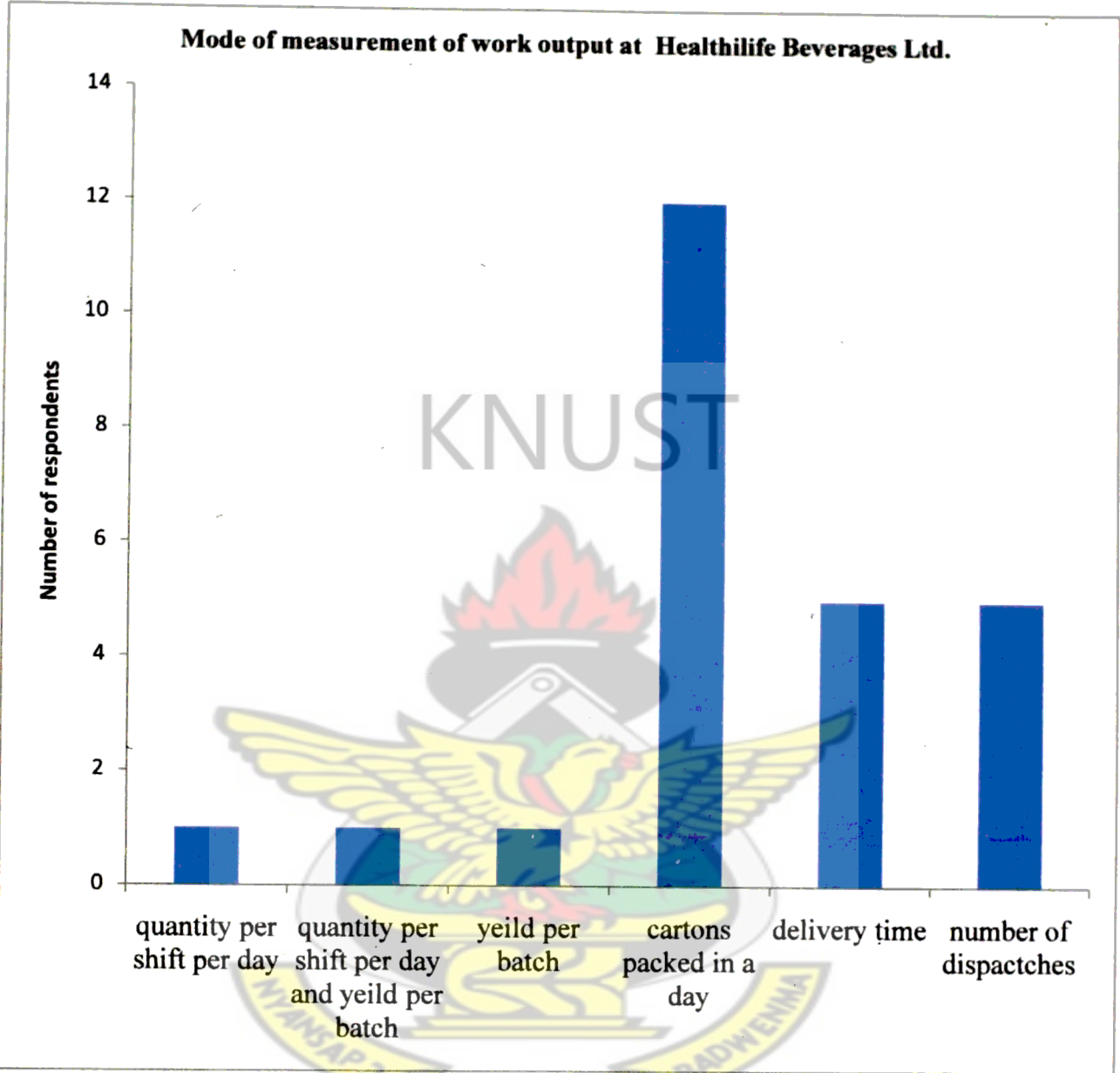
The question as to how work output was measured was asked to ascertain whether figures were put on work output or performance and to find out if the worker were conscious of what was expected of them by the close of work. 25 of the respondents representing 83.3 percent were able to indicate how their output was measured. The significance is that the workers were aware of their employer's expectation of them at the end of the day and were not likely to hide and indulge in lengthy phone calls that will affect their performance at the end of the day.

Table 16: Mode of Work Output Measurement

Mode of measurement of work output	Frequency	Percentage
quantity per shift per day	1	4.0%
quantity per shift per day and yield per batch	1	4.0%
yield per batch	1	4.0%
cartons packed in a day	12	48.0%
delivery time	5	20.0%
number of dispatches	5	20.0%

Source: field data

Figure 18: mode of work output measurement at Healthilife beverages Ltd.



Source: field data

The key performance indicators (KPI) shown on Table 16 and Figure 18 were some of the KPI used in assessing worker performance and output. The performance indicators shown on Table 16 were all time bound which implies that loss of time spent on other activities like making or receiving calls may not enable achievement of targets on time. Most of the

respondents' performance was assessed by number of cartons packed in a day and they represent 48 percent of respondents. Delivery time as a performance indicator was used by 20 percent of the respondents as a mode of measuring their work performance. 20 percent of respondents were also assessed using number of dispatches as the mode of measurement.

Table 17: Can your work output be affected by receiving or making calls?

Can your work output be affected by receiving or making calls?	Frequency	Percentage
yes	4	13.3%
no	26	86.7%

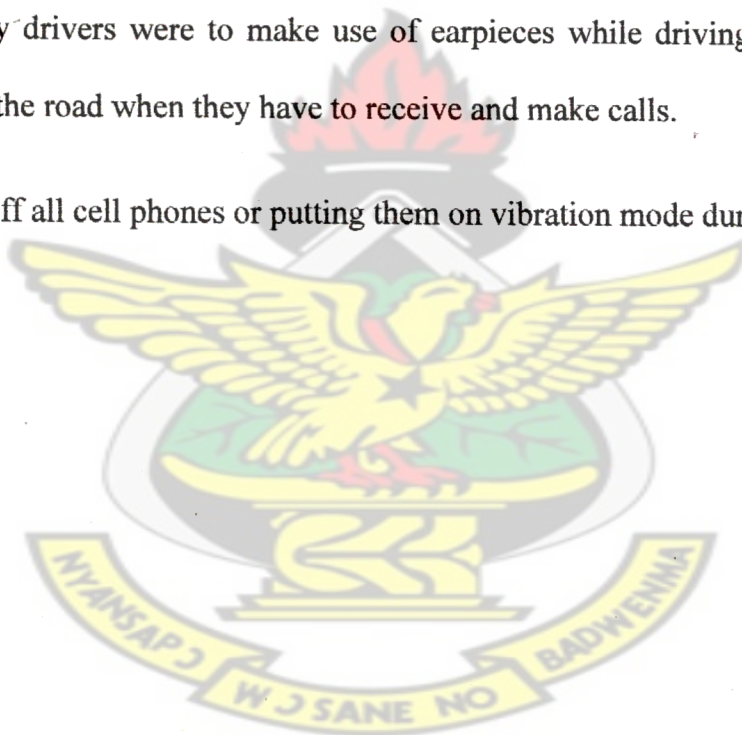
Source: field data

“Can your work output be affected by receiving or making phone calls?” was a question asked differently to confirm their first response to the question whether cell phone in their opinion affected their efficiency. The data on Table 17 shows that the majority of the respondents representing 86.7 percent said making or receiving calls did not affect their work output. Only 13.3 percent of the respondents said their work output was affected by making or receiving call with their cell phones. These responses confirm the earlier responses given to the question whether cell phone in their opinion affected their efficiency.

4.16 Policy suggestions

Some suggestions made by respondents on cell phone policy for the company include:

1. Key personnel like operators of vital equipments, supervisors, managers, sales and marketing personnel should be the only persons allowed to use cell phones while at work.
2. The other workers were to switch off their phones and only switch them on during their break periods and emergencies.
3. Company drivers were to make use of earpieces while driving and they should park off the road when they have to receive and make calls.
4. Putting off all cell phones or putting them on vibration mode during meetings



CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

The results of the survey conducted at Healthilife Beverages Ltd. have shown that a considerable amount of time is spent in making cell phone calls. The number of cell phones calls and the time spent on calls that are not work related outnumber the calls that are work related. The cell phones were used for other activities like listening to music and the radio on their phones, doing calculations, sending text messages etc. The number of respondents who claim their work output is not affected by making or receiving cell phone calls represented 86.7% of respondents and only 13.3% said their work output was affected by cell phone calls. However, a high percentage of respondents representing 42.85 percent made calls at a rate of 1 to 3 times in a day and most of the calls made last between 1 to 3 minutes per call. Likewise, the number of respondents receiving calls at a rate of 1 to 3 calls per day represents 37.9 percent. The number of call outgoing and incoming and the duration of the calls translate into a considerable amount of time that is lost through cell phone conversations. The findings from the study point to the fact that over 60 percent of these calls were social calls that are made to friends and family and these calls do not help in improving business communication and the sharing of job related information to improve efficiency. It became obvious that the cell phones in the hands of a greater number of workers, the majority of whom were casuals were not being put to any beneficial use to the company. The percentage of respondents who found it very difficult to work without their cell phones was 13.3 percent. Those who found it impossible to work without the cell phone were 3.3 percent. These two categories of workers depended on their cell phones to

work and their productivity is positively influenced by the use of cell phones but they rather fall in the minority of respondents.

It is obvious from the study conducted on the workers of Healthilife Beverages Ltd., that the extent of use of mobile phones at the work place was wide spread. The usage of the mobile phone ran through the whole organization. The majority of calls made or received with cell phones were social calls that were made to family and friends and only 30.9 percent of calls were job related. A few respondents representing 3.3 percent found it impossible to work without their cell phones which implied that only this group of workers actually used their phones productively. It can therefore be concluded that since the unproductive use of cell phones outweigh productive use, the use of mobile phones at Healthilife Beverages Ltd. may not contribute positively to productivity gains.

The policy suggestions made by the workers if implemented will go a long way to curb the abuse of cell phones in the company. A total ban of the use of cell phones when driving will be highly recommended since other studies cited suggest that the use of mobile phones while driving have resulted in a number of fatal accidents.

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Appendix I

QUESTIONNAIRE

The following questionnaire is a study being conducted for purely academic reasons.

Responses to the following questions would not in anyway be used to penalize any respondent.

Name.....

Sex.....

Age.....

Please tick the most appropriate answer

1. Which of the following jobs best describe your responsibilities in Healthilife beverages?
 - a) Manager []
 - b) Supervisor []
 - c) Machine operator / driver []
 - d) Casual worker []
 - e) Other (please specify) []

2. How many hours do you work a day? (Including work done outside Healthilife beverages)

a) More than 8 hours []

b) 8 hours []

c) Less than 8 hours []

3. Do you work Shifts?

a) Yes []

b) No []

4. If your answer to question 3 is yes, which of the shifts are you currently running?

a) Morning []

b) Afternoon []

c) Night []

d) Normal []

5. Do you own a cell phone?

a) Yes []

b) No []

6. If yes do you usually keep your cell phone on during work?

a) Yes []

b) No []

7. Is the use of cell phone necessary for the performance of your work?

- a) Yes
- b) No
8. If yes, how does it help with your work? (multiple response)
- a) Communicate with my colleagues []
- b) Take orders from customers []
- c) Give feedback to superior/customers []
- d) Communicate with suppliers for support []
- e) Others (specify).....
9. How many times do you have to make calls during working hours at Healthilife beverages each day?
- a) More than 5 times []
- b) Between 5 and 3 times []
- c) Between once and 3 times []
- d) Less than once []
10. How hard will it be to do your job without a mobile phone at work
- a) It will be very easy
- b) Moderately easy
- c) Moderately difficult
- d) Very difficult
- e) Impossible
11. Which category of people do you usually call?
- a) Family []

- b) Friends []
- c) Supervisors / superiors []
- d) Subordinates []
- e) Other (please specify)

12. How many times do you have to receive calls during working hours at Healthilife beverages each day?

- a) More than 5 times []
- b) Between 5 and 3 times []
- c) Between once and 3 times []
- d) Less than once []

13. Which category of people do you usually receive calls from at work?

- a) Family []
- b) Friends []
- c) Supervisors / superiors []
- d) Subordinates []
- e) Other (please specify)

14. What do you do when you receive or make calls at work?

- a) Continue with work []

- b) Stop work / machine/ operation []
- c) Ask someone else to take over your duties until call is ended []
- d) Other (please Specify) []

15. On the average, how long does a call last?

- a) More than 5 minutes []
- b) Between 5 and 3 minutes []
- c) Between one and 3 minutes []
- d) Less than one minute []

16. In your opinion, does the use of the cell phone disturb your efficiency and/or output?

- a) All the time []
- b) Very often []
- b) Not that often []
- c) Never []

17. In your opinion, does the use of the cell phone improve your efficiency and/ or output?

- a) All the time []
- b) Very often []
- b) Not that often []

c) Never []

18. Do you use your cell phone to disseminate/ receive information pertaining to the job during working hours?

a) All the time []

b) Very often []

b) Not that often []

c) Never []

19. What other things do you use your cell phone for during working hours? **(you may tick more than one as you find appropriate)**

a) To listen to the radio and/ or music []

b) To text messages []

b) To do calculations []

c) Other (please specify)

20. How do you measure your work output?

a) Quantity per shift per day

b) Yeild per batch

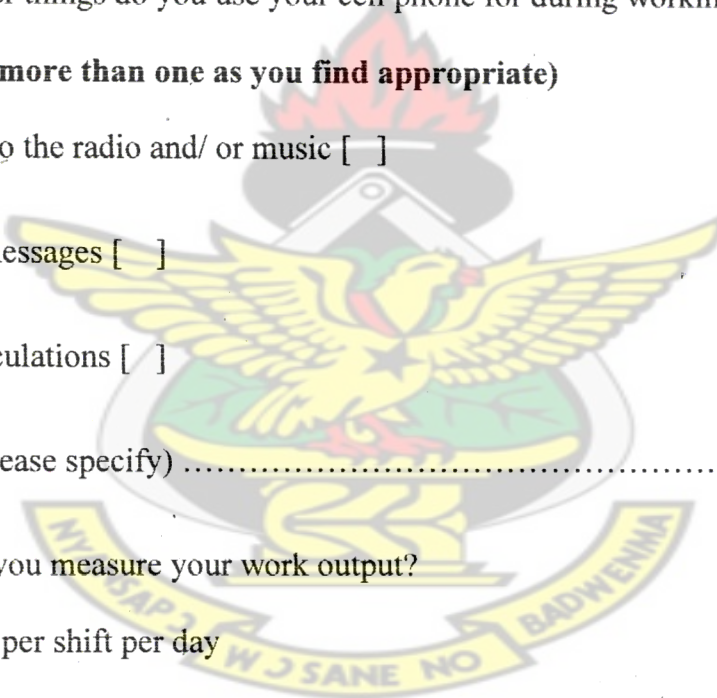
c) Cartons packed in a day

d) Sales volume

e) Delivery time

f) Number of dispatches

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21. Can your work output be affected by receiving or making calls?
- a) Yes
- b) No
22. If yes, how is your work output affected?
23. How do you avoid this interruption?
24. In your opinion what should be the companies policy on the use of mobile phones? Please comment

