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Modise, Thabo Godfrey

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STRATEGIES FOR THE EFFECTIVE USE OF FIELD FORCE MANAGEMENT TOOLS

Thabo Godfrey Modise

A research report submitted to the Faculty of Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management (in the field of Public and Development Management)

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Abstract

This study explores the impact of field force monitoring tools on employee behaviour, with a focus on the use of Advantex by technicians in the North Rand area of Telkom SA.

The purpose of the study was to investigate the impact that the use of Advantex has on employee relationships, with particular reference to communication, teamwork and motivation to work. The study will also looked at the impact that the tool has on performance, and their stress level. An evaluation of the attitude of the employees towards the tool was also conducted.

The findings include that Advantex to the extent that it is used for the purpose of monitoring employees yields the same results as other surveillance and monitoring tools. There is an increase in the level of performance, but there is also an increase in the level of stress of the employees. The levels of teamwork are reduced as employees focus on achieving the targets that are set. Key focus areas that can assist in making the use of monitoring tools beneficial for all are identified.

Declaration

I declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management (in the field of Public and Development Management) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

Thabo Godfrey Modise
28 February 2006

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Chapter One

"When we studied economics in South Africa and England, my lecturers and professors told us that we must understand this clearly, that the central and immanent driver of the capitalist economy is the maximisation of profit".

(Thabo Mbeki, Speech to the ILO 11 July 2003).

1.1. Introduction

Many organisations throughout the world are faced with the challenge of being productive and profitable amidst global competition. This has resulted in businesses looking at ways of optimising their resources, in order to ensure that they can do more with less, in an attempt to maximise their returns. The result has been the use of various management tools, all aimed at increasing the productivity of the employees. The use of Advantex by Telkom SA is one such attempt, of monitoring the use of time by field technicians, to reduce misuse and thus improve productivity.

There are varying perceptions on the use of performance monitoring tools. Whilst there is general agreement that they may lead to improved performance in the short term, there is also a belief that they are unsustainable in the long term as they raise the levels of stress of the employees. The monitoring tools also change the relationships between employees and their managers as well as the relationships among the employees themselves.

Makers of the field-force monitoring tools, such as Advantex, on the other hand, punt them as the solution to problems of performance and poor customer service. MDSI, the makers of Advantex, argue that it is a solution to the problem of dispatching technicians to the clients' premises when they are inadequately prepared to do the job

at hand i.e. technicians nearest to the client with the required skills and tools will be dispatched.

This study will draw from the experience of both the technicians who are the users of this tool and their managers who observe the changes that are brought by its use. The intention is then to test the validity of some of the arguments made for and against the use of monitoring tools.

1.2. **Background**

The transformation of Telkom SA from a state owned company to a publicly listed one, resulted in an increased demand to do better in terms of service delivery and optimisation of resources. The result was a reduction in staff in order to compare with international telecommunications providers. Since 1999, over 25 000 jobs have been cut by Telkom SA (Hlengani, 2005). This happened despite the general criticism especially from the unions (Phasiwe, 2006). In 2005 alone, more than 1900 jobs were cut through voluntary severance packages and early retirement, despite the company having made a huge profit in 2004 (Pela, 2005). The use of Advantex should thus be viewed in this context.

Advantex is a field-force monitoring tool adopted by Telkom SA in an attempt to make the field workers efficient in their use of time. This is a tool designed by a Canadian company MDSI (Mobile Data Solutions), who have been in the business since 1978. They have more than 100 customers with over 80 000 users of their field-force management solutions. This tool monitors the time spent on tasks. It also records time spent on travelling, lunch, waiting for clients as well as keeps a record of problems encountered. Technicians are expected to constantly record their activities through the day on this tool. On completion of a task the technician will then dial into the network to update the central database and to also receive the next task.

The monitoring and dispatch of field technicians at Telkom SA has evolved over the years from having an administration clerk -Fitter controller (FC) in each office, to having all FC's in a central location, and now to the use of Advantex. Pre-Advantex the technicians relied on the phone for communication with their dispatcher. This is a situation that the use of Advantex aims to eradicate.

There are a possible 9000 users of this system at Telkom SA with the current number of users being 4000 throughout the country, 2000 in Gauteng and 400 in the North Rand. Telkom SA has been using the system for the last two years and intends to roll it out to all the possible users within the next two years.

The effective use of the tool depends on the accuracy of the information supplied by the technicians. This will also have a bearing on its level of success in achieving its intended outcomes i.e. increased performance, better levels of service delivery, reduced expenses through less travelling, fewer administrative employees and fewer buildings to rent.

1.3. **Problem Statement**

There have been numerous studies on the effects of monitoring tools on productivity, and the general well being of employees, but very little research has focused on the monitoring of field workers and the strategies for making the monitoring tools effective and beneficial to both employees and employers.

The use of Advantex for the dispatch and monitoring of field technicians in the North Rand area of TELKOM SA has influenced the levels of interaction and communication among field technicians as well as between managers and field technicians. It also appears that this tool is subject to abuse as it is often used to dispute what technicians claim to have been doing at particular times and this impacts on both levels of production and motivation of the employees. In order to reverse the

negative impacts that the use of this tool seems to have, there is a need to get a better understanding of how it impacts on employee behaviour. There is also a need to investigate whether the problem lies with the tool or with the manner in which it is used.

The key issues that this study aims to focus on include the following:

- Changes in communication since the inception of the tool.
- Perceived impact of the tool on performance
- The attitude of the field workers towards the tool.
- Management's perception of the tool.
- Inception of the tool
- Suggestions on how the use of the tool can be improved.

The study will then establish areas that are raised as creating problems in the functioning of the tool, and suggest alternatives as given by the users of the tool.

1.4. **Methodology**

The method that was used for this research is called available/convenience sampling. This is a method where a group is chosen on the strength of it being available and accessible for study (Wimmer & Dominick, 1993: 66). A quantitative questionnaire-based survey was used in an attempt to reduce researcher bias. This method has also been selected for ease of access, to cover as many users of this tool as possible, and to also minimise the costs of running the research.

Three technical division offices in the North Rand area were targeted for this purpose. These included an office in Northcliff, Randburg and Bryanston. The sample size was 50 with an 88,3% return rate. This is an adequate sample size considering that the total population stands at 400, and the sample and the population are homogeneous. This is supported by Leedy & Ormrod (2001) who argue that larger

samples are necessary in heterogeneous samples as opposed to homogeneous samples where smaller samples may be adequate (Leedy & Ormrod, 2001: 221).

Meetings with the personnel in these three area offices were arranged in which the researcher introduced himself, and explained the purpose of the research. This was done in an attempt to ensure buy-in and to increase the return rate of the questionnaire. This strategy worked well in offices where the questionnaires were filled in immediately after the briefing. There were problems in collecting the questionnaires that were taken away to be returned at a later date. Involving operations managers in the filling and collecting of questionnaires proved to be helpful as all questionnaires filled in the presence of the operations managers were returned. Four interviews were also conducted, out of which a further questionnaire that served as a checklist was administered. The second round of questionnaires was distributed to the three offices to be collected at a later date. Thirty questionnaires were distributed with a return rate of 63%. The poor return rate was attributed to the fact that there had not been meetings, due to a high fault rate. Some targeted operations managers did not fill in the questionnaire due to lack of time, despite being allowed two days to do so.

Whilst the results attained through this type of sampling may not be generalisable to the entire population, consideration was given to the fact that the sample and the population were largely homogeneous, as the composition was mainly male technical personnel that work in the field (Wimmer & Dominick 1993: 66). There are a few managers, and this is a fair representation of the population within the company. The results are useful as the region in which the study is conducted produces the bulk of the revenue for the company. The level of error in the sample may be unknown, but given the area of research it can be argued that the findings should be given due consideration (Wimmer & Dominick 1993: 66).

The questionnaires that were administered contained both close and open-ended questions. The method of analysis therefore covers both. A frequency analysis was done for all the close ended questions where all the data collected was tabulated on an excel spreadsheet. The data was then grouped according to the different categories such as position in company, length of service and gender. The different opinions were then compared with each other e.g. How many of those who feel that the communication has been negatively affected by the use of the tool are female.

The open ended questions and the interviews were subjected to a content analysis and the data was grouped according to the themes in order to make quantitative reporting possible. The relative frequency of the themes were recorded on a spreadsheet and analysed according to the different groups involved in the research.

1.5. **Limitations of the research**

The research was limited to the use of a single field force management tool in a specific region of a particular company. The results that are obtained in this research may therefore not be generalisable to other field force monitoring tools, or even to other companies that use monitoring tools. The majority of the respondents were field technicians and there may have been different opinions from administration workers or other members of staff not captured by the survey. The response from managers may also be skewed, as there might be a tendency to present the tool in a positive light to support their management capabilities. Many respondents did not answer the open-ended questions. The study may thus fail to capture the personal opinions of the employees. Access to the senior managers was difficult; the survey thus fails to cover opinions at that level.

The factors that affect employee performance and their relationships in the workplace are varied. These may include the culture of the organization, the type of industry, management style, remuneration structures and employee benefits, the working

environment and the history of the organization. This research report does not attempt to include all these factors and only focuses on the effect of the use of Advantex. The other factors mentioned above may therefore impact on the research as externalities that are not reported on.

1.6. **Structure of the report**

This chapter provides the background to the study and clarifies the questions that it intends to answer. It also explains the methodology that is used in answering the questions.

The second chapter explores the key debates in the relevant literature, and the gaps that the study intends to address.

The third chapter forms the major part of the report, and contains a presentation and an analysis of the survey and interview results. In this chapter the results are described, analysed and compared to the literature. The results are also presented in tables and graphs to explain the findings of the survey.

Chapter four provides concluding remarks and lessons that were learnt from the study. It also gives recommendations for the effective use of the monitoring tools and areas to focus on for further research.

Chapter Two

"With each new form of surveillance, we become less like individuals and more like automatons, monitored for defects and aberrant behaviour that will consign us to the reject pile or mark us for 'corrective' measures."
(Privacy Commissioner of Canada in Work for Life, 1998)

2. Literature Review

Organisations are always on the lookout for strategies that will enhance employee performance and thus their profitability. This has been spurred on by global competition and increased demand from customers for better service. The result has been an increase in the development of management concepts and tools, which include: Customer Relationship Management, Balanced Score Cards, e-business, supply chain management, knowledge management etc (Anderson, B. Henriksen, B & Aarseth, W, 2006: 62), Performance Management and incentive schemes have also been used by many organisations.

The opinions on whether performance measurement will result in improved productivity and better results for organisations are contradictory (Bourne at al, 2005: 374), but the strategy has found increased acceptance particularly in the private sector, and is also making inroads into the public and non-government sectors as well. In an attempt to improve productivity and to ensure that employees perform at the required levels, monitoring tools have also been used.

The use of field force monitoring tools is relatively new, and this chapter will borrow from the studies conducted on general performance management, and employee surveillance to debate their impact on employee relationships and performance.

This chapter will look at the key debates on performance management and then focus on monitoring tools and their perceived impact on employees. A background on the use of surveillance tools for the purpose of employee monitoring and control will also be given. This will be supported by key management debates on the use of surveillance tools.

2.1. **Performance Management and appraisal**

There are no generally agreed upon definitions of performance management, but the trend is to explain it as the monitoring of an organisations achievements and targets with the intention to improve (Andersen et al, 2006: 63). Hale defines it as an approach by organisations to link the individual employee targets to those of the entire organisation. Employees are encouraged through incentives such as performance related pay and regular performance appraisals to ensure that agreed upon targets are met (Hale, 1993: 30). Employees may sign performance contracts to ensure that there is agreement between them and their organisation, on what has to be done to ensure profitability and to ensure that organisational objectives and targets are met. This usually happens during the performance appraisal, where the employee is given an opportunity to contribute in discussions on what is required to achieve the set targets.

The performance appraisal often entails a discussion on the expectations of both the employee and the employer. Feedback is given on the current levels of the employees' performance against the expectations (Hale, 1993: 34). Appraisals are done at set intervals in order to keep track of the agreements and to coach and motivate the employee as well as to give them an opportunity to indicate areas that the company needs to improve. These could range from training needs, resource requirements and even remuneration. The first meeting is usually concluded with the signing of a performance contract. This is an agreement that is signed by both the employee and the employer specifying their expectations of each other (Mink et al,

1993: 176). The contract specifies what the employee needs to do, and the outcome of achieving or failing to achieve the objectives as set out.

Donald Tosti (2005) identifies five factors that affect employee performance, and these include support, direction, the performer, motivational consequences and feedback. He defines *support* as the conditions within the physical environment of the employee, which includes his workspace, tools, materials and policies that govern the work environment. *Direction* is the guidelines given to the employee on what to do to achieve set objectives and to complete given tasks according to specifications. The *performer* or employee's skills personal history and interests will also have an influence on how well he/she works and on achieving the targets. *Motivational consequences* are whatever happens as a result of the accomplishment or non-accomplishment of set targets. This will have an impact on future behaviour and levels of performance. *Feedback* is the last and most important part of the performance management process, which entails the identification of strengths and weaknesses in performance and areas that require improvement (Tosti, 2005: 9).

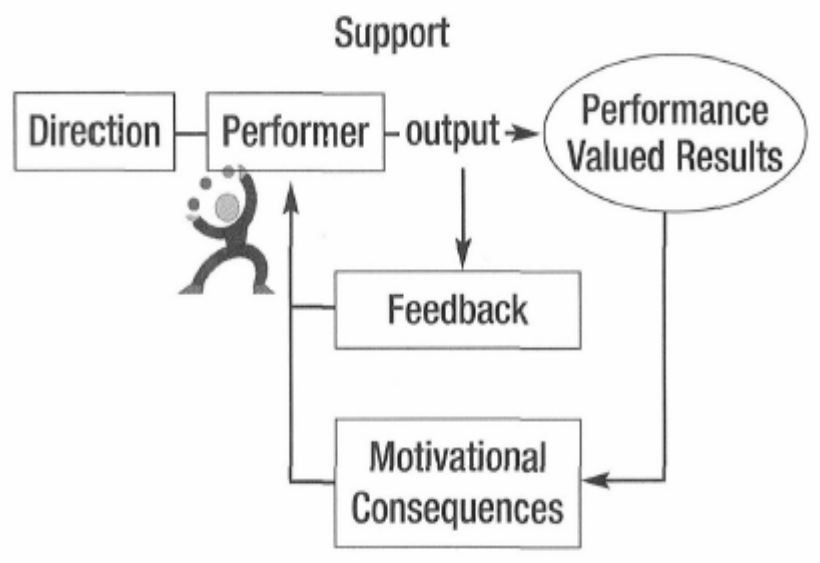
The five factors that affect performance are set out in, Tosti's Performance Systems Model, Diagram 1 below. These factors also make the troubleshooting of performance deficiencies possible as all the variables can be looked at individually and specific questions focussing on each can be asked. For example:

> Do people get the *support* necessary for optimal performance in terms of environment, tools and other resources?
>
> Is effective *direction* given in terms of what is expected, how it has to be achieved and at what level of quality?
>
> Are the expectations achievable?
>
> Is the *performer* adequately skilled to achieve the set objectives and targets?
>
> Are the rewards given for good performance seen as adequate by the performer?

Is *feedback* given in such a manner that the performer understands what he/she needs to do in future? (Tosti, 2005: 9)

Figure 1

The Performance Systems Model



(Tosti, 2005: 11)

The leadership style and approach to management will have an impact on the type of performance direction that is given, and therefore on the overall performance of the organisation (Anderson et al, 2006: 72). This will also have an impact on the culture of the organisation, which also affects performance as it comes through in the behaviour of the employees and their managers, and can be identified in their attitude towards their customers, the communication among themselves, the communication between employees and their subordinates, as well as the general attitude towards all the other stakeholders (Anderson et al, 2006: 72).

Mink, Owen & Mink (1993), identify three ways of looking at performance; these include the individual or Trait viewpoint of high performance, the behavioural/environmental viewpoint and the interactionist perspective

(Mink et al, 1993: 50-53)

According to the trait perspective individual ability is the key to better organisational performance. Organisations intent on improving their levels of productivity should identify individuals with achiever characteristics: these include an achievement orientation, self-confidence, self-control, competence and persistence. (Mink et al, 1993: 51). It is therefore important according to this view to recruit employees on their ability to perform.

The behavioural viewpoint on the other hand argues that the required behaviour can be developed and then reinforced on the employees, through the systematic management of punishment and reward (Mink et al, 1993: 52). This view is supported by Tosti's ABC model, which argues that individual performance is influenced by the factors within the surroundings of the performer (Tosti, 2005: 9). The model below describes how individuals are influenced by the factors within the environment.



Many managers fail to achieve high performance as a result of focussing on either the performer or the environmental conditions. They blame poor performance solely on individual inadequacies or on factors within the environment that they do not have control over (Mink et al, 1993: 53). In order to achieve optimal performance, managers have to take the responsibility of ensuring that their teams are capable and that the environment within which they work is conducive for high performance. Performance management should therefore focus on the recruitment of employees, their training and the conditions under which they work. This is called person situation or interactionist perspective, which is modern psychologies view that behaviour is a function of both the characteristics of the performer and the influence of the environment (Mink et al, 1993: 53).

Individuals can be forced to perform optimally through fear and constant monitoring, but this will be unsustainable as many individuals only perform better when they have formed a positive attachment to their working environment (Mink et al, 1993: 54). It has also been found that remote monitoring of employees can result in high stress levels. The call centre employees of Universal Card Services (UCS) are constantly monitored to ensure better quality of service. This has resulted in improvements in the service quality levels, but it was also found that these employees showed higher levels of stress. This prompted UCS to request the managers and supervisors to treat the employees with respect and to view every mistake as an opportunity for improvement (Davis, Rosegrant & Watkins, 2005: 104).

The monitoring tools that were used by UCS were now used for the purpose of monitoring performance with the intention to offer training in areas were deficiencies were found. Based on the findings at UCS it can be argued that electronic monitoring tools can form an important part of the performance management system. The emphasis should be on using the information acquired through these systems for the development of the employees rather than to punish them for their mistakes. Employees should also be allowed to be part of the meetings where performance improvement is discussed. The approach towards feedback on employees at UCS was changed, with employees being publicly complimented for giving excellent service (Davis et al, 2005: 104). The result was a general improvement in the quality of service and a generally positive attitude towards employee monitoring.

Communication should be made an integral part of any performance management system. The feedback sessions should be managed well to ensure that both the employee and the manager obtain the maximum benefit out of them. The feedback session should be fully prepared for, and the conclusions drawn should be supported with data (McLagan & Krembs, 1988: 60). In order to benefit from feedback sessions employees and their managers should treat the sessions as a shared responsibility and not just the duty of the manager. The feedback session should also

be used to ensure that the work that has to be done is on target. The manager and the employee should be able to draw conclusions on performance related matters. They should be able to assess the quality of their product, the time taken to complete tasks and the behaviour across a variety of situations. They should also identify the employees' strengths and weaknesses whilst being aware of the biases that creep in during assessment. In the end they should be able to decide whether the performance is as a result of the employees' behaviour, factors within the environment or a combination of both. (Mclagan & Krembs, 1988: 67-68). The feedback sessions are often stressful, but when handled well can have long term benefits for both the employee and the employer.

The indicators that are used to follow up on employees and organisational performance have an impact on the actual performance, and also determines the levels at which the employees will perform (Anderson et al, 2005: 72). This is enhanced by the incentives that are given as they reinforce certain behaviours in the employees. Organisations that reward their employees for producing a certain level of quality of product, reinforce this behaviour and will therefore be able to maintain the same level of quality, but this will also be affected by the employees perception of the reward that is offered by the employer (Anderson et al, 2005: 72). Employees will tend to perform better if the rewards that are given for their performance are considered to be adequate for the level of performance that is required. The performance indicators used to follow up on the employee will also have an impact on their performance as well as that of the entire organisation (Anderson et al, 2005: 72).

Various performance measures can be used, and organisations intent on using performance measurement to improve their levels of performance should ensure that whatever is being measured is relevant and will therefore have a positive impact. (Denton, 2005: 283). The different performance measures that can be used include financials costs, total product cost, cost of labour etc. The non-financial measures

that can be used include productivity, efficiency and employee turnover (Denton 2005: 279).

The emphasis is often on financial measures as they talk to benefits for the shareholders, are often easier to keep track of and quantify, and they are always available on the company records (Denton, 2005: 283). These measures are not always the best to use in the resolution of performance problems, as they are only available at the end, when the damage has already been done (Denton, 2005: 281). They cannot assist in resolving poor performance at the production line when it happens. Organisations sometimes do not use the non-financial measures due to a lack of understanding of their impact on the overall performance (Denton, 2005: 280). The solution to the problem of measuring overall performance properly lies in what Anderson refers to as Holistic Performance Management (Anderson et al, 2005).

Holistic Performance Management is the comprehensive use of the different performance and management strategies in such a manner as they are able to support each other in achieving the objectives of the organisation (Anderson et al, 2005: 62). The strategies that are used should have a holistic attitude towards achieving results and should take into account employee welfare, customer service and satisfaction as well as the quality of the products or services being offered (Anderson et al, 2005: 62).

Mintzberg, in his organisational structure's view of Holistic Performance Management, identifies three key pillars that will hold any organisation together. These include mutual adjustment, direct supervision and standardisation.

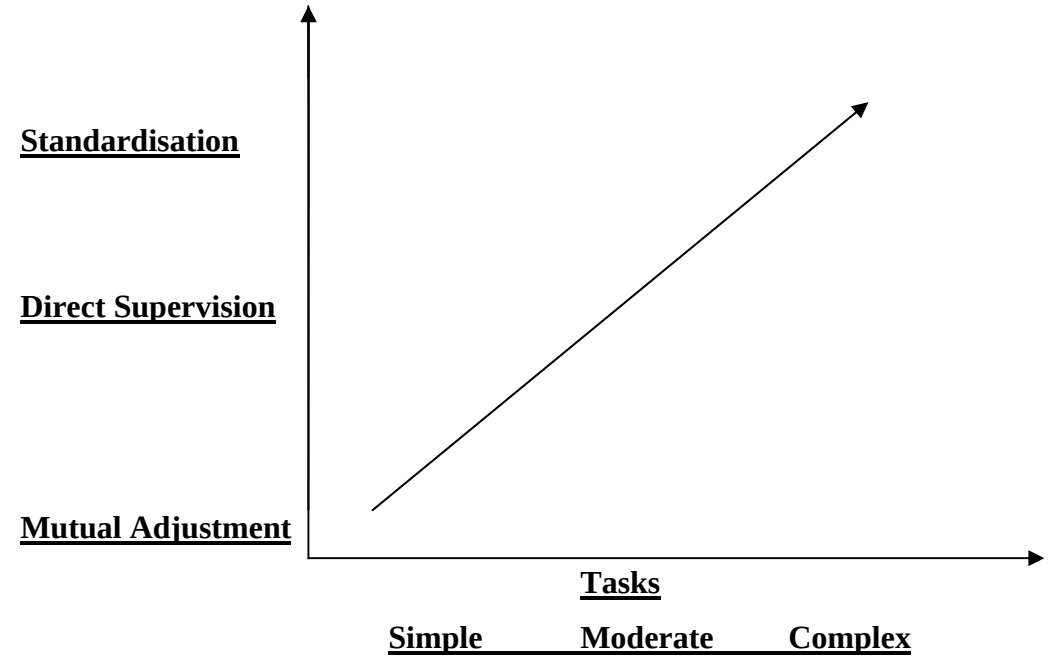
- Mutual adjustment lays emphasis on establishing a good line of communication at all levels and ensuring that there's agreement on what has to be done.
- Direct supervision is the direct control and leadership by an individual through giving instructions and ensuring that they are carried out.

- The standardisation of employee skills, work processes and outputs.

(Mintzberg in Anderson et al, 2005)

Figure 2

Graphic representation based on Mintzberg's organisational structure theory



As depicted in the graph above Mintzberg argues that simple tasks can be accomplished through mutual agreements and communication between the employees. Misunderstandings can be cleared through simple explanation, and the tasks can be completed. This will also build employee confidence as they are given some autonomy in performing tasks. They will therefore become innovative and manage to perform at the required levels with little supervision. The moderately complex tasks require, over and above good communication and cooperation, a level of direct supervision, where instructions can be given and followed up to ensure that they are carried through. The more complex tasks require a combination of mutual adjustment, direct supervision and a standardisation of the levels of skill of the employees and the working processes so that employees know what has to be done and how, as well as the outputs that have to be produced.

"Organisations can in certain extreme cases follow proper monitoring and evaluation of their performance indicators, score highly at them and still go bankrupt" (Anderson et al, 2005). This often happens when the focus is on short-term performance gains, to the detriment of the long-term organisational objectives. An organisation that promises good customer service may focus on increasing production in order to make more money, but may sacrifice the quality of service they offer, and in the long term loose the very customers who are the core supporters of their business. They may also lose sight of the costs and benefits that are associated with higher production.

Monitoring tools form but a small part of the whole performance management debate, but their impact on performance and on employee relations is worth noting. Performance is also influenced by other factors that affect the management of employees. These include leadership and management style, the culture of the organisation and how the tools are used within the organisation.

2.2. **Monitoring tools**

According to Marx (1976) the control of work is the key driver of industrialisation as it ensures that capitalistic objectives are achieved through the control and monitoring of labour (Wood, 2004: 98). Taylorism also argues that employees do not always work to their full potential, they dislike work, view it as a form of punishment and therefore need to be constantly monitored (Waring, 1994: 136). It is therefore up to the managers to get as much of the labour as is possible in the given time. This is often done through setting performance targets, and monitoring the employees throughout the day to ensure that these targets are met (Sewell, 1998).

Developments in technology have brought about new trends in the monitoring and supervision of employees in the workplace. Physical searches have now been replaced with sophisticated monitoring devices and alarms, and face-to-face

supervision has made way for CCTV and other surveillance equipment. Employees who use computers and the telephone are also subjected to some form of monitoring, all in the name of ensuring efficient use of resources. Telephone conversations are recorded and in some organisations employees have pin numbers that record all the calls they make. Electronic mail is monitored and employee's typing speed, and time spent on a document are measured (Worklife Report, 1995). Truck drivers, marketing people and technicians who spend their day on the field are also monitored through the use of vehicle tracking devices, Global positioning Systems (GPS) and even monitoring tools such as Advantex.

Surveillance and monitoring devices are generally perceived as instruments of security, and they induce certain behaviours in the people that are subjected to them. Foucault (1995) argues that the people under surveillance will behave in a certain way even when they are not being monitored. This he alludes to in his deliberation of the panapticon (Sewell, 1998). He argues that surveillance tools are instruments of power and control, where the users of the tools exercise power over those under observation (Sewell, 1998).

Foucault explains the power relations between the subjects under surveillance and those that observe them through Betham's Panapticon, an architectural structure with a tower surrounded by a number of adjacent rooms, the inside of which can be viewed from the tower. The design ensures that one in the Tower can have a clear view of the rooms without being seen or detected (Foucault, 1975: 200). This gives those under observation an air of uncertainty, as they never know whether they are being watched or not. They are therefore forced to behave in a specific manner. The person in the Tower exercises power over those in the rooms, and this is made possible by the fact that they cannot be seen. The Tower gives power to whoever is in it (Foucault, 1975: 201).

The panapticon was in the early eighteenth century used as a prison or a hospital (Foucault, 1975: 201). This was to ensure that patients can be monitored without close contact and thus reduce the possibility of spreading infectious diseases. They were also separated from each other to prevent cross infection, prisoners were also kept apart to minimise their communication and thus the possibility to plot an escape (Foucault, 1975: 200). The structure induces certain behaviours and eliminates others whether those under observation are patients, inmates, students or workers (Foucault, 1975: 201). Monitoring and surveillance tools have the same effect, where those under observation or not. Their use therefore leads to general complaints from those subjected to them.

The complaints that have been levelled against the use of monitoring devices and surveillance tools have included the argument that they give the impression that employers do not trust their employees (Sewell, 1998). A number of authors have also indicated that the use of these devices results in increased levels of stress on the employees under surveillance (Sewell, 1998). Despite the negative impacts that have been sited, the use of surveillance and monitoring tools is on the increase.

In a survey conducted in the United States of over 300 companies it was revealed that over 20 million of the American population is under some form of monitoring or surveillance while at work (Worklife Report, 1995). The survey also indicates that over 80% of the employees in the telecommunications, insurance and banking sectors were constantly under some form of surveillance.

The International Labour Organisation (ILO) sites 393 companies surveyed on the use of electronic monitoring and surveillance devices, where it is argued that these devices are ineffective and may in-fact be counterproductive (Worklife Report, 1995).

Surveillance, monitoring tools and performance management strategies are managerialist in nature. They lay emphasis on achieving clear measurable outputs. The resources are therefore allocated in line with achieving specific objectives (Paine, 1999: 44). These objectives are often the ones that get achieved, as this is where emphasis is laid, and this sometimes happens despite the negative impact of achieving those objectives (Behn, 2003: 599). In an attempt to reduce waiting time in British public hospitals in the eighties, government introduced a system that achieved just that, quick service, shorter waiting periods and efficiency in the delivery of service (Paine, 1999: 46). On the surface the system worked well, the waiting period at hospitals was reduced, but this meant that complicated cases were transferred elsewhere in order to reduce time spent per patient. This resulted in a deterioration of the quality of health care offered to those in real need, as the 'complicated time consuming' cases were referred to specialists (Paine, 1999: 46). The state spent more on consultation fees paid to specialists for the referred cases (Paine, 1999: 47). This is the flaw with managerialist models, their ability to hide the fact that they are not working properly (Paine, 1999: 48).

Despite the arguments on the negative impact of electronic monitoring devices, their developers still punt them as a solution to the problem of poor productivity. One such claim is made by Telcordia; the developers of a field-monitoring tool that is punted as a solution to problems of scheduling tasks, making appointments and assigning tasks to employees with the necessary skills. They further argue that their product will result in better levels of productivity, reduced costs and improved customer satisfaction (www.telcordia.com/collateral/brochures/force.pdf).

The claims made on the use of monitoring tools should be properly investigated, and the facts should be established before they can be adopted for use. There should be clear information on how the tools work, the costs of using them as well as the costs that will be incurred should they fail (Rigby 2001: 10). Implementers of these tools should always remember that their success or failure is dependent on the people who

use them (Rigby 2001: 10). Organisations should therefore ensure that the users of these tools are adequately skilled and motivated to use them effectively. Their implementation should therefore happen after proper consultation with the employees, and buy in is secured, to ensure that the tools serve their purpose and achieve their intended objectives.

2.3. **Job satisfaction**

Robbins (1998: 160) argues that in order to achieve higher levels of productivity employers should ensure that their employees are satisfied with their jobs. He further contends that dissatisfied employees are the ones who are often absent from work, are unproductive and tend to engage in destructive behaviours. Satisfied employees on the other hand tend to perform better, are honest and willing to put in an extra effort into achieving more in their jobs. It is therefore imperative when implementing changes within organisations that due consideration is given to its impact on the levels of job satisfaction. Field force monitoring tools may become ineffective and not achieve the results that their vendors claim they can, if they are implemented in an environment of low job satisfaction. There may also be resistance to their use due to poor consultation with the users.

In order to reduce the levels of resistance to change, employees should be allowed to take part in the decision-making processes. "It is difficult for employees to resist a change in which they participated" (Robbins 1998: 636). Nelson and Coxhead (1997: 29) also argue that individuals will resist change, if they do not know what has to change, how it has to change and the impact this will have on them.

Organisations engaged in any change process should ensure that their employees are also involved in discussions on the change in question and the effect it will have on them. This will help build the employees confidence in the change process. When employees accept a change process, it stands a chance of yielding positive results for the organisation that implements it.

2.4. **Summary of points raised in the literature**

Globalisation and the increase in competition have resulted in many organisations facing competition that was unheard of before. This has resulted in an increase in the development of strategies aimed at improving business processes, in an attempt to become competitive and to also reduce costs whilst also increasing the levels of production.

Performance management is used by many organisations and is even being adopted by government and some organisations in the non-government sector. The debates on whether performance management will result in improved performance from the organisations that implement it are contradictory. Whilst it is argued that performance management does not always result in better performance there are organisations that have yielded better results and have seen growth solely as a result of adopting a performance management strategy.

The factors that affect the performance of employees should always be taken into account when implementing the performance management strategy. These factors include the *direction* that employees are given in terms of what has to be done at what level of quantity and quality and the time required to achieve this. The employee should be given *support* in terms of the resources that are required to accomplish the tasks at hand. These should include material, tools and any manpower assistance that may be required. The employee should be adequately skilled to can perform the task at hand i.e. there should not be any *intrinsic factors* within the employee that can hamper performance. Regular feedback should be give on the employees performance, and corrective measures should be implemented whenever necessary. The rewards that are given should be adequate for the expected level of performance.

There are a number of theories on performance. Whilst some view performance as being influenced by factors within the environment others argue that performance is

affected by the internal factors within the performer. Modern psychology on the other hand argues that performance is affected by both factors within the performer and the environmental factors. This resulted in the development of what is called Holistic Performance Management. This is the view that different performance management tools should be used together to ensure the achievement of results.

Electronic monitoring tools assist in monitoring employee performance, but it has been found that, they do not find general acceptance among employees. Whilst they often result in short term increases in the levels of performance, the employee stress levels have increased as a result of their use. These tools find acceptance when used to monitor performance with the objective of providing training to employees who do not perform according to expectations, as opposed to when used only for the purpose of management and control.

The challenge in the use of electronic monitoring tools is to find a balance between using them for the purpose of monitoring and control, and monitoring employee skills with the objective of providing further training. The literature points to the fact that these tools can improve the levels of performance, but also have a negative impact in terms of increasing the stress levels. The key in using them effectively lies in the management style and an understanding of what the purpose of the tool is.

Chapter Three

"The success of any target setting initiative is dependent largely on how it is implemented; it is possible to have an elegantly designed system that fails due to problems associated with implementation."
(Hale, 1993: 46)

3. The findings

This chapter is divided into four parts. The first part looks at the composition of the sample its size and the methodology that was used in the data collection. This includes the types of questions that were asked and the rationale behind asking them. All this will be supported with text from the literature.

The second part is a description of what Advantex aims to achieve, and what has been achieved through its use elsewhere in the world.

The third part is a presentation of the results and what they reveal about the perception of the respondents towards the use of monitoring tools and towards Advantex in particular.

The last portion is an analysis of the results and a presentation of the key findings on the perceptions of the use of monitoring tools and of Advantex in particular. This is done according to the key themes as presented in the literature review.

3.1. The sample, its size and composition

Convenience sampling was used, for ease of access to the groups that were selected and to reduce the amount of travelling, as well as minimise the costs of running the research. Most technical divisions offices are homogeneous so the sample was representative of the technical divisions within the company.

A survey questionnaire was distributed to 50 respondents within the North Rand area. Interviews were also conducted with four respondents who are directly linked to the use of Advantex, either as users or supervisors of people who use the tool. Based on the responses from the interview questions, another questionnaire was developed and distributed to a further 30 respondents. In an attempt to capture perceptions of the use of the tool from managements' perspective, a number of operations managers were targeted to respond to the second questionnaire. The majority of the respondents to the questionnaires were male with a few female technicians. The total number of respondents to the two surveys is 62, which represent 77,5% of the response rate to the two questionnaires. This translates to 15,5% of the total population of the Advantex users in the North Rand area.

Table 1

First Questionnaire Respondents

Male respondents	**38**
Female respondents	**5**
Less than one yrs service	**0**
1-5 yrs service	**12**
6-10 yrs service	**11**
11-15 yrs service	**8**
More than 15 yrs service	**12**
Technicians	**43**
Operations Manager	**0**
Managers	**0**
Administration	**0**

The interviewees were made out of one operations manager, a female technician and two male technicians. The operations manager interviewed was involved with the Advantex project in the beginning, whilst the technicians were selected at random.

The respondents to the second questionnaire are represented in table 2 below.

Table 2

Second Questionnaire Respondents

Male respondents	**18**
Female respondents	**1**
Less than one yrs service	**0**
1-5 yrs service	**2**
6-10 yrs service	**7**
11-15 yrs service	**3**
More than 15 yrs service	**7**
Technicians	**16**
Operations Managers	**3**
Managers	**0**
Administration	**0**

The respondents to the interview and the questionnaires are classified according to specific criteria in order to see relationships between the different groups, and to make comparisons in the responses to the questions. The criteria used to categorise the respondents include gender, duration of employment in organisation and position in organisation. The frequency of the responses will be calculated as a percentage and then used to determine the perception of respondents. These are then used to draw conclusions on the research questions.

The questionnaires and the interviews were structured to cover all the research questions. These included the impact of the tool on communication, the perceived impact on performance, the attitude of the users towards the tool, managements' perception of the tool and how the tool was brought into use within the organisation. There were also questions that attempted to find ways that will assist in improving the use of the tool. See Appendix A for the first questionnaire, Appendix B for the interview questions and Appendix C for the follow-up questionnaire.

The other questions that were asked were of a statistical nature, aimed at acquiring information on the composition of the sample. This is represented in table 1 and 2 above.

Questions relating to gender were asked in order to compare the opinions on the tool from the different perspectives. Men and women have different views on communication, socialisation and working in teams. It is therefore necessary to have a gender-based comparison on the opinions related to these questions, as this will give a holistic perspective on the use of the tool.

The duration that the employees have spent with the organisation has some significance towards the attachment that they may have to the organisation. This also gives an indication of the extent to which organisational culture has been entrenched. Employees who have been with the organisation for long periods may show a level of resistance to change, particularly if they perceive the change as being negative.

Employees in different positions within the company will have different opinions on the use of the tool depending on their position. Technicians who are the main group under the focus of this tool will have an opinion that might be different when compared with one from a manager who may have been involved with the planning and implementation of the use of this tool.

Questions related to communication between employees and between employees and their managers were also asked. These looked at the impact that the use of the tool has had on communication, through meetings and direct communication through the phone and by any other means. Foucault argues that people under observation change their behaviour in order to meet the required specifications (Foucault, 1975: 204). The behaviour of the technicians may therefore change in order to be able to meet the targets that are set and to be seen to be behaving appropriately by those that are monitoring them. Each technician may therefore focus on the tasks they have at hand and sacrifice communication with fellow technicians.

Surveillance technologies tend to have a positive effect on employee productivity. Those under observation tend to become more productive, and they also achieve the set targets (Anderson et al, 2005: 72). The questions that were asked therefore attempt to verify whether Advantex has had the same effect since inception.

In order for employees to achieve and perform well within their organisations they have to be motivated to do so. The attitude of the employees towards Advantex will also contribute towards their satisfaction with the job, and thus have an impact on their performance.

Consultation with stakeholders has been elevated to higher ground in South Africa, in an attempt to ensure that everyone is involved in decision-making processes. The process that was followed in the implementation of Advantex is important in determining whether it will receive widespread acceptance, or whether it will be viewed with suspicion by those that have to use it. This will impact on it achieving its objectives.

Respondents were asked to give an indication of the intentions of the company in its implementation of this tool. The objective of this question was to gauge the extent to

which employees were informed about the intentions of the organisation in implementing the use of the tool.

Questions aimed at finding alternative ways to the implementation of Advantex were also asked. This is an attempt at finding the shortfalls of the tool and suggesting ways to improve how it works. The responses will assist in developing an implementation strategy that will ensure that there is buy-in towards its use, and that it achieves the objectives as has been achieved elsewhere in the world. The intention is to also make sure that Advantex lives up to the promises made by the makers.

Some of the questions that were asked are related to the following themes as stated in the problem statement.

- **Changes in communication since the inception of the tool.**
    1. How regularly are staff meetings held?
    2. Has the number of meetings held changed since inception of the tool?
    3. Is it important to have regular meetings?
    4. How often do you communicate with fellow technicians when on the field?
    5. What method of communication do you use?
- **Perceived impact of the tool on performance**
    1. Since inception of the tool how has the technicians' levels of the productivity been affected?
    2. Does the use of Advantex motivate employees in accomplishing their tasks?
- **The attitude of the field workers towards the tool.**
    1. Do you consider Advantex to be an easy to use tool?
    2. Is using Advantex better than using the phone?
    3. Does Advantex serve a good purpose?
    4. The users of Advantex like it?

- **Management's perception of the tool**.
    1. Do you consider Advantex to be a good management tool?
    2. Are technicians easily controlled as a result of using Advantex?
- **Inception of the tool**
    1. Was there adequate consultation prior to the implementation of Advantex?
- **Suggestions on how the use of the tool can be improved**.
    1. Are there better alternatives to the use of Advantex?
- **Effect of Advantex on relationships**
    1. It is difficult to get assistance?
    2. The use of Advantex has improved team-work

The responses to the above questions were used in drawing conclusions about the perceptions of the users of Advantex in the North Rand area towards this tool.

3.2. The Surveillance Advantage: a Makers perspective

The makers of Advantex, MDSI argue that their field force monitoring tools will enable companies to manage resources effeciently. These include dispatching technicians with the required skills and who posses the necessary test equipment.
Customers will then be better served. Costs will be reduced through less travel, fewer dispatchers and dispatch centres, and therefore salary bills and rental on buildings will be reduced. According to MDSI the use of their products will result in improved customer service, revenue growth and better shareholder value.
(MDSI presentation, 2002).

Advantex has been designed to eliminate challenges that are faced by field workers, dispatchers as well as by the supervisors. These include:

- Limited access to information once on the field
- No overall view of work status

- No feedback on the progress of the order
- Mistakes made through paper processing
- Knowledge of what technicians are doing

(MDSI Presentation, 2002).

Previously technicians had to call the dispatcher to get additional information on their clients. This resulted in delays in the completion of tasks, and sometimes even in mistakes when receiving and submitting information. Technicians can now read information directly of the system thus eliminating waiting time and mistakes when writing down information. They have full information on the task at hand and the necessary requirements for the completion of that task. Feedback on the progress of the order can be sent immediately.
(MDSI Presentation, 2002).

Supervisors are able to track the location of a technician and can therefore control and monitor what is being done on a daily basis (MDSI presentation, 2002). They are therefore in a position to reorganise their teams in case of emergencies. Whist this might be a good thing for the control of employees it may have a negative impact on autonomy. They can only do tasks based on a prescribed schedule and may not deviate from that. They need the supervisor's permission when there's a need to assist fellow technicians on the field.

Advantex also offers a single enterprise wide solution for all work groups, types of products and services throughout the region. Work can be viewed per region, per work type or work group. The tasks can also be viewed according to their priority and technicians can thus be dispatched based on this (MDSI Presentation, 2002). This is important for setting daily targets in accordance with the holistic organisational objectives.

In studies conducted elsewhere in the world the use of Advantex has shown some successes. There are marked improvements in the number of tasks completed, reduced mileage travelled by the technicians and more appointments were met by the technicians, whilst the amount of overtime worked was reduced. There has also been a reduction in the number of dispatchers, dispatch centres and data entry clerks (MDSI Presentation, 2002).

In a study conducted at Tele Denmark (now TDC). The following findings were made:

- Number of tasks completed per day increased from 4.1 to 7
- Number of dispatchers reduced from 267 to 70
- Control centres have been reduced from 17 to 9
- The time to install or repair has been reduced by 23% and
- 82% of the tasks are automatically dispatched.

(MDSI Presentation, 2002).

The results presented above give an indication of the outcome of the use of the tool, but do not give an indication of the environmental conditions under which the tool was implemented as well as the resulting stress levels of the employees. Nothing is said about the duration of the use of the tool, or whether it found acceptance from the employees.

The next part of the document will look at the findings of surveys conducted in the North Rand area of Telkom SA, on the perceptions towards the use of monitoring tools. Reference is made to perceptions, as there is no yardstick against which comparisons can be made.

3.3. **The results**

Perceptions on the use of Advantex differ depending on who one speaks to. Whilst operations managers see it as a good management tool there are different opinions from technicians. Some believe that it is a good system, whilst there are others who argue the opposite, and actually believe that it does not serve any positive purpose. The results also reveal similar views towards the use of Advantex.

The raw data obtained through the first questionnaire is attached as Appendix D, and Appendix E is the raw data obtained from the second questionnaire. The perceptions of the users of Advantex will be assessed based on the research questions asked earlier. These will then be categorised according to the different groups present in the survey and comparisons will then be made between the groups. Some of the responses will be discarded, as they have no bearing on the research questions and therefore do not reveal anything about the use of Advantex.

The frequency of the response to the question is used as an indicator of the views of the respondents. These will be represented as a percentage and the higher frequency will be taken as the major view towards the issue at hand. The analysis will follow the same order as the listing of the research questions above.

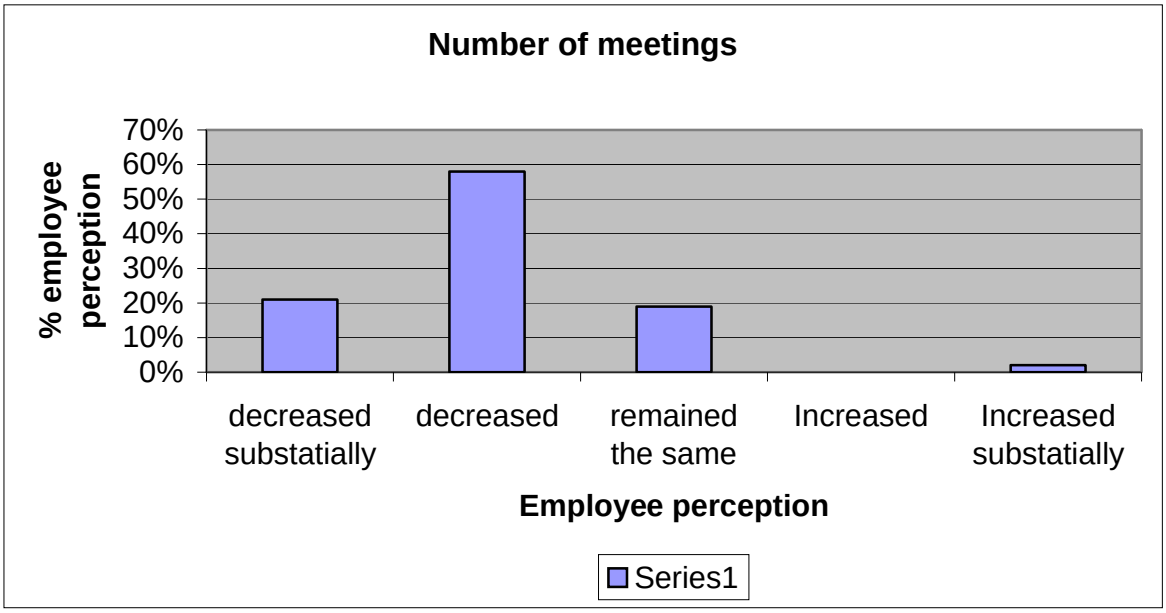
3.3.1. The impact on communication

According to a female technician who works out of the offices in Randburg, "Communication is dead and buried, as we no longer see each other in the mornings due to working from home". The results from the questionnaire on the other hand reveal a different picture, which is supported by the other interviewees. Another technician from Randburg argues that there is more communication between technicians and between technicians and the dispatcher, whilst the communication between the technicians and the manager has been reduced. One of the operations

managers argues that communication has improved and that technicians who use laptops can even use electronic mail to communicate with colleagues and their manager.

In order to gauge the impact of this tool on communication, questions relating to the number of staff meetings held, the frequency of holding these meetings, the frequency of communication between technicians and the method used for communication were asked. The results obtained from these questions are presented in fig 3 below.

Fig 3

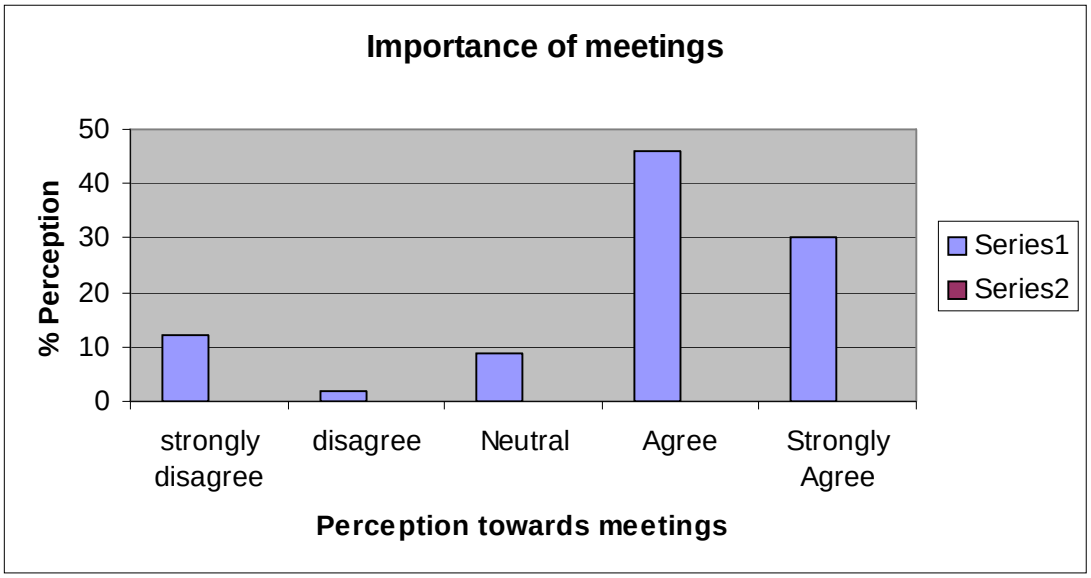


If the number of meetings held were the only criteria used to determine whether the level of communication between employees and between employees and their managers has changed, it could be argued that communication has dropped substantially. This is shown by 79% of the respondents who indicate that the number of meetings held has decreased. The remaining 21% are split with 19% saying the

number of meetings has remained the same and a mere 2% sighted an increase in the number of meetings.

The question on whether it is important to have regular meetings or not, is an attempt to assess the importance that the technicians attribute to regular communication with management. This will also have a bearing on the relationship that exists between them. The results follow in fig 4.

Figure 4



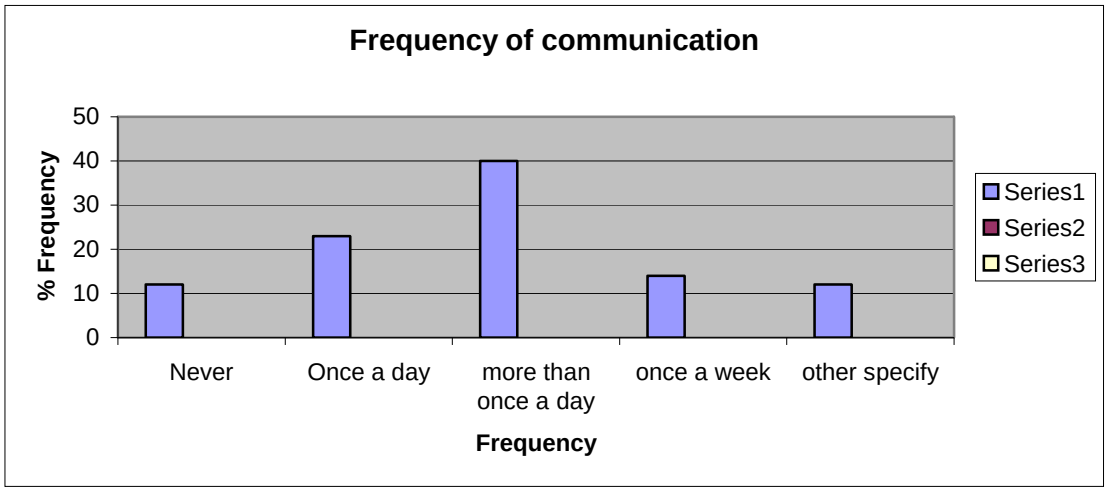
The graphic presentation in figure 4 indicate that 77% of the respondents believe that holding regular meetings is important 14% don't think that meetings are important whilst the remaining 9% are indifferent as to whether meetings are important or not.

The next question focussed on the communication among the technicians whilst on the field. The results were fairly spread-out, ranging from communicating more than once a day to not communicating with each other at all. Table 5 and figure 5 give a graphic presentation of the results.

Table 3

How often do you communicate with fellow techs when on the field	Never	Once a day	more than once a day	once a week	other specify
	12%	23%	40%	14%	12%

Figure 5



Only 12% of the respondents indicate that thy never communicate with fellow employees when on the field. The remainder do communicate, with 40% communicating more than once a day.

The majority (79%) indicate that they communicate via the cellular phone; whilst 9% use Advantex and the remaining 12% is divided between 10% non-communicators and 2% e-mail users.

The sample was also broken down according to gender and then to period in the employ of Telkom SA. This was done to verify patterns in the levels of

communication. Women make 12% of the sample, their level of communication will therefore make an insignificant effect to the total communication level of the group, but the pattern of communication is none the less important as it could reveal the impact of Advantex on the communication of women technicians within the population. The results obtained from the sample of women are represented in table 4 below.

Table 4

How often do you communicate with fellow techs when on the field	Never	Once a day	more than once a day	once a week	other specify
	40%	20%	20%	20%	0%

Despite the fact that all the female technicians have less than 5yrs working experience, they showed among the lowest levels of communication with fellow technicians. The majority of the female technicians, 40% indicate zero communication with a further 20% communicating only once a week. The once a week communication happens during the meetings. The implication is therefore that 60% of the female technicians do not communicate with fellow technicians when in the field. The remaining 40% is split between the 20% that communicates regularly and the other 20% that communicates once a day.

The poor level of communication among the women technicians is unusual given the fact that they have less experience and the tasks that have to be done sometimes require two people to work together. There might be an element of proving ones ability to achieve without help, in the predominantly male dominated environment. There could also be a reluctance to assist from the many male technicians. Tshidi argues that the poor communication is the direct result of working from home and not holding enough staff meetings.

The bulk of the sample is made out of male technicians 16% of whom have less than 5yrs working experience, 26% has 6 to 10 yrs experience, 19% has 11 to 15 yrs and the remaining 28% has more than 15 yrs working experience.

43% of the technicians with less than five years working experience communicate regularly with only 14% indicating zero communication. The remainder of the group communicate either once a week or once a day.

The 6-10 yrs group is the most communicative of the lot, with 55% of the group indicating regular communication and the rest communicating at intervals. None of the group indicated zero communication.

Only 25% of the 11 to 15 yrs are regular communicators. The remainder of the group is made out of irregular communicators with none of the technicians in this category citing zero communication.

In the most experienced group, 36% are regular communicators and 18% are non-communicators, whilst the remainder of the group communicates randomly.

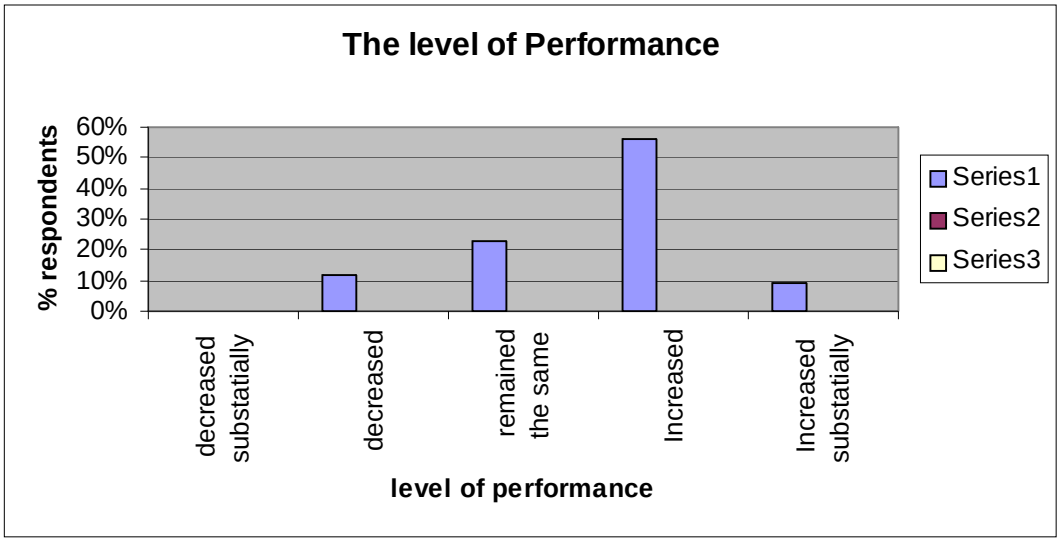
The data that is represented above does not give a clear indication as to whether the use of Advantex has had an impact on communication among the technicians. The reduction in the number of meetings has had an obvious impact on group communication, but does not seem to have any bearing on communication between individuals.

3.3.2. **The impact of Advantex on performance**

The perceptions on whether performance has increased or not are varied. 56% believe that the level of performance has improved with a further 9% indicating a substantial increase, whilst 23% thinks that there has been no change and only 12%

indicate a drop in the level of production. The results obtained when asking whether the level of the technicians' performance has changed are represented in the Figure 6 below.

Figure 6



The increase in the level of production shown above finds support from the fact that the majority of the respondents believe that the use of Advantex has increased their level of motivation in accomplishing their tasks. 65% of the respondents indicate that they are motivated as a result of using the tool. Only 2% of the respondents are not motivated.

The motivation to achieve can be attributed to a number of reasons. The use of Advantex eliminates regular phoning in to get tasks, to clear them and to get network information. The technicians are now empowered with access to all the information they need to do their daily tasks. They know upfront what has to be done for the day and can therefore plan the day to suite the demand. They can even plan their route to minimise the amount of travelling that has to be done. Jeff argues that now that they

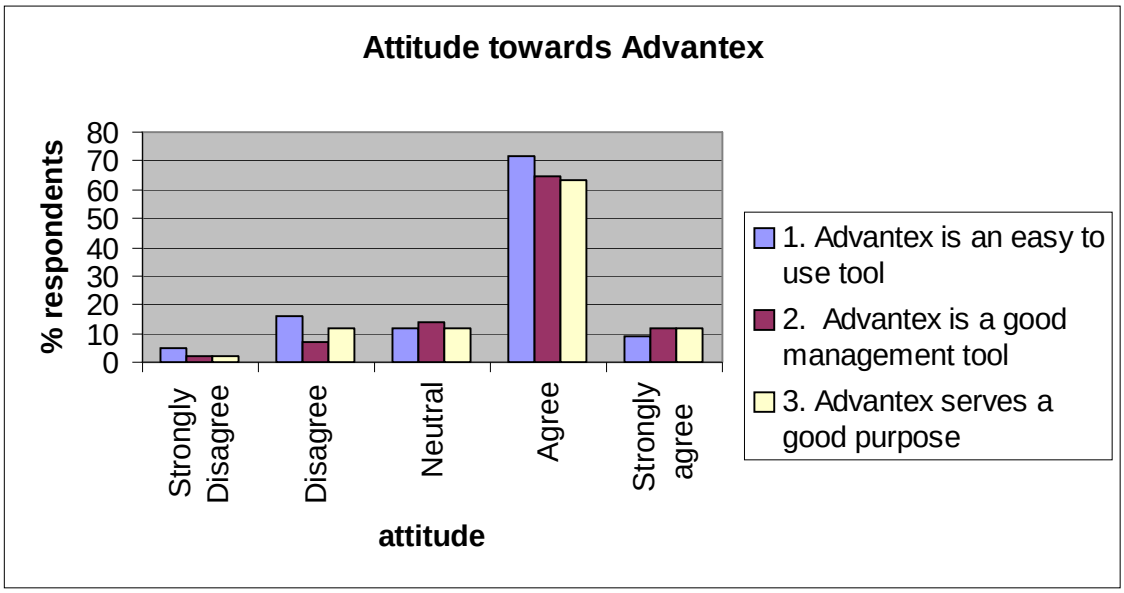
are in control of their time, they look professional, especially those that use laptops, they are therefore motivated to achieve results.

There also seem to be a link between a reduction in the number of meetings held and the increase in the levels of performance of employees. Reducing the number of meetings increases the amount of time available to work on the field. This will translate to an increase in the level of production.

3.3.3. The attitude towards the tool

In order to determine the attitude towards the use of the tool, questions relating to whether it is easy to use, it is better than using the phone and whether it serves a good purpose were asked. The other questions that were asked looked at whether the tool is considered to be a good management tool. The results obtained are presented in figure 7.

Figure 7



The results indicate that more than 60% of the respondents believe that Advantex is easy to use, it is a good management tool and that it generally serves a good purpose.

This is contrary to the literature which argues that most surveillance and monitoring tools are generally not liked by employees as they give the impression that employers do not trust them, they increase the stress levels of employees and they are at times considered to be an invasion of privacy.

When polled on whether constant monitoring creates undue stress 53% of the respondents agreed whilst only 32% disagreed the remaining 16% were neutral on the issue.

Despite more than 50% believing that monitoring creates undue stress, 68% of the sample, believe that it is good to be monitored, 16% disagree and the remaining 16 % are neutral.

The reasons for a positive attitude towards the use of Advantex can be attributed to the fact that it has solved a long-standing challenge that the technicians in the North Rand have had, the problem of waiting long on the phone, to get dispatched on a task or to get information. 68% of the respondents believe that the use of Advantex saves time. There is also access to accurate network information, which is confirmed by 79% of the respondents.

It is also an interactive tool where users are able to put in comments as they go along. The users are therefore monitored based on the information that they provide. The manual dispatch of technicians is not popular as it is seen to be contributing towards favouritism in the issuing of tasks, and Advantex is perceived as the solution to this.

Technicians are monitored on the information they provide, and this leads to the falsification of reports. This is done in order to ease the pressure to complete more tasks. 63% of the respondents indicated that they often falsify the report on the amount of time that they spent per task, whilst only 21% disagree, and the remaining 16 % are neutral on the issue. All the operations managers polled on this issue believe that there is a falsification of the time spent per task. The operations managers, account for 16% of the total sample.

Despite the fact that they believe that the reports submitted on the tool are often false, the operations managers believe that it is a good management tool, as it increases the level of control, that they have and forces the technicians to be accountable. Technicians can be tracked in terms of physical location and the progress on the task can be monitored. Technicians who need assistance can also request for an assistant to be dispatched.

Unlike many monitoring tools which focus on what the employee is doing at all times, Advantex, in its current form, receives reports at intervals and it would seem like there is no standard that is set for checking the reports that are given by the technicians. When polled on how often they are expected to account for the amount of time spent on tasks, the frequency differed from one individual to the other. The results are presented in table 5 below.

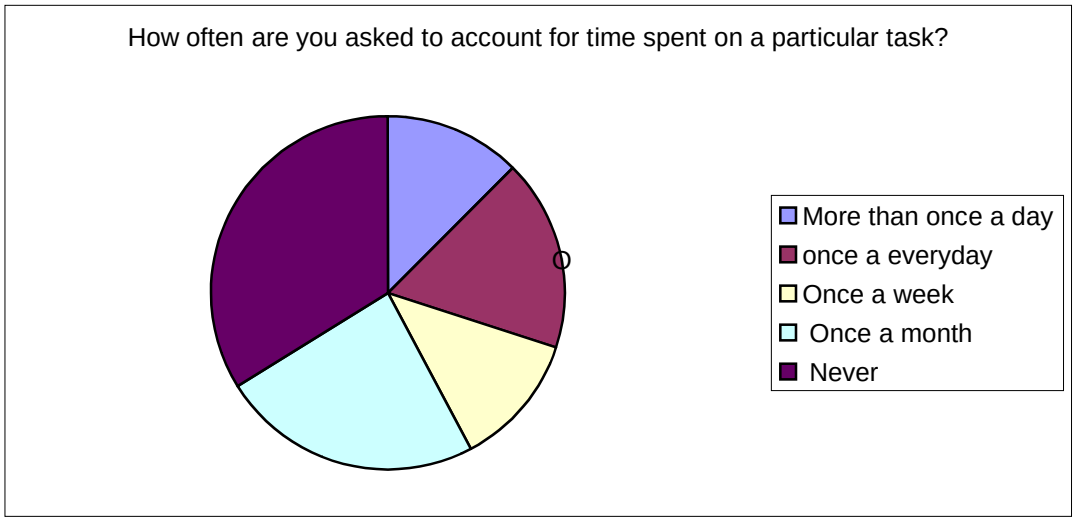
Table 5

	More than once a day	once everyday	Once a week	Once a month	Never
How often are you asked to account for time spent on a particular task?	**12%**	17%	12%	23%	33%

33% of the respondents indicate that they are never expected to account for the time spent on tasks, 23% are checked once a month, 12% once a week, 17% once a day

and the remaining 12% are checked more than once a day. The 33% signify a low level of real monitoring that is done through Advantex. Of the 33% of employees that were never checked none were female, in-fact 60% of the female respondents were checked at least once a day.

Figure 8



The regular monitoring of female respondents might explain their poor level of communication with colleagues once in the field. They have to focus on the tasks at hand and ensure that they perform according to expectations as they are regularly checked.

When a comparison between the frequency of being checked is compared with the preference of Advantex over the use of the telephone, it is found that most of the respondents who prefer the use of Advantex to the telephone are those that are least monitored.

26% of all the respondents indicated that they are never expected to account for the time that they spent on completing their daily tasks. In this group 55% prefer to use

Advantex rather than using the phone, 9% were neutral whilst the remaining 36% prefer to use the phone.

When a comparison between the different groups was made, it was found that there is a relationship between the number of times that the technician was checked and their response to whether it was better to use the phone rather than Advantex.

26% of the sample indicated that they are never expected to account for time spent in completing tasks. In this group 55% indicate than Advantex is better than using the telephone, 9% was neutral and the remaining 36% think that the phone is better. When the group that is not monitored, is compared to the group that is checked more than once a day, the opposite result is found. Whilst this group only accounts for 12% of the sample, 60% believe that it is better to use the phone whilst only 20% think Advantex is better. The remaining 20% is neutral. Of this 60%, 40% have a strong believe that the phone is a better tool to use.

It also looks like as the frequency of being monitored decreases, the preference for the use of Advantex increases. 63% of the group that was checked once a day preferred using the phone, 13% were neutral and the remaining 24% believed that the use of Advantex was better.

The group that was checked once a week accounted for 16% of the sample, 43% of which preferred using the phone as opposed to 57% who thought that the use of Advantex was better.

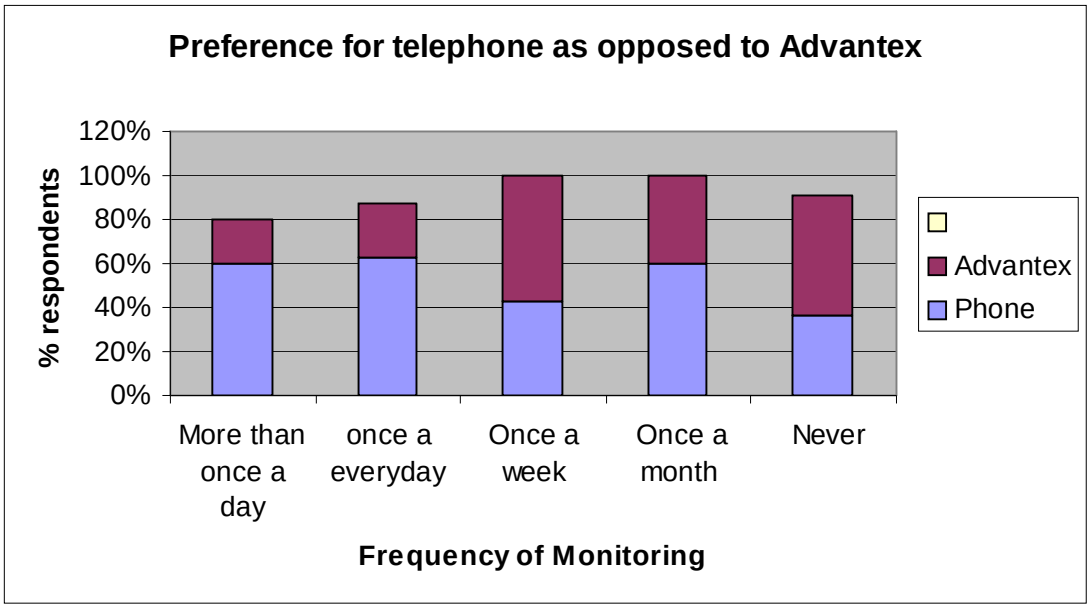
In the group that was checked once a month 40% preferred using Advantex, 10% were neutral and the remaining 50% believed that it was better to use the phone.

The results above point to the fact that as soon as real monitoring happens preference shifts away from Advantex in favour of using the telephone. This confirms the

argument that is put forth in the literature, that employees do not generally like to be monitored.

The graph in figure 9 below shows that as the frequency of monitoring increases the preference for using the phone rather than Advantex also increase.

Figure 9



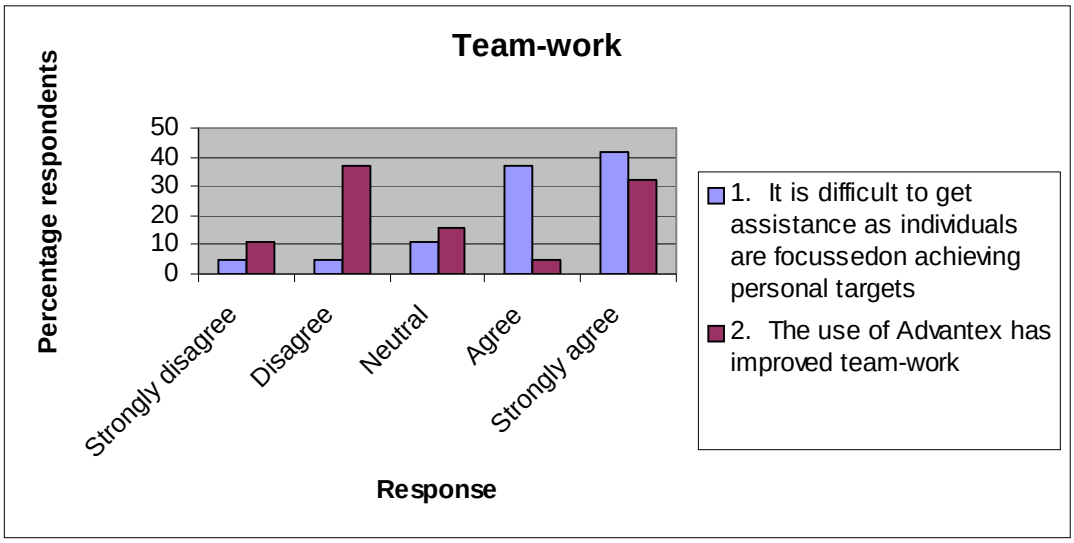
3.3.4. Effect of Advantex on relationships

Respondents were asked to indicate whether the level of teamwork has increased or not and to also indicate whether it was easy to get assistance. The operations managers interviewed felt that teamwork had improved due to the use of Advantex, as technicians who need assistance can request it via the system. Technicians on the other hand argue that the creation of a duplicate order to get assistance is time consuming and does not offer the assistance at the time when it is required. This creates delays in the completion of tasks, as technicians sometimes have to wait until

the next day to get assistance. The emphasis is also on achieving personal targets; therefore the techs are not willing to leave their assignments to go and assist others who are struggling.

In order to gauge the level of teamwork, two questions were asked. The questions looked at the relative ease with which technicians could get assistance on tasks, and whether the use of the tool is considered to have improved teamwork. The results obtained are in figure 10 below.

Figure 10



The argument on whether Advantex has improved team work or not are almost equally split, with 48% disagreeing and 37% saying team-work has been improved, whilst 16% remain neutral. It is clear though that getting assistance is not that easy. More than seventy percent of the respondents indicate that they struggle to get assistance from their colleagues. In an attempt to build teamwork, the tool has been designed to accommodate the issuing of a duplicate order, to send a second technician to do the same job that has been issued to someone else. In this way assisting a colleague is recorded as being productive when the performance statistics are

compiled. This is necessary as technicians are measured on the number of tasks they complete per day. The difficulty in assisting each other is also created by the fact that individuals focus on achieving their daily targets.

3.3.5. Inception of the tool

Consultation is of prime importance in implementing a new way of doing things in the working environment. This will ensure that employees are involved in the change process and will therefore support it. Robbins argues that employees find it difficult to resist a change that they participated in (Robbins 1998: 636). In order to determine the extent of consultation prior to the implementation of Advantex, respondents were asked whether there was adequate consultation prior to the implementation of the tool. They were also asked to indicate what the company intended to achieve through the use of Advantex.

Only 67% of the respondents answered the question on what Advantex intended to achieve. The responses were varied and included; to reduce staff 10%, to make technicians efficient in using time 38%, to improve employee productivity 24%, to improve the working conditions 14%, the other responses included to compare with international telecommunications providers, to make the employees responsible and to ensure accurate dissemination of information.

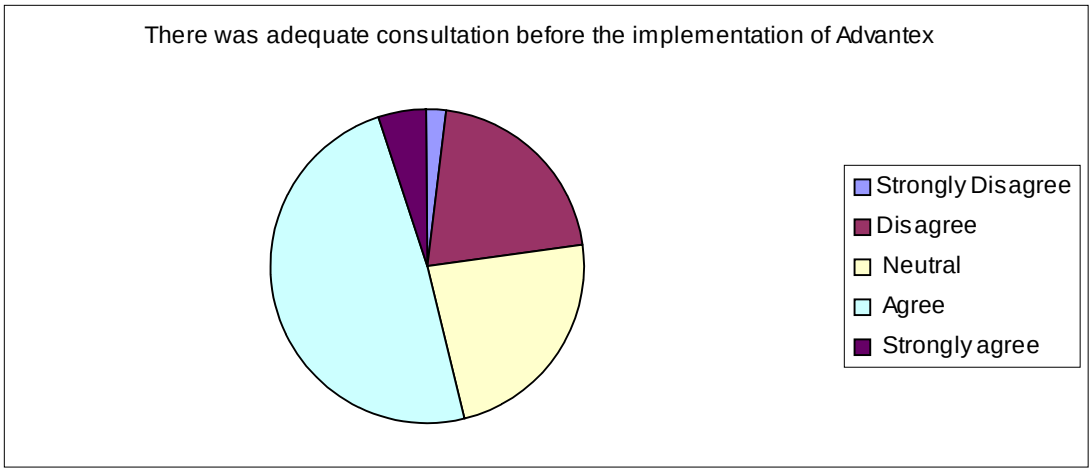
Table nine indicates that 54% of the respondents believe that the consultation that preceded the use of Advantex was adequate, whilst 23% don't agree. The remaining 23% are not sure as to whether the consultation was adequate or not.

The varying responses as to what the intended objectives of the use of Advantex were, indicate that whilst there might have been adequate consultation, the objective for the use of the tool were not clearly articulated.

Table 6

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
There was adequate consultation before the implementation of Advantex	**2%**	21%	23%	49%	5%

Figure 11



The limitations on the use of the tool were acknowledged throughout the interviews and in responses to the questionnaires. These are dealt with in the section on improving the use of the tool.

The objective of asking questions that looked at the shortcomings of the tool intended to find ways to improve the use of the tool and make it effective in achieving its intended objectives.

3.4. **Improving the use of Advantex**

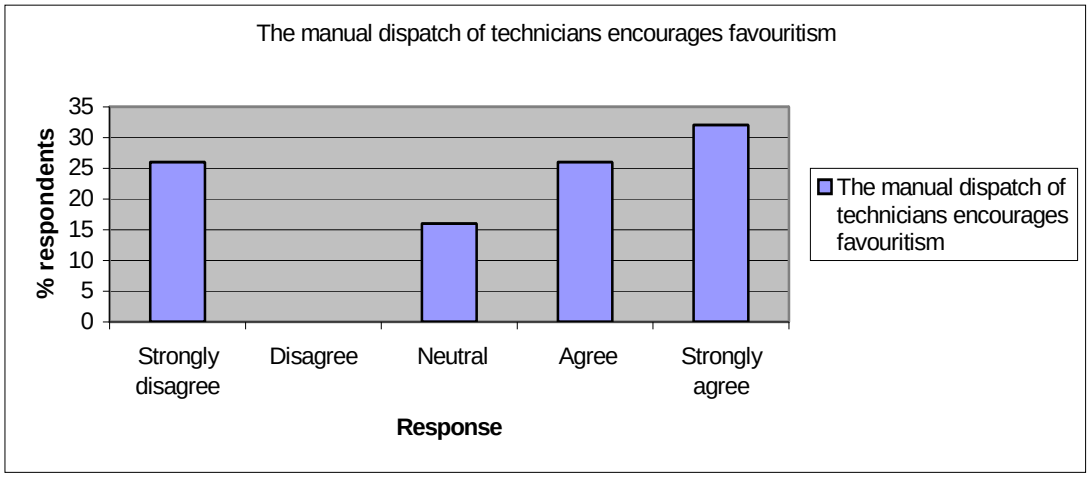
There are a number of built in limitations that the system was designed with, and these often have to be bypassed to ensure that technicians can function efficiently. Some of these limitations were revealed through the interviews, and they include:

- The inability of the system to dispatch tasks after 15H00.
- The inability to bulk orders even if they are for the same client.
- Dispatching tasks based on age rather than location of technician.

The inability to dispatch tasks after 15h00 means that, techs who complete tasks a few minutes after 15h00 will be without work for more than an hour, this is production-time lost unless there is manual intervention. The manual dispatch also comes with its load of complaints, as there are perceptions that it results in certain technicians being allocated easier tasks than others.

This can be remedied by extending the working day on the system to 17h00, the system will then be able to dispatch jobs after 15h00 as it will have the impression that there is enough time to complete them

Figure 12



The results above indicate that whilst only 26% of the respondents do not believe that manual dispatch results in favouritism 58% believe that it does whilst 16% are neutral. The situation becomes clear when those that strongly agree and those that strongly disagree are combined as depicted in the table 9 below.

Table 7

	Disagree	Neutral	Agree
The manual dispatch of technicians encourages favouritism	26%	16%	58%

When the operations managers are polled on the same issue 67% strongly disagrees with the point that the manual dispatch of technicians encourages favouritism whilst 33,3% strongly agrees.

The inability to group orders for the same client, and the dispatch of tasks based on age rather than location of technician, creates problems for the technicians who do maintenance work, as they are often forced to travel to a number different places to do their tasks. This has not raised too many complaints as the travelling is restricted to specified boundaries and the distances are short. This is in contrast to what the tool is supposed to achieve as stated by the makers. The location of the technician should be used to dispatch him/her to the nearest client in order to improve delivery of services. This could pose major challenges in areas where the technicians travel longer distances to get to their clients.

In its current form the version of Advantex that is in use, is unable to pinpoint the exact location of the technicians. This is a shortcoming that requires attention. Once the system is able to pinpoint the location of the technician, the falsification of information will be eradicated.

The bulking of faults that have been reported by the same client should also be given priority. A single order number can be allocated, and duplicate orders can then be issued, as is done when dispatching a second technician to assist. This will eliminate the problem of more than one technician being sent to a single client.
The original implementation of the use of this field-monitoring tool was via an instrument called the Husky (an electronic device that simulates a computer). Some of the technicians still use the Husky whilst the others are now using laptops.

The Husky has been blamed for many negative impacts of the use of the monitoring tool. Slow access on the network, equipment failure and poor battery life are some of the complaints that have been raised. The respondents in the interview argue that laptops should replace the Husky as they are better in terms of accessing information and will solve all the problems that have been presented by the Husky.

There is currently a project underway, to replace all the Huskies with laptop computers that are fitted with 3G cards. This will enhance the technicians' mobility, as they will be able to connect from anywhere and can access information at will.

In order to reap the full benefits, the information that is acquired, through Advantex, should be used for the developmental purpose of the technicians. It has been shown that surveillance and monitoring tools receive higher levels of acceptance when the information acquired through their use is used to identify the training needs of the employees.

58% of the respondents say that the information that is acquired through Advantex is used during performance appraisals, whilst 10% do not agree with this. The remainder of the respondents, 32 %, were neutral.

The respondents were also polled on whether the information acquired through this tool is used to identify the training needs of the employees. 58% believe that the

information is used to identify the training needs, whilst 32% disagrees with the statement. The remaining 10% were neutral.

The rollout of Advantex has not been fully completed yet, and some of the challenges that are encountered are being given attention and the problems raised as well as the limitations that have been identified by this survey should be given full attention.

Chapter four

"It may be, in fact, that the firms or industries which solve the economist's problem of higher productivity are precisely those which make more work for the psychologist"

*(*Michael Steward, 1957 in Porter & Applewhite, 1964: 627)

4. Introduction

This chapter provides an analysis of the results, concluding remarks and lessons that were learnt from the study. Recommendations for further research, as well as possible effective strategies for the implementation field force monitoring tools are also given.

Unlike the surveillance of factory workers or workers in an office, the monitoring of field workers requires a lot more than just cameras. The workers are on the move and require a lot of sophisticated technology to track, and there is a cost involved.

Many organisations often look for the most cost effective way to achieve the results, and sometimes it does happen that what is put in place does not really achieve its intended objectives.

4.1. Analysis of the results

Advantex has achieved some of the intentions that the makers said it would. The number of tasks that are completed daily, seems to have increased and the technicians seem to be motivated to increase their levels of productivity. There has been a decrease in the number of dispatchers, the number of dispatch centres, have also been

reduced. This confirms the claims that have been made by the makers of the tool (MDSI Report, 2002).

It is however unclear as to whether the time taken to fix faults or to install new services has been reduced. The number of faults fixed, and of installations completed, has increased, but this information cannot be used to conclude that the time has actually been reduced.

The improved level of productivity cannot be attributed solely to the use of Advantex, as this came with a reduction in the number of meetings. This combined with working from home, results in more time spent on the road. It also contributes towards the improved level of performance. There has also been admittance to the falsification of information, the data that is provided can therefore not be considered as fully accurate. The duplication of orders in order to enable technicians to assist each other might also create an impression that the productivity has increased, meanwhile this may be a reflection of employees being credited for assisting each other. This has been indicated as the flaw in most managerialist systems, their ability to hide the fact that they are not doing well (Paine, 1999: 48). Often when evaluating these systems the focus is on whether what was supposed to be done had been done, and not whether the system is yielding better benefits than before (Paine, 1999: 46).
.
Many performance management tools achieve that which they set out to achieve, because the focus is on the outcome of their objective and nothing else. The case in point is that of the British hospitals reducing waiting time in hospitals. This was achieved at a cost of giving less care to critical care patients, but the system in place was seen as being successful, waiting time was reduced (Paine, 1999: 46).

The level of communication does not seem to be affected by the use of Advantex. The technicians install and maintain telephones, and therefore always have access to the means to communicate. There is also a culture of sharing ideas and information

among the technicians. The fact that they are working from home also increases the need to communicate on the phone when out on the field, as a result of not being able to see each other as often as they used to.

The cause of the negative impact on communication among the female technicians is unclear, but could be attributed to the fact that this is a predominantly male dominated environment. All the female technicians have been in the organisation for less than five years, and it is unclear as to whether they have been fully accepted and integrated into the organisation. The panapticon effect could also be responsible for the reduced level of communication among the female technicians, as they are monitored a lot more than their male counterparts (Foucault, 1975: 200).

On the surface it looks like the tool is generally liked, but when further analysis is done, it is revealed that the technicians who prefer the use of Advantex to the telephone are those that are not monitored at all. It seems like the use of Advantex, is preferred by those that are less monitored.

The reduced level of teamwork that is on record can be directly attributed to the use of Advantex. Technicians get measured on the number of tasks that they complete per day, thus the reluctance to assist fellow technicians, unless a duplicate order is issued, to signify that the technician was busy at that time. This information is used during the performance appraisal and has an impact on the amount that the employee receives when the profits are shared. This is contrary to the past where technicians would assist each other without concern for whether they completed their daily tasks or not.

The respondents indicate that there was adequate consultation, but it is not clear as to whether the objectives of using this tool were clarified. This can be attributed to the many layers of management and the fact that the message gets lost through the layers towards the technicians.

The built in inadequacies of Advantex have already been alluded to, in paragraph 3.4. Whether the tool will be made fully automatic or not, will depend on the expected benefits, when compared to the financial requirement necessary to achieve this.

The use of Advantex cannot fully pass for a monitoring or a surveillance tool in its current form. There are signs that it does have the same effect as other monitoring tools though. There is an increase in the stress levels, and employees who are monitored more do not like it (Davis, Rosegrant & Watkins, 2005: 104). This is seen from the responses of the female technicians, who monitored a lot more than their male counterparts.

Unlike other monitoring tools Advantex has been acknowledged for making the working conditions better and for making it easier for the technicians to complete their tasks.

4.2. Lessons learnt from the study

The findings of the survey on the use of Advantex are contrary to popular belief on the use of monitoring and surveillance equipment. Whilst it is generally argued that employees do not like to be monitored, the majority of the respondents indicated that they liked the idea of being monitored. They felt that the monitoring helped them improve their level of productivity and kept them motivated to achieve.

Advantex received general acceptance and is liked by its users, because it is seen to be a solution to an existing problem. The users see it as an attempt at improving their working conditions and therefore making it easier to achieve their set targets. There is a belief that it contributes towards increasing the stress levels of the employees, but this has not negatively affected its popularity with the users.

Unlike other monitoring tools and most surveillance equipment Advantex does not offer real time monitoring and it depends on the information that is provided by the user. The impression that the employees are not trusted, that is created by the other surveillance equipment is nullified in Advantex. The fact that it is interactive, gives the users the impression that they are in-charge, as opposed to being controlled by a superior.

4.3. Improving the levels of production

The efficient use of resources and performing at the optimum level is the intention of many organisations, but this often comes at a price. How much are the organisations willing to sacrifice to achieve these objectives will determine the extent to which they will be achieved. The sacrifice that organisations will have to offer include incurring costs, through financial incentives to achieve, employing people with higher skills and using monitoring equipment to ensure that the employees perform at the expected levels.

The expenses that are incurred on monitoring tools should also yield the results that are expected. There should be a balance between what is spent on a tool and the outcomes that it yields.

The hidden expenses that results from the use of these monitoring tools should also be calculated before conclusions can be drawn on whether they are effective or not. These include the rate of absenteeism, sick leave, employees leaving the organisation and the quality of output that is given**.**

4.4. Recommendations for implementing field force monitoring

In order to achieve their objectives implementers of field force monitoring tools should identify a common workplace challenge that is making the working

environment unpleasant and that can be remedied through the use of a monitoring tool. This way the tool that is implemented will find general acceptance and will therefore benefit both the employees and the employer.

The employees should understand how this tool works and what the objectives of using it are. The information that is acquired through the use of this tool should therefore be freely accessible to all the employees who would like to view it.

There should be a standard way of evaluating the information that is acquired, and it should also be used to correct the deficiencies that are identified, through further training and coaching of employees whenever necessary. This way employees will not feel like their privacy is being invaded by the use of the tool, but rather that the tool is intended for their development as well.

Positive behaviour and employees who are doing well should be complimented in full view of the rest of the team. This is important in reinforcing positive behaviour and in also indicating that the tool that is used is not only for the purpose of policing the employees.

Monitoring and surveillance tools are known for their ability to hide their inadequacies. Their users should therefore look out for areas where the tool might be creating negative externalities, such as improving turnaround time, but also reducing the quality of the product that is produced.

The balance will have to be struck between achieving results and pushing the employees to the limit.

4.5. **Recommendations for future research**

This study reveals that female technicians do not communicate with fellow technicians as well as their male counterparts. A study can be conducted as to what the real reasons for the poor levels of communication are and whether this has an impact on their level of productivity.

Advantex has not been fully automatised, and it will be interesting to look at its impact on technicians' relationships once it has been fully automatised.

Conducting this same study in other areas such as the west rand where there is a little bit more travelling than in the North Rand might be interesting to look at.

4.6. Conclusion

This study set out to investigate the effect of field force monitoring tools on employee relationships, with a focus on communication and teamwork. It also looked at the effect of these tools on the performance of the employees. The case of the use of Advantex by the technicians in the North Rand area of Telkom SA was selected for ease of access.

On the surface the results of the study revealed contradictions to the literature which argues that the monitoring employees of employees is not liked as it increases the stress levels in has even been considered as an invasion of privacy (SOURCE)

On further analysis of the results it is shown that the tool is not really used as a monitoring tool, and the majority of those who like it are not even monitored at all. The female respondents who are the most monitored of all reveal a different picture though. Their results reveal what the literature argues, that monitoring tools have a negative effect on employee relationships. They increase their stress levels and are

not liked by those who are being monitored. The female respondents have the lowest level of communication with their colleagues and they also report the lowest level of teamwork. They argue that it is more difficult to get assistance now than it ever was, thus the poor levels of teamwork captured by the survey.

The study found that whilst the levels of performance seem to be improved, the communication level particularly among the female respondents has been reduced. The number of meetings has been reduced and therefore there is less communication with the managers. There is also a report of poor teamwork as a result of individuals focussing on achieving daily targets.

The tool has improved certain aspects of the working environment, such as access to information at will and no waiting time to receive and complete tasks. There is however a need to ensure that the monitoring is not discriminatory as it would seem against the female respondents, and that all those that are monitored receive the same amount of attention.

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Telkom's staff optimisation programme continues in preparation for competition http://www.telkom.co.za/common/aboutus/mediacentre/pressrelease/articles/article_447.html

Appendix A

First Questionnaire

To whom it may concern:

My name is Thabo Modise. I am a Telkom SA employee in the data communications division based in Honeydew; I am also a final year Master of Management student at Wits University.

In order to complete my studies, it is required of me to conduct research in an area of choice that is relevant to my field of study. I have chosen to do my research on the impact of Advantex as a field management tool on the relations among employees and whether there are ways to make it beneficial for both employees and the employer. I therefore need your assistance in conducting this research.

Attached find a questionnaire, that I would like you to answer. The answers that you provide will only be used for the purpose of the research. You are NOT asked to write your name on the questionnaire, and I also guarantee that the information that you provide will remain confidential. Feel free to contact me, on the mail or cell number given below, for the findings of the research.

I appreciate your assistance.

Thank you

Thabo
082 560 1508
Mail to: modisegt@telkomsa.net
modisegt@telkom.co.za

Questionnaire

Please answer the following questions by making a cross inside the block that contains the answer that you think is appropriate.

1. Gender

Male	Female

2. How long have you worked for the company?

Less than 1yr	1-5 yrs	6-10 yrs	11-15 yrs	more than 15yrs

3. At what level are you employed in the company?

Technician	Operations Manager	Manager	Senior Manager	Administration	Other

4. Staff meetings are held.

Never	Once a week	Once a Month	Once a Quarter	Other specify

5. Since inception of the Advantex tool, the number of meetings has

Decreased Substantially	Decreased	Remained the same	Increased	Increased substantially

6. It is important to have regular meetings between managers and technical personnel

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

7. How often do you communicate with fellow technicians when on the field?

Never	Once a day	More than once a day	Once a week	Other specify

8. The method of communication that is used is

Phone	Fax	Advantex	e-mail	Other

Explain

_____

_____

9. The use of Advantex has improved how technicians assist each other.

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

Explain

_____

_____

10.It is easy to request assistance when struggling on a task

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

_____

_____

11. Technicians are adequately skilled to use Advantex to communicate effectively

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

12. Advantex is an easy to use tool

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

13. Using a phone is better than using Advantex to communicate with the dispatcher

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

14. Since the introduction of Advantex the level of the technicians' productivity has

Decreased Substantially	Decreased	Remained the same	Increased	Increased substantially

15. The use of Advantex motivates the staff in accomplishing their tasks

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

16. Advantex is a good management tool

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

Explain your answer

_____

_____

17. There was adequate consultation before the implementation of Advantex

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

18. Advantex serves a good purpose

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

Explain: _____

_____

19. There are better alternatives to the use of Advantex

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

Explain your answer

_____

_____

20. How often are you asked to account for time spent on a particular task?

More than once a day	Once everyday	Once a week	Once a month	Never

21. In your opinion what is Telkom trying to achieve through the use of Advantex?

_____

_____

_____

22. Advantex has achieved its intended objectives

Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**

_____

Appendix B

Interview questions

1. **What are the challenges that are posed by the use of Advantex?**

2. **What are the benefits of using Advantex?**

3. **What do you think should be done to ensure that there is fair monitoring and evaluation of employees?**

4. **How can Advantex as a monitoring tool be improved?**

5. **Do you believe that Advantex as a tool is accepted by the majority of employees? Why**

6. **How has the use of Advantex affected the amount of travelling done by technicians?**

7. **Do you believe that the use of Advantex improves the levels of performance of the technicians?**

8. **How has Advantex affect the levels of teamwork among the employees?**

9. **How has the use of Advantex affected the levels of motivation to perform on the part of the technicians?**

10. **How has communication between technicians and between technicians and managers been affected by the use of Advantex?**

11. **What is the attitude of the technicians towards the use of this tool? And why such an attitude?**

12. **Would you recommend that other companies that use field technicians should adopt the use of Advantex? Please explain**

13. What are the weaknesses in Advantex that you think should be addressed?

Appendix C

Second Questionnaire

Please answer the following questions by making a cross inside the block that contains the answer that you think is appropriate.

1.Gender

Male	Female

2.How long have you worked for the company?

Less than 1yr	1-5 yrs	6-10 yrs	11-15 yrs	More than 15yrs

5. At what level are you employed in the company?

Technician	Operations Manager	Manager	Senior Manager	Administration	Other

4. The manual dispatch of technicians encourages favouritism towards certain technicians from the dispatcher

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

5. It is good to be constantly monitored

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

6. Constant monitoring creates undue stress

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

7. Advantex makes me feel good about my job

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

8. The users of Advantex like it

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

9. Advantex only serves the purpose of policing technicians

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

10. The use of Advantex saves time

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

11. Technicians are more motivated to achieve as a result of using Advantex

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

12. The use of Advantex has made access to accurate network information possible

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

13. General performance has increased as a result of the use of Advantex

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

14. Technicians can now be easily controlled as a result of using Advantex

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

15. Managers use Advantex to assist technicians in improving their performance

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

16. The information acquired through the use of Advantex is used during performance appraisals

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

17. Advantex helps in identifying the individual training needs of the technicians

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

18. Advantex makes technicians in-charge of their time

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

19. Technicians often falsely report on the time spent in performing tasks

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

20. It is difficult to get assistance as individuals are focussed on achieving personal targets

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

21. The use of Advantex has improved teamwork

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Appendix D

The results of the first questionnaire

1. Gender	Male	Female				
	38	5				
2. How long have you worked for the company?	Less than 1yr	1-5 yrs	6-10 yrs	11-15 yrs	More than 15yrs	
	0	12	11	8	12	
3. At what level are you employed in the company?	Technician	Operations Manager	Manager	Senior Manager	Administration	Other
	43					
4. Staff meetings are held.	Never	Once a week	Once a Month	Once a Quarter	Other specify	
	1	42				
5. Since inception of the Advantex tool, the number of meetings has	Decreased Substantially	Decreased	Remained the same	Increased	Increased substantially	
	9	25	8		1	

6. It is important to have regular meetings between managers and technical personnel	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	5	1	4	20	13	
7. How often do you communicate with fellow technicians when on the field?	Never	Once a day	More than once a day	Once a week	Other specify	
	5	1	17	6	5	
8. The method of communication that is used is	Phone	Fax	Advantex	e-mail	Other	
	34	0	4	1	4	
Explain						
9. The use of Advantex has improved how technicians assist each other.	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	4	15	9	11	4	
Explain						

10.It is easy to request assistance when struggling on a task	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	5	14	4	14	6	
11. Technicians are adequately skilled to use Advantex to communicate effectively	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	2	7	7	20	7	
12. Advantex is an easy to use tool	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	2	7	5	31	4	
13. Using a phone is better than using Advantex to communicate with the dispatcher	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	3	15	4	12	9	
14. Since the introduction of Advantex the level of the technicians' productivity has	Decreased Substantially	Decreased	Remained the same	Increased	Increased substantially	
	0	5	10	24	4	

15. The use of Advantex motivates the staff in accomplishing their tasks	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	1	5	9	24	4	
16. Advantex is a good management tool	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	1	3	6	28	5	
Explain your answer						
17. There was adequate consultation before the implementation of Advantex	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	1	9	10	21	2	
18. Advantex serves a good purpose	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	1	5	5	27	5	
Explain:						

19. There are better alternatives to the use of Advantex	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
	1	7	12	20	3	
Explain your answer						
20. How often are you asked to account for time spent on a particular task?	More than once a day	Once everyday	Once a week	Once a month	Never	
	5	8	5	10	14	
21. In your opinion what is Telkom trying to achieve through the use of Advantex?	Reduce staff	Ιμπροϖε προδυχτιον	Μαναγε τιμε			
22. Advantex has achieved its intended objectives	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	4	23	9	6	1	

Appendix D

The results of the second questionnaire

	Male	Female				
1. Gender	18	1				
	Less than 1yr	1-5 yrs	6-10 yrs	11-15 yrs	more than 15yrs	
2. How long have you worked for the company?	0	2	7	3	7	
	Technician	Operations Manager	Manager	Senior Manager	Administration	Other
3. At what level are you employed in the company?	16	3	0	0	0	0
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
4. The manual dispatch of technicians encourages favouritism	5	0	3	5	6	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	

5. It is good to be constantly monitored		0	3	3	9	4	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
6. Constant monitoring creates undue stress		0	6	3	8	2	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
7. Advantex makes me feel good about my job		1	4	3	7	4	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
8. The users of Advantex like it		1	2	6	8	2	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
9. Advantex only serves the purpose of policing technicians		4	5	3	3	4	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	

10. The use of Advantex saves time		1	3	2	6	7	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
11. Technicians are more motivated to achieve as a result of using Advantex		1	4	2	6	6	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
12. The use of Advantex has made access to accurate network information possible		1	1	2	10	5	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
13. General performance has increased as a result of the use of Advantex		0	3	4	8	4	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	

14. Technicians can now be easily controlled as a result of using Advantex	0	2	2	8	7	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
15. Managers use Advantex to assist techs in improving their performance	1	5	2	5	6	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
16. The information acquired through the use of Advantex is used during performance appraisals	0	2	6	5	6	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
17. Advantex helps in identifying the individual training needs of the technicians	0	7	2	6	4	

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
18. Advantex makes technicians in-charge of their time		0	2	2	7	8	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
19. Technicians often falsely report on the time spent in performing tasks		0	4	3	8	4	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
20. It is difficult to get assistance as individuals are focussedon achieving personal targets		1	1	2	7	8	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
21. The use of Advantex has improved team-work		2	7	3	1	6	