

Title: STRATEGIC EMPLOYEE TRAINING IN COMPUTER KNOWLEDGE FOR
THE ORGANIZATIONS BENEFITS AND COMPETITIVE ADVANTAGE

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Abstract

Among other factors, employee training has been pragmatically regarded as a contributor towards better productivity, motivation and general workforce skills development. Studies past studies have shown that employees who receive regular training are capable of giving the organizations competitive advantages. However this depends on how much emphasis and resources the organizations devote to training process itself. Similarly, the best impact of training process will be realised if the organizers are keeping trend with market needs as well as regular refreshment.

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Chapter 1: Introduction

Recent researches reveal that training enables most organizations meet their goals and objectives. In so doing employees are able to learn new work concepts, refresh their skills, improve their work attitude and boost productivity (Cole 2002). The primary role of training is to improve the employees' skill for current and future duties and responsibilities. Therefore, Human Resource Development has been given training a lot of importance, impetus and accolade. Since most of the work concepts are ever changing especially with the current globalization views, the training needs will follow suit. Such trainings can be done from either internal or external arrangements. Either way, relevance and quality must be upheld so that the employee can appreciate the career motivational effects (Mullins 2003).

Organizations that do not offer their employees regular training risk being out competed in the market and at worst the existence of such organizations in question. This is true because such organization's employees are slowly becoming inept and incapable of boosting productivity. In the contrary, training helps them to change with aspects like technology and competition (Dessler 2000). Due to a rising trend in organizations concern for performance competencies, computer and simulations have been gaining priority. In the end many organizations have had to rationalise workforce, reorganize supervision and divisionally delegate tasks to give way for the capabilities of technology (US Office of Personnel Management 1999).

The influx of computer and simulation technology has redefined the work landscape as the senior management stress for higher efficiency needs. Thus jobs have been redesigned with a lot of consultation taking place between the stake holders. However, retrenchment is a major issue that is facing the workforce and the organizations is often left wondering what will happen if they wanted to expand. One such strategy is to train the personnel to cope and be ready to take up more future

responsibilities with a technology backing (US Office of Personnel Management 1999).

Study Background

In the course of organization business, there are always needs for the employees and management to acquire latest skills. Computer and simulations learning are examples such strategy that enables the organizations to acquire competitive advantage. When employees acquire new information and knowledge, they become more efficient and productive. The importance of computer training has accelerated in the last few decades (Bylinksy 2000) as a mission of most organizations to achieve maximum return on investment (Certo & Certo 2006). This has implications that the employees must be given the attention they deserve because they are a prime asset to the organizations and a bridge towards the attainment of the sought after returns on investment (Charney & Conway 1997). Therefore, it is incumbent on organizations to prioritize the employee training so that they can realise the benefits in the short or long term.

Training enables the employees to learn new ideas, become efficient in production and communicate well with the team and groups in the organizations (Buckley & Caple 2007). Studies have revealed that training help to minimize staff attrition because of the job performance security. Maslow (2000) noted that “it is a rare individual who is completely secure in his work environment,” to demonstrate the positive impact of training to employees (Benson & Dundis 2003). There are other technological trainings that are geared towards employee job satisfaction in the area of computer application (Zeffane 1994).

Technologies such as computer have the positive capability of diversifying work skill which gives the organization improved productivity. Thus, organizations

should have a robust training program that has among other contents computer skills enhancement. This is the only way the organizations will achieve competitive advantage as we move towards the next century. In the past, lack of training has slowed down the pace of attainment of the organizational goal because they also lag behind in technology assisted skills and attitudes (Bach and Sisson 2000).

The computer training should have various objectives such as efficiency. This study sought to establish new training designs and how these can best be incorporated in the organizational culture with appropriate effectiveness measurement process. According to Hannagan (2002), training helps the employees to gain new skills, knowledge and attitudes. A workforce that is regularly trained is bound to be more flexible to take up new tasks every time there are openings within the organization. Similarly, employees that are well trained have in the past registered less absenteeism and attrition trends.

Organizations that embrace new technology trainings are likely to attract high calibre employees as they consider the training opportunities an important career development step. Organizations that embrace new technology trainings are considered better at rewarding workforce because they are focusing on the staff mobility within the organization (Bylinsky 2000). This has implications that staff that join organizations must get induction training so that they fit within the organization operations and business culture. Otherwise the organizations will be faced with dwindling productivity standards, and loss of workforce morale. Computer and simulation trainings are important for organizations whether they have localized and centralized operations or geographically based operations (Bylinsky 2000).

The Research problem and gap analysis

Due to the lacks of using technology particularly computer skills for the employees, some organisations are faced with a gap between the actual productivity and the expected performance. Therefore, organizations need to set up training programmes that help the employees to implement technology so that they can attain competitive advantage as well as economies of scale and scope. By using technology, employees will narrow this gap and be able to perform more tasks within a shorter period and enhance their employees' productivity. To that effect, the research problem has outlined some four specific objectives that will lead to understanding of the aim of this study by conceptual framework, which has clarified the independent variable and their respective dependent variable. Further gaps in the study will be explained by the schematic presentation of the relationship between the variables that will be followed by an in-depth literature review and primary research.

The aims and objectives

The study aims at establishing which training programs are the most effective in motivating employees to acquire new skills such as computer proficiency and knowledge that will boost the overall organization benefits.

The overall objectives are:

- 1.) To find a strategy of how organizations can implement technology trainings to improve employees computer skills.
- 2.) To identify effective training programs that are easy for employees to learn and enhance their computer skills
- 3.) To outline specific computer programs that will improve employees work performance and improve their human resource value.

Significance of the study

The first significance of this study is to help the senior management facing the problem of productivity in formulating computer use training and staff development policy that shall be outlined in the training sensitization and impact on the staff and organization. This study outcome will be used to motivate the employees so that they can be committed to high productivity at work while earning their organization accolades in their market or industry. The study has the significance of outlining how workforce job satisfaction can be improved. This study will boost the efforts of future researchers in the same subject by forming the grounded theory framework. Studies have shown that computer and simulation aides enable most organizations to lower their training budgets by over half. A similar margin of saving has been realised on time (Khirallah 2000) when compared to other manual trainings (Evans 2000).

The next significance of the study comes from the problem of specifying computer-training programs. Computer and simulation trainings programs are objectively seen in the areas likely to reduced manual print outs for training since computers are user friendly and flexible to enable timely completion of the courses. Computer and simulations trainings have the capability of improving worker retention as employees feel confident of the resourcefulness (Evans 2000). This retention objective could go as far as 250% better (Merryl Lynch 2000). This observation is true due to the rapid deployment capabilities that are inherent in computer and simulation trainings. The process of updating computer and simulation training is much easier than the case of manual training. The distance and time zones will be easy to bridge when organizations have more than one geographic location. Despite the many advantages of computer and simulation trainings, there are a few setbacks that must be address in order for the organization and the employees to realize maximum returns on investment. Some examples are technology failures and connectivity

barriers. The internal and external technology infrastructure must be very user friendly and supportive to the objectives (Young 2000).

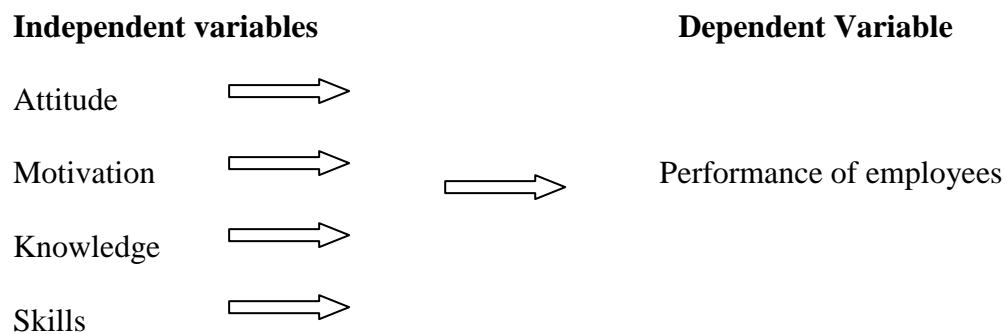
The third significance of the study arises from the objective to identify effective training programs. It is importance for organizations to take stock of effects of computer learning resistance as human based failures. From past problem analysis, this may be due to the education background or culture of the employees at work (Khirallah 2000). This study is also significant because it has been established that at least \$ 10 billion was spent on computer and simulation trainings by 2003. This figure could have gone up ten times to date. For this sum of investment the organizations must reflect on sound policies and strategies that will enable them reap the benefits of trainings (Merrill Lynch 2000)

The significance of this study comes from that fact that the business landscape is changing everyday. Therefore, agile organizations must adapt to the wave of changes if they would like to remain profitable, relevant, competitive and competent in the days to come by providing effective training programmes in computer and simulations. Therefore, the trend is to adapt to computer and simulations to map the whole organization process from HR functions to marketing. In the HR functions computer and simulations are being adopted for flexible record keeping, administration planning and personal data archiving. In the production, the computers and simulations are being used for ordering, measurements, manufacturing and dispatch administration. In the marketing the computers and simulations are being used for re-branding products and services. In all sections of the organizations computers are being used for communication and coordination of information (US Office of Personnel Management 1999). Therefore as organizations reorganize their tasks, missions and visions, technology such as computer and simulation is taking a

centre stage and the HR has the biggest duty of introducing the technology by trainings. After respective trainings, it is expected that the respective employees will be able to perform better and gain competency skills.

Conceptual Framework

There are various outcomes that are expected from a training process. These are performance levels, mastery or required skills, better staff morale and motivation, career growth and rise. This results in positive attitude towards work duties. Trained employees are likely to give better output than those who have not been trained. Staff training minimizes wastage and encourages diversity. The following diagram schematically elaborates and simulates the impact of training of staff:



A schematic presentation and simulation of the relationship among variables.

Input factors

- Provide funds for training
- Prepare a training policy
- Put in place appropriate training programmes
- Exploit more training opportunities



Process factors

- Improve methods of assessing training needs
- Increase training period
- Involve more practical training



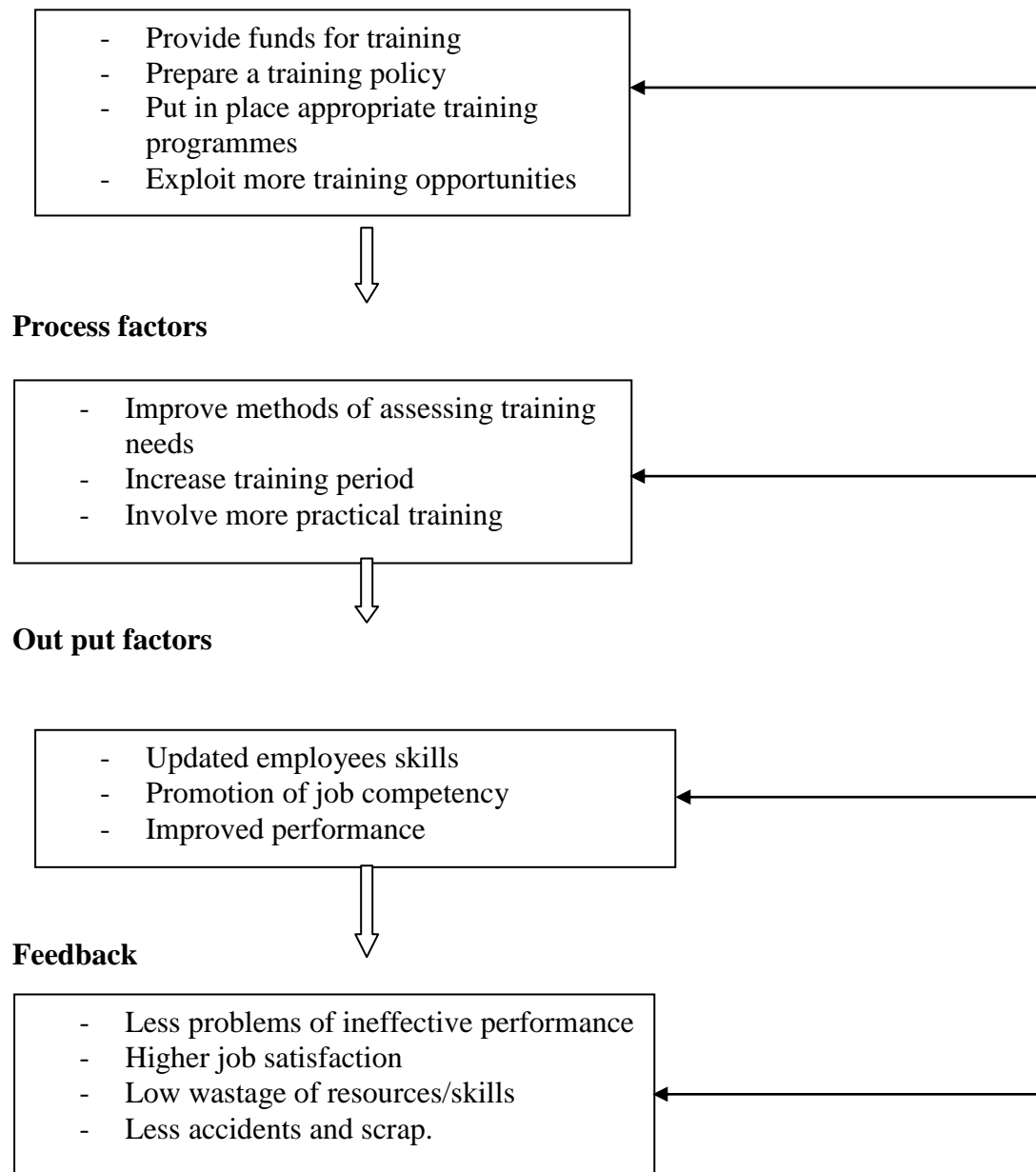
Output factors

- Updated employees skills
- Promotion of job competency
- Improved performance



Feedback

- Less problems of ineffective performance
- Higher job satisfaction
- Low wastage of resources/skills
- Less accidents and scrap.



Chapter 2: Literature review

This study conducted literature review of past and present studies on the employee training. This study has both primary and secondary literal evidence of the impact of training to employees. The secondary information was retrieved from articles, journals, published books, magazines, authentic websites and newspapers. This study adopted an in-depth analysis of study outcome was done so that an appropriate conceptual framework could be arrived at for future research grounded theory. This study compared the many types of past research works to gain a wider scope on the subject. There are theories that support this research that were arrived at after a critical literature review. This critical analysis was conscious of ethical issues of research such as biases, objectivity, and accuracy appropriate methodology. This process formed a good starting point for the research. In the process of analysis the literature, research questions and theoretical framework were formulated. Thereafter, the study solid conceptual framework was defined.

2.1 The role of training.

Studies by Cole (1997) showed defined training as a learning process which is aimed at impacting knowledge and skills to enable the employees execute their work task better. Trainings at work are normally task or job centred (Bach and Sisson 2000). There are various reasons why training is accorded to employees such as efficiency enhancement,(Freudenberg and Herper 1998, p. 951-956), work health and safety for machine operatives(Fadier and Ciccotelli 1999,p.367-379), maximization of product and service sales(Goldhar and Jelinek 1983, p. 141-148) and competency building (Klingstam and Gullander 1999, p. 173-186)

According to Trevor (1991), trainings should improve the staff skills and change their attitudes towards trends at work. Additionally, training can motivate the

workforce to higher levels (Benson & Dungis 2003, p. 315-320). Organizations that prioritize training have been known to attain higher mission performance. (Law and Kelton 1991) Training bridges the gap of work performance versus the work goals attainment (Cook and Wall 1980, p. 39-52) as shown in appendix IV (Sieber 2004). Dessler (1998) defined planned training as purposeful intervention that will impact knowledge for realizing better job performance. In this case, the organizations HRM should have a system and policy of identification of training needs such as regular appraisals so that the precise learning objectives can be defined and attained (Slack 2001).

Bradley (1992) on the other hand noted that the importance of training by ambitious employers had been realised as early as three decades ago. During this period many organizations expanded and subdivided their operations in order to meet vision and missions (Slack 2001). In this process, many employers were keen to monitor the progress of their employees and created the human resources department which saw the need of trainings as one of the major solutions for productivity attainment (Warr 1979, p.129-148).

A psychologist Skinner (1953) who is also a professor at Harvard University carried out various experiment. In one case he sought to establish what factors are capable of reinforcement of human behaviour by strengthening their responses. The study concluded that this is possible when the employees have positive stimuli.

Cole (1993) emphasized that ability to reciprocate what has been learnt in previous work experience is as good as the learning process itself. This observation relies on previous experience that basic ideas will be internalized by the learners. Thereafter the same knowledge has the potential of being transmitter by positive or negative modes. However, most learning processes stress on the ability to retain

knowledge. Thus, if skills are the centre of missions, the implication is that the process must have well laid out instructions, plans, contents and evaluation after the learning process (Congress of the United States Office of Technology Assessment (OTA 1990)).

Trevor (1991) noted that the full benefits of training can be ascertained by assessing the organizations net return on investments. Therefore a training process should have univariate, bivariate or multivariate effect on the employees' performance targets. However, the process starts with training needs assessment and appraisal so that specific objectives can be outlined in order for the organisation to attain maximum returns (Youndt et al 1996, p. 836-855).

Organisations that have a rich pool of well trained staff will be able to make more progress towards their missions and visions because the staff will be able to execute challenging tasks of work while returns from investment also increase (Baines et al 2005, p.486-504). According to Armstrong (1992) a successful management program is one that prioritizes on the employee needs and responds to them in time. He also stressed on the need to structure the trainings so that various groups can be targeted at a time.

Mullins (2005) underscored the need of evaluating training process along the related objectives in the measurement of the performance. This process has the aim of evaluating how much positive impact the training has on the organizational process. Tornighton (1998) emphasized that critical identification of the training needs in alignment to it strategies should be able to standardize the employee individual needs. This process will be done by various job evaluations and assessment of staff performance.

Training in computer will enables to improve their computer numeric, computer communication, boost teamwork and task solving process (Badham and Ehn 2000, p. 61-82). Training will enable the workforce to gather higher skills for executing professional skills as the employees strive to rise to higher roles with higher compensation. (McManus, et al 2004). Training will arm the employees with portable skills that will boost their motivation so that they can acquire descent work conditions and compete effectively in the liberal markets (ILO 2008, p. 2).

Other than improving the productivity, training has some positive impact on the employees' life as it integrates with the organization sustainability. This will also create both internal and external competitiveness among the workforce following the skills that have been acquired (ILO 2008, p. 2). Training in computer skills will accord the workforce a lot of benefits if the training objectives recognize the work conditions, the workers rights, needs for next trainings, higher career growth prospects, more income and generally improved quality of life (ILO 2008, p. 3).

Training will enable the organization to attain higher productivity following skills that staffs acquire on investment diversity, efficiency innovations and market leadership. The working society environment also stands to gain from training as a result of social equity, globalisation and market expansion. (ILO 2008, p. 3). Training will only lead to increase productivity if both direct and indirect variable are in harmony with the economic and social factors (Berryman and Vaughan 1988).

Organizations that value training as a culture are capable of motivating the employee with paid training offs. Organizations that embrace training as an equal opportunity policy stand to gain when social workforce bargains are on the table because the employees will be willing to receive changes flexibly (ILO 2008, p. 6). Training in computer skills has been a key driver in the recent past of smooth

organizational change because the workforces are confident in taking up new opportunities arising from the change process (ILO 2008, p. 8) This observation is based on the realizations that training will mitigate the negative factors that are abounding in the process of a change period by closing the gap between performance and productivity (Freudenberg and Herper 1998, p. 951-956). An example of such a gap is show in appendix IV (Baines and Kay 2002, p.2221- 2334).

Studies have in the past attributed poor performance to a mismatch between training course contents and actual job executions. Thus, ILO (2008, p. 9) noted that training course contents must be aligned to the prevailing and projected skills requirements. Within organizations, there are various levels of employees who must be constantly trained (McManus, et al 2004). These are transferred, displaced, new and older workforces (Collison 2002). Transferred workforces require training to induce them to the new location or duties. Displaced workers need induction training. New workforces need fresh training staring from the organization culture. Older workforces need training to improve their investment skills, achieve better work quality and adapt to upcoming technology and skills (ILO 2008, p. 10); (Duley 1955).

A study was done in 2004 amongst CEOs to establish how organizations can achieve high performance, agility, flexibility and adaptability for organizations competence. This study found out that this was possible when trainings are carried out. Yet just over 15% of the CEOs were okay with the training initiatives in their organizations.(Meredith & Benton 2005, p. 1). There was not doubt from the study that training leads to high performance, good leadership and deep employee engagement (Accenture & SAP 2004).

According to Accenture and SAP (2004), the higher work performance can be achieved by basic scheduled training that will enable the employees to make a step

towards the anticipated organizational changes. These trainings need to keep in trend with industry developments and an objective evaluation system of the training should be in place.

Training should be regarded as a continuous learning tool and should be initiated every time there is a change in organizations systems with management leadership. It is the responsibility of the management to set up a training schedule for the available opportunities in the organizations. The management should outline that training along the expected learning outcome and objectives. The feedback process from the training is for the purpose of uniformity and satisfaction with the contents verses that work experience (Accenture & SAP 2004). Studies by Alavi et al (1988) established that the computer era in organizations was on the rise from the 1980s. Therefore, many organizations have been trying to acquire various types of trainings to conform to the changes in the workplace environment. There is evidence that the current decade has realized a rise in computer training needs for organizations going by the cost of investments (Van Buren & Erskine 2002).

The computer trainings are taking both formal and informal approaches (Barron et al 1997). The informal trainings in organizations are mostly by self learning so that the respective employees can catch up with the latest trends and the rest of the team. (Ellinger 2004). While the formal learning takes place via peer training and coaching. Whichever the case, studies have shown that over 70% of employees acquire computers lessons by observation (Lambrecht et al 2004). Most organizations do not consider the informal trainings as valid because they are unable to measure the depth of knowledge acquired (Stern and Sommerlad 1999)

According to a study by Srinivas (2004, p. 5), there has been a steady rise in informal computer training from 1994-2004. This has implications that the tasks for

computerization in many organizations were expanding. This study also registered a drop in clerical jobs by the organizations ostensibly because their tasks had been overtaken by the computer era. A confirmation that computer applications was on the rise was based on data of technicians' professionals which was also on the rise.

Srinivas (2004, p. 6) set to establish the various employee levels that needed computer training in their organizations as well as their job security status. This study established that computer literate job seeker often got recruited faster than their counterparts. Similarly the study established that computer literature employees had an 8% higher work retention as compared to those who are not computer literate (Srinivas 2004, p. 6)

Studies have shown that employees who retrained their computer knowledge will earn about \$ 8,500 annually average more than those who have not been trained. The same study established that employees who had been trained in computer knowledge retain at their jobs three months more than their counterparts with inferior training exposure or lack of exposure. This study has a general implication that most employers will seek to either train or re-train their staff o computer so that they achieve stable staffing and better compensation (Srinivas 2004, p. 7). Studies has shown that age does not impact on the ability to train in computer skills as is widely felt (Borghans & ter Weel 2002).

Past studies on how the computer training is accomplished in many organizations are divided on opinion. Most claim that there is informal learning (Jacobs & Jones 1995), while others conclude that the formal learning is more popular. (Bates et al 2000). The challenge for most of the researchers is to track down how the informal computer trainees are using the knowledge gained because the start and end of training is also difficult to track (Srinivas 2004, p. 7). According to Cater-

Steel (1995), formal computer trainings in organizations have led to better work quality and cost saving when the training is internally done by the organization peers.

However there is no denial that the informal training methods of computer in organizations have been on the increase. This computer learning approach is now confronting much advanced applications like simulations and computer aided operations (Ellinger 2004). This realization is a justification for belief that both formal and informal training in computer in organizations are important and effective. However, when employees are formally trained by either peers or superiors, they are more likely to gain formal rewards such as pay increment since and promotions because their knowledge is formally measurable (Srinivas 2004, p. 8)

This far, four major computer learning method stand out. These are formal trainings, peer learning, simulations and self learning with application of formal training course work (Srinivas 2004, p. 8). In a study, to establish the most popular method of learning computers in organizations, self learning came top. Formal and peer training came in almost equal in popularity while simulation was last. Toward 2004, self study was loosing popularity from 57-32% while peer training was gaining popularity from 45-60%. It was also noted that a hybrid approach of more than one method was gaining popularity (Srinivas 2004, p. 8)

Studies have been done to establish the impact of computer re-training for upgrade or refresher purposes in the skills application as manager are becoming keen on the effectiveness of the computer training in the long term so that they make a saving in training resources (Compeau et al 1995). Overall, employees who had undergone peer training or self learning had been awarded higher perks. The same study also noted that even though many organizations sponsor formal trainings, the perks offer had been steady through out 1994- 2004 (Srinivas 2004, p. 10).

This does not imply that employees who have undergone computer training will get an automatic perk rise. Rather, other underlying factors make senior management take a decision to increase the pay perks of various employees (Srinivas 2004, p. 8). This particular study was interested in how gains in computer knowledge from training impact on the job productivity. It was established that certain training processes in computer have a significant co-efficiency to the job productivity. For example when an employee was trained by the peers, they reported better job retention as they had more confidence that they will rise up the career ladder during succession. This has implications that such employees are working as a team and have confidence with their co-workers as well as perceive that jobs are secure (Srinivas 2004, p. 13).

Studies have shown that self computer learning lead to some level of job satisfaction. Similarly, studies showed that self computer learning employees were on their way to promotion within one year because of their leadership skills and initiatives (Srinivas 2004, p. 13). But since the study found out that the simulation computer learners and self learners were on the rise, it is imperative for the organizations to complement it with formal learning so that the success can be measurable in quality and quantity (Srinivas 2004, p. 13). This realization came from the evidence that self learners who did not access formal training had a declining performance and with time would start to loose confidence in their work designation or with the peer (Srinivas 2004, p. 14).

2.2 How organizations can implement technology trainings to improve employees' computer skills

For many years, organizations have been trying to balance between staff trainings and their organization missions and visions. There is no doubt that training is one the shortest way to the attainment of these targets. Especially, computer learning is one such avenue for the organization and human development. In most cases the trainings are set to enable the individual gain some latest competency (Minton 2000).

Organizations should take opportunity to pioneer technology based trainings so that the employees can be more competent at their various job designations. Some of the technologies that organizations can deploy start from simple innovations like catalogs and network calendars for work schedules. These will ensure that all the employees are able to communicate effectively and objectively. This kind of computerized technology can be modified conveniently by the management in charge (Accenture & SAP 2004).

Technology training is implemented by many organizations to improve their performance. The time out strategy has been found to be very useful to the employees who are often stressed by the routine of their job designation (Minton 2000).

Organizations can implement trainings to acculturate the employees to new systems of the organization by use of computer and associated simulations. Even though the traditional classes have been around for decades, computer and simulations trainings will open the new outbound world to the employees (Minton 2000). Therefore organizations need to be positioned appropriately with this new trend so that the employees also embrace learning with minimum resistance (Khirallah 2000).

The computer and simulation training process must be supported by organizational leadership. The role of leadership is to give vision and direction that would ensure successful implementation and ownership of the training contents by the employees. Organization leadership can model the employees training experience by

computer and simulation training with good communication and deep listening to their views (Minton 2000).

Organization leaders are expected to recognize exemplary training achievements by the employees in computer and simulations by being effective collaborators for change and trends. This recognition can also be rewarded by incentives which studies have shown can sustain positive behaviour. The organizations leaders can use the computer and simulations training to champion change process by effective networking. The leaders have the responsibility of coaching the main communications in as much as they listen to the challenges that the employees are facing in the computer and simulation trainings (Minton 2000).

Organizations need to carry out a computer and simulation training needs analysis ahead of carrying out the training itself. This analysis has the purpose of establishing who need that training and the desirable content values that will be transformed from the training. The training should be analysed from a task, skill and capabilities dimension. The training needs to bear in mind the current level of knowledge of the employees so that the resources can be utilized efficiently. The training needs analysis should be specific on the employees to attend (Meredith & Benton 2005, p. 1)

According to Gladson (1990, p. 1-3), managers as organization senior employees should also attend computer training to sharpen their skills and efficiency of service delivery. This is following the realization that computers are capable of executing many management roles that were previously done manually. Such tasks can be performed with extra speed that gives managers time saving advantages. Additionally the computers have capabilities of reducing errors and management

should be trained in advanced error and trouble shooting functions (Gladson 1990, p. 1).

Managers need training in computer payroll administration. This is a key area as the data scope could be prone to tamper and manipulation as such tasks are executed manually in the current day. Thus managers need to be trained in the relevant application software so that they can collect and interpret the respective entries in the payroll. Computerization training in this area will focus on speed and accuracy, summations and error detection. Managers who attend such training and own the knowledge are capable of saving their organizations up-to 15% of time that was previously spent in manual operations (Gladson 1990, p. 1).

Managers need training in computer to schedule their tasks and operations. This knowledge will enable them to effectively manage the big employee numbers that are common in most manufacturing organizations. Additionally managers can gain from computer task scheduling when they have to deal with seasonal staff that come in handy when the organization has huge order volumes. This knowledge from computer training will also enable management to plan time offs, leaves and covers for their staffs. Such variable are very difficult to handle without a computer as accompanying training (Gladson 1990, p. 1).

Managers need training in project management computer software that has proven results in scheduling employees and activities. Some of these computer applications can be customized in-house so that their application, training and ownership get maximum management engagement. The training can also incorporate additional features such as system security access codes. Managers need training of supervising computer applications that are in use by their subordinates once they delegate tasks (Gladson 1990, p. 1).

If managers are busy, they can attend the computer trainings online or on part-time basis. Common computer functions such as word processing are important to the managers for communication with the employees in memos and letters. Similarly, managers need training in mail merging so that they can be forwarded to the relevant target employees. This will normally come as an additional feature when managers are trained typing skills. Managers need training in computer data security so that there are lesser incidences of confidentiality breach with classified information (Gladson 1990, p. 2).

Since computer training outcome can either be formal or informal, organizations must lead the process from the front and ensure that sustainability push goes in tandem with adoption pull. This has implications that organizations must have policy for computer training and simulation performance management, design and effective communication loop. As long as all these support mechanism are in place, the organizations will expect any future change process to run effectively (Minton 2000).

The process of computer and simulation training process can have informal consequences such as internal competitions between the divisions, internal recognition of the training achievements via computer networks, good corporate image and brand, social dissatisfaction from internal and external sources. The formal consequences are production of appraisal plans, set up of key performance indicators, bonus schemes and disciplinary policy (Minton 2000). The employees can be able to validate the computer and simulation by offering feedback such as surveys so that the management can pick up lead recommendations for future training effectiveness.

The computer and simulation technology that is being championed should be able to deliver the employee promises in a predictable manner. This has

implications that the software and hardware should be laid out in as effective manner as possible in the latest class of innovations. The computer and training infrastructure should be well tested so that there are no breakdowns that arise from inflexibility (Minton 2000). Ahead of the organizations quest to implement computer and simulation training, the employees must be ready to learn. This is because the human motivational factors must be inducted for a shift from old to new concepts. Groups must also be ready to learn using the technology at hand. This has implications that computer and simulation learning process must be strategic in the bridging of the learning process so that the learners are able to internalize the knowledge (Minton 2000).

Finally organizations that have the mission of implementing computer and simulation trainings should also have a well defined change strategy. This strategy will include a policy for resources allocations, training links and removal of training barriers, training adoption and communication (Bylinsky 2000). This strategy must also consider the training logistics that are cross functional across all departments.

2.3 Effective training programs that is easy for employees to learn and enhance their computer skills

An effective training program should have clear cut objectives so that the implementation of the learnt skills can benefit the organization and the individuals. This program should be clear on what the organization wants to achieve in a defined periodic manner. The training blueprints should have a progressive outline towards implementation (Hornik 2004). Effective training program for employees should have the management input and participation. The management input expected is communication leadership and that anticipated changes if this is the reason for the

training. Management have a roll of preparing the employees in advance for the training so that they can be convinced of the outcome in advance (Hornik 2004). Management training in computer and simulations should be made invisible so that the employees learning efforts are satisfactory with no need for extra support.

The effectiveness of training can be maximized from a communication approach that is clear on objectives of what is to be learnt. The employees should be given a chance of implementing what they have learnt from the training as a protest of the effect of the training (Kirkpatrick 1960).The employees also need to be aware of the next training schedules (Meredith & Benton 2005, p. 4); (Campbell & Kuncel 2002). Organizations should deliver these trainings from a technology platform so that they gain from optimized costs (Saratoga Institute Benchmark 2003).

The computer and simulation training model should have a clear idea of the employees so that the resources can be properly utilised. The employees should be well versed with the software and hardware in advance. This is the only way of assurance that the training will add value to the employee. The value addition can also be given as an incentive by the organization so that the training contents are internalized and reinforced. The employees need total stress free environment when training therefore; the environment should suit the occasion (Hornik 2004)

The training time should be well devoted so that enough experience is realised. This experience will be achieved with good training facility and comfort. The computer and simulation training process must have a feedback mechanism so that the practice of the training contents can be smooth. Typically this is done by surveys after trainings. The training process must have a benchmark for measuring achievement (Hornik 2004).

Effective computer training program should give the future generation of employees higher work retention, higher performance, better attendance at work, lower attrition and employment status (Smith & Sherwin 2008). This has implications that employees can be organized along computer networks according to their duties and experience. Similarly staff can be organized along their compensation and work values.

According to Smith and Sherwin (2008), technology like computer can be used to classify the generation Y to predict the future labour needs. Studies have already projected that the U.S alone will be short of 3 million workforces by 2012. For that matter, computer and simulations will come in handy to merge jobs while ensuring efficiency and productivity (Smith & Sherwin 2008).

Organizations can position their work system rewards along the specific employee needs. The most cost effective and timely manner of carrying out such an exercise is by automation. This kind of platform will ensure that all the employee needs are catered for in the new organizational structure. If the employees are well catered for in the new system, they will be deeply engaged and satisfied with the work process (Smith & Sherwin 2008). The computer and simulation process that an employer can use to reward an employee engagement is by laying out personal computers, internal e-mails and other latest communication network. The process of training to be able to use these facilities can be given as a paid time off by the employer.

Organizations that intend to introduce computers and other simulations technology have the adoption advantage that is propelled by the generation Y who love technology. This generation is good at multitasking which will give organizations higher productivity and competitive advantage (Smith & Sherwin

2008). Similarly, computer training will gain more popularity with the generation Y because its flexibility offers a suitable work family life balance. Generation Y will be keen to take up computer and simulations training due to their rapid results capabilities and including reward systems like bonus. This kind of results improves their retention at work, especially if the work schedules are flexible (Smith & Sherwin 2008).

The benefits of generation Y work systems that include computer and simulations speak for themselves. UPS has realized a 44% in attrition from 50%. HP managed to acquire 200% more orders after automation and the system efficiency enable a 50% saving on the overtime. At the same time HP realized 100% increase in performance due to the flexibility of the new computerised systems. Further studies indicated that nearly 77% of the staff attained deeper engagement following a survey by Cone Corporate Citizenship. In a survey involving Fortune 100 companies, the return on investment in stock traded at S&P 500 have increase over the last decade by 18% up from 17.6% (Smith & Sherwin 2008).

2.4 Specific computer programs that will improve employees work performance and improve their human resource value

There are specific computer training programs that are needed by the employees such as in the manufacturing sector which is the scope of this study. Computer simulation is one such training that has bee the capabilities of modelling the employee performance. The simulation program can measure the capabilities and productivity of human efforts. The simulation processes have been simplified to an extent that they can predict the productivity of man (Baines & Benedettini 2007).

Computer simulations were introduced because some human functions have recorded a trend of depressed productivity (Badham & Ehn 2000). The other reason for the introduction of the computer simulation was to improve on the output of repetitive task that with time register decline (Das 1999). With the progress of globalization, technology standards have also improved while more and more organizations are seeking higher output from employees (Youndt et al, 1996). These higher outputs also demand total safety to human workforce as well as excellent ergonomics (Bonney et al 2000, p.4317-4327).

But it has been established that many manufacturing firms do not have clear understanding of the complex human behaviour at their plant. Therefore, they fail to tap on their important human resources when developing computer simulations (Checkland 1981, p. 26-43); (Pachuet and Lin 2003, p. 19-40). This problem is essentially an attitude dimension in relation to employee performance. Thus it is imperative that computer simulation developments are accompanied by in-depth training programs to bridge the gap between concept and productivity (Baines et al 2005).

Further computer and simulation training gains have been reported in the HR functions. Computer is assisting many organizations to access information instantly by the application of desktops and local area networks. In some cases some manufacturing agencies are using the capabilities of computers to outsource services in HR. Computer is mainly used by HR in manufacturing plants to alleviate job pile up while still giving the organizations a cost saving (US Office of Personnel Management 1999, p. 4). Various organizations have come to appreciate that computer and simulations can accord them higher productivity and efficiency ratios.

This process is effective if the organization has decided to carry out the HR administration in-house (US Office of Personnel Management 1999, p. 5).

A survey by the Centre for Effective Organizations (1998) in the private sector studies showed that HR competencies increase as they adopt technology use. In the past the HR spent about 22% of their man-hours in record keeping, archiving and retrievals. Current trend with the use of technology have shown a significance competency gain (U.S. Office of Personnel Management 1999). In the past, HR functions used to spend about 20% of their man-hours auditing and evaluating the HR systems for compliance with the statutory requirements. Other time occupation from past data are 35% in service administration; 14% in manpower development; 11% in strategic management and team building. Today, there is significant variation due to the introduction of computer technology (Centre for Effective Organizations 1998).

According to Tucker and Coftsy (1994), computer applications can enable HR management in manufacturing organizations to achieve competencies in expert skills, expert subject knowledge, ideology and values projections, character and trait development and motive projections. Computer and simulations can also be applied in the organizations to project essential, differential and strategic, according to Spencer et al (1990). The influx of computers to the HR field in including in manufacturing organizations was necessitated by the drive to adapt to performance models rather than regulations models. Therefore all organizations stand to gain from what is important for their competitive advantage (U.S. Office of Personnel Management 1999, p. 8).

The special attention being accorded to competencies in HR in manufacturing organizations is justified because this is a change driving champion. HR competencies that are leveraged by computer and simulations can enable the

workforce to set higher standards of performance such as recruitment, training planning, evaluation and modelling benefits and compensations (U.S. Office of Personnel Management 1999, p. 8). Once the HR functions become competent by technology, they will be able to control various operations by setting bars of administration.

Organizational competencies that are come with a shift to computer and simulation are redefinition of the culture, performance and job descriptions. Similarly the groups and teams productivity are realigned to fit to the new work environment. Computer and simulations have the capacity of complementing employee skills, abilities and work knowledge with higher performance outcome (U.S. Office of Personnel Management 1999, p. 9).

According to Ulrich (1997, p. 18), computers have the capabilities of shifting old human resource myths to current time practices in the manufacturing sectors. Therefore, by use of computers, HR is capable of creative internal and external competitions. The old practice held that HR is just what people take as an alternative profession. Employees have been able to internalize the HR theories faster with the use of computer technology and implement the practices. The earlier beliefs were that HR was an easy task for anyone. The computer and simulation influx has enabled HR to convert their work process into meaningful financial indicators and measures. Earlier beliefs were that HR was a soft profession which could not account for their operations (Ulrich 1997, p. 18)

At the moment, computers have enabled HR to add value to the manufacturing sectors and others without shooting up the operations costs. In the past the HR was believed to pay more attentions on costs and policies of minimization of the same. In the modern times the HR uses computers to increase the engagement of

the workforce to their tasks and set policies. In the past, the HR was believed to be the main police of systems, a role which should be for the management (Ulrich 1997, p. 18)

Current HR functions following the embracing of computer and networks show that can stimulate productive discussions that can challenge existing operations that do not add value to the organization. Past belief held that the works of HR staff were no critical to the organization. Modern HR functions that have been leveraged by computer are show that they are capable of linking with other divisions of the manufacturing organizations such as strategic development, finance and marketing to propel the pressing HR issues. In the past, HR management were believed to be concerned only with HR staff (Ulrich 1997, p. 18)

According to Hay and Mcber (1994), computer simulations such as Customer Relations Management (CRM) models have been well used by the sales and marketing departments to achieve various functions. First progress has been in the monitoring of the customer factors and concerns. This platform has been useful as customers have been able to enquire, make orders, ask for services and have general knowledge about the product specifications (Hay & Mcber 1994).

Computer has simplified the understanding of the customer concerns and established some two way communications. These CRM platforms have given customers satisfaction that their concerns will be addressed on time and with the sensitivity that they deserve. Via the CRM simulations, the manufacturing organizations employees are capable of mitigating the customer issues and reduce conflicts that arise due to past communication gaps at peak periods. The CRM simulations have give customer service a lot of value and built their loyalty. The CRM simulations have functions that can be used to evaluate the customer's new

orders. The CRM simulation is used to advise the customers on the latest product specifications and alternatives that exist when their preferences are missing. The CRM has enabled the customers to link up with the organizations and own part of the process (Hay and Mcber 1994).

Chapter 3- Methodology

This study had three main objectives directed to manufacturing sector.

- 1). To find a strategy of how organizations can implement technology trainings to improve employees computer skills.
- 2.) To identify effective training programs that are easy for employees to learn and enhance their computer skills
- 3.) To outline specific computer programs that will improve employees work performance and improve their human resource value.

This study adopted an exploratory design to investigate the impact of training to employees and the organization in the manufacturing industry as shown in appendix II. In this design, literature review formed part of the qualitative studies to give the study a theoretical background so that the training effects can be projected from a social dimension of positivism(Coolican 1999). The adoption of the exploratory study model was meant to meet the first objective on how organizations can implement technology trainings to improve employee computer skills. The study adopted an attitudinal questionnaire to gather the views of respondents alongside the second study objectives, of identifying the effective training programs that employees can grasp faster and internalize skills. The questionnaires also serve the third objective of identifying the specific computer trainings programmes suitable for employees. The questionnaires were served to workers in various organizations in the same industry for reliability. The study design process is elaborated in appendix I.

The primary information was sought by administering questionnaires to check for consistency of personnel performance or deviations that are attributed to lack of employee training especially in computer skills. The primary information came up with a mathematical correlation from the data that is collected to link the training

needs program to the performance improvement. This mathematical econometric model is for the purpose of validity and is shown in appendix III (Baines *et al*, 2005).

Secondary information was used to check for training concepts consistency as sought by the first objective, innovation or digression as well as knowledge of the systems that are in place for sensitivity checks. Secondary information was also used to gather information and check for corroboration with the primary study outcomes for the second and third objectives. This study was based on “X” company which falls in the manufacturing business segment as shown in appendix II. Therefore the questionnaires were also served to sections of the management other than the employees. This process was done to assess their training levels vis-à-vis manufacturing industry benchmark.

The questionnaire was based on an attitude scale measurement of the effects of training in computer aided factors and simulations towards the performance of employees (Fletcher 2004). The details of the questionnaire attitude scale and contents were in appendix V, following Warr et al (1979) model. The questionnaire targeted 200 respondents in the various companies in the manufacturing industry. The response rate was 145 which translated to 72%. This is an acceptable response rate by business research standards (Zikmund 2005).

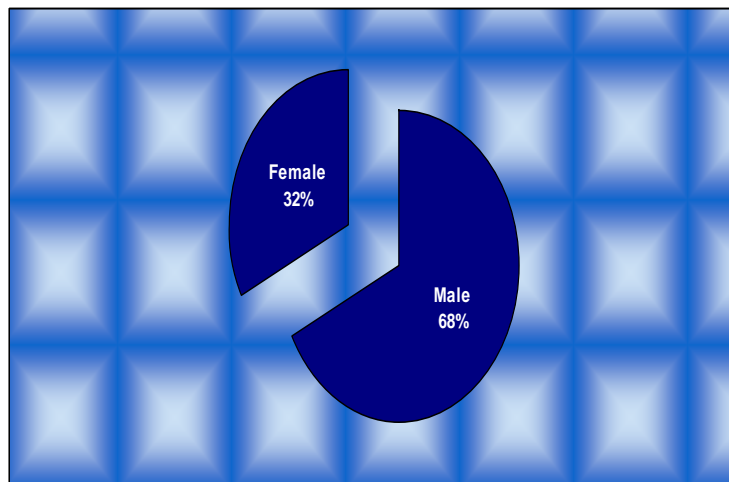
Chapter 4- Data and Results presentation from the attitudinal survey

Demographic attributes:

1: Sex

Male	Female
98	47
1	2

68% of the respondents to questionnaire to various manufacturing companies were males while 32% were female as shown in the pie chart below.



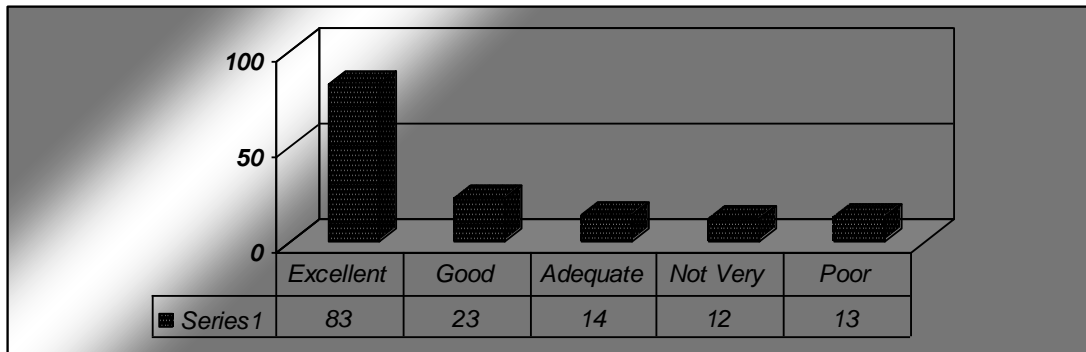
Training services

2. How would you rate the training services in your organization? Tick once where appropriate.

Excellent	Good	Adequate	Not Very good	Poor	Total
83	23	14	12	13	145
1	2	3	4	5	

More than 50% of the respondents felt that their organizations offer excellent training services whether internal or from external sources. About 15% of the respondents felt that the training services are good while the other opinions from adequate, not very

adequate and poor were evenly spread with the remaining proportion of response as shown in the bar graph below.

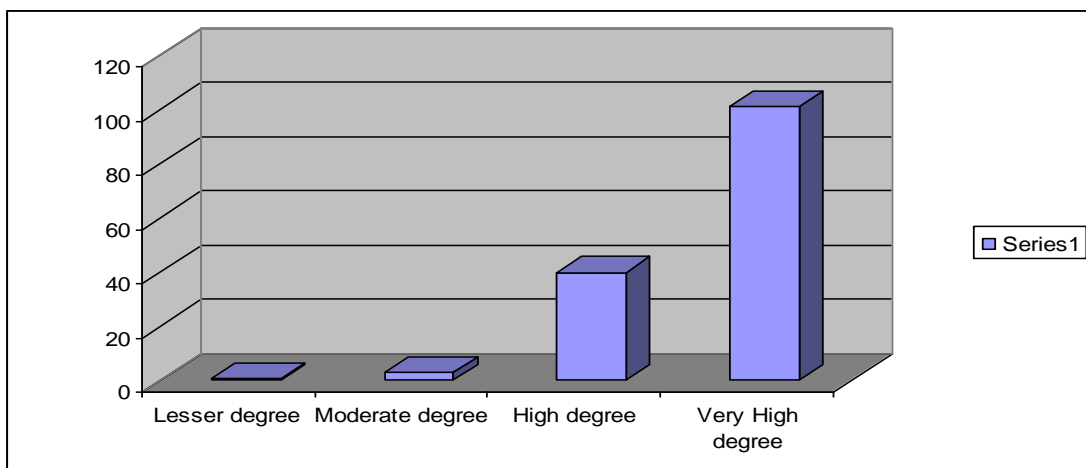


Work Involvement after training:

3. To what degree would training ensure that you are engaged in your work? Tick where appropriate.

Lesser degree	Moderate degree	High degree	Very High degree	Total
1	3	40	101	145
1	2	3	4	

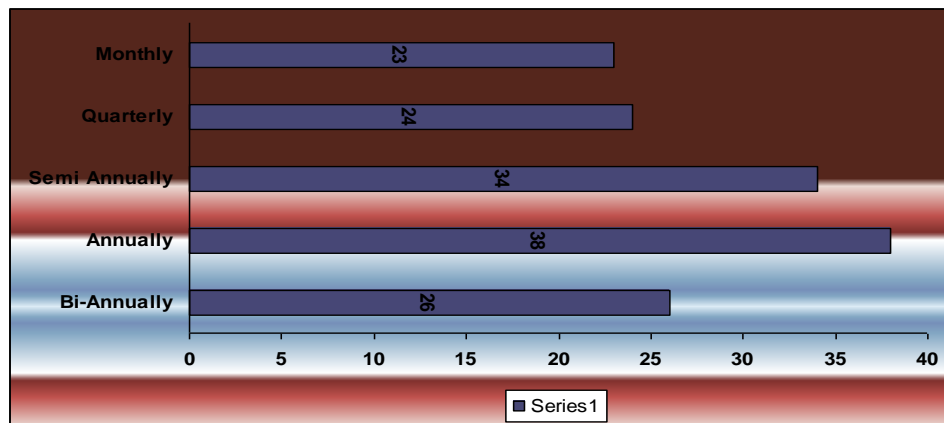
An over whelming majority of about 70% of the respondents agree that training would ensure that they are engaged in their work to a very high degree. 27% agree to a high degree; 2% moderately agree while 1% agreed to a lesser degree as shown in the distribution graphs below.



4. How frequently are you trained in computer and related simulations? Tick once where appropriate.

Bi-Annually	Annually	Semi Annually	Quarterly	Monthly	Total
26	38	34	24	23	145
1	2	3	4	5	

The most common frequency of training is annual followed by semi-annual, bi-annual, quarterly and monthly respectively as shown in the distribution chart below.

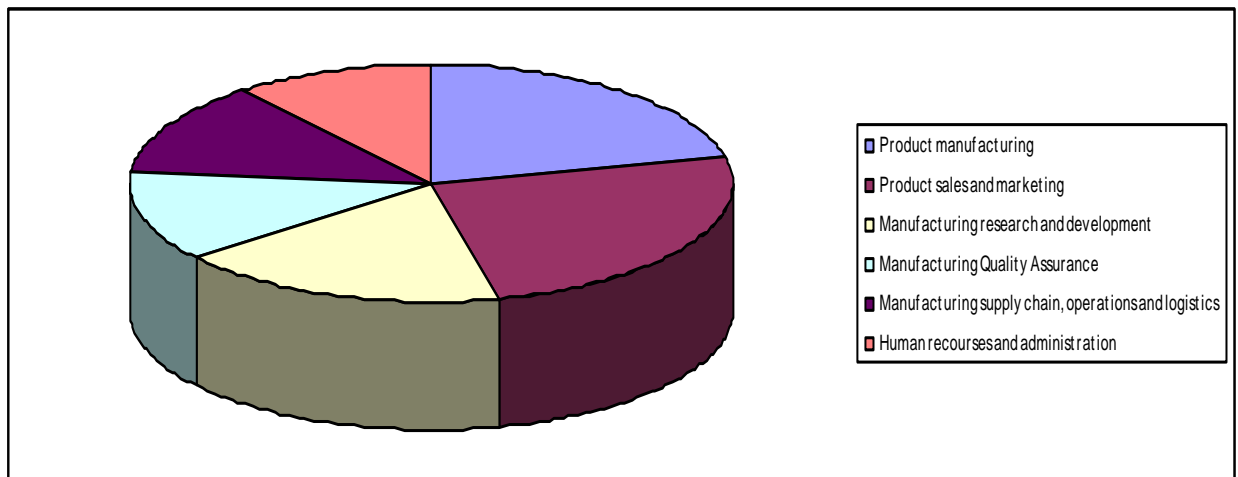


5. What kind of training have you been receiving over the period stated above? Tick where appropriate.

30	Product manufacturing
35	Product sales and marketing
25	Manufacturing research and development
17	Manufacturing Quality Assurance
18	Manufacturing supply chain, operations and logistics

15	Human recourses and administration
5	Others
145	Total

Across all organizations surveyed, 24% of the trainings are devoted to product sales and marketing; 20% to product manufacturing; 11% to manufacturing quality assurance; 12% on manufacturing supply chain, operations and logistics; 10% on human resources and the rest to other miscellaneous training needs as shown in the block pie chart below.



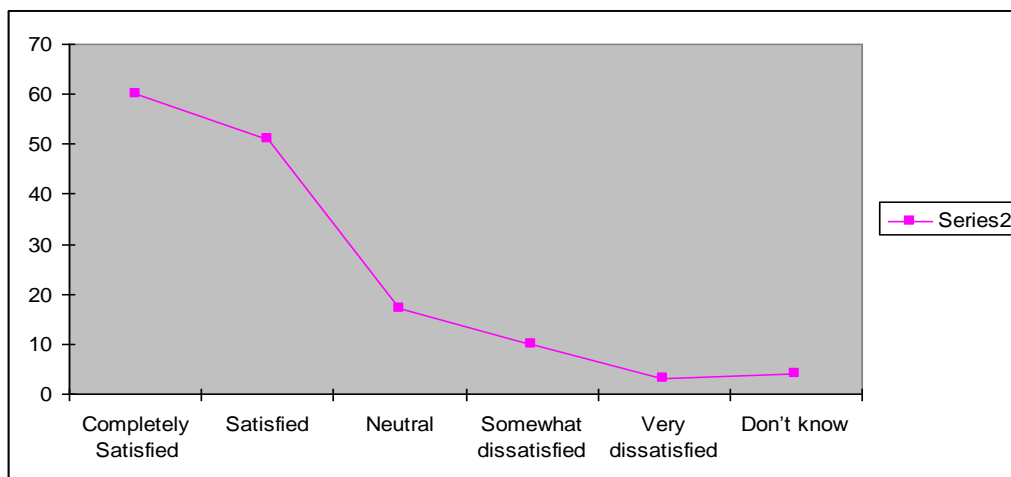
Intrinsic motivation from training

6. Are you satisfied that computer and simulation training can make you achieve you intrinsic motivation at you job designation? Tick once where appropriate.

Completely Satisfied	Satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied	Don't know	Total
60	51	17	10	3	4	145
1	2	3	4	5	6	

41% of the respondents are completely satisfied that computer and simulation training give them intrinsic motivation at the work; 35% are satisfied; 12% are

neutral; 6% are somewhat dissatisfied; 2% are very dissatisfied while the rest don't know, as shown in the knowledge distribution curve below:

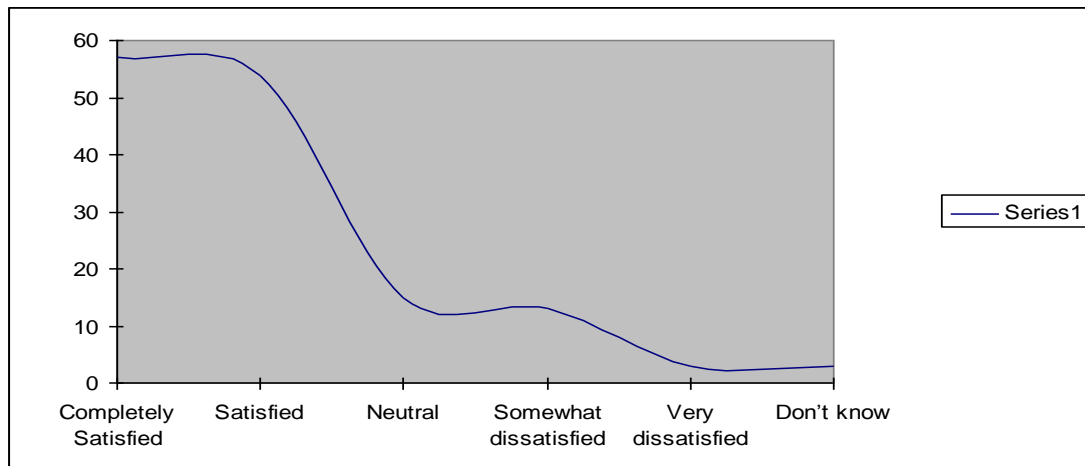


Extrinsic motivation from training

7. Are you satisfied that computer and simulation training can make you achieve you extrinsic motivation at you job designation? Tick once where appropriate.

Completely Satisfied	Satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied	Don't know	Total
57	54	15	13	3	3	145
1	2	3	4	5	6	

The same question was posed on the extrinsic motivation. 39% of the respondents are completely satisfied with the extrinsic motivation which is a slight drop when compared to the intrinsic motivation; 37% are satisfied which is a slight increase as compared to the intrinsic case; 10% are neutral which is a slight drop from the intrinsic case; 9% are somewhat dissatisfied which is a fair increase compared to the intrinsic case; 2% are very dissatisfied which is the same with the intrinsic case 2% don't know which is a very marginal improvement from the intrinsic case as shown in the smooth distribution curve below.



Perceived intrinsic and extrinsic job characteristics from training

8. How has training in either computer or aided simulations contributed to you present job as an intrinsic satisfaction? Tick where appropriate.

Improved my productivity	17
Improved my work confidence and knowledge	16
Increased my communication skill with co-workers	19
Enable me to stay at my current job	15
Enable the attainment of organizational targets and missions	20
Boosted my motivation and improved my work attendance	16
Elevated my career for new job opening	13
Enable my contribution towards the organizations competitive advantage	16
Other forms of intrinsic and extrinsic motivations	13
Total	145

The greatest impact that is perceived intrinsically and extrinsically from job training is enablement of the organizations to meet its targets and missions; followed by improved communication with co-workers; improved productivity; better staff

motivation; enabling the organization to attain competitive advantage; improved job retention; career growth and other forms of extrinsic and intrinsic motivation respectively as shown in the perception distribution graph below.



Organizational commitment

9. How has the training process impacted on you organizational commitment.

Increased my commitment with the organization	37
Increased my wish to be identified with the organization	33
Increased my involvement at work designation	40
Increase my job loyalty	35
Total	145

After receiving the respective trainings, 27% of the respondents across the manufacturing organizations attest to the fact that training increased their involvement at work designation; 25% agree that training increased their commitment with the organization; 23% confirm that training increased their wish to be identified with the organisation. The rest that training has increased their job loyalty to the organization, as shown in the cone graph below.



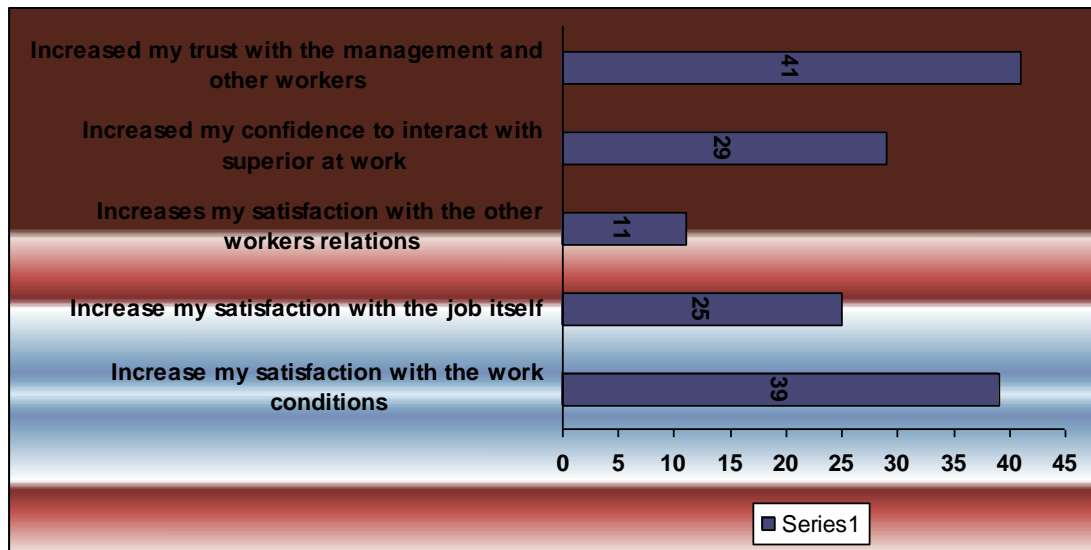
Interpersonal trust at work

10. How has training impacted on your peer and superior interpersonal trust at work?

Tick where appropriate.

Increase my satisfaction with the work conditions	39
Increase my satisfaction with the job itself	25
Increases my satisfaction with the other workers relations	11
Increased my confidence to interact with superior at work	29
Increased my trust with the management and other workers	41
Total	145

28% of the respondents confirmed that training has increased their trust with the management and co-workers; 27% that training has increased their satisfaction with the work conditions; 20% agree that training has boosted their confidence to interact with the superior; 17% agree that training has increased their satisfaction with the job itself; while the remaining confirm that training has increased their satisfaction with other workers relations, as shown in the horizontal graph below.



Chapter 5- Analysis and Discussion of the results

The majority of the respondents to the questionnaire were males. This has implications that the manufacturing industry recruitment could be having a bias for male employees (Collison 2002). If their reason for this bias is attributed to staff performance, then an affirmative action for training more female should be fronted as a policy in most of these organizations (Berryman and Vaughan 1988). This study noted that over half the respondents satisfy the training initiatives as excellent. The onus for the organizations across the manufacturing industry is to increase resources for training so that the respondents who satisfied the training initiatives in their organizations as either poor or not very good can appreciate the benefits for a win-win outcome for the employee and the employer (Charney & Conway 1997); (Congress of the United States Office of Technology Assessment –OTA- 1990); (McManus 2004)

It was impressive to not that an overwhelming majority of the respondents agree to very high degree that computer and simulation training engages that better in their work (Zeffane 1994, p. 10-12). The fact that about 3% disagree cumulatively suggest that some organizations do not have a training schedule that covers sections of the employees. Often, support employees in many organizations are never mapped in training programs. This lot is very vulnerable to factors like absenteeism and attrition as the percentage suggests (Warr 1979, p.129-148)

Most organizations in the manufacturing industry carry out trainings annually and semi-annually. Few do so bi-annually and quarterly while the rest do so monthly. This spread could be attributed to the various budgeting periods as well as the sensitivity of the work designations (McManus 2004). Customer complaints could be a justification for monthly trainings; new product development could be a justification for semi-annual and quarterly; sale and marketing targets could be a justification for quarterly trainings; new mission statements could be a justification for bi- annual

trainings. New productions targets could be a justification for annual trainings. Other monthly's trainings can take place when staff are transferred, newly recruited, promoted or reorganized (Gibb-Clark 2004).

From the study, it was established that product sales and marketing gets the highest training attention followed closely by product manufacturing. This has implications that the manufacturing industry has stiff marketing competition of similar products hence most training resources are devoted to these efforts. It was also observed that many organizations devote moderate training efforts to manufacturing research and development. If this process is well done, the employees will be well versed with the productions and operations systems hence lesser resources are normally dedicated to quality assurance, supply chain, logistics and operations and finally human resources (McManus 2004).

This study sought to establish the satisfaction of the employees with the computer and simulation trainings to enable them attain intrinsic motivation at their tasks (Zeffane 1994, p. 10-12). Even though the majority are satisfied or better, there is sections of respondents who are either neutral, dissatisfied or don't know. Neutral employees imply that they are doing tasks that need computerisation or simulation but the system has not been put in place. The dissatisfied respondents imply that they are never given a chance to train even though their tasks call for this step. Or they may be resistant to learning (Khirallah 2000). Those who don't know are probably in positions where no computerization or simulation training takes place. The challenge for the senior management in the organizations where there were respondents who are dissatisfied is to either train internally or allow the workforce to attend paid training sessions from the external sources (Berryman and Vaughan 1988). This is one of the

ways of ensuring that the employees get intrinsic motivation (Cook and Wall 1980, p. 39-52)

When the same question was posed for extrinsic attributes, there were findings that most manufacturing are better at extrinsic satisfaction of trainings than at intrinsic satisfaction generally. This has implications that the senior management must ensure that the trainings are more internalized by the employees other than the fact that the organizations themselves want to appear as attractive employers. Therefore future training needs must give more attention to the human factors as a departure from the over reliance on the job factors (Jayne 2003). In a survey involving Fortune 100 companies, the return on investment in stock traded at S&P 500 have increase over the last decade by 18% up from 17.6% (Smith & Sherwin 2008).

This observation is further corroborated by the next investigation to establish the perceived intrinsic and extrinsic job characteristics that come out of computer and simulations trainings. From this survey, it was noted that most people were enabled the organizations to meet their targets and mission. But the human factors that need more resources and attention at trainings are career development and job retention (Benson and Dundis 2003, p. 315-320). This observation is true because it is normally cheaper for organizations to train older staff than to train new staff following poor job retention spell. From the literature review UPS has realized a 44% in attrition from 50% (Smith & Sherwin 2008)

The next investigation confirms that when more focus on the computer and simulations training is given to the human factors, they will realized and increase of involvement at their work and commitment to the organization (Cook and Wall 1980, p. 39-52). Once employees are committed they will follow to reward the organization by loyalty and will be proud to be identified with it both internally and externally.

(Baines et al, 2002, p.2321-2334). From literature review, HP realized 100% increase in performance due to the flexibility of the new computerised systems. Similarly, HP managed to acquire 200% more orders after automation and the system efficiency enable a 50% saving on the overtime (Smith & Sherwin 2008)

This study established that employees who receive certain trainings increase their trust with the management and other workers. This is true because when management invests in training, they are probably signalling long term association with the employees. This also signals trust from the management to the employees and assurance of job security. Employees who received trainings responded that they increased their satisfaction with work conditions and job (International Labour Conference 2008). This has implications that they were able to appreciate the dynamics of work process in everyday life. Employees who receive trainings responded that they are able to interact with other workers and superior with more confidence. This is true as computer and simulations offer modern communications platforms that improve communications tactics and outlets (Badham and Ehn 2000, p. 61-82). From the literature review, nearly 77% of the staff attained deeper engagement following a survey by Cone Corporate Citizenship (Smith & Sherwin 2008).

Chapter 6- Conclusion

Managements in various organizations have at least recognized the importance of training to their organizations. Past trainings seem to be biased towards the organizations goals and lesser towards the workers factors. Future trainings have become conscious of the fact that a paradigm shift to pay attention to the human factors is far more beneficial to the organization and the employee in the long run. The said trainings need to be more conscious of gender balances.

Most organizations offer excellent training opportunities. But others are yet to either upgrade or initiated some important training plans. This variation on policy has led to diverse worker engagement at work. Due to globalization, it is imperative that most organization positions their training goals along the computer and simulations. These trainings can be scheduled as appropriate as long as they are proactive to the worker needs and enable a win-win outcome for the organization and the employee.

In this generation, it is imperative that employees pay detailed attention to the intrinsic and extrinsic motivational factors of an employee when setting out a training manual or program. There is need for a fairer balance between the two as this study established that there extrinsic factors could have been emphasized in the past by the employers. Therefore it was not surprising to find respondents who are not sure of whether training can motivate their work.

The bias on the extrinsic factors was attested by the respondents claim that they trainings enable them improve the organizations return on investment. Organizations that do not pay attention to this fact will be faced with lesser worker commitment, disloyalty and organizational brand dissociation. This will happen largely due to loss of trust at work, with management, superior and co-workers.

From the first objective of this study, it can now be concluded that organizations need to deploy technology such as computer and simulations by training strategies and work in progress so that employees can start by appreciating the role of training and the extrinsic and intrinsic motivational factors. These training strategies can further follow the respective organizations departments of operations and should be sponsored by the organization internally or there should be a provision for paid external training leave.

The second objective sought to identify the training programs that are easy for employees to learn and enhance their computer skills. This study established that they are being administered annually, semi-annually, bi-annually, quarterly, and monthly. This study also concluded that these are being prioritised on a needs basis (Charney & Conway 1997).

The third objective sought to outline specific computer programs that will improve employee work performance and their human resources value. This study concluded that simulation programs were up to this task as long as the management were fair in balancing their contents between the organizational needs and the employee factors as shown in appendix II and V respectively (Siebers 2004)

As elaborated in appendix III, this study has proved a model that trainings need to consider human factors of the individuals, the work environment and the organizational environment so that the transformation function can be felt from the human performance indicators like efficiency, activity at work, dependability, reduction of losses to the organization, lesser absenteeism, safer work process and lower attrition. The econometric model is elaborated in appendix III (Baines *et al*, 2005, p. 1747-7778). From the overall aim of this study, it has been concluded that computer and simulations training programs are the most effective in motivating

employees to acquire new skills such as computer proficiency and knowledge that will boost the overall organization benefits. From the literature review, it can be concluded that a mix of all types of computer training should be encouraged in agile organizations because they all have shortcomings in the long run when executed individually.

Chapter 7- Recommendations for training

The individual employee training needs can best be mapped from an appraisal process (McManus, et al 2004). Therefore, it is important for business ventures to acknowledge the importance of training to the workforce performance. The training needs should be identified from the workforce profile vis-à-vis the work trends. From this position the organizations can provide a policy framework in order to ensure that training is sustainable and acculturated. To that effect, the top down management implementation should ensure that the employee ages, past skills and work allocation are well defined ahead of a training schedule.

The organization should ensure that the HR departments have training in their policies and practices. This approach should bear in mind that the training exercise is to remove skill implementation barriers while promoting opportunity equity among the workforce. Trainers will also need to attend a trainer or trainer's course in order to be efficient and informed of their contents and facilitation process (Gibb-Clark 2004). It is also important to train the top management so that they can appreciate the importance of trainings (Steiner-Wellner 2002). Organizations need to embrace training as a mesh for diversity. This will enable the workforce to achieve harmony.

According to a survey by McKinsey & Co. very few employees get notified by their organizations on the impact that their past training has on the organization. This has implications that the productivity standards will begin to decline sooner or later due to this communication breakdown (Purohit 2008). Therefore, it is the recommendation of this study that all organizations set up a performance rating system that will be able to assess the post-training productivity. The latest performance ratings after trainings are keen on the ratings of the trainees which are

also backed up by some models of incentives. This can be built along the company HR policy framework (Purohit 2008).

The post-training feedback can also form a policy of staff promotions and terminations. When employees are aware that this will be a feasible approach, they are likely to become more competitive while minimizing conflict at work. Post training evaluations can be used by organizations to rate individuals rather than teams. However, if there is a possibility of conflict, the evaluation as teams should be given some consideration (Purohit 2008).

After training, the management has several options that they can use to shift productivity and performance focus using computer and simulation technology. First, they can elevate the literacy levels of the organization. Once the employees are aware of how the organization is run, they will tend to be more responsive to the customer needs and be loyal to the management commitment. This kind of approach has been successful in organizations like Pepsi-Co, State Farm and Sear, which can up with various concepts of the picture map (Purohit 2008). This improved literacy levels in the organizations after training will give gains such as competitive advantage and other mentioned in the earlier sections.

After training it is recommended that the organizations strengthen the understanding of the workforce so that the mission and vision are attainable. In the past, it was noted that the strategies were not being communicated effectively after the employees have gone through a successful training session. Lack of guiding information is very detrimental to organizations (Purohit 2008). After training it is recommended that organizations re-ignite the motivation status of their employees. This should be a top bottom issue and when management seem lacking, it is

recommended that the employees press for feedback from the management to establish if their performance is on track (Purohit 2008).

It is recommended that management hold regular meeting to communicate on the individual and team productivity after training. These meetings should be chaired by the immediate supervision so that areas of shortcoming can be effectively mapped and improvement planned. This platform will give the employees an opportunity to assess their own input after trainings (Purohit 2008).

It is recommended that the employees should be given the opportunity to own the process or production after training in computer and simulations. Studies have shown that many organizations use the top down approach to force change programs to the employees after training. In many cases the HR department is often used to redraft job descriptions. This is not a viable strategy. After training the organizations should try and win the support of the employees in subsequent change management process involving use of technology (Purohit 2008)

Imposition of processes after training is a sign of mismanagement. In the contrary, it is recommended that the management allows the employees to own the strategies after the initial communication process. When employees own the change process after training, they are likely to be cooperative on aspects like data and documentation process that are critical for the top management to assess the performance of the organizations. If possible, the management should reward all employees who have owned the process objectively with some model of incentives. These incentives can be administered either in groups, teams or individually (Purohit 2008).

It is recommended that management should be rewarding good performance after training in closer period that at the end of the year so that the performance drives

is kept alive. Studies have also shown that most organizations do not pay attention to the ratings of the incentives after training, and prefer average incentives to individuals or team. This study recommends that such incentives be objectionably tiered across the performance levels (Purohit 2008)

After training it is recommended that employees who own the performance and productivity of the organization issue a weekly sheet as an evaluation of the performance. In return the organizations provide an evaluation of the progress of the business for the same week. If there are gaps, the computer and simulation should be deployed to see how a solution will be arrived at. In return, an action plan should be drawn by the employees, whether further retraining is necessary or whether other mitigations are called for. This step should come up with a communication plan that can still be technology backed for future evaluations (Purohit 2008)

It is the recommendations of this study that two major changes be put in place after computer and simulations trainings. First the performance assessment should be spread out more evenly in the calendar, may be weekly of sometimes monthly as opposed to the traditional assessment that give feedback every year. This approach is better for the organizations as deviations from targets can be highlighted almost immediately. Second the organizations should avoid the tendency of enforcing a particular strategy to fit all sections of the organization. This has implications that the divisions of the organizations should be accorded different performance targets (Purohit 2008).

Finally, this study would like to make a policy recommendation for organizations especially in the manufacturing industry which was part of the scope of this paper. The literature review gave evidence of informal computer training being on the rise in many organizations from last decade to the current decades. It is the

recommendation of this paper to take advantage of this trend to optimize their training costs and make savings. However it would be appropriate for the same organizations to come up with forms that can be filled by the same individual to identify the training gaps which can then be filled by formal training. Earlier on the formal trainings in computer and simulations were the focus of many organizations. But things are now changing with as many as four dominant ways of gaining the computer knowledge having been identified (Srinivas 2004, p. 14)

Overall, this paper would recommend that peer training should be give more emphasis since it is recording significant gains in worker job security and confidence as compared to any other approach. The training focus for organizations should be to obliterate rather than to automate the processes (Hammer 1990). This fact also takes cognisance of the latest development where computer training is tending towards simulations for various staff levels. Organizations also need to be aware that the self learning employees are calling for attention as there is some level of job insecurity that is driving them to adapt to the changes (Srinivas 2004, p. 14)

Future studies should dwell on this current realization that no specific training method seem to be standing on its own to give both the employer and the employee the satisfaction, security and competition that they desire. Future studies should also seek to understand how the mushrooming of online studies can assist organizations employees to tap into computer training so that all the stake holder experience a win-win scenario.

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Appendices

Appendix I: Diagrammatic Work Plan

Task Id	Task Name	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13
1	Problem Identification and Project Planning		◆											
2	Library Work													
3	Planning Survey			◆										
4	Data Collection							◆						
5	Data Analysis								◆					
6	Project Preparation										◆			
7.	Dissertation drafting and submission												◆	

◆ = milestone

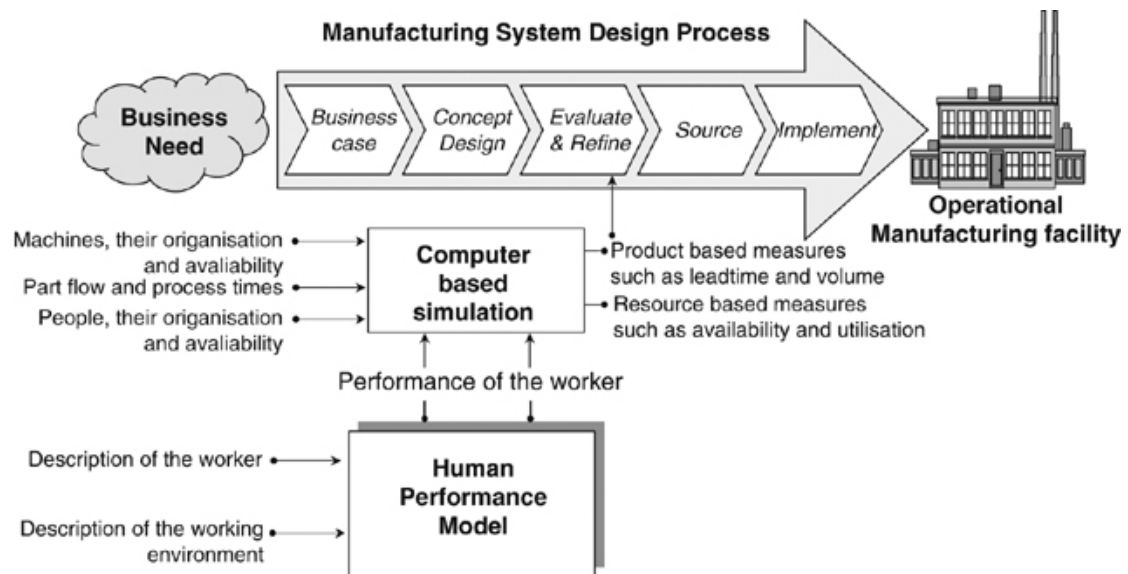
■ = key task

Appendix II:

Human performance modelling as an aid in the process of manufacturing systems

design (adapted from Baines and Kay, 2002). Palgrave Macmillan. ISSN: 1747-7778

[http://www.palgrave-journals.com/jos/journal/v1/n2/fig_tab/4250017f2.html#figure-](http://www.palgrave-journals.com/jos/journal/v1/n2/fig_tab/4250017f2.html#figure-title)
[title](http://www.palgrave-journals.com/jos/journal/v1/n2/fig_tab/4250017f2.html#figure-title)



Appendix III:

Human Centred Factors (i)

Individual

'g' (general cognitive ability)
 Conscientiousness
 Extroversion
 Neuroticism
 Organisational commitment
 Job satisfaction
 Age
 Work attitudes, beliefs and values
 Work ethic
 Agreeableness
 Openness
 Gender
 IQ
 Locus of control
 Skills level, range and experience

Physical environment

Noise level
 Air temperature
 Light level
 Humidity
 Ventilation

Organisational environment

Shift patterns
 Work teams
 Maintenance
 Training
 Job rotation
 Communication
 Diversity
 Hierarchical structure
 Climate

Transformation Function

$$\Delta P_j = f\{\Delta V_i\}$$

Human Performance Indicators (j)

Activity time
 Dependability
 Error rate

Absenteeism rate
 Accident rate
 Staff turnover rate

ΔP_j : change in the value of the j-th performance indicator
 ΔV_i : change in the value of the i-th human centred factor
 f : transformation function

The theoretical framework for human performance modelling

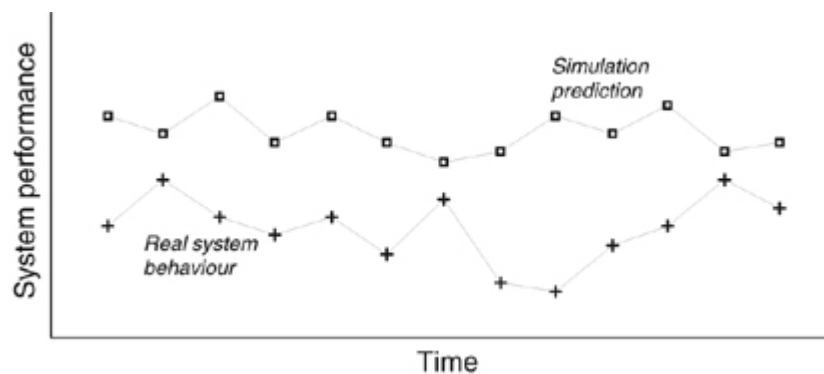
(adapted from Baines *et al*, 2005) Journal of simulation. Palgrave Macmillan. ISSN:

1747-7778 . Viewed 3rd May 2009, available at

http://www.palgrave-journals.com/jos/journal/v1/n2/fig_tab/4250017f3.html#figure-title

Appendix IV:

Modelling human performance within manufacturing systems design: from a theoretical towards a practical framework. Typical gap between simulation prediction and real system behaviour (adapted from Siebers, 2004) http://www.palgrave-journals.com/jos/journal/v1/n2/fig_tab/4250017f1.html#figure-title



Appendix V: Attitudinal content Questionnaire

Demographic attributes:

1: Sex

Male	Female
1	2

Training services

2. How would you rate the training services in your organization? Tick once where appropriate.

Excellent	Good	Adequate	Not Very good	Poor
1	2	3	4	5

Work Involvement after training:

3. To what degree would training ensure that you are engaged in your work? Tick where appropriate.

Lesser degree	Moderate degree	High degree	Very High degree
1	2	3	4

4. How frequently are you trained in computer and related simulations? Tick once where appropriate.

Bi-Annually	Annually	Semi Annually	Quarterly	Monthly
1	2	3	4	5

5. What kind of training have you been receiving over the period stated above? Tick where appropriate.

	Product manufacturing
	Product sales and marketing
	Manufacturing research and development
	Manufacturing Quality Assurance
	Manufacturing supply chain, operations and logistics
	Others

Intrinsic motivation from training

6. Are satisfied that computer and simulation training can make you achieve you intrinsic motivation at you job designation? Tick once where appropriate.

Completely	Satisfied	Neutral	Somewhat	Very	Don't
------------	-----------	---------	----------	------	-------

Satisfied			dissatisfied	dissatisfied	know
1	2	3	4	5	6

Intrinsic motivation from training

7. Are satisfied that computer and simulation training can make you achieve you extrinsic motivation at you job designation? Tick once where appropriate.

Completely Satisfied	Satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied	Don't know
1	2	3	4	5	6

Perceived intrinsic and extrinsic job characteristics from training

8. How has training in either computer or aided simulations contributed to you present job as an intrinsic satisfaction? Tick where appropriate.

Improved my productivity	
Improved my work confidence and knowledge	
Increased my communication skill with co-workers	
Enable me to stay at my current job	
Enable the attainment of organizational targets and missions	
Boosted my motivation and improved my work attendance	
Elevated my career for new job opening	
Enable my contribution towards the organizations competitive advantage	
Other forms of intrinsic and extrinsic motivations	

Organizational commitment

9. How has the training process impacted on you organizational commitment.

Increased my commitment with the organization	
Increased my wish to be identified with the organization	
Increased my involvement at work designation	
Increase my job loyalty	

Interpersonal trust at work

10. How has training impacted on you peer and superior interpersonal trust at work?

Tick where appropriate.

Increase my satisfaction with the work conditions	
Increase my satisfaction with the job itself	
Increases my satisfaction with the other workers relations	
Increased my confidence to interact with superior at work	
Increased my trust with the management and other workers	