“WORKING SMART AND NOT HARD” KEY TO MAXIMIZE EMPLOYEE EFFICIENCY?

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Abstract

Due to globalization and financial crisis nowadays, businesses have been pushing to reduce their costs in order to survive in the highly competitive environment. This creates more pressure on workers who are called upon to increase their efficiency in order to compete on the global labor market. It is true that people with the same intellectual background operating under the same working conditions perform differently. The aim of this study is to define the concept of "smart work", by identifying techniques that can lead to increased employee efficiency. It is also examined whether only smart work is enough to produce better results and finally it is attempted to list the techniques and tools that will help both employees and businesses to increase their efficiency. An empirical research based on data collected from anonymous questionnaires that were distributed to employees of a private company working on the same product took place. The findings of the study could be useful in the HR department of every organization, providing suggestions on how to increase the efficiency of their employees.

Keywords: employee efficiency, smart work, hard work

1: Introduction

The last decades we experienced a rapidly changed technological environment. The technological achievements forced the companies to change the way they operate in order to survive in the new environment that is characterized by high competition. At the same time, the organizations are operating in a global environment with many competitors who are equally good, making more difficult to differentiate and have a competitive advantage over them (Gopalakrishnan, 2012). One significant objective for every
organization is to increase its productivity, produce more with the same or less effort and this can be achieved mainly by increasing the employee efficiency.

1.1 Research problem

In some countries (mainly in the developed) the working hours, defined by the legislation, are less than those in other countries (like the developing), and their productivity is the same if not more. Besides, it is well known that for the same task people, that operate in similar environment and with similar know-how, need more time than others to accomplish it. Are they better workers or are some employees prepared to work more hours than others (McGovern, 2010)? The key is the efficiency; employees might work smart and complete their tasks in less time than others producing more output with the same effort. However there are several concerns regarding their performance outcomes (quality of produced work, appropriate allocation of sources such as time, etc.). In fact hard work isn't always the same as good work. Being able to make the difference is the key for an employee to increase his efficiency. Working smart doesn't necessarily mean working long hours. It means taking time to plan, budgeting time and taking breaks to maximize efficiency. Besides the fact of individual differences regarding how people perform, the needs of the workplace environment nowadays require people to perform effectively and in smart way.

1.2 Research objectives

The aim of this Study is to study the factors that increase the employee efficiency and provide those techniques that an employee can adopt and those strategies that an organization should follow to help its employees to become smart workers. Factors, like the external environment, the industry, the market, etc. that an organization has little or no control over them, are out of the scope of this study.

At the completion of this study, the following objectives will be achieved:

a) What means to work smart, according to the respondents’ answers.

b) Does indeed working smart is enough for employees to increase their efficiency?

c) Does the technology help employees on working smart?

d) What tools can assist towards this direction?
The review of the existing literature reveals several studies which investigate the factors that might influence the employee efficiency. A significant number of studies examine the impact of technology, training and workplace environment, while others are focusing on the influence of the leadership style on the employee efficiency. This study contributes to the literature through the combined research of the techniques and tools that will help employees to increase their efficiency according to the smart work approach.

By identifying the root cause of the performance efficiency problem the human resources can modify the mode of operation of the company and provide to its employees the tools to train themselves and become more productive by working smart and not hard. In other words the human resource department can adopt a framework that will bridge the gap between what someone can do (maximum performance) and what actually does as it is the definition of typical performance (Klehe & Anderson, 2007).

1.3 Methodology and approach

This study uses data collected from questionnaires from an adequate sample of employees operating in the private sector. The questionnaire was distributed through internet to a large number of employees. An adequate sample was gathered and the data thoroughly analyzed. The survey research and the analysis of the collected data between different groups of employees, created the framework with the techniques and tools and gave hints on how to be modified, depending on the target group, to be more effective and help the employees to increase their efficiency.

1.4 Structure of the study

This study is divided in seven parts. The first part is introductory and contains information regarding the research problem, the objectives of the study and the methodology that was followed. In part two a literature review of the factors to improve the employee efficiency is presented. Part 3 contains the definition of both hard and smart work and an approach on how to become smart worker according to the existing literature. The research design and the methodology followed are analyzed in Part 4. The next part,
Part 5, presents the findings, a short analysis of the demographic characteristics of the sample and the analysis of the collected data. Part 6 contains the discussion of the findings, a description of the working smart approach and the tools that will help employees to work more efficiently. Finally, the last part, the seventh, contains the outcomes of the data analysis, the limitations and the recommendations for further research.

2: Literature review on employee efficiency

In a global environment, characterized by intensive competition, every company that desires to maintain and improve its market position should take the necessary actions to differentiate itself from the competition. This can be achieved by acting proactively and taking all the necessary actions that will ensure sustainability and profitability. The challenge for every organization, today more than ever, is to maximize the skills and competencies of its employees in the most efficient and effective way in order to increase their efficiency and productivity (Gopalakrishnan, 2012).

Efficiency is related to the quality of the produced work; accomplish tasks with fewer resources or with less wasted time. Efficient employees complete their tasks in the least amount of time and resources by adopting several time-saving techniques. By increasing the employee efficiency, time might be saved for other tasks resulting in increased employee productivity as well. Nowadays the environment is highly competitive and forces employees to work more efficiently by adopting time-saving techniques or changing the way they work according to what the technology imposes (Holland & Bardoel, 2016). In general, several factors might increase the employee efficiency; some of them require actions from the organizations, like changes in the workplace environment or the leadership style, while others are related to the individuals claiming actions from them. In both cases the technology with its achievements is a significant partner towards the direction of improving the employee efficiency.

2.1 The impact of technology on employee efficiency

During the last years there was significant progress in new technologies (databases, big data
analytics, cloud technology) and in knowledge related to the information processing (Holland & Bardoel, 2016). Every organization that aims to have a competitive advantage in the global competition and to acquire workforce that uses its abilities in the most efficient way, should have a virtual workplace that will contain all the necessary information that an employee needs in his every day working life (McGover, 2010) and use technologies that are state-of-the-art. Employees that are highly qualified may leave the organization or even the country in order to find jobs with better salary or work to industries that will use all their capabilities. Today the challenge is to keep the skilled employees within the organization (Sirichoti, 2013).

Nowadays with the capabilities that technology gives, almost every organization has knowledge bases and is aware of the exact competence of its workforce (Kontic et al., 2009). With that in hand and using custom software for enterprise resource planning, employee productivity will be improved. In fact each employee can be assigned with the tasks that are in coherence with his capabilities resulting in an increase of his efficiency since he can use his skills at the maximum and with the same effort might accomplish more tasks (Sirichoti, 2013). The technology explores and finally introduces new ways of working with the goal to help employees to become more efficient. The recent trend is the usage of social media, which is very important especially for the younger employees (Holland et. al, 2016). The generation Y employees (who were born at early 1980 to 2000) are not unionized and it seems that they use the social media as a way to discuss and debate issues that are related to their workplace (Morrison, 2014). Holland et. al (2016) found that the usage of social media as employee voice might increase the job satisfaction, reduce the employee turnover and increase the labor productivity. However, we don’t know much about the impact of social media and their usage, in an organization, by its employees (Charoensukmongkol, 2014). But in general the use of social media during the working hours has affected in a positive way the job performance and employee productivity (Shepherd, 2011).

Most of the organizations that have their personnel physically dispersed have introduced and promoted the usage of custom software that will connect all the employees (McGover, 2010). Such platforms except for communication might support file transfer, group chats, desktop sharing and many
other features bringing people closer and eliminating physical boundaries. Collaboration between the
employees become more effective and tasks that need coordination can be accomplished with less effort.
Employees have the ability to multi-communicate, interact with more experienced people one-on-one or
in group chats, discuss their tasks, get hints, and do brainstorming on how to complete their tasks more
effectively (Turner et. al, 2007). This open communication makes the employees quickly address their
questions to the right persons, not losing time reinventing the wheel and accomplish their job in less time
(Aral et. al, 2007).

2.2 Employee efficiency in the era of competitiveness

In information-intensive industries, multitasking might be a way to increase the productivity.
Multitasking might be considered as the task-switching, as psychologists call, between two or more tasks
which are contingent. This kind of task-switching might be positive since the worker can switch from one
task to another when he feels that has reached a dead end and go back later with clear mind (Buser et. al,
2012). Additionally there are many tasks, mainly computer-based, that might be simple in their
implementation but also time consuming. By multitasking, employees can reduce their completion time
and increase their efficiency. The asynchronous technology like communication via email, supports
multitasking while the communication via phone is direct and more demanding (Aral et. al, 2007). In case
of routine tasks or tasks that are not complicated or demanding, multitasking can increase the employee
efficiency when the working time is allocated properly (Adler et. al, 2012). However, it seems that there
is an inverted-U relationship between multitasking and employee productivity (Adler et. al, 2012). As
Aral et. al (2007) state in their study, multitasking beyond a certain point has negative effect on employee
efficiency since high level of multitasking is linked with higher task error rates. In high levels of
multitasking loss of efficiency is observed. Complicated tasks cannot be performed in parallel with other
tasks in order to avoid errors and don’t make discounts in the quality of the produced work (Buser et. al,
2012).

In a global environment, where competition is intensive almost in every industry, the
organizations should invest on the training and development of their personnel in order to retain their profitability and viability. Employees should always be competent both socially and technically and this can be achieved through continuous and systematic training. A training framework should be designed based on the needs that were identified (performance gaps, additional skills and knowledge). Participating in such courses and acquiring new skills, leverages employees’ ability to perform their tasks in different way resulting in increased efficiency (Asfaw et. al, 2015). Nowadays, knowledge quickly becomes outdated which means that it is important to train and develop new skills on a regular basis. The acquired know-how should be used in order to design and produce services with higher added value (Gopalakrishnan, 2012). Innovation is the key for success. By designing and implementing innovative products and services, the organization enforces its presence in the market. Companies that are characterized by team spirit, ability to respond very fast to changes and their employees are eager to share their knowledge and generate ideas over brainstorming, are creative.

Incorporating in the personal development plan of each employee a minimum number of trainings that he should participate, forces the personnel to acquire new skills or refresh some of the existing. The combination of experience and advanced know-how is an ideal scenario and makes the employee to take advantage of all of his capabilities and perform his tasks more efficiently (Eneh et. al, 2015). The human capital of a company is very significant for its profitability. For this reason, organizations invest on the competence development of their employees. The employees with good know-how on the processes and their tasks are more important than those with social skills. Sharing the procedural information, employees can handle recurrent problems in more efficient way (Aral et. al, 2007). Managers should promote knowledge sharing, through internal trainings and pair-work, to acquire, all the employees, a minimum level of know-how (Kontic et. al, 2009). In general, experienced employees can make the appropriate prioritization in their tasks, and since they know the processes can decide or ask for advice on how to bypass the constraints that might delay the completion of their tasks (Rapp et. al, 2006). Experienced workers usually have built a network of people, can easily request help from the proper person and delegate tasks, if it is necessary, to the right person (McGover, 2010).
Summarizing, the experience is the secret of the success, it might help the employees to explore how to work smart and improve their efficiency by reducing tasks completion time (Rapp et. al, 2006).

2.3 The influence of the leadership style on the employee efficiency

The main objective of each organization is to meet the customer needs and increase its perceived customer value. To achieve this goal, the employees should be aware of the company’s values and get inspired to be part of its success (Abdul et. al, 2012). It is crucial for each organization, to develop leaders that follow the empowering behavior and inspire everyone to work more efficiently (The Ken Blanchard Companies, 2009). Employees that are provided with all the necessary tools, resources and the proper direction perform at higher levels, since they are aware of the current priorities, can bypass obstacles, and complete their tasks in the proper way. It is important for workers to have clear direction on their job, in order to avoid working on tasks of low importance and not in other more critical just because they are not aware of the priorities. Leaders that promote the participation in the decision making process and remove possible bureaucratic restrictions make the employees feel accountable and be more effective and efficient (Rapp et. al, 2006).

Additionally the leadership style that is adopted by the managers might affect the labor productivity. Umaru et. al (2014), at their research found that democratic groups show higher efficiency because of their effective cooperation while the attitudes that are met in autocratic groups might reduce the employee productivity due to higher labor turnover. The existence of high employee turnover indicates that the employees are not satisfied by their job and it affects in negative way the employee and the overall efficiency of the organization (Ramzan, 2013). Having in mind that high turnover rates reduce the workforce of the organization and increase the workload of the remaining employees and the organizations’ incentive to provide training programs is reduced, at the same time, the outcome is lower employee efficiency and productivity. Being in an environment where people feel uncomfortable employees are working with less output efficiency (Abdul et. al, 2012).
2.4 The impact of the workplace on the employee efficiency

The working environment, through its infrastructure, might help employees to work more efficiently. For this reason it should be designed in such manner that it will satisfy the needs of the employees for natural light, ventilation and climate control, by providing good working conditions and serve, at the same time, the work processes in the most appropriate way (Petrova, 2011). There are several studies (Haynes, 2008, Petrova, 2011) examining the impact of the “flexible” or “smart” working environment, not only in terms of flexible office layout but also in terms of time flexibility and locational mobility, on both employee efficiency and productivity.

Depending on the employees’ daily tasks and the work processes, four working patterns were identified: Hive, Cell, Den and Club (Haynes, 2008). Hive is suitable for work based on individual autonomy with no need for interaction, while cell is more suitable for work that needs concentration. Den is ideal for group work where cooperation is the key and finally club, where the individual autonomy is increased and there is also need for brainstorming (Haynes, 2008). In smart workplaces there is a mix of the four aforementioned workspace types (Petrova, 2011) with both open space offices and rooms provided for privacy and concentration, resulting in the coexistence of the individual and team based work (Hammed, 2008). The face-to-face interaction is promoted through the open space offices increasing the collaboration of the employees, which is very crucial especially when projects are undertaken by teams with many members where coordination is needed, the problem solving becomes easier due to the open communication and possible brainstorming, and consequently the tasks can be accomplished in less time improving the employee efficiency (Hammed et. al, 2009).

Being flexible in the working hours means that the employees have the opportunity to perform their tasks at the most appropriate time, especially when they have to collaborate with colleagues or customers in other countries, where time difference exists. This flexibility is supported by the advances of the technology, which brings the people closer even on a remote location, distance is eliminated, and makes them work more efficiently individually or in virtual teams (Petrova, 2011). The employees that are allowed to control their starting and finishing time, distribute their workdays over the working week
and set their breaks according to their needs can use their time efficiently and accomplish their tasks with less effort (Beckmann et al., 2017). By adopting the idea of flexible working time or self-managed working time, employees can decide about the duration or the location of their work, from office, home, café or airport (Atkinson & Hall, 2011) eliminating possible “work to family” conflicts. The organizations that develop the idea of work-life balance, mainly by removing possible time-based or strain-based conflicts (Myilswamy & Gayatri, 2015), help their employees to have less stress and become more efficient since they are happier, highly motivated and able to focus on meeting their deadlines and producing work of high quality (Humbert, 2010).

3: Smart work vs Hard work: the debate, influential factors, strategies

The last years we experience a global financial crisis threatening the organizations around the world and made them reconsider their strategies (McConnell, 2011). The working environment became highly unstable and competitive. The economic crisis caused high unemployment rates, suppressed the wages and made employees feel threatened (Judge & Kammeyer-Muller, 2012). Due to reductions in the workforce employees are getting more responsibilities and they have to work harder, sacrificing many hours, in order to cope with their new duties (Feldman, 2002). On the other hand, workers are forced to work smart and respond to the pressure of the competition maintaining a healthy psychology, without influencing their work-life balance (Donnelly, 2006).

3.1 Smart work vs hard work

3.1.1 Views about working hard

For many decades, the hard worker was considered as a value asset for the organization and the workaholics, people who are used to work many hours, were viewed positively, recognized and rewarded (Douglas & Morris, 2006). The result was the creation of a trend towards work for long hours due to consumerism, or due to the peoples need for recognition (Kuhn, 2007). Additionally the aforementioned trend is maintained in many nations because the culture influences the way people perceive the meaning
of hard work (Fang et al., 2004). However it seems that nowadays there are employers recognizing that working for many hours does not necessarily mean that the employee is more productive (CIPD, 2008). By devoting long working hours in a daily basis, the employee has less time for everything else affecting in this way the quality of his life (Hassan, 2016). The human needs and wants can be satisfied by her/his work, and by working too many hours the need for socializing and deep communication cannot be accomplished leading to work-life imbalance (Myilswamy & Gayatri, 2015).

3.1.2 Approaches towards working smart

The globalization forced a lot of changes to the nature of work, for example, full time employment was replaced by part-time or outsourcing, the new workforce is temporary since the employees can be replaced easily (Kazi, 2011). In this highly competitive environment the only way to succeed is by working smart. The term “smart work” is not something new and it is not easy to give a clear definition for it. Smart work is what makes the difference, an approach to organize work in order to improve the employee efficiency and achieve high outcomes (CIPD, 2008).

Working smart is the way to achieve the maximum value for the invested time and effort, all these elements that each employee should implement in his strategy in order to be more productive without spending long hours in work (CIPD, 2008). Another approach of smart work is the practice that is characterized by flexibility in working location and time, supported by the tools that technology offers and in general provides the best working conditions to the employees to accomplish their tasks (Raguseo et al., 2016).

3.1.3 But is it enough just to work hard or smart?

As Khan (2016) states, traditionally, working hard is considered to be the cornerstone of achievement. From our childhood, we are taught that we should work hard in order to succeed (Fang et al., 2004). However, many people do not achieve their goal even if they have worked hard on it. So, what was wrong in their strategy? The key is to work smart, make smart choices or get the right decision. Work smart to make the difference. Smart people move up the ladder real fast (Khan, 2016). However, working
smart is not the panacea; it is only half way to success (Moroney, 2013). Working hard or smart cannot be separated from each other, even if someone works hard he has to make smart choices. People have to work smart in order to plan their goals and then work hard to achieve them (Khan, 2016). Working hard gives you the desired results but working both hard and smart gives you the best results (Moroney, 2013).

### 3.2 Influential factors – Strategies

The globalization integrated the world. The barriers were removed, taxes were reduced if not removed and the free market became a fact. The goods and services of each company went out of the country’s borders and entered the global market, which is characterized by intensive competition (Aspray et. Al, 2006). Firms were impelled to suppress their costs and increase their productivity in order to survive in the new environment. Moving to this direction, an objective of each organization is to boost the efficiency of its employee and attract talented employees from the global market due to the existence of free labor movement (McMillan & Rodrik, 2014). Summarizing the challenge for every employee that is competing in the global environment is to make the difference, become talent by adopting the practices and acquiring new skills that will help him to increase his efficiency with the same effort, in other words to work smart (Raguseo et. al, 2016).

#### 3.2.1 Employee time is the most precious resource

Everything is a matter of time and through the appropriate time allocation, worker can accomplish more tasks. By teaching the people how to make a daily plan with the ongoing tasks, prioritize and handle the incoming tasks that were not scheduled, employees will operate more efficient (Claessens et. al, 2007). Every employee can make his schedule for the next days and have an idea on what comes next (Dillard, 2012). By having clear requirements for every single task, time is saved for other activities.

By making the appropriate prioritization, the employee knows which are the most important tasks and can start his day with those, since the most productive hours are in the morning when he has clear mind. In case he comes to a dead end, smart worker has no problem to ask for help and through the
network he has established can address his questions to the most appropriate person (Dillard, 2012). Most of the employees are asked to undertake multiple tasks in parallel. Switching between tasks might be exhaustive for some workers but might also be a way to refresh their mind when they get stuck and come back with a fresh eye (Madjar & Shalley, 2008). Working in multiple tasks is a smart strategy that gives the opportunity to reallocate the time between the tasks during their execution (Buser & Peter, 2012). Multitasking is not appropriate for complex tasks while it is most suitable for routine or time consuming tasks that are simpler in their implementation (Madjar & Shalley, 2008).

3.2.2 Be the talent that every company seeks for

According to Garlando et. al (2013), talent is a special ability that someone has, and when he uses it, makes the difference and comes above the rest of team members. Consequently, the talented employee is usually considered as high performer in the specific area (Garlando et. al, 2013). As talented is considered the person that has an innate ability in a specific field (Tansley, 2011). However, Pfeffer & Sutton (2006) state that a talent can be acquired with the combination of training, experience and hard work.

Personal development is the only weapon that the employees have in order to become talents, respond to pressure and stay ahead of the competition (Donelly, 2006). Highly educated workers, eager to work for long hours with low wages, are available in the labor market and clamp both employees and organizations (Aspray et. al, 2006). Individuals through trainings can enrich their skills, acquire new that can be used to become more productive or enable them for future job requirements (Milhem et. al, 2014). By investing in their personal development employees can perceive higher job security and have better control over their career (Lee & Bruvold, 2003). The key to success is flexibility, meaning that the employee should be fast learner and adapt quickly to every situation in order to survive in the rapidly changed environment where the knowledge becomes obsolete with fast pace. Knowledge is the most highly valued asset that gives a competitive advantage both to employees and organization (O’Neill & Adya, 2007). Becoming expert in a field, the employee works more efficiently, produces work of high
quality and finds the way to accomplish his tasks with less effort and time (Garllando et. al, 2013).

Knowledge is strength for employees and competitive resource for the organizations (O’neil & Adva, 2007). Knowledge sharing is a sending and receiving process that each employee should adopt since only good things can gain (Foss et. al, 2009). In this way, the employee can create a good network and ask for help from the right person every time it is necessary (McGovern, 2010). It takes less time to implement a task when you ask for help from an expert in the field when you get stuck; there is no need to re-invent the wheel.

Through the knowledge–sharing process new innovative ideas might be generated resulting either in the designing of new tools that will alter the way the employees work (Umashankar, 2011), or in the generation of new products and services improving the competitiveness of the organization (Sadikoglu & Zehir, 2010). Most of the organizations nowadays consider the innovation activity as something mandatory for their wellbeing. The companies seek for employees passionate with innovation since it might result in increased productivity (Osman et. al, 2015).

3.2.3 Flexibility is the key word

Workplace flexibility is considered the ability of employees to choose where they will work, when and for how long (Hassan, 2016). In this way the workers can adjust their working hours in the most appropriate way (Golden, 2012), by making possible the communication and collaboration of employees located in different time zones, promoting the existence of virtual teams with members from different sites (CIPD, 2008). Employees can take breaks, clear their mind and come back more productive (Feldman, 2002).

The employees that work remotely from home, through the technology can communicate with their co-workers in real-time as if they were close to them. The workers should be aware of the information technology, the available tools, have agile skills and be adaptable to change (Hassan, 2016). The idea of working smart helps people to maintain their work-life balance since their responsibilities in professional life will not conflict with those of their personal life (Myilswamy & Gayatri, 2015).
Additionally, the organization should have the knowledge available for all the employees in a common place, make the necessary alliances and agreements that will improve the knowledge sharing process and provide computer-based training or platforms that operate as learning centers (Yuliani-Suseno, 2006). Each employee should be able to access easily the information he wants. Through the use of the existing and new technologies the technological innovation can be achieved affecting in a positive way the employee performance (Dasgupta et. al, 2011). The routine tasks can be performed through automation or clearly defined process saving a lot of working time.

4: Methodology

In this part the approach that was followed for gathering data and analysis is presented. The basis for developing the research methodology of this study was the findings from the literature review. The next sections describe the research method and the design of this study. Additionally, in this part is also included an analysis of the demographic characteristics of this study's sample.

4.1 Research’s method

The objective of the scientific research is to build scientific knowledge by finding laws and creating theories that can explain natural or social phenomena. So the science, in general, is based on theories and observations, therefore the scientific research consist of the theoretical and the empirical level. The theoretical level develops abstract ideas about a phenomenon and builds theories by finding possible relationships between concepts while the empirical level investigates the theoretical concepts and relationships to figure out how well the theory reflects the reality with the goal to improve the existing theories. Therefore both theory and observations are significant for the scientific research (Bhattacherjee, 2012).

The qualitative analysis is an exploratory research, used to understand the underlying reasons, opinions and motivations, describe the problem or develop ideas or hypotheses for eventual quantitative research. The qualitative data is text data collected from interview transcripts. On the other hand the
quantitative research is used to quantify the problem by using numerical data that can be transformed into useful statistics. It is used to quantify opinions, behaviors, attitudes etc. and extract results from a large sample population. It uses measurable data to describe facts and reveal possible patterns. The quantitative analysis is driven by statistics and independent on the researcher while qualitative analysis depends on the researcher’s skills and knowledge.

The various research methods were examined and the author decided to use only quantitative methods in order to examine the main objective of the study; namely the most important factors that are necessary for an employee to work smart. The quantitative approach that was selected is the most appropriate based on the research questions that are investigated: a) the definition of the term “working smart”, b) if working smart is enough in order to increase the employee efficiency, c) whether the technology helps employees on working smart and d) which factors are important in order to become smart worker

The author is interested in exploring whether the definition of the smart work, the feeling on what is necessary today and the factors that lead someone to become smart worker differ between: a) men and women b) different age groups c) different working experience d) different job positions e) different educational levels f) people working different number of hours. The main objective of the research is to record the factors necessary to increase the employee efficiency and provide the corresponding framework containing all the tools that will help the organizations to promote and adopt the approach of smart work, and the individuals to increase their efficiency. By analyzing the collected data from different perspectives, the needs of each target group are identified and recorded and therefore, organizations are able to modify easily the provided framework and use it more efficiently.

4.2. Data Collection

Date can be classified in many ways however the most common classification is based on who collected the data. As primary data are considered the data collected by the researcher for a specific purpose, gathered mainly through questionnaires, interviews, etc. On the other hand, the secondary data
are collected by someone else for another purpose but is used by the researcher, are usually found in books, articles, reports etc.

In this study the author uses both data types; the literature is used in order to collect information relevant to the topic of the study while primary data collection performed through short questionnaire. The author through the review of the existing literature collects the key concepts and issues that are related to the scope of the study to create the base in order to start her study. The main sources for the secondary data collection are google scholars and internet journals. Since the base of the study is created, the author proceeds with the collection of the primary data using a properly designed questionnaire. The main advantage of the primary data is that the data are collected from the researcher specifically for the purpose of the study, thus data are recent.

4.3 Survey research

The survey research is a research method that uses questionnaires or interviews to collect data about people, their thoughts, feelings, preferences and behaviors. This method is a very popular method in social sciences and used in quantitative research especially when the studies involve individuals as the unit of analysis. The reasons that helped the author to select and use the specific method are the following: The survey research is ideally suited for measuring unobservable data, like people’s preferences, thoughts, feelings, attitudes and behaviors. Also, the sample of the research is geographically dispersed in three different countries with significant time difference between them, thus a survey sent by e-mail can easily reach them. This method is preferred by some respondents since it assures the anonymity and people feel that they can be expressed freely. At last, the survey research is economical by means of researcher’s time, effort and cost. However this method is subject to a number of biases, like sampling bias, social desirability bias, non-response bias and recall bias (Bhattacherjee, 2012).

4.4 Questionnaire design

The survey research was performed through a structured questionnaire. The questionnaire is a way to gather data in sample surveys. This tool was selected due to its advantages. It is the quickest way to
collect the required data, it can be distributed to a large number of participants at the same time and the participants have the time to think and answer the required questions at their time.

A structured questionnaire was designed based on the needs of this study and the review of the existing literature, and distributed by e-mails to a large number of employees of a large organization. The author used a questionnaire short in length, clear and to the point. She decided to focus on thirteen questions in total, that could be answered easily and were categorized in two sections. The first section contains the demographic information such as gender, age, educational background, job position and working experience.

The second section includes all the questions that are necessary to answer the research problem. The main questions are the definitions of smart and hard work, the impact of the technology on smart work, whether it is adequate just to work smart today and the factors that are important in order to adopt a smart work approach. Moreover there are one or two questions that were repeated, rephrased, in order to check the validity of the answers.

Type of the questions

The questionnaire includes the following types of questions: 1) Close–ended questions, 2) Open–ended questions, 3) Multiple choice question, 4) Question with an answering scale (5-point Likert scale with 1=’not important’ and 5=’very important’)

Inform the participants

The author had informed the teams and their members about the study and that they will receive an email on the upcoming days requesting their participation. The questionnaire was distributed through email to all the employees of a specific project in one software development company in the ICT industry. It was also clarified that the survey is anonymous and the received answers will be used only for the purposes of the specific study.

Questionnaire’s distribution

The questionnaire was running on Google docs. The research link was sent to the author’s colleagues through an email. The distribution list contained engineers (developers or testers), managers and top level managers who are working in the same project. After a period of one month a reminder was
sent to the participants.

4.5 The sample of the study

The sample is the group of people that participate in the research, called participants, and were selected from the population through the sampling process. In this study the participants were selected through convenience sampling. The criteria used for the selection of the sample were that the participants should be occupied in a specific industry (ICT) to ensure that they operate in similar environment and the time limitation. Thus the researcher selected the participants using the convenience sampling technique which is a non-probability sampling technique where the sample is selected mainly because it is easily accessed.

The target initially was to collect at least 200 participants living in different countries, working in different projects but all members of the same business line of a large organization. The specific organization was chosen in order to have a sample with the same experiences (working environment, culture, values, processes, etc.) but working in different positions. The responsible people from two projects were contacted to be asked for their contribution to the research however the people from the one project could not help during this time period due to their workload and strict deadlines. So the researcher contacted 200 employees of an organization, working in the same project and living in different countries, however only 111 individuals responded. The number of the participants was a surprise for the author since unfortunately, it was under her expectations. The researcher faced a strange negativism on filling the questionnaire even if the people were informed that the survey was anonymous and only for academic purposes. The survey was open for a period of 2 months (from March 2017 to May 2017) and out of 200 who hit the survey link only 111 answered all the questions. Thus, the response rate was 55.5% which can be considered as adequate for analysis, since response rates of at least 50%, for questionnaire surveys, is adequate (Rubin & Babbie, 2009).
5: Research findings and analysis

In this part are presented, in short, the demographic characteristics and the research findings. The author describes the collected data in order to have a first indication about their characteristics. The collected data is analyzed through six different perspectives in order to identify possible relationships between the variables. The goal is to create a framework that both the individuals and organization can adopt in order to achieve better efficiency. For this reason all possible target groups are investigated to identify possible differences in the responses. All related tables and figures can be found in the Appendix II.

5.1 Demographic characteristics

The sample was consisted of 111 employees, 65 (58.6%) men and the remaining 46 (41.4%) were women. A significant objective was both genders, if it is possible, to be equally represented and it seems that this was achieved. Furthermore it is shown that most of the respondents were between 30 and 40 years old (60.4%), while the groups below 30 years old and between 41 and 50 years are equally represented (18%) and the rest of the respondents (3.6%) are over 51 years old. The majority of the participants, almost 62%, have been working for 5-15 years. A significant amount of respondents (21.6%) have working experience less than 5 years and the rest of them are distributed in the two other categories, 10.8% have been working for 16-20 years and the remaining 5.4% over 21 years. Additionally most of the participants are engineers (73%) and the rest of them are either managers (23.4%) or top level managers (2.7%).

Regarding the educational background of the respondents it seems that all the categories had sufficient participation except for the category “High School” which had only one participant (0.9%). The majority of the participants (64.9%) had MSc while 25.2% had BSc and the rest 9% had PhD. Only one out of three employees works for 40 hours per week. The rest of the respondents indicate that they perform overtimes in a regular basis .Moreover, it seems that the employees that work for long hours, have the flexibility to work remotely . Almost half of the participants believe that they are both smart and
hard workers as time dictates. This is verified by the fact that most of them devote a lot of personal time in order to accomplish their tasks. Summarizing, most of the participants were between 30 and 40 years old, engineers, with higher education (bachelor’s and master’s degree), working more than 40 hours and with working experience between 5 and 15 years. In general, it is a representative sample of the workforce in the software development industry of Greece since it is a sector that was developed mainly the last decades.

5.2 Definition of smart and hard work

The majority of the participants, almost 90%, agree that by the term working smart we refer to the way people organize their tasks in a more efficient way, in other words means better time management.

<table>
<thead>
<tr>
<th>What is the meaning of “smart work”?</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>make good decisions</td>
<td>4</td>
<td>3,6%</td>
</tr>
<tr>
<td>organize your work in more efficient way</td>
<td>99</td>
<td>89,2%</td>
</tr>
<tr>
<td>work fast</td>
<td>0</td>
<td>0,0%</td>
</tr>
<tr>
<td>use up-to-date tools</td>
<td>4</td>
<td>3,6%</td>
</tr>
<tr>
<td>easy and global collaboration</td>
<td>3</td>
<td>2,7%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0,9%</td>
</tr>
</tbody>
</table>

Table 5.2: Definition of smart work

On the other hand, it seems that the 70% of the people believe that making sacrifices in order to achieve your goal, is the definition of hard work. While the 24% states that working hard is synonym to work for long hours (Table 5.2.2). Both views are consistent with the literature since by working for long hours every day, the employee has less time for everything else causing work-life imbalance.
5.3 What is necessary today for better employee efficiency

Almost 2 out of 3 participants state that through smart work employees can achieve better efficiency and the rest of them believe that their efficiency might be increased with both smart and hard work (Table 5.3). In the question on what is important in order to improve the competitiveness, the answers were distributed almost equally between the smart work and both smart and hard work. The participants have also indicated that in situations which stress the people, like the financial crisis we face the last years, it is important to work smart, make the difference, and increase the employee productivity. However, half of the respondents believe that it is necessary to work hard as well, implying that working both smart and hard employees will get the best results, which is close with what Moroney (2013) stated. Additionally the respondents believe that today it is expected to work both smart and hard in order to achieve the expected results due to the increased workload. This is the feeling of the employees who believe at 61% that their employers expect them to work both smart and hard. The given answers, to the questions related to what is necessary today in order to improve the employee efficiency, indicate that through working smart employee productivity can be improved resulting in increased competitiveness (CIPD, 2008).

Figure 5.3: what is important nowadays to improve the employee efficiency
5.4 Technology and other important factors contributing to smart work

Evidently, the technology is responsible for most of the changes in the way people work. The breakthrough technology achievements provide the tools that are necessary to adopt the working smart approach. Almost all of the respondents (94%) agree that technology is their ally and unfolds the means to organize their work in a more flexible and efficient way (Table 5.4.1). By identifying the most important factors that increase employee efficiency, the tools aiding employees to become smart workers are also revealed. So the participants were asked to indicate which are the factors (based on the existing literature) that improve employee efficiency and indicate their importance. It seems that the 78% of the employees (Table 5.4.2a) indicate that through the personal development process (acquire new skills and knowledge) they can work smarter and increase their productivity. The next factor is time management with 63%, indicating that the way people organize their work is very significant if they want to work smart and save time for other tasks.

![Factors contributing to smart work](image_url)

**Figure 5.4.1: Factors contributing to smart work**

As the following figure indicates, all the factors are important in order to adopt the approach of
working smart. The highest ranked factors are time management, proper use of technology and continuous personal development. Additionally, participants were asked to indicate what they feel is necessary to become smart workers. This question is used to check the validity of the answers since it is similar to the question about the factors that are important in order to work smart. The respondents answered as it was expected, indicating that the development of new skills and the proper time management are crucial for working smart and might improve their efficiency.

5.5 Analysis per gender

The collected data was examined from the gender point of view. It seems that both genders respond similarly in almost all of the questions. However, we have to point out the trend of men to work for long hours. This might be explained by the fact that women have to work a “second shift” at home (Feldman, 2002). Another observation is that the actions that are necessary in order to increase the employee efficiency and work smart depend on the gender. The correlation is weak. However, it seems that the majority of men believe that through the development of new skills their efficiency will increase while women think that both better time management and development of new skills is equally important.
5.6 Analysis per age and working experience

In general all the age groups (below 30 years, 30-40 years, 41-50 years and over 51 years old), responded in the same manner. But some interesting things appeared. Most of the people below 30 years, with experience less than 5 years, believe that the definition of hard work is to make sacrifices to achieve your goals. As people grow, thus their working experience accumulates, they believe that working for long hours can be considered as hard work as well.

All the respondents recognize the importance of smart work in order to increase their efficiency and competitiveness; however it seems that as people become elder they realize the importance of hard work in order to achieve their goals. Almost all the participants believe that today it is necessary to work both smart and hard, in order to survive in the highly competitive environment. Almost all of the participants believe that through better time management and development of new skills and acquiring new techniques on how to accomplish their tasks, will improve their efficiency. As experience is increased, people identify the need for delegation, since by addressing the right task or problem to the right person the completion time of the task might be decreased.
5.6 Analysis between groups with different working experience did not reveal something new. Actually the findings, as it was expected, are similar to those of the previous paragraph since the working experience is related to the age of the employee. However the author decided to perform this analysis, even if the outcome was expected, as a way to test the reliability of the sample.

5.7 Analysis per job position

Two groups were examined, the engineers with 81 members and the managers with 30 members (the last group contains two top level managers). It is interesting that mainly the managers recognize the conveniences that technology offers and indicate the use of up-to-date tools as a way to increase their efficiency.

Some engineers believe that the lack of cooperation, working in silos, isolated without the ability to exchange ideas, share thoughts and do brainstorming is actually the definition of hard work (Table 5.7.3), by means of spending a lot of time to solve problems that would be solved faster through the effective cooperation between the employees. Additionally both groups recognized the need for both hard
and smart work, having managers to be closer to this approach. It seems that managers tend to work for long hours (Table 5.7.1) since they have more responsibilities and should be the example for the rest employees (Feldman, 2002).

All the employees have common understanding on what actions should be performed to improve their efficiency which makes sense since they operate in the same working environment and in the same project. It is interesting that managers recognize the significance of time management in higher degree than the engineers.

Figure 5.7.1: What is needed for improved employee efficiency

5.8 Analysis per educational background and working hours

As it was expected the majority of the employees, in all groups, indicate that the way work is organized might improve the employee efficiency. However there are some employees, mainly with PhD, that recognize the importance of easy collaboration and the knowledge sharing between employees as a way to accomplish their tasks and save valuable time.

Apparently there is a weak correlation (Table 5.8.1) between the educational level and what is needed to achieve the expected outcomes. As the educational level increases the need for both smart and
hard work is increased as well. The ANOVA showed that the perception on how to accomplish successfully their tasks depends on the educational level of the employees. In order to verify that the ANOVA’s result is correct, due to small sample, the author performed t-tests between all the groups. Another observation is that while the educational level increases, the employees become more hard workers by means of working for long hours. Additionally it is interesting the fact that each category characterizes itself differently. Employees with BSc characterize themselves as hard workers while only half of them work overtime. Participants with MSc seem to be smart workers even if most of them work for long hours. And finally employees with PhD are considered as both smart and hard workers while the majority of them work overtime. This trend can be explained by the fact that employees with PhD are younger, have less working experience and less confidence to their judgement, and now they are building their carrier, so it make sense to work more hours. Another interesting observation is that employees of different educational background have different opinions about what is necessary to increase their productivity. It seems that people with PhD recognize the need to delegate the work to the proper person and not spend time to tasks that are not under their expertise.

![What is needed to become smart worker](Figure 5.8.1: Needed actions for improved efficiency)

The author performed ANOVA even if the correlation was very weak however the p-value was greater than the significance level, which means that there is not enough evidence to reject the null hypothesis (all the groups have almost equal means). Indeed the sample is not big enough to make safe
conclusions since only 9% of the sample has PhD.

The analysis using groups of people that work different number of hours, have demonstrated similar behavior (the results were the same as in the previous paragraph), except the one with the biggest amount of working time. However this group had only two participants and we cannot export any safe conclusion. Interestingly enough, there are some people who believe that by making good decisions or through the collaboration can increase their efficiency. It seems that is necessary for employees to have the right directions from the management in order to make the right decisions at the right time.

6: Discussion of findings

In the previous parts the author attempted to identify mainly how the employees can be assisted in order to increase their efficiency, by identifying their needs. What people mean with the term “smart work” and if only by working smart employees can increase their efficiency nowadays. The following paragraphs will give a description of the working smart approach and the tools that will help employees to work more efficiently.

It is very common for the same task people might give different effort estimation and completion time even if they have the same educational background and operate in similar environment (McGovern, 2010). It seems that some people are more efficient than others. Employees might work smart and complete their tasks in less time than others producing more output with the same effort. Besides, employees and managers are often inefficient just because they either do not know how to be efficient or do not have the necessary tools to perform their tasks with less effort (Sirichoti, 2013).

6.1 Working smart, is it enough?

But what means to work smart? According to the research’s findings, as smart work can be considered the way to organize work to save time for other tasks. It is a matter of better time management. On the other hand, the literature implies that smart work is the way to achieve high outcomes with less effort. All those techniques assist employees to become more efficient (CIPD, 2008). It’s the way to
organize work in a better mode, make good decisions, proper prioritization, effective cooperation, do not hesitate to ask for help and delegate when it is needed, being agile and adaptable. In general the smart worker has adopted all those techniques that will help him to accomplish his tasks saving time for other tasks.

Both the globalization and the financial crisis, influenced in a high degree the working life of the employees. The work is intensified, jobs are insecure, the ability of free movement and the available highly educated labor in the global market forced employees to become more competitive (Kazi, 2011). Therefore every employee that wants to succeed and achieve his goals, should modify his personal strategy and include those techniques that will differentiate himself. But is it enough for the individual, nowadays, just to work smart to increase his efficiency? Nowadays, the work is intensified due to workforce reductions, the workload is increased and employees are forced to work both smart and hard in order to accomplish much more tasks, ideally in the same time. Therefore the participants indicate that by working smart their efficiency will be increased but if someone wants to be competitive he has to work hard as well. According to Moroney (2013), both are needed. Work smart to save time and work hard to make even more time to accomplish much more tasks.

6.2 How the employees can be assisted to increase their efficiency?

So what is necessary in order to become smart worker? The author has analyzed the received data from six different perspectives in order to create a framework that will be used by individuals to increase their efficiency and organizations, to design their actions depending on each group of employees and their needs. It is more than obvious that training is the most significant tool in order to adopt the approach of smart work. Each organization should promote personal development since this way employees can assess their skills and knowledge and set goals, in a regular basis, to maximize their potential. For this reason a training process should be implemented.

The performed analysis indicated that most of the employees recognized the need for better time management. By attending in related trainings, internal or external, employees can learn those
time-saving techniques that will help them to organize and plan their work in a more efficient way. External trainings might be provided for specific target groups, for example in the previous part the author has identified, that a group of people recognized that through the usage of up-to-date tools will increase their efficiency. This demand might be fulfilled by both incorporating state-of-the-art tools and in parallel, train the employees, through external trainings, on how to use them in the most efficient way. Another important tool is the internal trainings, which is a good way to promote the knowledge sharing process, also proved to be very important. Additionally the job rotation might be a good technique since the best way to learn something is by training on the job. As the employee becomes more experienced, identifies more easily possible side effects of his decisions and becomes “smarter”, makes smart choices, takes good decisions (Khan, 2016). Besides, the training and development activities in which employees participated, brings new potentials of employees in performing tasks more and makes them more effective and efficient (Asfaw et. al, 2015).

Organizations and individuals should take advantage of technology and use all the available tools that were designed especially for this purpose, to improve the employee efficiency and thus also the labor productivity. The communication becomes immediate through the several platforms, which apart from communication provide the ability to share screens, exchange files, make group chats, etc., and make cooperation more effective. According to McGorvern (2010), the organizations that enable their employees to find, quickly and easily, the right people, will have a major competitive advantage. Moreover, technology provides tools, commercial or not, to automate some processes, simplify the work and helps employees to organize their work more efficiently. By making easier and faster the way employees do their work, their efficiency is increased, they feel satisfied and become more productive (McGovern, 2010). In general technology is the best partner.

Additionally, the workplace culture should be changed and promote the smart working approach. The performance criteria might be reevaluated and modified in order to follow this approach, and not count the employees performance with hard work terms. The management should adopt a democratic leadership style and give the employees the freedom to make decisions when it is necessary, have clear
directions to prioritize properly their tasks and promote the effective cooperation and the idea of knowledge sharing (Umaru et al, 2014).

A competence database might be useful in order to delegate properly the tasks to the employees with the appropriate expertise, resulting in the accomplishment of the tasks or project in less time. It seems that only the employees with large working experience, recognize the importance of the delegation. The organization should promote the delegation when it is needed. Time will be saved when problems address the right person (Kontic et al., 2009). Moreover, it is very important for each organization to have a clear picture of the employee competencies in order to perform the proper actions, make the appropriate project planning, design a training framework, curriculums depending on the group he/her belongs to, achieve the desired level of knowledge and be ahead of the competition.

Finally, the working environment is very significant, should be smart and able to improve the employees’ daily work, create and maintain relationships between them, increase their motivation, boost the effective cooperation between individuals, offer work-life balance and help them to develop their skills in the most appropriate way.

7: Conclusions, Limitations – Recommendations for further research

The last years we face a global financial crisis with many consequences for both employees and organizations. Businesses experience bankruptcy, unemployment has increased, wages are suppressed and in general the working conditions became worse. At the same time globalization has imposed intensive competition, due to the free market, for both organizations and individuals. The organizations struggle to survive and the only way to achieve this objective is by increasing their productivity (Kazi, 2011). On this direction, human resources departments are trying to find the proper way to increase the employee efficiency. Besides, it is well known that for the same task people with same educational background need more time than others to accomplish it.

Due to the free labor market, a big highly educated workforce is available, and in parallel the organizations demand people to perform effectively and in smart way, creating more pressure to their
employees. This study makes an attempt to give the definition of smart work, examine whether it is enough to work smart or not in order to achieve better results and identifies the tools that will drive employees to higher efficiency levels.

For the purpose of this study a questionnaire was distributed to the employees of a large organization in the ICT industry operating in the private sector. The data were collected from employees that were working in the same working environment, the same project but in different job positions and countries. Participants were called to report their thoughts on what is the smart or hard work, what is needed today and how they can achieve higher productivity levels.

7.1 Conclusion

Everybody agrees that nowadays, more than ever, employees have to work smart in order to be competitive and increase their efficiency. But what actually is “smart work”? It is not easy to give a clear and straight definition. It is the combination of many things, all those strategies that individuals can adopt in order to differ from the others. It’s the way to organize the work in a better mode, saving time for other tasks, make good decisions, prioritize properly, increase cooperation, do not hesitate to ask for help and delegate when it is needed. According to Dillard (2012), smart work is “an approach to organize the work that aims to drive greater efficiency and effectiveness in achieving job outcomes through the combination of flexibility, autonomy and collaboration, in parallel with optimizing tools and working environments for employees”.

Many organizations reduced their workforce in order to suppress their operating costs and as a consequence the remaining employees have undertaken new responsibilities and their work load has been increased. It is unavoidable that in such periods employees are expected to work hard. But in such times that nobody has extra time and everybody needs time for his personal life, only through working smart employees can maintain their work-life balance. Consequently both are needed. Actually, hard work is the building block of smart work. Hard work is required to master your basics so that you can work smart (Khan, 2015). Work smart to organize better the work and save time and then work hard to gain more
time and complete bigger part of work. According to Moroney (2013), by working hard employees have the desired results but by working both hard and smart they will achieve the best results.

Everybody knows how to work hard, actually most of the employees are working hard today. But what is it necessary to work smart? In the previous part, the author described a framework that will aim individuals and organizations to improve their efficiency. The workplace culture is very important towards this direction. The performance criteria should be modified accordingly to follow the approach of working smart, the leadership style should be more democratic and the managers should empower employees to take decisions (reduce the bureaucracy) when it is necessary without losing time.

The technology is a significant partner. Processes or tasks can be automated through the use of state-of-the-art tools, reducing the time needed for their accomplishment. Through the available training platforms the employees have access to a big amount of trainings and they can refresh their current skills and acquire new whenever they feel that is necessary.

7.2. Limitations – Suggestions for further research

There are some limitations related to this study. One first limitation comes from the sample. The questionnaire was distributed to the employees of only one organization and the number of the participants, unfortunately, was under the author’s expectations, the participants were only 111. The second limitation is referred to the time. The survey was open only for a limited time period of two months. Another limitation is that data were collected by employees of one organization that worked under the same project. They are operating in the same working environment, management and have almost the same experiences.

Finally, further research could be done in a wider scale. The sample could be larger including participants operating in different organizations. Moreover the research could be applied in more industries and have cross-industrial results. The sample could be examined in more parameters by adding more questions related to the quality of the produced work, the allocation of the resources, income level, etc. The culture characteristics could be also taken into consideration in order to identify whether culture
influences the way people operate, how they define smart and hard work and what might increase their efficiency. At last, case studies and personal interviews could be conducted and provide useful information and more validated outcome.

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