Behavioral Efficiency: An Emerging Term in Management Sciences

Memoona Shaheen¹ and Abdul Salam Lodhi²

Abstract:

Efficiency plays a crucial role to achieve and maintain a competitive edge in complex, challenging and rapidly changing business environment. A number of research articles have been presented to find the efficiency measurement related to the given input with respect to the output but the intension of humans related with the efficiency have always been ignored. Satisfaction of the human is directly linked with the efficiency of the behaviour. The purpose of this paper is to propose a definition of the behavioural efficiency by the help of literature. This study links the great work of researchers together to understand the impact of satisfaction of employee on the efficiency of human resource related with the behaviour which is also known soft side of the efficiency. Findings suggest that the efficiency term is embedded by the operational and behavioural factors. The operational factors are input (tangible) where behavioural factors are skills and satisfaction of human resource with their working conditions and environment of workplace (intangible) to produce the output. The results from this study will consent a reappraisal of the contending theories of management. Therefore, it is anticipated that this project would generate a great deal of interest, not only among researcher, but also among the general public and will open new doors to study and explore the current subject of knowledge.

Key words: efficiency, satisfaction, behavior

JEL Classification: M10, M19

1. Introduction:

Efficiency plays a crucial role in management to achieve and maintain a competitive edge in complex, challenging and rapidly changing business environment [Ireland &Hitt (2013)]. Many leading enterprises recognize the efficiency as a mean that provides an approach for companies to analyze, optimize and where possible provide solutions for their problems related to effective utilization of resources. Hence, effective organizational work can be certain on the basis of everlasting dynamic adaptation of aims and intents, use of appropriate professional concept and work behavior [Potocan & Mulej (2008)], however, an organization needs to

¹ MS Scholar, Faculty of Management Sciences, BUITEMS, Quetta. Email:breeky.gold@gmail.com

² Associate Professor, Faculty of Management Sciences, BUITEMS, Quetta. Email:-salam@buitms.edu.pk

become more cost conscious and result oriented [Woolliams & Trompenaars (2013)]. Furthermore, they stated that, the forthcoming strength of an organization depends on the five major units facing by any organization: the people, processes, shareholders, clients, efficiency of business and society also known as components of the organization.

Among the above five entities; several studies related to the efficiency have been performed in the past. Several of them were related to the calculation of the efficiency by different variables. The conventional management emphasizes on the efficiency; that is a reduction of costs and improved quality [Becker & Gerhart (1996)]. In the present era, one of the biggest concerns for any organization is to expand their efficiency and becoming additional effective by refining the performance, however, deprived of accumulative costs [Stajkovic & Luthans (1998)]. This impression represents, the business profitability can be determined by the efficient and effective conversion of resources into marketable products [Wilcox *et.al.*(2000)]. Subsequently, extensive effort has been focused to understand the efficiency concept with changed approaches taken by the investigators, resulting in an extensive variety of the efficiency's definitions [Modis (1985), Porter (1985) and Potocan (2005)].

Enhanced results related to the efficiency depend on the characteristics of work and the individual that are going to perform the work in the workplace. The efficiency of an employee is quantity essentially by the productivity that an individual produces and its output, while the productivity can be affected by many components such as the objectives of the organization, technology, employees, the physical environment and its effect on the employees' efficiency [Hameed & Amjad (2009)].

Better efficiency can be achieved if there is better knowledge of the operations of the business and behaviour of the employees [Potocan (2006)] and those factors that affect the behaviour of an employee in workplace that one has the ability to produce the anticipated outcomes [Stajkovic & Luthans (1998)]. Additionally, Potocan (2006) shows that, it is challenging to identify other factors related to the efficiency, such as the employee's behaviour to perform these operations related to the efficiency. The behaviour of employees in the workplace can be determined by many factors, including the compensation, technology, organizational structure and organizational culture. At present, there are no commonly recognized principles to measure the consensus on the behavioural efficiency of employees in the field of management.

Hence, achieving better efficiency for cost reduction and quality improvement of the operation requires detail studies of the employee's behaviour to perform operations. Meanwhile, various employees have different behaviour that affects their performance toward the efficiency in the organization. Similarly, Drucker (1954) argues that a special quality possess by the human resource is: the capability to exploit and utilize itself. So, the human resource has an entire control over his behaviour whether, he works at all [cited in Baird (1988)].

Productivity helps to understand the concept of efficiency at a broad level. Leblebici (2012) defined productivity as a ratio to measure organizational performance by conversation of input resources (materials, labour and machines, etc.) into goods and services, while efficiency is a part of the whole productivity. Wilcox *et.al.* (2000) supported it by the help of a formula that is productivity is equivalent to the product of the effectiveness and efficiency. This formula provides the base for further study of the two variables; first effectiveness which is related with external environment use to appraise significances caused by the system in the environment at broad level i.e. assessment of social goals and aims of the organization while the instant term used in this formula is efficiency which defines narrowly is concern with internal context of organization [Potocan (2005)].

This paper highlights the importance of behavioural efficiency in the management. Despite the growing acceptance of the topic, however, some researchers have raised questions about the measurement of the employee efficiency in an organization [Potocan (2006)].

Problem Statement:

The behavioral efficiency is not a new concept. However, its meaning, scope, objective and link have not really been settled. The behavioral efficiency is needed when there is a clear revelation of a desired future state and dissatisfaction within and among employee's high. Further, there is need to understand and integrate the theoretical model of the behavioural efficiency and its dimensions because of the parallel practices and principles.

Knowledge Gap:

After the review of literature, one can able to identify the gap of knowledge. The previous literature shows that there is lack concusses a common understanding of the efficiency of behaviour of employees in theory or approach. The previous studies focused only in operational efficiency [Levy (2011)] where physical resources are

involved, however, there is a lack of analysis on the behavioural contribution of employees to increase efficiency, also mentioned by Protocan (2006), which further help in the development of an organization. This article would try to explore the meaning of the behavioural efficiency of human resources.

Theme of study:

Basically, management function includes utilization of organizational or personal resources efficiently and effectively in order to discharge its function properly [Griffin (2011)]. The human resource efficiency, however, is one of the most recent essential topics that have been referred in the management literatures. This study theoretically examines behavioral efficiency of employees by inquiring this new term and how this action can be a means to increase the development of an organization.

This study presents the content that employee's behavioural. The determination of this study is, proposed a definition of the behavioural efficiency of employees on the basis of literature. It then identifies variables that explain employee's behavioral efficiency in term of satisfaction. Yet considerable empirical and theoretical work on the employee's behaviour in an organization creates an impression that organizations' failure cause of employee inefficiency [Williamson (1975)].

The departmental efficiency included programmatic efficiency, administrative efficiency; marketing efficiency and research and development efficiency are the keys for further research that can help in the enhancement and the development of organization. This contribution discusses: 1) detail understanding of the behavioral efficiency of employees, 2) proposed a definition of the behavioural efficiency of human resource on the basis of literature and explore that the accurately managed efficiency will help in the development of organization.

Research Objectives:

The efficiency is the mixed concept of soft and hard side of management. The efficiency of hard side (operations) is given in detail in literature, however, the efficiency of soft side (behaviours of employees) that can be measured with the satisfaction of employees with their working conditions and environment of the workplace. The hard side of the efficiency, also known as objective efficiency, which can be measured with set of standards. While, the soft side of the efficiency known as subjective efficiency that is not measurable with set of standards. The soft side of the efficiency is related to the behaviours of employees in detail, we can say when employees will be satisfied with their working conditions and environment,

and they can perform efficiently. Moreover, the efficiency will be completed when there are resources, furthermore, the employees found highly satisfied to convert these resources into product or services. Therefore, the specific objective of this study is to propose a definition of the behavioural efficiency of employees on the basis of literature

Research question:

What is the behavioural efficiency of employees in workplace?

Theory for the study:

This study is supported by content theory with the help of Herzberg's (1968) theory. The explanation for the theory is "the efficiency is not only matter of production (how much produce by the employees in certain time) but also the matter of satisfaction (if employee will be satisfied, he would be able to produce as much as expected by the organization). This satisfaction is specifically intrinsic factor of behaviour related with working conditions".

The satisfaction having factors that motivated employees; made them excited about their job and dissatisfaction were factors that made people feel bad about their job. This model recognizes two aspects of motivator factors and hygiene factors that affected a person's performance. The hygiene factors are features of the work environment or work context; policies, wages, benefits, working conditions, etc.

Significance of study:

Research gap identified in literature, no study has been done to describe the human resource efficiency. The results from this study will consent a reappraisal of the contending theories of management. Finding of the study will see the relationship of human resource efficiency and the development of organization. By the understanding of employee's behavioural efficiency, organizations will achieve best outcomes for future. This study will contribute theoretically and practically by presenting some new empirically-based work on the efficiency of behaviours of employees. The satisfaction of employees will increase their efficiency and this practice will help in development of organization. Therefore, it is anticipated that this study would generate an excessive interest, not only among researchers, but also among the general public.

2. Literature Review:

The term efficiency has been generally used within the organization and management sciences but the meaning and use of efficiency term has not been consistent. From a survey of the literature, these definitions are captured about various impressions of efficiency. The review committee of the Auditor General of Canada (1975) defined the concept efficiency as the relationship between outcome resources (good and services) produced and resources consumed to produce them. While performance standard express as a percentage the maximum output produced by given set of resource input is called efficient operation and the output/input differ from one organization to another and from one industry to another. The review committee of Auditor General of Canada (1981) has also defined about the efficiency as it is the association of a performance standard with output/input (productivity).

Kajzer (2004) provided different view about the efficiency as, it is common practice to quantity the investments (or financed determinations) for the accomplishment of organization's goals [as cited by Belak & Duh (2012)]. At the same time, Burnes (2004) differentiated the efficiency with effectiveness by the help of definition; the efficiency shows the level of different objectives accomplishment within the inadequate obtainable resources; while effectiveness defines the level of the abilities of the organization to accomplish the future goals. Thus, it comprises capability and efficiency of adjustment to upcoming environments. Similarly, the efficiency is defined by Potocan (2006) based on operations is; effectively use the obtainable resources (potential and given) for the formation of its outcomes and to accomplish results fulfilling the needs. Levy (2011) added in Potocan's definition by saying this; the efficiency is a characteristic because all contributed resources (raw materials, money and time) are scarce and inadequate. It is important to sustain these resources whereas by maintenance of a suitable level of productivity. Reducing the amount of wasted inputs is known as being efficient and "productive efficiency", to achieve lowest manufacturing and distribution costs.

According to Webster's new world dictionary (2014), efficiency is defined as a ratio of useful work output divided by input to expended energy in manufacturing it as a machine." A definition by Taman (2005) also highlights the importance of efficiency by stating that; the efficiency is compelled predominantly to define whether the organization is utilizing and managing its resources (space, property, Human resource and fund) to produce as much outcomes as conceivable or to achieve the planned products as low cost as possible. Furthermore, Yampolskiy (2012) describes the efficiency in broad and general way as, the word efficiency is an effective symbolic encoding or as an effective computation in the field of social science and it is also a degree to which resources such as space energy and time are sound consumed for the planned task or purpose. Beside this, Aoki (2001) proposed work efficiency at micro level by comparison physical ratio.

Hiranto (1982) has distinguished the private sector and the public-sector efficiency and described that the private sector efficiency can be quantify by the formula of ratio (outputs / inputs), this extent is not suitable for public sector. The outcomes of public sector are actually challenging, but not impossible to quantify the educational program or social welfare. Moreover, he proposed that the human satisfaction and benefits produced also include in measurement of public sector efficiency. In additional words, outputs / inputs plus satisfaction is equal to the public-sector efficiency. He summarized the efficiency as, it is used to link the relationship between resources used to produce the output and goods or services produced, outputs divided by inputs. The term is also used to measure the productivity and the ratio of outputs / inputs plus satisfaction.

Schick (2006) identified that, the efficiency has contained both qualitative and quantitative features that comprise the cost and volume of services, error rates and response times, the convenience of services and the consideration of employee, which they are delivered and satisfaction of citizen/customer with services.

Technical definition of efficiency: Haimann*et.al.* (1978) contend that," Sets of points in the production function that maximizes output given input (labour) is known as the efficiency, and proposed the efficiency equation = outputs / inputs as a practice of technical understanding. The common form of this equation is articulated as Efficiency = output / input. The determination of technical rationality is to enhance efficiency by changing the ratio of output and input. It is important to measure the performance of management that is revealed in economic standards, such as prices, costs, profits, and strategic status in market.

Economic definition: Economic definition presented by Taylor (1923) and his associates in scientific management refers as the ratio of outputs to input or simply getting the most output from the least amount of given resources. Important implications of economic efficiency are a single wage property of equilibrium and the value of marginal product of labor equal to the wage. High Income is one factor that uses to increase satisfaction of employee and produce highly efficient worker because they are facilitated by capital [Edward & Lambert (2007)].

Memoona Shaheen and Abdul Salam Lodhi

Efficiency (%) = (Output/Input) * 100%

Organizational Efficiency: Daft (2003) found that, the ratio of outputs (product or service) to inputs (land, capital or labor) represents the efficiency, where input deals with the scarce inputs resources such as equipment people and money. Commonly, the efficiency is the amount of resources consume per unit of result; the level at which an organization achieves its goals is known as effectiveness.

Market efficiency: A logical definition presented by Fama (1970) about market efficiency is comprises as: price of assets in financial markets completely reveal the accessible information. While other researchers describe efficiency of the market as "consequences where prices completely describe efficiency of the market all accessible information" [Lo (2004)].

By the help of these definition, this study can develop a link as human as set considered being the most valuable resource of an organization (Patterson *et.al.*, 1998) and taking dominant focus of management research [Marciano (1995)]. The role of human resources can be crucial [Becker & Gerhart (1996)] while the concept of efficiency is useless without the human resources because manpower utilizes other resources and gives output in order to get the efficient and effective result from human resource [Hafiza*et.al.*(2011)].

Balk (1975) linked the efficiency with the productivity and said that, productivity is the product of efficiency and effectiveness which can be stated by the help of formula; Output/input. Sutermeister (1976) further highlighted that employee's performance is most important factor for efficient outcomes. Furthermore, he concludes that the human is the most significant production factor of all the organization. The better productivity depends on the eminence of human resource as a main invention element. Moreover, human resource relies on cognitive intellect with the monitoring psychological structure. Other production factors such as raw materials, machinery etc. are constant factors with perimeter capabilities and unable to increase their competency [Khan (1990)].

The concept of this study basically arises from Taylor's (1923) work. He designed the definition of efficiency as; the way of doing work by increase the incentives of those workers who met the target level [cited by Griffin (2011)]. It results as high quality and quantity and improved efficiency of operations. Later in nineteen centuries, a need was found to improve labour efficiency [Griffin (2011)]. This need led to the development of the scientific management where experts of management

Taylor, Breth, Gantt and Emerson, 1918-1944 began to work for this purpose and put their efforts in the field of management [cited by Griffin (2011)]. Although, it is a broad term, however these experts defined efficiency in a bounded way in the field of management. By understanding of the literate meaning of efficiency, organizations can be more proactive to increase capabilities of human resource by using best practices of human resource.

Afterward authors [Amin & Johirul (2013), Kavanagh & Thite (2009), Lawler *et.al.* (2008) and Schermerhorn (2004)] used the term efficiency subsequently and linked it with the organizational performance. Amin and Johirul (2013) supported this view as, how well a company uses its assets referred as efficiency of the organization. Similarly, Schermerhorn (2004) added in this definition as profit maximization of the organizational efficiency grounded on capital attained through equity and debt while efficiency of human resource management is a question. Additionally, Lawler *et.al.* (2008) used the term efficiency in their study to determine the productivity of organization.

For measurement of efficiency, Becker and Huselid (2006), Kavanagh and Thite (2009) linked HRM and organizational performance. Daft (2006) focuses on the quantity ratio of the resources for output; efficiency presents achievement of the organizational goals within the limited available resources. Hasan and Tibbits (2000) also stated that the efficiency helps to compare the actual performance with the produce performance at the given level of resources. Correspondingly, Rosen (1993) measure the efficiency by size of production in given period of time. Similarly, Kelly (1988) also considered efficiency as the high level of excellence quality product with its resources. Governmental administrative agencies and their subunits focused in public sector productivity. According to Charnes *et.al.* (1994), there is no difference between efficiency and productivity (uses proportion of outputs and inputs as an amount of productivity or efficiency).

Griffin (2011) suggested that, there are two characteristics of efficiency; one is related with quantity of work and second is quality of work. Quality of work improves by the employee's intrinsic satisfaction. More specifically this view also supported by Potocan (2006) that the human resource management efficiency classifies as the operation efficiency how much an employee contributes in output of organization (tangible contribution) and behavioural efficiency of human resource management: how much employee produce as he/she is internally satisfying with organizational requirement.

Potocan (2006) also suggested that, the simple definition of efficiency exits in literature is the association among the quantities of resources used to acquiring per unit output. Generally, productivity and efficiency are the same terms that describe how effectively resources have been utilized. Similarly, Becker and Huselid (2006) investigation shows, the human resource management efficiency has two aspects; one is the soft side of the efficiency and second is hard side of the efficiency. The soft side of the efficiency is in form behavioural satisfaction of employee by their work and organization, where the hard side of efficiency can be measured by operational output of organization and production level produced by its employees.

Kavanagh and Thite (2009) highlighted that; efficiency is the value for HR strategies and can be determined by well-defined operations within organization. Organization develops connection between employee satisfaction and human capital [Lawler *et.al.*(2008)] instead of the operating efficiency of organization. This explanation belongs to the soft side or intangible side of the efficiency while HRM functions are mainly soft side of management. Vroom (1964) further clarified the HR functions is related with behaviour and behaviour is an ability to do work. Employee's behavioural efficiency is more valuable to the organization. Cohen and Friedlander (1980) criticize the Vroom's (1964) definition by stated that, there are two ways of employee's behaviour. One is behaviour about the work and another is attitudes about themselves.

Additionally, Lgen and Klein (1988) describes that, the behaviour is results from someone ability to perform task. Bakke (1958) criticized and said, the objective of the human resource function is not personal satisfactions but productive work and the maximum opportunity for all the company's people to utilize to the fullest possible extent all the skills they have relevant to making that work more productive. Collins (2007) added by concluding that, Satisfaction is vital for employee's behaviour, well-being and organizational effectiveness concern with his work in an organization. Similarly, some interesting findings have been reported by Schneider *et.al.* (1998), such as, the work itself is the factor that associates greatest with overall satisfaction of employees. While Tack and Patitu (1992) relates satisfaction with productivity and argue that the satisfaction with any source helps to increase in productivity and quality work.

Barnard (1970) focused on the behaviour and concluded that; setting personal satisfaction of related parties leads to the efficiency [cited by Dyne *et.al.* (1994)]. Chauhan*et.al.* (2005) further added in Barnard's (1970) study by stated that, management model focuses on behaviours and work satisfaction which leads to the

increasing effectiveness and efficiency. Armstrong (2012) also concurs; by examining the relationship between attitudes and feelings with satisfaction of the work of employees. Findings suggest that the positive and favourable attitudes towards the work indicate the satisfaction of work.

Kennerly (1989) explored the relationship among behaviors, organizational features and employee satisfaction, he found that the organizational behaviour included mutual trust, and respect. Furthermore, a unique study also accomplished by Schneider *et.al.*(1998) to investigate the association of employees' perceptions and organizational outcomes. The authors find a positive relationship among attitudes, employee satisfaction and organizational performance. Furthermore, Pathik and Pestonjee (1997) stated that the people give more importance to those organizations from where they get psychological satisfaction and their level of interest to work also increases. Ostroff (1992) also found that an organization with dissatisfied employees is less effective as compare to an organization with more satisfied employees.

Sutermeister (1976) explained that, an employee's attitude and personality, ability, skills, education, knowledge, experience, training and interest to perform the work have an impact on the efficiency. Memon*et.al.* (2010) highlighted the importance of satisfaction and stated that when employees are satisfied with their organizations, they tend to increase their efficiency. Peretomode (1991) and Whawo (1993) also explained the satisfaction by stated that, satisfaction is one's feelings or state of mind, while, intrinsic factor and satisfaction (it is the one's mental state or state of concentration) are interrelated. A research report of Carmeli *et.al.* (2006) was likewise focused on behaviour of the employees and satisfaction relationship and supposed that the employees apply their skills, abilities, freedom, embody a diversity of tasks, and performance feedback to makes work mentally challenge. A suitable level of challenge will reason feelings of pleasure and satisfaction.

Harter *et.al.* (2002) conducted a study to examine the individual's satisfaction thoughts and employee commitment with the discussing variables (individual's contribution and interest for work) and found positive relationships among employee turnover, employee satisfaction-engagement and output of productivity and profit. It was declared by Harter *et.al.* (2002) that accumulated measures of employee engagement and employee satisfaction are related to business output of the organization.

Velnampy (2008) also found that advanced performance specifies the people more satisfied and dedicated. So, attitudes such as involvement and satisfaction are essential for the employees to obtain high level of performance. Therefore, one can say that, attitudes namely involvement and satisfaction, and performance are expressively interrelated. Correspondingly, Nobile (2003) reported, the satisfaction as the degree to which an employee has favorable or positive approaches about work or its environment. Satisfaction and behaviour leads to the high efficiency, Bachman (1968) supported it. Furthermore, he stated that, the influence of personal abilities such as respect and expertise are expressively associated to the satisfaction whereas the work activity itself can partially responsible for explanation of its satisfaction.

Moreover, Potocan (2006) briefly interpreted in his work that the organizational development purely depends on accomplishment of essential efficiency of operations and behaviour. In this definition author identified two important aspects of efficiency, firstly efficiency of operations and secondly efficiency of behaviours. There is significant difference between these two concepts, efficiency of behaviour and efficiency of operations have been found within the organization and management sciences [Claude (1952) and Schermerhorn (2004)].

3. The Behavioural Efficiency

The histories of employees have been occasionally discussed by many authors, for example; Ling (1965), Baron and Dobbin (1986) and Jennings (1986) are very well known who briefly defined employees in an organization (as cited by Marciano, 1995). Moreover Drucker (1954) stated three managerial functions at broad level: managing the business, managing workers and work, and managing other managers. In the era of 1950s and 1960s, there was need for improvements in Britain's labour productivity and the efficiency through manpower planning techniques. Growth tends to personnel function management by development of HRM function [cited in Hasan&Tibbits (2000)].

From the 1960s, training and management development became manifest function [Marciano (1995)].McGregor (1960) and Likert (1961) further suggested that the knowledge and experience of employee have great worth to the organization.The full use of their resources, and worker participation can lead to self-control and better decisions, which in turn increases worker satisfaction and productivity. According to Pigors *et.al.* (1964), all individuals within the organization are valuable resources and strive to emphasize that the management of people is central to management. By the 1970s and so on HRM has significant importance in the field of management and business [Hasan & Tibbits (2000)]. Peters and Water (1982),

stated about the individuals; it is an organization's asset and central source of competitive advantages it should no longer be treated as a cost for the organization [Santos (1992)].

With the increasing competition in business world every organization develops new approaches to gain competitive advantage by the higher efficiency of employee's behaviour with the purpose of; to beat the competition domestically and internationally. All those firms which are seeking to gain competitive advantage suggest that the efficiency can be increased by systematic merger of human resource practices with development of organization. Therefore, the need for new models of the efficiency for the organization has been found exceedingly.

The word efficiency originated in 1630 means "power to accomplish something". In 1858 expended the definition as "ratio of valuable work done to energy consumed" (dictionary, 2014). Potocan (2005) mentioned that the organizational efficiency mainly focuses on the internal work of the organization. Hasan and Tibbits (2000) added that, the efficiency should measure separately; (i) internal process measure by the efficiency while external environment (customer and business value) is not the part of efficiency.

The efficiency of human resource is possessing capabilities of innovative and creative shared value, talent of employees, speed and flow of work in organization and customer interaction [Becker & Gerhart (1996)]. In addition, the development of organization depends on the achievement of requisite efficiency of behaviours [Brittan (1997), Korten (1998) and Magretta (2000)]. Potocan (2006) linked the development of organization with requisite efficiency of organization and the efficiency of employees and the development of organization are interrelated.

3.1 Proposed definition of behavioural efficiency based on literature:

Comprehensively we can say that management is the set of actions that focuses at organizational resources with the aim of accomplishing organizational goal in an effective and efficient manner [Griffin (2011)]. Further Griffin (2011) defines efficiency as: utilization of resources intelligently in a cost-effective way by increase quality and reduction of cost. This definition exposed that efficiency is very important and it is an internal work of the organizational resources play significant role in organizational improvement. While employee is not only important factor in its contribution however, manpower is the most significant factor and has the highest

Memoona Shaheen and Abdul Salam Lodhi

priority out of entire factors of production. It plays a central role in areas of quality and productivity [Ojo (2012) and Haslinda (2009)].

An organization comprises of the large number of people at work of different age, gender, educational or literacy standards, and socio-religious group. Individuals are not only differing in their presence/ appearance but also in their abilities and capabilities based on their demographics, training and experience [Bontis & Serenko (2007)]. These individuals exhibit similar or non-similar behaviour patterns. It is critical and difficult to predict the behaviour of employees at workplace and in the production. Employee's behaviour varies not only from one individual to other but frequently on the part of same individual at different points of time.

Previous literature shows that efficiency can be divided in two parts. One is efficiency of operations (achieved by efficient operation using tangible resources of organization also known as objective efficiency) and second is soft side of efficiency known as behaviour of employee to perform these operations also called subjective efficiency [Burnes (2004), Claude (1952), Cole (2004), Draft (2000), Magretta (2000) and Schermerhorn (2004)]. It is proposed that "the efficiency of behaviour can achieve only, when the employee will be satisfy with internal working conditions of workplace (in other words they are willing to perform the operations)". It is also shown by the help of literature, there are number of factors which have great influence on the behaviour of employees, some of these factors motivate the behaviour of employee to put their efforts for the achievement of organizational objectives.

3.2 Determinants of the behavioural efficiency:

3.2.1 Compensation:

Compensation is the major factor to increases the performance [Gerhart*et.al.*(1996)]. Hameed *et.al.* (2014) found that, mostly employees believe on their abilities and expect that the work efficiency impact on their compensation. Gerhart *et.al.* (1996) also stated that, compensation increase the productivity, performance, satisfaction, quantity and quality of work. There are many factors of compensation have emphasized on qualities and efficiency of performance [Hameed*et.al.*(2014)]. Compensation is also use for long term growth and employee relation in the workplace [(Hameed *et.al.*(2014)] but mostly based on the individuals' performance and the efficiency of work done by employees.

Hameed *et.al.* (2014) concluded that there is positive impact of compensation on employee performance and results also suggests that organizations need to support employees for their work, so employees will be more satisfy with the organization. Moreover, Yamoah (2013) studied the relationship and found a significant positive association between productivity and compensation in an organization. Further, Meyer and Smith (1997) observed that compensation and employee satisfaction indirectly generate profit for an organization by increase productivity of workforce. According to Meyer and Smith (1997), employee satisfaction can be improving by the compensation provided by the organization. It reduces the cost of organization by reduction in cost of turnover and attract the talented people to the organization.

Research conducted by Lawler and Jenkins (1992) have also yielded indications suggested that compensation practices most influence on an individual's behaviour within an organisation. Similarly, A basic definition of compensation is provided by Hameed*et.al.* (2014) as it is benefit or output and the that employee receive in the form of pay, wages, and also rewards to increases the Performance [Hameed*et.al.*(2014)]. It includes salary, rewards and indirect compensation.

To improve the productivity, Bandiera *et.al.*, (2007) also linked employee performance with compensation. Jacques and Roussel (1999) examined compensation with workers performance by creating the output through compensation and found positive relation between compensation and employee performance in workplace. The outcome or productivity of an organization be influenced by the satisfaction level of its employees and also, on the compensation of employees provided by the organization [McCollum (2001)]. Odden and Kelley (2002) illustrious that the satisfaction of each employee's personal needs is challenge for every organization and every manager.

An assessment of compensation has been done by Perry (1997) to investigate its value, and its impact on the productivity. She (Perry, 1997) highlighted the importance of compensation, as it is central objective of human resource management and has attracted considerable attention over recent years. There are several factors influencing the employees but effect of compensation is very strong in some organizations [Stajkovic&Luthans (1998)].Richardson (1999) explained the link between compensation and employee performance in an organization and also specified that the highest motivational results can be attained when rewards are immediate, frequent, significant value to the employee related to an individual contribution. Furthermore, he concluded that compensation is a highly representative

than real appreciation and recognition of the effort required to achieve new skill and effort required for high levels of performance.

3.2.2 Technology:

Technology is a vital organ within an organization [Rorissa (2012)] and helps to meet the organizational requirement by necessary resources, minimize the time duration for completion of task and increase the level of satisfaction of employees. Moreover, technology is useless without the effort of employees [Griffin (2011)] people use technology in an organization to increase the accuracy, speed and diligence of work. [Gagnon & Dragon (1998)]. The evidence also provided by Dumitru (2010) and found that technology has a direct impact on organization efficiency.

Technology helps to understand the functions of organization and management practices for the greater productivity [Kirkman*et.al.*(2004)] and also help to understand the behaviour of human particularly in an organization [Waber *etal.* (2008)]. It is an instrument to improve organizational performance and increase the efficiency by expending large amount of production [(Gagnon & Dragon (1998)].

Mahmood and Mann (2000) summarized the use of information technology in an organization as: the growth of personnel labour productivity, speed the communication, data processing speed, increased volume and reliability of findings, increase performance and decision making. Ryan and Harrison (2005) collected data from 50 people for the purpose of highlight the importance of Information technology, its cost as compare to decision-making powers of different industries and concluded that technology usually focused on technological and also financial elements that reduce the cost of organization.

There are two main purpose of technology in an organization. Technology use to derive the benefits from operational characteristics of an organization. Secondly use of technology help to explain the relationship between the benefits and operational characteristics in an organization, researcher has found significant and positive correlations between organizational characteristics and technology within organizations [Ragowsky*et.al.* (2000)].

Use of new information, knowledge and technologies in order to attain personal and organizational goals is the right of each individual [Roco & Bainbridge (2002)]. The measurement of the performance related to the human resources (employee's efficiency, mobilization of employees, competence of employees), economic

efficiency (productivity), stability of the organization legitimacy and acceptability of the organization (regulatory compliance, environmental responsibility and social responsibility with respect to technology also examine by Mention (2012). The use of technology increases the employee's productivity, improved the process of decision making and also enhances the performance [Dumitru (2010)]. Dumitru (2010) further suggested a model, based on four dimensions: the human resources value, the economic and financial efficiency, the continuity of the organization and the acceptability of the organization.

The technology is a factor that predicts organizational effectiveness [Thompson (1967)]. Size and speed of technology for information flow within organization and with external environment through the modern technology also impact on organizational development [Dumitru (2010)]. A research has been conducted to analyse the impact of an organizational technology on its organizational performance. With the effectively and efficiently understanding of technological capability, technology management and technological resources, a model have been developed and tested. The results indicated technology has a positive and significant impact on the performance of the organization [Pegels & Thirumurthy (1996)].

3.2.3 Organizational Structure:

All organizations consist of composition of the structure, which provide a foundation for organizational functions. Organizational structure is assumed to influence the behaviour of organizational workforce. Similarly, the behaviour of employees in an organization is influenced by the organizing structure [Hall (1994)]. An organization with certain structural properties for employees with particular personal attributes [Oldham & Hackman (1981)]. Van de Ven *et.al* (1976) emphasized the prominence of the structure both at the organizational and individual levels for the performance (morale, efficiency, and effectiveness) within an organization [Cited by Dalton *et.al.*(1980)].

Several researchers examined the characteristics and components of organizational structure and its interrelation with other variables on an organised proportional basis [e.g. Hall (1994), Blau & Schonherr (1971), Pugh *et.al.* (1969), quoted by Child (1997)]. Size, ownership, and technology are contextual determinants compulsory for certain restraints upon the choices of the structure without undesirable cost of performance [Pugh *et.al.*(1969)]. Child (1997) argued about importance of organizational structure as, the absence of organizational structure according to its context leads to the costs rise, loss of opportunities, and threatened to the

maintenance of the organization. Most often studied qualities of organizational structure are configuration (number of hierarchical levels), size, centralization and formalization [James & Jones (1974); cited in Oldham & Hackman (2009)].

As Hall (1994) proposed that organizational structure has two main functions, first, the organizational structures are designed to minimize the effect of individual's deviations on the organization and second is the designed in such manner where decisions are made, power exercised, and the organization's activities are supported by the members. Each of these likely to effect on individual's behaviour and the organizational performance.

Size and structure has been closely associated with each other [Child (1997)]. The organizational structures that have been designed to be consistent with their environments known as the most effective organizations. James and Jones (1974) quoted that "The dimness of the psychological factors prominence on micro levels by the instant workgroup's behaviour and attitudes. it presents lack of understanding of the knowledge regarding how to upgrade the levels and characteristics of organization.

Various dimensions of structure worked out by authors [Child (1997), Hall (1994) and Pugh *et.al.*(1968)]. Although they have been identified number and variety of dimensions but the most important dimensions of structure are specialization, standardization, and centralization [Child (1997), Ford & Slocum (1977), Hall (1994), Miller &Droge (1986), Pugh *et.al.*(1968); cited by Amis & Slack (1996)].

The specialization refers to the degree to which organizational tasks are broken down and allocated to different organizational segments [Slack & Hinings (1994)] measures were established: specialization of professional Staff. Standardization stated as the extent to which prescribed documentation such as policies, rules, processes, procedures, and job descriptions explain organization actions [Pugh *et.al.*(1968)] such as administrative systems, systems relating, support systems, the decision-making system, and the system of personnel and program evaluation. Centralization discusses the locus of making the decision, specifically the hierarchical levels at which decisions are made. A decision made at board level was deemed more centralized than one made at the executive director level.

Size is major determinant of structure [Amis & Slack (1996)]. Kimberly (1976) stated that structure is associated with Size and size can be measure by physical capacity (the fact that at any particular time there are constraints imposed on

organizations by their physical Size). The second measure is the volume of an organization's inputs or outputs. Third measure is available flexible resources such as organizational wealth or net assets [Yuchtman & Seashore (1967)] and the fourth measure was the number of personnel available to an organization.

3.2.4 Organizational Culture

The organizational culture is very important [Scahill (2012)] and has been related to the work behaviours of employees [Tastan (2012)]. Organizational culture and employee satisfaction with his work are interrelated because organizational culture support its employee, increase their efficiency and motivate them to perform well in organization. Importantly employee performance considered as backbone of organization as it leads to its development effectively. McLean (2009) interpreted organizational culture as potential predictor for the organizational outcomes (e.g., efficiency and effectiveness). Furthermore, cultures deal with a rapidly changing environment to supports the organization to remain stable and consistent as well as flexible and adaptable [Cameron & Quinn (1999)].

Peters and Waterman (1982) determined that to find meaning of lives is greatest need of employees, it is also very important to acknowledge the approach, by the help of valued and appreciation. The organizational culture is an essential variable of an employee's effectiveness and efficiency while performing their work [Robot Pellegrinet.al. (2011), endeavour to interpret the issue, "the entire (2013)]. collection of meaningful behaviours, that can be measurable the change is known as organizational culture [Pellegrin et.al. (2011)]. It is concluded by Robot (2013) that an organizational culture is one of the major key determinants of employees' behaviour and performance in his job. The organizational culture is most difficult of all organizational concepts to define [Hatch (1997)] it is mixture of complex and diverse factors of organization which is not easy to identifiable and not easy to understand [Westrum (2004)]. Schien (2010) added in the definition of organizational culture as: it represents the configuration of shared basic rules and assumptions, exposed or established by a particular group, therefore, to be taught to new followers as the correct way to think, feel, and perceive based on that work considered valid by previous group [Schein (1996)].

The field of management and business provided extensive literature that has examined the link between individuals' performance and organizational culture, and identified various dimensions of organizational culture related to the organizational and individuals' performance [Meyer & Allen (1991), Meyer *et.al.*(2002), Ricardo

& Jolly (1997), Lau & Idris (2001), Zain *et.al.*(2009); cited as Tastan, 2012)]. Morris and Leung (2000) observed the relationship between organizational culture aspects and organizational justice perceptions of the employees. Denison and Mishra (1995) reported a great deal of evidence and proposed several associations between cultures, organization and individual's effectiveness as well as the work-related individual's outcomes. Organizational culture and performance has been analyzed by Awadh and Saad (2013) and found a clear and strong relationship link between these two terms.

The culture emerges from collective behaviour or some time resides in individual interpretations and cognitions [Scahill (2012)]. Uddin*et.al.* (2013) found that organizational culture significantly influences employee productivity and performance in the dynamic emerging context. Manzoor (2011) found that measures of employee performance and teamwork are positively related with employee performance.

Scott *et.al.* (2003) also found culture is linked to performance. Another study explored the relationship between organizational culture and behavioural outcomes of employees. The aim of the research paper was to understand how the employees' psychological processes of organizational culture practices impact them in-role performance behaviours. It is by using the aspects of organizational culture, (i.e. rewards, communication, recognition teamwork, training and development) and found that organizational culture had significant influence on employees' behavioural outcomes and had positive impact on employees' behavior Tastan (2012)].

The culture is considered as a socially assembled attribute of organizations [Schein (1996)]. Cameron and Quinn (1999) revealed that the culture of the organization accurately described by the individuals within that organizations. Further Cameron and Freeman (1991) added that this type of culture use to predict the performance factors such as organizational productivity and effectiveness. After proposed definition of behavioural efficiency and identification of its dimensions the conceptual framework is presented in Figure 1.

The objective of this study has been fulfilled by the help of suggested definition of the behavioural efficiency related with the intrinsic satisfaction of employees on the basis of literature. This study linked great work of researchers by the help of different aspects of efficiency, linked together all these definitions related with efficiency and its impact on the behaviour of employee. This is also known soft side of the efficiency. The literature of this study supported the concept that, when the organizational employees are satisfied with the organization, therefore, they will be more efficient towards the output. This study is the extension of the term efficiency by looking at the behaviours of employees. This is known as behavioural efficiency of employees.



Figure 1 Conceptual framework

4. Conclusion:

Sustainable competitive advantage of the establishments can be determined by the high eminence human resources, while human resources can be regarded as theoretically rare, valuable and non-substitutable assets because they are specialized, scarce and hold implied knowledge. Similarly, the concentration on human resource as a source of competitive advantage has strengthened the need for organizations not merely to recognize but also strive to win the talent war.

The concept of efficiency evolved from a progressively increasing concern for the welfare and personal satisfaction of employees working in an organization. Measureable calculations about the efficiency are required for several purposes, it includes estimation of the cost analysis, planning and scheduling for operation of business, and however, it is not accomplished without the discussion of employees

to perform these tasks related with the efficiency. Moreover, achieving better efficiency for cost reduction and quality improvement of the operation requires detailed studies of the employee's behaviour to perform the operations.

This study directed extensive strength to understand the concept of the efficiency. The interpretation of the term efficiency is a comparative capability to attain the concentrated output with a given quantity of resources, a continuous output with the use of a lowest amount of resources, or an optimal grouping of resources composed with a particular demand for the product to authorized a maximum return to the owner with the help of human resources. Furthermore, courses of action with intellectual resources needed to successfully accomplish a specific task within a specified context. The accomplished efficiency of operation with the utilization of human resources is possible when, the employee's contribution of behaviour is obtainable. The operations and behaviours within the organization is link with human resource and the organizational development.

This study presents the content that employee's behaviour impact on the efficiency of the organization. It then identifies variables that explain employee's behavioural efficiency in term of satisfaction and addresses the implications of this perspective for how behavioural efficiency of employees is link with organizational development. Despite this, much of the theoretical and empirical work on the employee's behaviour in organization creates the impression that organization failure cause of employee inefficiency.

Work itself highly correlates with overall satisfaction of employees. A link also has been developed to show the relation between behaviour and satisfaction. The employee's efficiency in term of behaviour of employees related with the satisfaction is known as the behavioural efficiency. This study was related with the proposed definition of behavioural efficiency of the employees which was based on the intrinsic satisfaction of employees to perform a work and this satisfactory behaviour lead towards the enhanced result of the organization. The behavioural efficiency is emerging concept in the field of management. This study also drives the meaning of behavioural efficiency.

It can be concurring that, in management sciences, the efficiency classifies as operational efficiency (employee's tangible contribution) in an output of the organization and the behavioural efficiency of human resource management: how much employee produce as he/she is internally satisfy with organizational requirement. Thus, the efficiency is not only the combination of input and output but also required human resources with skill and capability for the required efficiency. Simply this study helps to understand; efficiency depends on the nature of the work and individual who is going to work in workplace. Intellectual resources and sequences of action required to effectively execute a specific task within a particular context. This research proven that efficiency is embedded with many factors including operational and behavioural material.

The behavioural efficiency can be measure with the help of many dimensions. This study has taken only four of them (compensation, technology, organizational structure and culture). Selection of these factors based on theoretical understanding of the topic, further integrates the theoretical model of the behavioural efficiency and the organization development because of the parallel practices and principles.

Future implication: This research paper will contribute towards the organizational development as the results will create awareness about the importance of satisfactory behaviour of employees for the enhanced efficiency in an organization. The efficiency achieved with the help of employee's behaviour will be beneficial for organization as well as for the society. This study will also ensure the importance of the human resource of the organization and contribute for the satisfactory behaviour. The efficiency that will be achieved in the business will directly help the economy of a country as developmental efforts will increase. The benefits of understanding the satisfactory behaviour of the employees are tremendous for both the organization and its employees.

References

Amin, M., & Johirul, I. (2013). Organizational effectiveness and efficiency through manpower planning and development: A study on selected service and manufacturing organizations of Bangladesh. *World Journal of Social Sciences*, *3*(5), 49–66.

Amis, J., & Slack, T. (1996). The size-structure relationship in voluntary sport organizations. *Journal of Sport Management, 10*, 76-86.

Aoki, K. (2001). Optimal monetary policy responses to relative-price changes. *Journal of Monetary Economics*, 48, 55-80.

Armstrong, M. (2012). Armstrong's Handbook of human resource management practice. Kogan Page, London.

Awadh, A. M., & Saad, A. M. (2013). Impact of organizational culture on employee performance. *International Review of Management and Business Research*, 2(1), 168 – 175.

Bachman, J. G. (1968). Faculty satisfaction and the Dean's influence: An organizational study of twelve liberal arts colleges. *Journal of Applied Psychology*, *52*, 55-61.

Baird, L. (1988). Managing two fits of strategic human resource management. *Academy of Management Review*, 13(1), 116-128.

Bakke, E. W. (1958). The human resources function. New Haven: Yale Labor Management Center. *Unions, management, and the public*: 197-201. New York: Harcourt Brace.

Balk, W.L. (1975). Technological trends in productivity measurement. Public Personnel Management, 128-133.

Bandiera, O., Barankay, I., & Rasul, I. (2007). Incentives for managers and inequality among workers: Evidence from a firm level experiment. *Quarterly Journal of Economics*, *122*, 729-74.

Barnard, Chester (1970). "*Cooperation*" Pp. 84-97 in The Sociology of Organizations: Basic Studies by Oscar Grusky and George Miller (eds.). The Free Press: New York, NY.

Baron, J., Dobbin, F., Jennings, PD (1992). Making War and Peace. Pp. 179-193 in *Doing Exemplary Research*, edited by Peter J Frost and Ralph Stablein. Beverly Hills: Sage.

Becker, B. E., & Huselid, M. A. (2006). Strategic human resource management: where do we go from here? *Journal of Management*, *32*, 898-925.

Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: Progress and prospects. *Academy of management journal*, 39(4), 779-801.

Belak, J., & Duh, M. (2012). Integral management: Key success factors in the MER model. *ActaPolytechnicaHungarica*, 9(3), 5-26.

Blau, P.M., and Schoenherr, P. A. (1971). *The Structure of Organizations*, Basic Books, New York.

Bontis, N., & Serenko, A. (2007). The moderating role of human capital management

practices on employee capabilities. *Journal of Knowledge Management*, 11(3), 31-51.

Brittan, D. (1997). Business lessons from Darwin. MIT Reporter, 12(1), 12-23.

Burnes, B. (2004). Kurt Lewin and complexity theories: back to the future? *Journal of Change Management*, 4(4), 309–325.

Cameron, K. M., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. Reading, MA: Addison-Wesley.

Cameron, K.S., & Freeman, S.J. (1991). Cultural congruence, strength, and type: Relationships to effectiveness. *Research in Organizational Change and Development*, 5, 23-58.

Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-leadership skills and innovative behavior at work. *International Journal of Manpower*, 27(1), 75-90.

Charnes, A., Cooper, W.W., Lewin, A. Y., &Seiford, L. M. (1994). Data Envelopment Analysis: Theory, methodology and applications. Norwell, MA: Kluwer.

Chauhan, V. S., Dhar, U., &Pathak, R. D. (2005). Factorial constitution of managerial effectiveness: Re-examining an instrument in Indian context. *Journal of Managerial Psychology*, 20(1), 164-77.

Child, J. (1997). Strategic choice in the analysis of action, structure, organizations and environment: retrospect and prospect. *Organizational studies*, *18*(1),43-76

Claude, G. (1952). The History of Management. Prentice Hall, New York.

Cohen, A. M., & Friedlander, J. (1980). What do instructors want? *Community College Review*, 7(3), 66-72.

Collins, C. J. (2007). The interactive effects of recruitment practices and product awareness on job seekers employer knowledge and application behaviour. *Journal of Applied Psychology*, *92*, 180-19.

Daft, R.L (2003). *Organization Theory and Design*, Southwestern College Publishing, Cincinnati, Ohio.

Daft, R. (2006). Organization Theory and Design. Mason: South-Western College Pub.

Dalton, D. R., Todor, W. D., Spendolini, M. J., Fielding, G. J., & Porter, L. W. (1980). Organization structure and performance: A critical review. *Academy of Management Review*, 5(1), 49-64.

Denison, D. R., & Mishra A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organizational Science*, 6, 2-18.

Drucker, P. (1954). The practice of management. New York: Harper.

Dumitru, V.F. (2010). The impact of information technologies on the organization and functioning of the company. *Journal of Economic*, 754-770.

Dyne, L. V., Graham, J. W., & Dienesch, R. M. (1994). Organizational citizenship behavior: construct redefinition, measurement, and validation. *Academy of Management Journal*, *37*(4), 765-802.

Cole M.A., (2004), "US environmental load displacement: examining consumption, regulations and the role of NAFTA", *Ecological Economics*, 48 (4), 439–450.

Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, *12*(1), 1–22.

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance*, 25(2), 383-417.

Ford, J. D., & Slocum, J. W. (1977) Size, technology, environment and the structure of organizations. Academy of Management Review, 2, 561-575.

Gagnon, C. Y., & Dragon, J. (1998) .The impact of technology on organizational performance. Optimum, The *Journal of Public Sector Management*, 28 (1), 19-31

Gerhart, B., Trevor, C., & Graham, M. 1996. New directions in employee compensation research. In G. R. Ferris (ed.). *Research in personnel and human resources management*, 14, 143-203.

Griffin, A. (2011). Legitimizing academic research in design: lessons from research on new product development and innovation. *Journal of Product Innovation Management*, 28, 428-433.

Hafiza N. S., Shah S. S., Jamsheed, H., &Zaman, K. (2011). Relationship between rewards and employee's motivation in the non-profit organizations of Pakistan. Business Intelligence Journal, 4(2), 328-332.

Haimann, T., Scott, G., & Cannor, P. E. (1978). Managing the modern organization. (3rd ed.). Boston: Houghton Mifflin Co.

Hall, R. H. (1994). Sociology of work: perspectives, analyses, and issues, Pine Forge Press: Thousand Oaks.

Hameed, A., & Amjad, S. (2009). Impact of office design on employees' productivity: A case study of banking organizations of abbottabad, Pakistan. *Journal of public affairsm administration and management*, 3 (1), 1-13.

Hameed, A., Ramzan, M., Zubair, K., Ali, G., &Arslan, M. (2014). Impact of Compensation on employee performance: empirical evidence from banking sector of Pakistan. *International Journal of Business and Social Science*, *5*(2), 302-310.

Harrison, M. I. (2005). Diagnosing organizations: methods, models and processes. (3rded). California: Sage Publications.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268-279.

Hasan, H., & Tibbits, H. (2000). Strategic management of electronic commerce: an adaptation of the balanced scorecard. *Internet Research*, *10*(5), 439-450.

Haslinda, A. (2009). Evolving term of human resource management and development. *The Journal of International Social Research*, 2 (9).

Hatch, M. (1997). Organization theory; Modern symbolic and postmodern perspectives: Oxford University Press.

Herzberg, F. (1968). One more time: how do you motivate employees? *Harvard Business Review*, 46, 53-62.

Hiranto, U. (1982). Management Technique. Bangkok: Tipaksorn Printing.

Ireland R. D., &Hitt, M. A. (2013). Achieving and maintaining strategic competitiveness in the 21st century: The role of strategic leadership. *Academy of Management Executive*, 19(4), 63-77

Jacques, I., & Roussel, P. (1999). A study of the relationship between compensation package, work motivaiton and job satisfaction. *Journal of Organizational Behavior*, 20(7), 1003-1025.

James, L. R., & Jones, A. P. (1974). Organizational climate: A review of theory and

research. Psychological Bulletin, 81(12), 1096-1112.

Kajzer S (2004). Acting (un)ethically in business. MBA J., 10(1-2): 20-24.

Kavanagh, M. J., Thite, M., & Johnson, R. (2009). Human Resource Information Systems: Basics, applications and directions. (3rd ed.). Thousand Oaks, CA: Sage

Kelly, R. M. (1988). Promoting productivity in the public sector: problems, strategies and prospects. London: MacMillan.

Kennerly, S. (1989). Leadership behaviour and organizational characteristics: Implications for faculty satisfaction. *Journal of Nursing Education*, 28(5), 198–202.

Khan, F. (1990). Factors of production and factor markets in Islamic framework. *Journal of king abdulaziz university: Islamic Economics*, 2, 1410-1990.

Kirkman, B. L., Rosen, B., Tesluk, P., & Gibson, C. B. (2004). The impact of team empowerment on virtual team performance: the moderating role of face-to-face interaction. *The Academy of Management Journal*, 47, 175-192.

Korten, D. (1998). The Post-Corporate World: Life After Capitalism. Berret-Koehler, San Francisco.

Lau, H.C. and Idris, M.A. (2001), "Research and concepts: the soft foundation of the critical success factors on TQM implementation in Malaysia", *The TQM Magazine*, 13(1), 51-60.

Lawler, E. E., & Jenkins, G. D. (1992). Strategic reward systems. In M. D. Dunnette& Hough, L. M. (eds.). Handbook of industrial and organizational psychology. Palo Alto, CA: Consulting Psychologists Press.

Leblebici, D. (2012). Impact of workplace quality on employee's productivity: Case study of a bank in Turkey. *Journal of Business, Economics & Finance*, 1 (1).

Levy, H. V. (2011). The Transformation of Basic Research into Commercial Value: Economics Aspects and Practical Issues. *Journal of Entrepreneurship, Management and Innovation*, 7, 4-15.

Likert, R. (1961). New patterns of management. New York: McGraw-HiU.

Ling, C. (1965). The management of personnel relations: history and origins. Homewood, IL: Irwin.

Lo, A. (2004). The Adaptive Market Hypothesis: Market Efficiency from an Evolutionary Perspective. *Journal of Portfolio Management*, 15-29.

Margretta, J. (2000). 'Growth through global sustainability', Harvard Business Review, pp. 59-84.

Magretta, J. (2000). Managing in the New Economy. Business Review Book, New York.

Mahmood, M. A., & Mann, G. J. (2000). Impacts of information technology investment on organizational investment. *Journal of Management Information Systems*, 17 (1).

Manzoor, A. (2011). Impact of employee's motivation on organizational effectiveness, business management and strategy. *Journal of Organizational Behavior*, *3*(1), 2157-6068.

Marciano, V. M. (1995). The origins and development of human resource management. Academy of Management, Best Papers Proceedings, 223-227.

McCollum, J. S. (2001). Team-based rewards: current empirical evidence and directions for future research. *Research in Organizational Behavior*, 20, 1-18.

McGregor, D. (1960). The Human Side of Enterprise. New York, NY: McGraw-Hill

McLean, G. N. (2009). Organization development: principles, processes, performance. Berrett-Koehler Publishers.

Memon, S. B., Panhwar, A. I., & Rohra, L. C. (2010). Investigating the Mediating Role of Human Resource Policies in Employee Retention. *Australian Journal of Basic and Applied Sciences*, 4(8), 4046-4057.

Mention, A. L. (2012). Intellectual Capital, Innovation and Performance: a systematic review of the literature. *Business and Economic Research*, 2(1), 2162-4860.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61-89.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20-52.

Meyer, O. A., & Smith, K. (1997). Paying Teachers for What They Know and Can

Do: New and Smarter Compensation Strategies to Improve Schools. Thousand Oaks: Corwin Press.

Miller, D. and C. Droge (1986). 'Psychological and traditional determinants of structure', Administrative Science Quarterly, 31, pp. 539–560.

Modis, T. (1985). Conquering Uncertainty: Understanding Corporate Cycles and Positioning Your Company to Survive the Changing Environment. McGraw-Hill, New York.

Morris, M., & Leung, K. (2000). Justice for all? Progress in research on cultural variation in the psychology of distributive and procedural justice. *Applied Psychology: An International Review*, 49(1), 100-132.

Nobile, J. (2003). Organizational communication, job satisfaction and occupational stress in Catholic primary schools. University of New South Wales.

Odden, A and Kelley, C (2002) Paying Teachers For What They Know And Do: New And Smarter Compensation Strategies To Improve Schools, 2nd Edition, Corwin Press, California.

Ojo, O. (2012). Influence of Organizational Culture on Employee Work Behavior. *International Journal of Contemporary Business Studies*, 7506(11), 46 – 57.

Oldham, G. R., & Hackman, j. R. (1981). Relationships Between Organizational Structure and Employee Reactions: Comparing Alternative Frameworks. *Administrative Science Quarterly*, 26(1), 66-83.

Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organizational Level Analysis. *Journal of Applied Psychology*, 77, 963-974.

Pathik, R. D., & Pestonjee, D. D. (1997). Organizational Politics Orientation as Related to Job Satisfaction, Job Involvement and Job Anxiety among Research and Development Personnel. *South Asian Journal of Management*, 39-44

Patterson, V., Lundmark, S., Kiesler, T., M., & Scherlis, W. (1998). Internet Paradox: A social technology that reduces social involvement and psychological well-being. *American Psychologist*, 53 (9), 1017-31.

Pegels, C. C., & Thirumurthy, M. V. (1996). The impact of technology strategy on firm performance. *IEEE Transactions on Engineering Management*, 43(3), 246-249.

Pellegrin, K., & Currey, H. (2011). Demystifying and improving organizational culture in health- care. *Advances in Health Care Management*, 10, 3-23

Peretomode, V. F. (1991). Educational Administration: Applied concepts and theoretical perspective. Lagos: Joja Educational Research and Publishers.

Perry, R. J. (1997). Merit pay and the evaluation problem: Why most merit pay plans fail and few survive, Harvard Educational Review.

Peters, T., & Waterman, R. (1982). In Search of Excellent Lessons from America's Best Run companies. Harper & R, New York.

Pigors, P., Myers, C. A., & Malm, F. T. (1964). Management of human resources. New York: McGraw-HiU.

Porter, M. E. (1985). Competitive Advantage. New York: The Free Press.

Potocan, V. (2005). Requisite holism of owners' influence on creative business decision-making. Linz: Universitätsverlag R. Trauner, 153-163.

Potocan, V. (2006). Business operations between efficiency and effectiveness. *Journal of Information and Organizational Sciences*, 30 (2).

Potocan, V., & Mulej, M. (2008). Development economics' view on growing entrepreneurship in Slovenia. *International Journal of Entrepreneurship and Innovation Management*, 8 (3), 305-359.

Prokopenko, J. (1989). Productivity Management. Geneva: ILO.

Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1968). Dimensions of organization structure. Administrative Science Quarterly, 13, 65-105. In Rousseau, D. M. 1978a; Measures of technology as predictors of employee attitudes. *Journal of Applied Psychology*, 63, 213-218.

Ragowsky, A., Stern, M. and Adams, D.A. (2000). Relating Benefits from Using IS to an Organization's Operating Characteristics: Interpreting Results from Two Countries. *Journal of Management Information Systems*, *16*(4).

Richardson, L. R. (1999). Gainsharing: a critical review and a future research agenda. *Journal of Management*, 21(3), 559-609.

Ricardo, R and Jolly, J. (1997). Training of teams in the workplace. S.A.M Advanced Management Journal, 62(2), p 4.

Robot, C. (2013). The influence of organizational culture and teamwork on employee performance at PT. Bank Sulut, TBK. *Journal EMBA*, *1* (4), 1358-1364.

Roco, M.C., & Bainbridge, W.S. (2002). Converging technologies for improving human performance: nanotechnology, biotechnology, information technology and cognitive science. NSF/DOC-sponsored report.

Rorissa, A. (2012). Technology and its impact on the information environment and society in developing countries. *Pakistan Journal of Library and Information Science*, 13, 153-193

Rosen, B. (1993). Total quality and Human resource management: Lessons learned from Baldrige Award-wiruing companies. *Academy of Management Executive*, 7(3), 49-66.

Ryan, S.D., Harrison, D.A., Schkade, L.L. (2002). Information technology investment decisions: When do costs and benefits in the social subsystem matter. Journal of Management Information Systems 19 (2), 85–127.

Santos, M. (1992). Identification of system digestion etson application a larechercheengestionagricole. Universite de Montpellier.

Scahill, S. (2012). The way we do things around here': organizational culture is a concept missing from New Zealand healthcare policy, development, implantation and research New Zealand Medical Journal, 20 (125), 79-89

Schein, E. (1996). Culture: the missing concept in organisational studies. Admin Science Quarterly, 41(2), 229-240

Schermerhorn, J. (2004). Core Concepts of Management. Wiley and Sons, Hoboken.

Schein, E. H. (2010). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass Publishers.

Schick, A. (2006). The Performing State. OECD, Paris, March.

Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Tests of a causal model. *Journal of Applied Psychology*, *83*, 150-163.

Scott, T., Mannion, R., Marshall, M., & Davies, H. (2003). Does organizational culture influence health care performance- a review of the evidence? *Journal of Health Services Research*, 8(2), 105-117

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and general self-efficacy scale. Organizational research work-related performance: A meta-analysis. *Psychological methodology*, *4*, 62-83.

Sutermeister, R. A. (1976). People and Productivity, (3rd ed.). New York

Tack, M. W., & Patitu, C. L. (1992). Faculty job satisfaction: Women and minorities in peril. ASHE-ERIC higher education report no. 4. Washington, DC: Association for the study of higher education.

Taman, A. (2005). Management Audit: A means to enhance efficiency. Teaching staff of accounting education department. Journal Pendelikon Akuntansi Indonesia, 3 (2), 1-23.

Tastan, S. B. (2012). The relationship between employees' perceptions of organizational culture and their behavioral outcomes: assessing a cognitive process to in-role performance behavior and intention to leave. Journal of Global Strategic Management, 12, 65-86.

Taylor, G. I (1923). Stability of a viscous liquid contained between two rotating cylinders, Philosophical Transactions of the Royal Society of London. Series A, 223, 289-343.

Thompson, J.D. (1967). Organizations in action. New York: McGraw-Hill.

Uddin, M. J., Luva, R. H., & Hossian S. M. (2013). Impact of organizational culture on employee performance and productivity: A case study of telecommunication sector in Bangladesh. *International Journal of Business and Management*, 8(2), 63 – 77.

Van de Ven, A., Delbecq, A., & Koenig, R. (1976). Determinants of coordination modes within organizations. American Sociological Review, 41, 322-338.

Velnampy, T. (2008). Job Attitude and Employees Performance of Public Sector Organizations in Jaffna District, Sri Lanka. *GITAM Journal of Management*, 6 (2), 66-73

Vroom, V.H. (1964). Work and Motivation, Wiley, New York.

Waber, B. N., Olguin-Olguin, D., Kim, T., &Pentland, A. (2008). Organizational Engineering Using Sociometric Badges. Academy of Management Annual Meeting. Anaheim, CA.

Westrum, R. (2004). A typology of organisational cultures *QualSaf Health Care*,13,22-27

Whawo, D. D. (1993). Educational Administration: Planning and Supervision. Benin

City: Jodah Publications.

Wilcox, S., Stringfellow, B., Harris, R., & Martin, B. (2000). Management and productivity, Transportation Research Board, Committee on Management And Productivity, USA.

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: Free Press.

Woolliams, P., &Trompenaars, F. (2013). Realizing Change Through Other Ways Of Working: Reconciling Competing Demands. *Organization Development Journal*, *31* (2), 6-16.

Yamoah, E.E. (2013). Relationship between compensation and employee productivity. *Singapore Journal of Business Economics and Management Studies*, 2 (1), 110-114.

Yampolskiy, V. (2012). Efficiency theory: A unifying theory for Information, computation and Intelligence. Computer Engineering and Computer Science University of Louisville, USA

Yuchtman, E., & Seashore, S. (1967). A system resource approach to organizational effectiveness. *American Sociological Review*, 32, 891-903.

Zain, Z. M., Ihsak, R., & Ghani, E. K. (2009). The influence of corporate culture on organizational commitment: A study on a Malaysian listed company. *European Journal of Economics, Finance and Administrative Sciences*, *17*, 17-25.