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THE ROLE OF INFORMATION TECHNOLOGY IN BUSINESS PROCESS REENGINEERING

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Abstract

The effect of Information Technology (IT) on the success of Business Process Reengineering (BPR) has always been a controversial issue among stakeholders. The purpose of this paper is to answer some questions regarding this ambiguous issue, like: “,is the use of information technology a critical success factor of reengineering ?. “Is it possible to reengineer the business without the existence of IT sophistications?. what are the facilitations that have been contributed by IT to successful reengineering. The methodology that has been adopted in the study is reviewing the literature to explore answers for such questions. It was found that IT has a critical role in the success of BPR project in achieving dramatic improvements, at the same time BPR introduced well defined strategies to make an organization heavily extracts the benefits from such enablers with huge capabilities and to employ IT correctly and efficiently.

Introduction

As it has been investigated in most studies and researches, the role of IT in the success of BPR was always a dialectical issue through out stakeholders; it is not built on specific criteria, which makes it difficult to be well specified. This dispute creates two rivals regarding this issue the first one thinks and believes that BPR has the capability to achieve its goals without the support of IT, while the second urges that IT has the favor in the success of BPR. As it was defined by Hammer & Champy in 1993 Business Process Reengineering is a very broad concept that includes many dimensions firstly defined, “ *fundamental rethinking, radical redesign, and dramatic improvements*, fundamental refers to the assumption that it starts with no givens, radical refers to the transformation of all aspects of process design configurations into new redesign alternatives without any limitations or constraints. Dramatic means that the level of performance may increase several times. For example CIGNA reengineering project showed remarkable results in reducing operating cost by 42% and improving transaction time by 1200% which is a dramatic improvement (Caron, Jarvenpaa, and Stoddard,1994). Information Technology is a set of tools, processes, and methodologies such as coding, programming, data communications, data conversion, storage and retrieval, system analysis and design, systems control and associated equipment employed to collect process and present information. In broad terms IT also includes office automation, multimedia, and telecommunications (*Business Dictionary Online*). Business Process Reengineering is the fundamental rethinking and radical redesign of business process to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, services and speed (Hammer & Champy 1993). The effect of IT on success of BPR has been a controversial issue among concerned people who were always trying to assess to what extent IT effects the success of BPR by answering some questions like: “ *is the use of information technology a critical success factor of reengineering?. “is it possible to reengineer the business without the existence of IT sophistications. what are the facilitations that have been contributed by IT to successful reengineering ?*. This paper tries to answer such questions by reviewing the literature dealing with the role of IT in the success of BPR project and also to assess the views of supporters and opponents of the idea of enabling role

of IT in BPR. Since the notion of the role of IT in BPR project success is not clear or well defined in literature, the study was carried out by reviewing the literature, choosing some case studies which were a suitable means to collect the data. By studying these case studies and analyzing the particular situation and factors that play a positive role in the success of BPR in each organization, the researcher developed a better interpretation of the role of that played by IT as a real enabler in BPR project. Finally the truth that can't be denied is that IT has its clear finger prints in the success of BPR.

Methodology

Trying to find answers for the questions of the study, the researcher reviewed some articles that discussed the relationship between IT and BPR in the literature, and investigate the role of IT in BPR project, this is achieved by studying these case studies and analyzing the particular situation and factors that play a positive role in the success of BPR in each organization, the researcher developed a better interpretation of the role of that played by IT as a real enabler in BPR project.

Literature Review

Contradiction in BPR

Despite the fact that BPR is a rationale project toward change and dramatic improvements, some opponents of reengineering urge that there are many inherent contradictions in the approach itself, and the first one is the role of IT which seems as a basic enabler of reengineering which facilitates the reunification of tasks separated under the extreme division of labour. Moreover, being enabled by information technology, it seems that BPR borrows the technological rationality which was the cornerstone of scientific management, which means that BPR breaks its golden rule of being fundamental rethinking as it doesn't start from a clean slate. The heavy bias in BPR toward the role of IT usually diminishes the role of the human element and other organizational aspects of the change program (Helen et al,1998).

Success/ Failure Factors of BPR

It is difficult to determine the critical success factors of BPR. As concerned people specify different factors as keys of success in BPR. For example, Stow (1993) urges that a reengineering project should be conducted by its objectives. Bashien (1994) gives importance to financial conditions in success of BPR project. Davenport & Short (1990) identify that selecting the right process for BPR is the key success factor. Harrison & Pratt (1993) state that providing the baseline and benchmarking of existing business process, constructing the vision of process in future are important factors for success of BPR project. The role of IT beyond automating and augmenting force has been considered by stakeholders as the most critical factor in BPR success. Also some try to assess the failure factors of BPR. For example, Johansson (1993) urges that BPR project needs technical as well as managerial skills to redesign and implement the reengineered process. Resistance to change is one of the main causes of failure in BPR project (Stanton, 1992). Moreover failure may come from the feeling of lack of seriousness toward the project, looking at it as one of reform projects under way. Failure may also be a result of insufficient process breadth, that is, the process to be redesigned must be broadly defined in terms of cost or customer value to improve performance across the entire business unit (Hall et al, 1993). Incomplete restructuring of an organization may cause failure in BPR project.

IT as an enabler

The enabler is the agent that allows the organization to break its old rules and create new process (Hammer & Champy, 1993). This role may be played by IT if it was considered more than automating or augmenting force, it can fundamentally reshape, or enable, the way the business processes are done (Ahadi, 2003). A critical failing of reengineering is that it sees IT as the solution to most, business problems. Some practitioners see reengineering as the redesign process to take the advantages of enormous potential of IT (Quoted, 1993). Information Technology (IT) is not the driving force of reengineering process, it is just an enabler, on the contrary, and IT may be a barrier for reengineering project because it may reinforce the old way of thinking which is one of the main causes of failure in BPR (Hammer & Champy, 1993). The belief that using computer will solve all business problems is the base in BPR failure. Reengineering is not to wait the problem to occur and then seeking for a solution; on the contrary; It's solving the problem before it occurs, which is a vision.

For IT to be enabler it should be used to do new things that not done before, not to try to improve the current process. i.e. managers have to think deductively about IT. The real power of technology is not its ability to make old processes work better but in ability to help organization

to break old rules and create new ways for work. Thinking of Technology as a specific solution for a specific problem will prevent innovation and diminish the benefits that may be acquired from technology itself. For example Marconi the inventor of radio viewed it as a wireless telegraph that would operate point to point, he didn't recognize the potential of radio as a broadcast media (Hammer & Champy, 1993). The common theme running through reengineered or breakthrough improvements is technology, in particular information technology (IT). It represents all encompassing term for computer workstations linked to computer networks, open systems, client-server architecture, database groupware, and electronic commerce (EC). These sophistications have opened up the possibilities for the integrated automation of manual-paper based-business processes. The advent of computer assisted software engineering (CASE), and object-oriented programming has helped simplify systems design around office processes, enabling further cost reductions, and the rapid growth of a new industry (Baets, 1993; Petrozzo and Stepper, 1994). As it was proved by history, technological advances such as the invention of

steam engine, telephone, computers has made a large step change in manufacturing and business process, IT is enabling both manufacturing and office processes.

IT played a crucial role in BPR projects in many companies. For example: Texas Instrument's new product development involves personnel located in different countries such as Japan, India, Malaysia, and USA. Documents transfers have been avoided by using Computer-aided design(CAD) and Computer-aided manufacturing(CAM) systems together with telecommunications network. Therefore in developing their calculator, this company has increased its collaboration level and diminished the mediation grade by 39% of needed time. Ford Motor applied shared database in the accounts payable process in purchasing, receiving and accounts payable, Ford reduced its employee workforce by 75%. IBM Credit used to take two weeks to finalize a financing claim because the process used to be done in five steps, after redesigning the process and by involving generalists who work with databases and telecommunication networks, it reduce time of transaction to only four hours. Sher and Lee, (2003) found that management of both endogenous and exogenous knowledge significantly affects dynamic capabilities. In as much as they represent a critical dimension of strategic management in a business world demanding higher levels of responsiveness, Knowledge Management (KM) was shown to be a major source of quality improvement and business excellence. Such findings are consistent with other research on the contribution of KM to

business excellence and strategic advantage. They also urged that development of Internet and database technology will facilitate more advanced IT applications in business administration and thus help to ensure excellence and competitiveness. Among other factors Like: organizational and behavioral dimensions IT dimensions of KM have been shown to be important for enhancing dynamic capabilities. The influence of KM was also found to be controlled by specific IT applications. Ugwu et al (1999) urged that IT appreciable positive impacts on the efficiency and productivity of the organization in terms of the local and global criteria with each having both direct and induced variation. The direct local impact criteria identified are time saving, error rate reduction, management decision support, and improved service delivery, while the induced local criteria are reduced paper work, saving in labor, quick access to data, and loss of skills to machines. The induced local criteria are competitive advantage market segmentation, high

revenue generation and forecasting, while the induced global criteria identified are, development of new business niche, increased market share, and network insecurity.

Some ITs examples as enablers

IT provides BPR with tools required for communications, analysis and redesign the process. Electronic Data Interchange (EDI) as defined by United Nation Electronic Data Interchange for Administration, Commerce and Transportation (UN/EDICT) is the interchange of standard formatted data between computer application systems of trading partners with minimal manual intervention. EDI was firstly developed in 1960s and used by banks and financial institutions; and has been grown in a high rate in last several years (Ahadi, 2002) . EDI enables BPR through processing speed, accuracy, cost reduction, security, tracking and control, communications and customer services. (Lim & Palvia, 2001). Expert System (ES) is a computer system employing expert knowledge to attain high levels of performance in solving problems within a specific domain area. It enables organization to support important decision making and improve organization productivity. (Hayes-Roth,1994). It was stated by (Guimaraes,1995) that among various computer-based information systems expert systems (ES) have been recognized as important implementation vehicles for BPR. The increasing use of ES techniques in BPR has raised the importance of understanding various factors affecting the success of ES for such a purpose. By encapsulating expert knowledge and experiences, ES

technology provides the means to deliver expertise in the field, and change the way organization performs its business process. Rice (1994) proposed that ES as viable implementation vehicles for BPR because they are affective in capturing and distributing knowledge and knowledge processing capability across the organization. There are two roles ES can play in BPR one is for reengineering business process, and the other is as a tool to support the business process change. (Hamscher, 1994). Some of the commonly used IT tools for reengineering are Enterprise Resource Planning (ERP) systems which allow sharing of the real-time information between manufacturers, customers and business partners. It's ideal for small and medium-size companies to effect better supply chain, cost and operation management. The quote to shipping time gets reduced considerably from many weeks to few hours after ERP implementation (Subramoiam et al., 2009). The role of Internet as IT enabler is by allowing organizations to create easily

accessible communication network, through three benefits which are cost, availability and compatibility. Internet reduced cost by allowing the access to more accurate company information. Internet helps organizations in the availability of information and the ease and quick exchange of this information between business partners and inside the organization

itself. Cross-functional teams can also make use from internet by sharing information about many issues such as employment policies, announcements and project information. For example Ford Motor Company used Internet to serve its global exchange of information to create 24-hours a day 7-days a week organizational productivity (McGrath & Schneider, 1997) . There is no doubt that the lack of resources negatively affects the successful implementation of BPR, Ahadi (2004) found that electronic data interchange (EDI) and Internet provide different capabilities and can be useful in different ways and for different purposes. Such technologies help the organization to support its business if being used correctly and effectively. Which means that BPR employs IT sophistications to be used in the right manner . Bahtt (2000) found that network infrastructure could be used to impact strategic position of the organization by enhancing quality of products and services to meet customer expectations. Also he stated that IT may also help in decreasing the intermediates steps in the process which is one of the main principles of BPR ITs that may support such an objective are : Shared database, Imaging technology, Electronic data exchange and Electronic funds transfer. Gunasekaran & Nath (1997) classify the most important processes in organizations as follow: order flow, strategic process, product and service, marketing and sales, accounting, personnel and technology. Keeping in mind that each of these processes is specifically related to certain firm depending on its activity, IT may have the key role in support the task of each company in facilitating the flow of material and information through the whole process, by the means of shared database, multimedia, artificial intelligence systems, computer-integrated manufacturing, electronic data interchange, these technology may reduce lead time of order flow as well as eliminating certain barriers among different functions. Also other IT systems like: Transaction Processing Systems(TPS), Decision Support Systems(DSS), and Executive Information Systems (EIS) play an essential role in enabling BPR.

IT and Organizational Aspects

Calderia & Dhillon (2006) urge that organizations have to have organizational processes as well as technical and managerial skills in order to develop an organizational competence and to be able to exploit these skills. Such exploitation allows employees to apply their own personal characteristics and knowledge to resolve a particular task. Cooper (2000) stated that IT can increase degrees of freedom associated with organizational design by providing opportunities for organizational structures and functions that were previously not possible, but at the same time the implementation of IT usually reinforces organizational status quo rather than contributing to significant organizational change. Also he found that results of reviewing the engineering projects in certain organizations in terms of creativity propositions to give explanation to which intended to be reengineering project, resulted in a simple automation of manual procedures, provided an evidence that there should be a kind of climate that may encourage creativity without which IT-enabled reengineering can't be successful . He continues to point out that IT has the ability of achieving radical organizational change in organizations, but this ability is faced by some constraining effects political, cultural or social. Davenport (1994) warned that IT systems, the hard side of the organization, need to match the soft requirements of the users. Also, many managers do not rely solely on computer based information to make decisions, and merely changing an IT system will not change a company's culture, strategy or structure. . Ahadi (2004) found that the results of BPR may appear as radical change in the organization, so training and reward programs should be implemented to help employees during transformation stage, these programs can be easily implemented by using Internet

Technology as it is adapted by employees without feeling of threats. Also he found that as technical ability was one of the

greatest problems when organizations engaged with BPR, using of Internet Technology was more easily and affective than that for EDI, because of ease and simplicity of using Internet. Also interventions of IT in some organizational issues that lead to more support to BPR project enhance the enabler role of IT in BPR implementation. For example communication is one of a change management aspect that enhances success of change management is main facilitated by IT (Hall et al., 1993). Decentralization decision making is positively associated with creating an innovative organizational environment and it is strongly enabled by IT. With the use of Expert Systems technology (ES) many organizations have reengineered their business. For example SMART at Compaq has enhanced the effectiveness of its customer supports staff by distributing problem-solving knowledge to the entire staff at the point it is needed (Acorn & Walden, 1993) . ES have been recognized as important implementation vehicles for BPR as it is effective in improving existing business process; but it may fail when it is rejected by end user communities (Coast,1988).

Discussion And Analysis

BPR is a methodology that is adopted by organizations to obtain dramatic improvement and radical change in process. This requires increase in job functions, employees' knowledge and skills. Consequently reengineering requires long-time dedication, resources and effort which can't be achieved easily and successfully without the existence of some elements namely called enablers. Despite there are many enablers for BPR like: TQM, HR, and other Organizational Aspects; IT considered the essential and most effective one that can really support the objectives of BPR in reducing cost, improving quality and satisfying customers. Also most rules that were set out by BPR paradigm can only be processed by using IT sophistications and infrastructure. For example: retrieving information from many places at the same time was enabled by shared database, performing complex work by generalists not only experts was enabled by expert systems, field offices and headquarter interchangeable information, was enabled by wireless data communication and portable computers, centralization –decentralization tradeoff was enabled by advanced telecommunication network (Burke & Peppard, 1995). By reviewing literature its obvious that the objectives of BPR in reducing cost and improving quality meet with the ability of IT infrastructure including both technical and organizational capabilities to do such a task. Many examples are mentioned in literature for success stories in many companies through the world. The detailed analysis of such projects leads to one fact that the positive role of IT was strongly clear . Aiming to discover why organizations go through BPR Whitman & Gibson,

(1997) summarized these reasons in looking forward to improving inefficient business processes, being industrial leader, reorganize business functions, improving current industry position and dramatically turning the company's position around .At the same time using IT allows organizations to gain important improvements in cost reduction, accuracy in exchange information, avoiding human mistakes, saving time, eliminating delay, administrative intermediaries, integrating and coordinating several functions at once. Apart from BPR reform projects its clear that IT has its huge contributions in developing work and enabling business.

Results And Conclusions

As a result of analytical review of literature, the researcher may suggest and conclude the following results:

- 1- BPR is a relatively modern, vital paradigm that introduced a unique reform project that has its positive impact on organization culture and work performance.
- 2- BPR project can't acquire its vitality, positive effect and ability to achieve its objectives without the aid of some enablers which one of the most critical among them is IT.
- 3- BPR as a project was implemented very long time after the spread of IT infrastructure, which enhance the attitude that BPR may achieve its objectives better and faster with the existence and assistance of IT, i.e. BPR may gain success as a reform project without existence of IT, but not as successful as with the existence of IT.
- 4- The principles of BPR are represented in combining jobs, hybrid centralization/decentralization and reducing checks and controls can't be easily applied without the aid of some software and hardware infrastructures to provide a level of automation to perform such tasks.
- 5- Despite the critical role of IT in the success of BPR project, it should be clear that BPR employed IT correctly and efficiently and introduced a well defined strategies, action plans and programs to make the organization heavily extracts the benefits from such enablers with huge capabilities .
- 6- It should be emphasized that change is driven by BPR not by IT , and the notion that IT may drive the change in organization is the first step in BPR failure. Moreover, IT is only one of an assembly of change enablers and it may be disabler if it is used in an inappropriate manner. So technology should be applied in an understandable way when IT capabilities are linked to organizational change.
- 7- Whereas, BPR represents a new approach for coordination through the firm, IT represents the most powerful tool for reducing the cost of such coordination. IT represented in an efficient information system may also introduce some valuable capabilities for BPR project to make it more effective and closer to success.

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Reengineering the Issuance of Driving License Process by Islamabad Traffic Police

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ABSTRACT

This project relates to comparative study of the processes of old manual system and the new computerized system of issuance of driving license by Islamabad Traffic Police (ITP). The weaknesses of the old manual system have been highlighted. The steps involved in both the systems have been studied and the changes brought through reengineering the whole process with the applications of information technology have been elaborated. The research methodology used in this study is the qualitative approach. The benefits of new system have been detailed and the need for further improvement has also been recommended.

INTRODUCTION

Business Process Reengineering is becoming more popular concept in modern world and is best understood as a foundation of drastic changes for performance enhancement. The modern age is progressing with all its developments. Every progressive organization is inclined to adopt latest techniques which ensure optimal utilization of resources with minimum time and cost to achieve the ultimate goal of quality production. Public Sector organizations are generally less interested to adopt BPR techniques. Most of these organizations, still stick to old ways of doing things. Traditional bureaucratic procedures are in place which hinder the performance and productivity level in the organization. Despite the technological advancement, there remains a need to bring radical change and reengineer the old fashioned and obsolete business processes for improvement of performance.

BACKGROUND

In view of fast growing production of vehicles and increase in number of drivers, the reliability and perfection in the process of issuing driving license required urgent attention.

Previously, obtaining a driver's license in Pakistan was perhaps without merit. There were no proper and accredited training schools, trained driving instructors, properly equipped vehicles, or testing and licensing facilities. Driving is still generally learnt from an obliging relative or friend. There were occasional small and self styled private driving schools, set up by enterprising individuals where private owned old vehicles were used. Vehicles equipped with dual controls for the learner, were not available.

A learner's permit, followed by a permanent license was obtained from the Traffic Police Office, by applying and completing a few simple formalities. For the privileged people, the process of obtaining the piece of paper, booklet or a license did not even require the applicant to present himself for a driving test. The result of such a prevailing system was evident in the lack of road discipline and incompetence of the average licensed driver. With faster vehicles and increasing traffic density, the accident rates, already amongst the highest in the world, were more likely to increase than reduce.

This scenario demanded a radical improvement in the licensing system. The initiative of Business Process Reengineering in issuance of driving license by the Islamabad Traffic Police was taken by Ministry of Information Technology with the introduction of e- government system through Electronic Government Directorate (EGD). This top-down initiative was essential for a successful BPR intervention.

This study focuses on studying the success of process adopted by the Islamabad Traffic Police for issuance of driving license, challenges faced, progress achieved and the prospects for further improvement.

OBJECTIVE

Business process reengineering essentially requires the management to take vital decisions with respect to elimination of faults in the existing procedure through complete eradication and then introduction and adoption of thoroughly new procedure. This can only be done through bringing drastic changes.

The objective of the study is to highlight the revolutionary development made in the issuance of driving license by the Islamabad Traffic Police with reference to effectiveness of cost, time, quality and procedure.

LITERATURE REVIEW

Hamper and Champy (1993) define the business process reengineering as “The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed”. Business process reengineering involves the thorough analysis of the current business processes and redesign to improve performance (Davenport and Short, 1990; Teng et al., 1994).

The importance of BPR is crucial for public sector organizations (Parys and Thijs, 2003). It is difficult to deploy BPR efforts in public organizations (Parys and Thijs, 2003; Robert, 1994; Thong, Yap, and Seah, 2000). The government organizations are usually attached to many other departments and ministries. The change in one unit requires change in other interlinked organizations. It is therefore necessary to handle all these problems to successfully implement the BPR strategy in the public sector organizations (Parys and Thijs, 2003). Tenner and Detoro (1992) define process as a single or combination of tasks that add value to inputs to convert them into outputs by the application of human interactions, methodologies and techniques. The authors confines the key points and describes stages to improve business processes using step by step procedure to achieve real performance goals. Individuals at any level in manufacturing, service or the public sector can benefit from this approach which enhances the chances of success in improving organization wide performance. It is designed for leaders at any level who are committed to drastically improving their organization’s performance through redesigning its processes. The business processes consist of different activities which define the pattern of work in the organizations (Sethi and King, 2003). The efficient processes serve to satisfy the customers by converting input resources to desired output (Fields, 2007; Hammer and Champy, 1993; Harrison and Pratt, 1993; Snee, 1993).

Evans (1993) signifies the importance of analyzing the existing business processes in organizations to identify bottlenecks in systems. The author translates this phase as ‘As Is’ step of BPR. The other important phase is ‘To Be’ which describes the desired performance achievement level of business process. BPR attempts to fill the gap between these two organizational situations. Business process analysis attempts to achieve operational efficiency by reducing time and cost factors (Cook, 1996; Davenport, 1993; Day, 1994; Roy, 2005; Wang and Ahmed, 2003; Muthu, Whitman and Cheraghi, 1999).

Fitzgerald and Murphy (1996) suggest four crucial phases for successfully implementing the BPR strategy in the organizations. First, the core business processes to be redesigned should be selected. Second, the process team should be established to reengineer the core business

processes. Third, the current business processes may be analyzed and examined to find out bottlenecks in the systems. This phase also determines the satisfaction level of stakeholders with process outcomes. The last phase encompasses the strategy to reengineer the process to improve performance.

McAdam and Donaghy (1999) highlight the importance of BPR in public sector and examine the views of public sector employees about the critical success factors for the successful implementation of the strategy in the public sector.

Hamper and Champy (1993) emphasize on critical performance measures which should be achieved during the reengineering process. Cost and speed of process are two important aspects which determine the efficiency of processes.

Islamabad Traffic Police in March, 2007 took a huge step by replacing the manual system of issuance of driving license to a computerized system. Now they have an entire IT set up in Traffic Police Headquarters. All the process from first step of entering the licensing office to final step of receiving the license is computerized. The equipment used for the preparation of computerized license is "Magicard" which was purchased at a cost of Rs.0.725 M in April, 2008. The Islamabad Traffic Police has well managed the financial, physical as well as human resources and is maintaining & retaining them purposefully for the betterment of the organization.

RESEARCH METHODOLOGY

In this study a qualitative research methodology was followed. The methodology used in this research study was face to face structured interview. Data was collected through interview of the senior police officials of Islamabad Traffic Police which remained involved in the old manual system as well as the reengineered new system of issuance of driving license. The information was also gathered from male and female holders of old manually prepared license as well as the computerized driving license.

ANALYSIS OF DATA AND DISCUSSION

ANALYSIS OF DATA

The data was collected through oral questions which were asked from the officials of Islamabad Traffic Police and the users of driving license issued through old manual system and new computerized system. Following questions were asked:

1. Do you think that there is a cost saving due to adopting new computerized system of issuance of driving license?
2. Is there any reduction in time of delivery of driving license through new system?
3. Are the users satisfied with the new system with reference to time, cost and service delivery?
4. Do you think that there is ease in applying and obtaining the license as all facilities are under one roof?
5. Were the employees of ITP consulted before adopting BPR strategy?
6. Is there any act of downsizing on adoption of BPR?
7. Do you think that old manual system had demerits?
8. What are the merits of the new computerized system?
9. Are the employees of ITP satisfied on adoption of BPR?
10. Is there radical improvement in process involved in issuance of driving license?

DISCUSSION

On the basis of the interviews of the officials of ITP and the users of the license, it was found that 85% of the respondents were of the view that there were number of problems and demerits of the old manual system of issuing driving license where as the new computerized system as a result of BPR intervention has numerous qualities with respect to cost, time and efficiency.

Weaknesses of the Old Manual System

During interview, following weaknesses were found in the old manual system:

1. Un reliable information - Submission of manually filled form by applicant himself and the authority had to rely on the information without testifying.
2. Reliance on medical certificate - The applicant had to submit medical fitness certificate issued by Medical Officer of a Govt hospital which was generally issued without thorough checkup by the Medical Officer.
3. Possibility of use of unfair means at all stages.
4. No pre scheduling of driving test - No proper date for practical driving test was given. The applicant had to appear for practical driving test at his own will only once a week (on Tuesday) if he had completed 42 days after the issuance of a learner's permit.
5. No standardization of test - It was at the wish of the examiner of practical driving test to pass or to fail an applicant.
6. Low quality paper made license - The successful applicant was issued the permanent driving license which had manually written particulars in blue or black ink. The paper used for the license was of very low quality. There were chances of permanent removing of particulars if the license got wet.
7. There were also chance of forgery; one could easily convert LTV into HTV in one's own ink.
8. There was a possibility of removal and replacement of photo of the bearer of the license.
9. The licensee had to get the license renewed every year on payment of Rs.20 from the post office in which its first entry was made.
10. Improper record maintenance - It was hard to trace the record of particulars of the applicant to whom the license had been issued. There was only a manual register indicating the date, license number and the name of licensee to whom the license was issued on that date.

Salient Features of New Computerized System

1. Computerized process at all steps.
2. No manual form filling and submission.
3. Enabling verification of record at any stage – Applicant must have original CNIC
4. Medical test at ITP office
5. Computerized learner's permit
6. Theoretical test for literate applicants
7. Practical test
8. Computerized test (road signs, start, stop, park, turn, brakes etc)
9. Light weight smart driving license
10. Security features of the driving license.
11. lamination
12. PIN / license No.
13. Machine readable license
14. 5 years validity
15. No annual renewal, new card after 5 years.
16. Renewal through medical fitness
17. Easy tracing of record
18. Soft copies of license with IT section of ITP
19. No chance of forgery
20. Valid for exemption of some driving tests in foreign countries

FINDINGS AND CONCLUSIONS

COMPARISON OF OLD AND NEW SYSTEM

Similarities

Particulars	Old Manual System	New Computerized System
Condition of age for license issuance	Minimum 18 Years Maximum 65 Years	Minimum 18 Years Maximum 65 Years
Personal appearance for applying	Mandatory	Mandatory
Eligibility for permanent license	42 days after issuance of learner's permit	42 days after issuance of learner's permit
Photograph	Mandatory	Mandatory
Medical Test	Mandatory	Mandatory
Residential proof of Islamabad	Mandatory	Mandatory
Practical driving test	Mandatory	Mandatory
Road sign test	Mandatory	Mandatory (manually for illiterates)
Self collection of license	Mandatory	Mandatory

Differences

Particulars	Old Manual System	New Computerized System
Geographic factor		
Geographic locations of different processes	Scattered	All in one location
Time factor		
Time required for completion formalities to issuance license	30 to 45 days	i. 7 to 10 days ii. Urgent in one day
Performance factor		
Production of license	10 to 15 per day	40 to 45 per day
Cost / Process factors		
Staff strength	28 personnel	9 personnel
Application form	Printed (cyclostyle)	Computerized soft copy
Filling of application form	Manually in ink	Key punching
Reliability factor		
Applicant's photo	Pasted on application form manually	Computer generated photos automatically fixed on form
Medical test	From different Govt Hospitals	ITP' own Medical Examiner

Theoretical test	Never conducted	Mandatory (for literates only)
Road signs test	Manual	Computerized
Quality factor		
License material	Low quality paper with manual written particulars	Computerized PVC card having ultraviolet features
Validity / life	Required renewal on yearly basis	Five years life. Fresh issue after medical test
Security factor		
Deception possibility	Possibility of Forgery and Wash out	Laminated, biometric
Possibility of damage	Yes	No

CONCLUSION

This study proved that BPR experience of Islamabad Traffic Police for issuance of driving license has been a tremendous success by drastic reduction in cost and time along with quality improvement and user's satisfaction.

RECOMMENDATION

Although the BPR experience of Islamabad Traffic Police has been a success story yet there are chances of further improvement by adopting latest technologies i.e. introduction of magnetic bar with driving license with the help of professionally strong and committed employees.

Other public sector organizations can also take initiatives from the success of ITP and indulge in BPR for drastic improvement in their performance. Further, following aspects need to be taken care of:

1. Provision of proper office space with proper furniture for IT related employees.
2. The equipment "Magicard" requires replacement by a speedy one.
3. Computerized license printer requires improvement in speed and quality of printing.
4. On-line submission be made possible.
5. Need of verification of applicant's particulars from NADRA's online verification system.
6. There is a need of effective employee training and development in the licensing department.
7. General public awareness through proper school syllabus.
8. Computerized test need to be conducted on simulator.

FUTURE PROSPECTS

Islamabad Traffic Police is planning to introduce new computerized license with a magnetic chip to track violation history of drivers. Senior Superintendent of Police, Dr. Moeen Masood during the interview said that all traffic offences made by drivers would be recorded in this 'magnetic bar'. He said that Traffic Police is seriously looking into this new licensing system which would be introduced after approval of Ministry of Interior. "We are hopeful to finalize this new machine readable driving license system very soon."

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IMPACT OF HRM PRACTICES ON ORGANIZATIONAL PERFORMANCE (A study on telecommunication)

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Abstract

The study investigates the HRM practices impact on organizational performance. The study is a comparative analysis of two organizations related to telecommunication sector, one as parent organization and other its subsidiary but now functioning totally on its own (PTCL & U-fone). A sample of 25, from U-fone & PTCL was selected by convenient sampling method and the data were collected by direct questions. Data analysis was done through the statistical tool SPSS and correlation & regression methods were applied to deduce results. After evaluation, the result showed the positive association between the HR practices and the performance of both the organizations (U-fone & PTCL).

Key words: organizational performance, training, job definition, employee participation

Introduction

In Pakistan, the telecommunication sector is vast, complex & rapidly growing sector. Competition is growing day by day so telecommunication companies just can't sit back without having competitive advantage. The competitive advantage can be strengthened by using technologies and maintaining, retaining their active and passive resources which contribute growth of this industry. human capital is considered being the main input in the path of the success.

A diamond sparks and becomes valuable after cutting and polishing. But the main question is that how to train and develop employees effectively for the benefit of an organization.

The research was conducted in the telecommunication sector in Pakistan; Ufone and PTCL. This study explores that how HRM can contribute in the performance of the organization. There were some ethical problems during gathering of data, because employees working in the PTCL are highly educated to have knowledge about the importance of HRM and its effect on their performance.

As it is acknowledge that HRM plays an important role in the creation of competitive advantage within firms. Executives must be able to integrate HR practices into overall organization initiatives in order to ensure the successful implementation of strategies. And the likelihood of successful implementation of most strategic plans is greatly reduced when strategic initiatives for growth, mergers or customer service do not adequately consider whether HR practices such as staffing, training, employee participation, rewarding, organizing and communicating with employees are consistent with the organization's objectives or the future capability of the organization to meet those objectives, as reflected in HR supply and demand forecasts.

So the purpose of the research is to find weather the HR practices perform a wider role in increasing performance of the Telecommunications sector or not. For this we had used five variables as HR practices i.e., training, employee's participations, job definition, compensation & selection.

This research would help in finding out the relation between HR practices and performance of telecommunications sector, that the result would help them in finding out main reasons and their strength regarding HRM practices which can increase their performance and also highlight the deficiencies, limitations & flaws prevailing in there HR practices i.e. Training, employees' participations, job definition, compensation & selection.

PTCL

Since the earlier beginnings of Posts & Telegraph Department in 1947 and establishment of Pakistan Telephone & Telegraph Department in 1962, PTCL has been a major player in telecommunication in Pakistan. Despite having established a network of enormous size, PTCL workings and policies have attracted regular criticism from other smaller operators and the civil society of Pakistan. And Pakistan Telecommunication Corporation (PTC) took over operations and functions from Pakistan Telephone and Telegraph Department under Pakistan Telecommunication Corporation Act 1991. This surly coincided with the Government's competitive policy, encouraging private sector participation and resulting in award of licenses for cellular, card-operated pay-phones, paging and, lately, data communication services.

In this way, pursuing a progressive policy, the Government in 1991, announced its plans to privatize PTC, and in 1994 issued six million vouchers exchangeable into 600 million shares of the would-be PTCL in two separate placements. Each had a par value of Rs. 10 per share. These vouchers were converted into PTCL shares in mid-1996.

And in 1995, Pakistan Telecommunication (Reorganization) Ordinance formed the basis for PTCL monopoly over basic telephony in the country. This also paved the way for the establishment of an independent regulatory regime. The provisions of the Ordinance were lent permanence in October 1996 through Pakistan Telecommunication (Reorganization) Act. In the same year, Pakistan Telecommunication Company Limited was formed and listed on all stock exchanges of Pakistan PTCL launched its mobile and data services subsidiaries in 1998 by the name of Ufone and PakNet respectively. None of the brands made it to the top slots in the respective competitions. Lately, however, Ufone had increased its market share in the cellular sector. PakNet brand has effectively dissolved over the period of time. Recent DSL services launched by PTCL reflect this by the introduction of a new brand name and operations of the service being directly supervised by PTCL instead of PakNet.

As telecommunication monopolies head towards an imminent end, services and infrastructure providers are set to face even bigger challenges. Pakistan also entered post-monopoly era with deregulation of the sector in January 2003. On the Government level, a comprehensive liberalization policy for telecom sector is in the offing.

When Government of Pakistan In 2005 had decided to sell at least 26 percent of this company to some private agency, there were three participants in the bet for privatization of PTCL. And Etisalat, a Dubai based company was able to get the shares with a large margin in the bet. And when Government was going to privatize the company there was country wide protest and strike by PTCL workers. They even disrupted Phone lines of some big Government institutions like Punjab University Lahore and many lines of public sector were also blocked. Military had to take over the management of all the Exchanges in the country. They arrested many workers and put them behind bars and the contention between Government and employees ended with a 30% increase in the salaries of workers.

mThere are any big change events are happening in PTCL at the moment after its privatization. These include the VSS (Voluntary Separation Scheme for its employees), ERP (SAP based), restructuring, B& CC (Billing and Customer Care Software) etc. Another seemingly minor change was change of brand identity (logo) that will present PTCL's new face after privatization, with greater focus on customer satisfaction and bringing about of new advancements in telecom for Pakistani consumers. And PTCL has an ARPU of \$6-

Ufone

As the company commenced its operations under the brand name of Ufone from Islamabad on January 29 2001, it expanded its coverage and has added new cities and highways to its coverage network. After the privatization of PTCL, Ufone is now owned by Etisalat. PTML is a wholly owned subsidiary of PTCL. It was established to operate cellular telephony. The company commenced its operations, under the brand name of Ufone from Islamabad on January 29 2001.

During the same year, as a consequence of PTCL's privatization, 26% of its shares were acquired by Emirates Telecommunication Corporation (Etisalat). Being part of PTCL, the management of Ufone has also been handed over to Etisalat. During the year July 2005 to June 2006, Ufone continued on the path to success. The Company further expanded its coverage and has added new cities and highways. Ufone has network coverage in more than 750 cities, towns and across all major highways of the country. Ufone also successfully completed the network expansion of Phase 4 in existing as well as in new cities and towns which amounted to more than US Dollar 170 million. As a result the asset base of the Company has increased from Rs. 20 billion to Rs. 27 billion. Later on Ufone adopted the policy of simplified tariffs with no hidden charges, which resulted in positive impacts on the usage trends of subscribers as well as total subscriber base, which has increased from 2,579k in June 2005 to 7,487k in June 2006. currently Ufone caters for international roaming to more than 195 live operators across 119 countries and introduced International roaming facility for Prepaid subscribers in Saudi Arabia, United Kingdom, United Arab Emirates, Singapore, Portugal and Kuwait with lowest rates, featuring no security deposit and activation charges. GPRS Roaming facility is also available with more than 75 Live Operators across 59 countries. Few years ago, the company has also been awarded a new License for providing cellular services in Azad Jammu & Kashmir and the Northern Areas.

Ufone's operational performance has been very encouraging. Despite the stiff competition in Pakistan telecom market which has led to reduction of prices to bare minimum level, due to its aggressive policies and exercising strict control over expenses the Company managed to improve its revenue and after-tax profit by 87% and 54% respectively, as compared to last year.

Future Plans keeping in view the growth potential of the cellular industry there is no option but to be aggressive in order to remain a potent force in the cellular industry. In order to extend cellular network to new cities, towns and highways and enhance its current installed capacities in existing cities, Ufone has finalized a huge network expansion contract amounting to about USD 550 million, which will enhance the subscribers' capacity by 10 million. This is the largest ever expansion project of Ufone.

A strong focus can be on maintaining high quality of service, which is always a benchmark of Ufone, increasing usage and exploring new revenue streams on value added services, market visibility through various market initiatives to fulfill subscribers' satisfaction and demand and above all to increase the value of investment for the shareholders.

Literature Review

The relevant review of literature consists of the existing body of knowledge on HRM practices and organizational performance.

Organizational performance

For the past decade, research in HRM has focused on the take-up and impact of commitment seeking 'high performance' HR practices that are argued to lead to improved employee and organizational performance (Huselid et al., 1997; Wood, 1999; Legge, 2001).

Today's increasingly global and competitive market environment has driven considerable changes in labor markets and thus transformed the practice of Human Resource Management (HRM). In an increasingly dynamic global business environment, understanding how firms can adapt successfully to changing marketplaces is of fundamental theoretical and managerial interest (Cooper, 1994; Griffin and Page, 1993).

Therefore it is acknowledged that firm's performance is largely based on its resources (Pringle and Kroll, 1997). Resources are assets or inputs to production that an organization owns, control, or has access to (Helfat and Peteraf, 2003) and that give it an enabling capacity to enhance its efficiency or effectiveness. (Hunt, 1997)

Human Resources can be organization's largest and most difficult-to-control expense, but it can also be central ingredients affecting organizational performance (Pfeffer, 1998). So for becoming successful, employees must be provided with contextualized training and support in compliance with other HRM practices. Expanded multinational operations within large companies, combined with increased technology and communication capability, has led to vast diffusion of global 'best practices' in HRM. Thus, a key task for researchers is to understand how human resources can be managed to maximize productivity and enhance creativity while controlling cost.

Training

Training programmes are expected within an organization to provide numerous benefits including employee development, increased productivity and improved employee performance (Elangovan & Karakowsky, 1999). Such programmes are, however, expensive investments, and there is mounting concern over the cost and effectiveness of training (Elangovan & Karakowsky, 1999).

There is a recent report from the Learning and Skills Council in the UK noted that employers spent £33.3 billion on workforce training (Learning and Skills Council, 2006). Rising costs, increased competition and time necessary to hire and train new talent have made retention of top performers to the bottom line. Human beings learn through participation, involvement in historically and socially constituted practices in the workplace, classroom and elsewhere, though the particular context will shape the process and outcomes of learning (Billett, 2004). In this way employee learning at the workplace results from participation in the authentic goal-directed activities of particular communities of practice with the aim of developing expertise to solve routine and non-routine problems (Billett, 1996). Such participation involves both planned and unplanned learning practices (Marsick and Watkins, 1987; Eraut, 2000; Eraut et al., 2000). There are other elements as Individual characteristics, work environment and training design have each been identified as factors influencing how employees respond to training programmes (Lim & Johnson, 2002; Olsen, 1998).

There are various outcomes of training have been measured in several ways. Kirkpatrick's (1976) four-level taxonomy of training effectiveness (reactions to training, learning, behaviour change and organizational results) has been used in the majority of studies of training effectiveness research. Kraiger et al. (1993) have commented that although learning is most often conceptualized as knowledge acquisition, learning could take the form of cognitive outcomes, skill-based outcomes, or affective outcome. Specifically training effectiveness can be evaluated by affective and utility reactions towards the training programme (as in Mathieu et al., 1992), and the intention to transfer the knowledge and skills acquired in the training programme to the workplace (as in Axtell et al., 1997). And employees learn in many ways other than through employer-provided training. There are opportunities to learn but they might not be provided by employers or taken up by employees because both parties pursue goals other

than enabling or undertaking learning which may limit their capacity and/or motivation to provide, or participate in, particular learning opportunities.

Employee Participation

Employee participation can be defined as any work place process that “allows exerting some influence over their work and the conditions under which they work” (Strauss 1998: 15, similarly Davis and Lansbury 1996: 3). It can be divided into two main approaches: direct participation; and indirect or representative participation.

There can be *direct* participation which involves the employees in job or task oriented decision-making in the production process at office floor level and the most common forms of direct participation include problem-solving groups or quality circles, and decision-making work teams. Problem solving groups only make recommendations to management, and unusually their focus is defined in a particular area such as safety, quality or productivity. Decision-making work teams generally enjoy greater discretion in organizing their own work within broad guidelines with minimal direct supervision. There is a requirement of reorganization of technology and work flow, multi-skilling and training. (Strauss 1998). Both forms represents formalized means for management to access employee knowledge through small groups or teams of employees. Management of the employment relationship has changed markedly throughout the world in the last two decades. There are two major elements of this change which have been the extension of employee involvement or participation in the work place (Markey *et al.* 2001a, Markey and Monat 1997a) and the growth in non-standard forms of employment, which are strongly feminized. So employment is characterized by stable work hours, relative job security, and promotion and training opportunities.

It is acknowledged that employee participation is an attractive work place practice for employers because of the positive relationship between participation, satisfaction and productivity.(Miller and Monge, 1986). And from a cognitive perspective, employees have more complete knowledge about their work, and they are in a better position than managers to implement decisions (Miles and Ritchie 1971).

Job Definition

The contents of the job description differ from organization to organization and the purpose of the job description can influence what is included. They communicate great deal of information about a job, especially between the manager and employee (Giles, 1995; Grant, 1989). 'When employees have a road map to success they often perform much better - and that translates into continued business growth for you and your firm' (Consulting Task Force, 1991). Grant (1989) describes them as a 'map' that show direction. Job descriptions are not a description of how a job is to be done a contract but are set of rules, regulations or proper practices. Job descriptions have the potential to be used for a number of human resource functions. A well written job description defines the work of the organization and its reasons for existence as an employer of human resources. More, they define and help quantify the relative importance of work, what each position contributes to a process and the organization as a whole.' This definition illustrates an important point regarding job descriptions, used in today's work environment, by emphasizing that they describe not only what the job is about but how the job contributes to the work of the organization.

But it is impossible to list, in anything smaller than an encyclopedia, the multitude of tasks, that combine to produce the results desired from a particular job Behn (1997). Ray and Hawthorne (1993) state 'an accurate and detailed job description is an increasingly crucial component of the effective use of valuable human resources and other organizations. Many studies have projected a number of determinants of job satisfaction, including demographic characteristics (age, gender, educational level, race, marital status), job characteristics (absolute and relative wages, number of hours worked, tenure, attitude towards work), and employer characteristics (number of staff), (Clark, 1997).

Employee compensation

Employee compensation typically contains several components: a basic salary, an annual bonus, stock options, and other long term incentives compensation. So companies today routinely provide a compensation package that includes both cash benefits (salary, paid leave, paid holidays and bonuses) and non cash benefits (insurance and retirement plans).

And employee compensation costs frequently exceed 80% of total operating expenses (Gomez-Mejia & Balkin, 2006), and these costs offer a more realistic image of firms' costs than executive compensation costs. Compensation therefore serves as a most difficult to control expense and also serves as way to achieve organizational goals. A lot of studies have chosen *agency theory* as their theoretical framework in order to characterize the compensation processes in businesses (Gomez-Mejia, Larraza, & Makri, 2003). And the agency perspective has greatly increased our understanding of executive compensation, but has been less applied to explain compensation at the lower levels in firms. Little is known about the determinants of employee compensation contracts from an agency perspective (Werner, Tosi, & Gomez-Mejia, 2005). Boselie et al.'s analysis of the high performance literature and the HR practices chosen by researchers as constituting HRM within these studies indicates that the 'top four' practices were 'training and development, contingent pay and reward schemes, performance management (including appraisal) and careful recruitment and selection' (p. 73). However, find that the 'often-cited core elements of "strategic HRM" that are also likely to be of benefit to employees seem to feature less in empirical research' and they suggest that such a list might include: 'good basic pay (i.e. level and equitability), discretion over work tasks, employment security, diversity and work-life balance' (p. 73).

Surprisingly, however, employee salaries have not been analysed in family businesses within an agency framework, and this in spite of the existence of general theoretical models in both the theory of incentives (Laffont & Martimort, 2002) and contract theory (Bolton & Dewatripont, 2005).

Selection

The recruitment and selection of an effective workforce consequently can be observed as central to the success of an enterprise and a key function of HRM. For example, Schmitt and Chan define the goals of strategic HRM as 'to *acquire*, deploy and allocate human resources in ways that provide the organization with a competitive advantage' (1998: 239, italics ours). And the productivity of organizations have always depended heavily on the quality of their workforce, or their 'human capital', and there is general agreement that its significance is relative to fixed capital is steadily increasing (see, *e.g.*, Becker, 1993; Elias and Scarbrough, 2004).

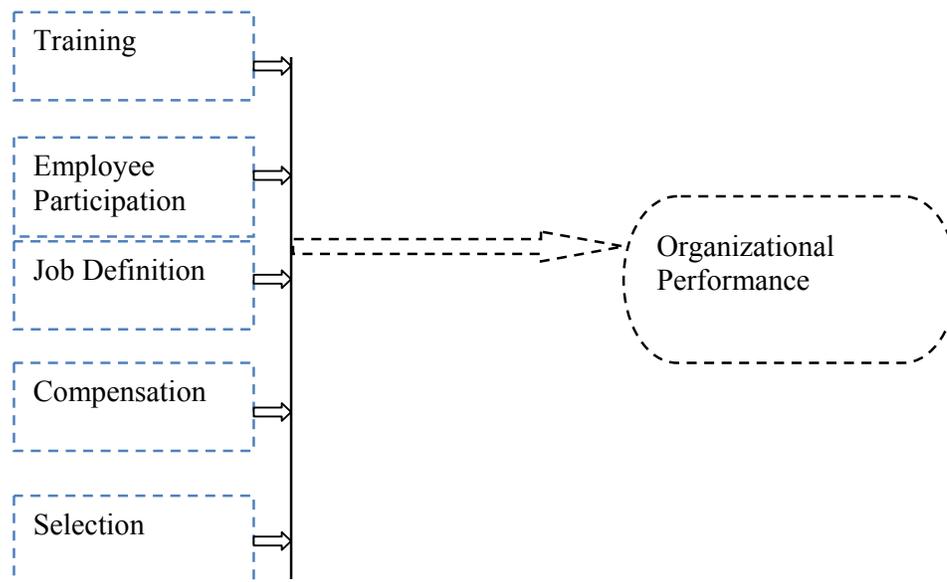
many tests had been identified for the selection of employees. The use of personality tests for selection is highly controversial, and has been attacked on the grounds of both fairness and utility (Mischel, 1968; Blinkhorn and Johnson, 1990; Paul, 2004). Earlier meta-analyses (see, *e.g.*, Schmitt *et al.*, 1984) tended to conclude that they are clearly less effective than assessment centers, work samples, and cognitive ability tests in predicting performance at work. Robertson and Kinder examine the validity of a range of personality variables in predicting various different aspects of job competence and, while agreeing that there 'are likely to be some circumstances in which personality scales will not show validity', conclude that for some criterion variables – particularly creativity, analysis and judgment – 'personality scales produce practically useful criterion-related validity' of up to 0.33 and can add information to that provided by measured tests of cognitive ability (1993: 240).

The development and progress of psychology as a discipline has been strongly associated with careful evaluation of the validity and utility of different selection tools in identifying the 'best' candidates for a position (Schmidt and Hunter, 1998; Wood and Payne, 1998).

Methodology

To address the study objectives, two samples of telecommunication sector employees were studied in parallel: a survey of Ufone & PTCL. Employees in both samples were selected randomly from both organizations on the basis of criteria relating to employment size, location and sector. All participating businesses were legally independent. The data was gathered by asking questions directly from employees by floating questionnaires. The statistical tool used to calculate the results is regression and correlation. In regression we put organizational performance on Y-axis as dependent variable and training, employee's participations, job definition, compensation & selection and as independent variable on X-axis. In correlation we are checking the association of training, employee's participations, job definition, compensation & selection & organizational performance with each other.

Theoretical framework



Hypothesis

- H1: There is a relationship between organizational performance & training.*
- H2: There is a relationship between organizational performance & Employee participation*
- H3: There is a relationship between organizational performance & Job definition.*
- H4: There is a relationship between organizational performance & Compensation*
- H5: Association exists between overall organizational performance & Selection.*

Data analysis & Results

Performance AVG	Training AVG	Employee participation AVG	Job definition AVG	Compensation AVG	Selection AVG
5.58	2.75	2.75	2.67	2.75	3.00
5.00	1	1	1.00	1	1.00
4.50	2	3	3.00	2.25	2.00
6.17	4	3.25	4.67	3	3.67
5.42	2.5	3	2.67	2.5	3.00
5.25	1.5	2.25	1.67	2	1.67
4.33	1.25	3.25	1.00	3.25	1.00
8.25	3.5	3.5	2.33	3	3.67
4.83	1.25	1.5	1.67	1.75	1.33
6.08	1.5	1.25	1.00	2.5	1.00
5.25	5	4	3.00	3.25	3.00
6.33	1.25	3	1.00	3	5.00
5.50	2.5	1.75	1.67	1.5	2.33
2.67	2	2	2.00	1.5	2.00
2.25	2	2	2.00	1.75	1.67
3.17	1.25	1.5	1.33	1.25	1.67
3.17	1.5	1.75	1.67	2.5	3.67
4.00	1.75	1.5	2.00	1.75	2.00
4.92	3	2.25	2.00	2	2.67
3.92	2	2.5	2.00	2	2.67
5.33	2	2	2.00	3.25	2.67
2.67	2	2	2.00	1.5	1.67
3.08	2	1.25	1.33	2.25	1.67
5.08	2.5	1.25	1.67	1.75	1.67
5.00	1.5	2	1.67	1.5	1.33

Regression analysis

	Model Overall
Organizational Performance	
Training	0.3874
Employee Performance	*0.0848
Job Definition	-0.3409
Compensation	0.6331
Selection	**0.2344
R2	0.3014
Adjusted R2	0.2617
F	20.1365
** P < 0.10, * P < 0.05	N=228

Correlation

		Organisational Performance	Training	Employee Performance	Job Definition	Compensation	Selection
Organizat	Overall	1					
	PTCL	1					
	U-Fone	1					
Traini	Overall	0.36302227	1				
	PTCL	0.369342882	1				
	U-Fone	0.36302227	1				
Employee	Overall	0.41856767	0.620394	1			
	PTCL	0.226834966	0.671187	1			
	U-Fone	0.41856767	0.620394	1			
Job definition	Overall	0.204697856	0.750709	0.578642	1		
	PTCL	0.143856679	0.773549	0.561457	1		
	U-Fone	0.204697856	0.750709	0.578642	1		
Compensation	Overall	0.495508825	0.449005	0.709627	0.338114	1	
	PTCL	0.495508825	0.449005	0.709627	0.338114	1	
	U-Fone	0.495508825	0.449005	0.709627	0.338114	1	
Selection	Overall	0.41199423	0.44619	0.573697	0.412881	0.564228	1
	PTCL	0.603949867	0.495598	0.620784	0.425789	0.524927	1
	U-Fone	0.41199423	0.44619	0.573697	0.412881	0.564228	1

H1: Positive association exists between overall organizational performance & training.

H2: Positive association exist between overall organizational performance & Employee participation

H3: Positive association exists between overall organizational performance & Job definition.

H4: Positive association exist between overall organizational performance & Compensation

H5: Positive association exists between overall organizational performance & Selection.

Recommendations

The survey of Ufone and PTCL shows that the backbone of any company is its position in the eyes of people and its goodwill are built on the basis of its quality services and work, and the services provided by the employees. So employees are the most valuable asset which needs special care to create its efficiency. So to increase the efficiency of employee we need their valued participation with proper selection and job analysis and motivate them through training and compensations.

Ufone provides respect to the ideas and participation of its employees and unlike PTCL which remains far behind in that aspect PTCL needs to conduct the survey to get the information about the job description & the type of people eligible to perform these duties.

Ufone has outsourced its recruitment from ASK development (HR agency). PTCL needs to take services of any HR agency to improve its recruitment process. Another problem in PTCL is lack of intention of employees towards work due to the job in security and low rewards. Thus they have to create the work environment by introducing jobs on contracts bases & new incentives packages based on market search and employee participation.

If we talk about the comparison between the Ufone and PTCL, the point where Ufone takes lead is the affective handling of its human capital. So PTCL must improve its HR department and adopt new ways of increasing HR capital. They must improve their selection process and make effective training program and develop assessment tools, on the other hand Ufone must not take the competition easily, in the aera of rapidly changing trends and globalization, and they require reaching international HR standards.

Conclusion

The result of study of two different samples of telecommunication sector indicate that on average, jointly HRM practices programs are positively associated with the overall organizational performance. By this research we conclude that overall organizational performance depends on HRM practices so it is necessary to conduct training and development on regular basis to increase the level of motivation which can ultimately affect the overall organizational performance.

Employee participation also shows a positive relation with organizational performance. So to motivate the employees, management needs to allow employees participate and create strong relationship with employees. The management should take immediate actions on their complaints & create a better environment in an organization.

Mission, task, objectives & goals of a company can be achieved more effectively and efficiently if job analysis is done properly. It has a positive relation with over all organizational performance. So job deign needs to be properly scheduled and explained in terms of job description & according to the requirement of both employee and management.

Apparently the factor which attracts the most employees is compensation as far as retention of employees is concerned. Therefore, selection is the most complex and important factor on the part of organizational management. Selecting right people for the right job by creating effective pool of candidates can ultimately help in improving organizational performance. So it proves that our research is correctly conducted because all the HR practices have shown positive association with the overall organizational performance.

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MASS CUSTOMIZATION AND CUSTOMER'S SATISFACTION IN PAINT INDUSTRY OF PAKISTAN

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Abstract:

Mass Customization is a modern management trend in which product is designed in close coordination with customers. Many researchers proved the importance of mass customization for the growth of business organizations. Some declared, Mass Customization as a tool for future success. However, this is reality that on one side, this strategy creates the innovative product for valued customers and on the other side it tends to increase the cost of product. Capital expenditures for the manufacturing of customized products are also higher than the production of homogeneous products. Which shows that success rate of Mass Customization strategy in different industries of various countries may be different. Similarly, key variables affecting the satisfaction level of customers may be different for different countries and regions. So, there is need to empirically assess the new strategy in all industries. This study explores the impact of mass customization strategy on the customers' satisfaction in "Paint Industry of Pakistan". It also compares the level of customers satisfaction of two different organizations; one adopting the strategy of mass customization and other adopting the strategy of mass production. To analyze the satisfaction level of customers of both the organizations, a questionnaire was prepared and given to the customers. On retrieval of questionnaire and analysis of data it was found that customers of organization that is adopting the strategy of Mass Customization are more satisfied. Hence, we empirically accept the hypotheses that Mass Customization Strategy produce's more satisfied customers.

Key words: Mass Customization, Mass Production, Innovative, Satisfaction Level, Unique Product, Capital Expenditure, Homogeneous

Background

In 21st century, companies are finding Mass Customization as differentiated factor of leading organizations (Fitzgerald, 1995). Mass Customization and Mass Production are two different production strategies that lead organizations to manufacture products or deliver services. In mass customization, that is also familiar as individualization or personalization of products, requirements of customers are keenly handled and efforts are made to satisfy the customer's desires as far as possible (BARUTCU, 2007). On the other hand, in mass production process, all decisions about the design, shape, color, and performance are made by the managers. Today, under highly competitive business environment, personalization is becoming increasingly important. Market un-certainty is the major reason of the shift from Mass Production to Mass Customization (Pine, 1993). While explaining the importance of Mass Customization Joseph Pine says, now, the scenario is entirely different from the old markets of Mass Production. When homogenous and standardized products were manufactured and lengthy product development cycles were considered as essential requirement. There was no exception of this rule. However, today the trend has been changed many fold. Now diversified products, manufactured for individual customers have taken place of standardized products. In other words, tradition of producing homogenous products has become obsolete and manufacturing of

heterogeneous products is becoming popular. Life cycles for development of products are also shorter now (Pine, 1993).

Customized products provide competitive advantage to the companies. It is memorable that customers of different regions have different expectations from the products or services. Some customers are innovative while others are price conscious due to their limited income. Customers' willingness to try new product is different in different cultures of the world, (Kotler,1997). The logic of mass production that Henry Ford deliberated and put into motion was that lower prices increase the sales volume, as the volume of sales is greater cost of production is lower, and lower costs again looped back to allow offering of lower prices (Pine, 1993). Under Mass Customization, production volume cannot be increased so far; so product price remains relatively high. Moreover, every customer is not master of designs and innovation, so sometimes, product manufactured as per the desires of the customer leads to poor product performance and hence unsatisfied customer in the long run. Expectations from products or services are not same by all customers (Armstrong, 1977). Focusing on meeting the customer's requirements and obtaining customer satisfaction are impressive factors in the businesses success (Kotler, 1999). There is healthy correlation between customer satisfaction and customer retention (Bhave, 1999). It is prudent to mention here that customer satisfaction does not remain constant. It changes with the passage of time. There are many reasons for the change of customer expectations over time. Some of them are invention of new technology, improvement in manufacturing process, change in customer's priorities, and offering of superior services etc. (Bhave, 1999). Customer satisfaction is very important factor in any market. Without measurement of customer satisfaction, implementation of any business strategy in industries is vague. Measuring and keeping record of Customer Satisfaction is now also a requirement of ISO standards. It is mandatory requirement for organizations; to get certification under these standards to define parameters that have impact on the satisfaction or dissatisfaction level of customers. (Bhave, 1999).

The practitioners of Mass production focus on developing and marketing of low priced products or services that maximize customer's requirements. The practitioners of Mass Customization focus on the products or services, which can meet the demands of many customers, by providing enough variety through customization (Pine, 1993).

Due to increasing importance of Mass Customization and contradictory approaches of authors and customers, the question, whether mass customization improves the satisfaction level of customers is still worthy of further research. Moreover, in spite of the availability of some studies on this topic in the world no importance has been given to the subject study in Pakistan. This means that the impact of mass customization on customers' satisfaction has not received adequate research attention in many industries of Pakistan. Thus, there seems to be a gap in the available literature and its implication in Pakistan, which requires exploration through research. This research is an effort to fill this space by evaluating the circumstances of paint industry in Pakistan and offering more empirical evidence on the subject.

Literature Review

Alvin Toffler (1970) introduced the expression "Mass Customization". With the invention of latest technology and needs of growing businesses, Stan Davis (1987) deliberated on to the term mass customization. However, due importance to the term / strategy of "Mass Customization" was given first time by Joseph Pine-II (1993). He clearly defined the concept of Mass Customization, stated why it an important for businesses, why customers were shifting from homogenous products to heterogeneous products and what was standard product development life cycle under Mass Customization. He expressed Mass Customization as "Producing individually customized and highly varied products or services and finally a tremendous increase in variety and customization without a corresponding increase in costs" (Joseph Pine-II, 1993). After that many authors presented many definitions of Mass Customization. Suleman

(2007), define it as a special product planned and prepared for special customers to meet their special needs is customized product.

A contrast between Mass Production and Mass Customization extracted from the theory of Joseph Pine-II is shown below:

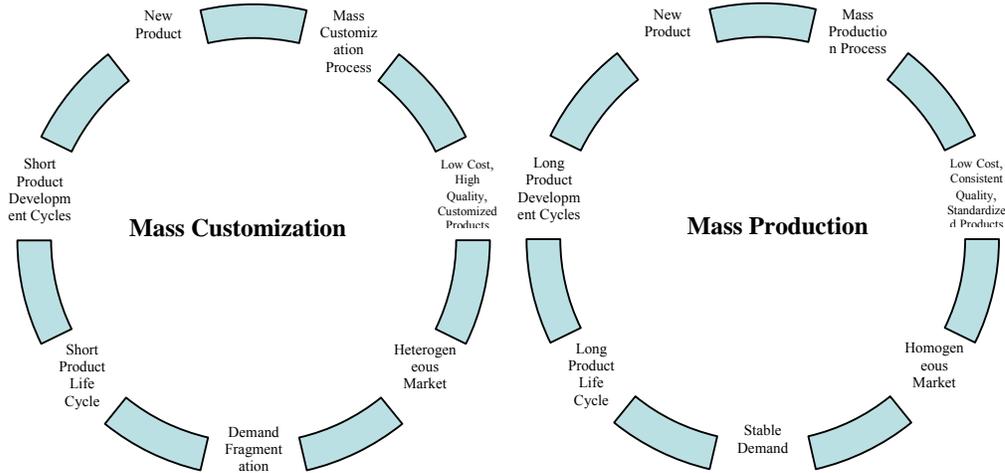
Mass Customization and Mass Production

<i>Differentiating Factor</i>	<i>Standard Products Manufacturers</i>	<i>Customized Products Manufacturers</i>
<i>Attention</i>	<ul style="list-style-type: none"> • Achievement of high efficiency through constant processes. 	<ul style="list-style-type: none"> • Provision of ample range of products through flexible processes.
<i>Objective</i>	<ul style="list-style-type: none"> • Provision of low price products and services, affordable by everyone. 	<ul style="list-style-type: none"> • Provision of products that someone requires.
<i>Other Characteristics</i>	<ul style="list-style-type: none"> • Stable demand • Large, homogeneous market • Low-cost, consistent quality, standardized goods and services • Long product development cycles • Long product life cycles 	<ul style="list-style-type: none"> • Fragmented demand • Heterogeneous niches • Low-cost, high quality, customized goods and services • Short product development cycles • Short product life cycles.

Source: Joseph Pine-II (1993), *Mass Customization*.

In product development process under mass customization, manufacturers increase flexibility by offering innovation and by shortening production operations that accommodates the modifications to fulfill the customer requirements. By making differentiated product, with high pace, price of the product is also kept low. Regular and effective communication between suppliers and customers is essential in mass customization process. The production systems for both strategies i.e. Mass Customization and Mass Production” are listed in Figure 1.

Figure-1



Source: Joseph Pine-II (1993), *Mass Customization*

According to one survey, the cost, which companies have to bear to motivate one new customer, is ten times more than retaining their one existing customer (Kotler, 1997). That's why; organizations are more interested to retain their existing customers, while focusing on new customers. To retain the existing customers, their satisfaction is crucial to be considered by the organizations. Measurement of customer satisfaction provides signal to the organization if it is successful in providing goods and services up to the perceptions of the customers (Joby, 2003). It is recognized by business community that ability of an organization to manufacture innovative product is closely related to its talented resources and efficient utilization of these resources by the organization (Edwards, 1984).

Kotler (1999) defined Customer satisfaction as the equilibrium of customers expected product performance with the actual product performance. If performance of product or service is equal to the expectations of the buyer, then he will be satisfied. If the product's actual performance will be more than the expected performance, the customer will be delighted. On the other hand, if the product's actual performance will be less than the performance that was perceived by the customer, then the customer will be dis-satisfied. To fulfill the demands of the customers by providing products or services, as the customer requires is called Customer Satisfaction. As the expectations of customers and fulfillment of expectations by providing goods or services are close, the customer will be more satisfied. Mostly, organizations use Kano's model to define the features of product or service in the context of stated and derived importance by the customers. This model is also helpful to establish the pre-requisites for the development of products, which requires lengthy processes (Grigoroudis, 2003).

In perfect markets, where businesses fight for new customers, consideration of customers' satisfaction is the differentiating factor for leading organizations (Gitman, 2005). Customer Satisfaction is equal to the perception of product performance by the customers, divided by provision of product performance by the organizations (Garbrand, 2005). Kano (1980) developed a model to ascertain the satisfaction level of customers. This model is based on the product development, while focusing customer satisfaction. It classifies customer priorities into five groups i.e. One Sided, nice-looking, Unique, Real Requirement and Reversible. This model also describes the features of products, which are considered more important for the customers. Organizations can better understand the activities that are needed to meet the customer's needs

after understanding of customers' perceptions. They can evaluate the opportunities available in the market and threats that may be faced by the organization. Similarly, they also evaluate their strengths to avail the market opportunities and can chart out ways for future improvements. Customer expectations are the features of products or services that are defined by the customers and that must be fulfilled or should exceed to achieve satisfaction of the customers (Nigel Hill, 1999).

Evaluation of Customer Satisfaction is useful to give attention to customer requirements and to formulate processes for the improvement of products or services that are used in the Organization. Lord William (1907) says about satisfaction "If you cannot measure it, you cannot improve it".

Customer is never wrong. This is supplier's duty to provide him what kind of product he demands and when he wants to get it. (Fitzgerald, 1995). As the term "Mass Customization" is not much old and use of this strategy is recent tool for business development, so, there is need to analyze all aspects of this strategy. It may happen that in the short run mass customization may cause to develop the business but in the long run produces dis-satisfied customers. Moreover, due to high capital expenditures, this strategy may decrease return on investment in some industries. If so, this strategy may dis-qualify soon in such industries. Only long run satisfied customers are asset of the organization and long run satisfied investors are guarantee of the businesses, hence source of organizational and economic development in a real sense.

The basic objective of this research study is to evaluate the strategy of Mass Customization in the environment of Pakistan and suggest empirically if this strategy is successful in the Paint Industry of Pakistan. Mass customization is not possible in each industry. Advance technology and innovative plants are required to integrate changes according to the desires of the customers. Here in Pakistan, businessmen are not ready to launch heavy investment due to political and economic in-stability, lack of infrastructure and so many other reasons. Only few organizations are using the strategy of Mass Customization. Pakistani customers are also price conscious rather than differentiated.

So all aspects of Mass Customization strategy cannot be explored, while investigating the only one industry. Further research is required to know (1) satisfaction level of customers in the short run and in the long run (2) Favorable cultures for Mass Customization (3) Mass Customization in developed and developing countries and (4) Mass Customization and growth of the country.

V. RESEARCH HYPOTHESES

In order to examine the research problems and to achieve the purpose of this study, the below mentioned hypotheses were developed and tested: -

Hypothesis 1 Customers, using the products of organization that is adopting the strategy of Mass Customization are more satisfied than the customers of organization that is adopting the strategy of Mass Production.

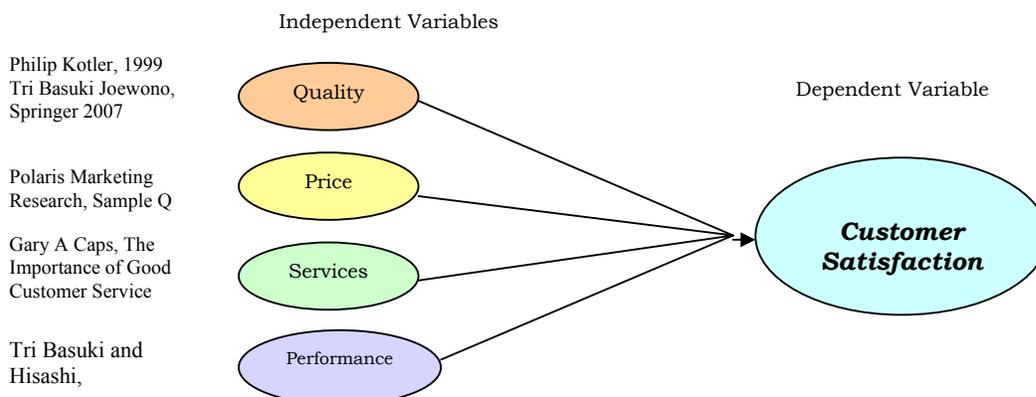
Hypothesis 2

The four independent variables, quality, price, services and product performance will significantly explain the variance in Customers' satisfaction.

THEORITICAL FRAMEWORK

It is difficult to exactly measure the satisfaction level due to its intangible nature (Bhave, 1999). Satisfaction level of customers is a qualitative variable, which can't be measured exactly by any instrument. However, a process can be defined and used to evaluate the satisfaction level of customers. It is revealed from past studies and experiences from economic surveys that there are many elements, which affect the satisfaction level of customers. Published standards are also available that are helpful for the organizations to improve the satisfaction level of their customers. Different scholars have studied the relationship between different independent variables and customer satisfaction. Some authors focused on quality of product, while others gave due importance to the services of the company. Quality of Services; being an important factor of customers' satisfaction has been explored by many authors during past years. As defined by Garvin (1984), service quality is the individually apparent quality of service acknowledged by the customers. Gronroos (1984) said that service quality is the result of an evaluation process, in which a comparison of expectations with the perceptions of the services that they have received is made by the consumers. (Myungsook An and Yonghwi Noh, 2009). Today, the service industry is considered the most important factor of the world market (Lee et al. 2007). In USA, the contribution of service industry towards annual GDP is about 60%. In the worldwide history of recent past, almost 70% of new jobs are due to the expansion of service industry. (Mckee 2008). So, importance of service variable cannot be ignored, while measuring the satisfaction level of customers. Many other researches, defining the variables of customer satisfaction also exist. Berry and Brodeur developed ten Quality Values during 1993 and 1999, which effect satisfaction of customers. These values were further explored by Berry in 2002 and are remembered as the ten domains of satisfaction. These are value, quality of services, in time availability, effortless access, competence to produce, environmental conditions, collaboration of workers, services at front bench, newness, and loyalty to the customers.

Here the objective of this study is not to evaluate the satisfaction measurement elements and to state that which factor is more important and which is less important in the measurement of satisfaction, but the purpose is to determine the overall satisfaction level of customers, considering all possible elements. Satisfaction elements for different products, by different customers of different regions may be different. So, to clearly find out the results of study, customers of paint industry were chosen to be explored. The idea of study was to assess the satisfaction level of customers under the strategy of mass customization and under the strategy of mass production. Four variables Quality, Price, Service, and Product performance were selected as independent Variables for the measurement of dependent variable Customer Satisfaction. The relationship between Dependent Variable and Independent Variables can be seen in diagram below



Customer's Satisfaction is somewhat dependent on these variables. However, these may not be the only variables for the measurement of customer satisfaction. We consider them due to their due importance, while measuring customer satisfaction by previous researchers. Philip Kotler says "Customer Satisfaction is closely linked to quality. Quality has direct impact on product performance and hence on customer satisfaction". The importance of Price Variable cannot be ignored, while studying the Law of Demand. The philosophy behind this law is the satisfaction level of customers. Whether the price is raised or lowered, the action will affect buyers (Philip Kotler, 1997). So price of the product is considered major element, which affects the satisfaction level of customer. Gary A Capps (1997) argues about service that your image as a professional is augmented by your services. If your services are perceived good by the customers, your handling is considered friendly, dealing with clients as efficiently, the customers will think that you are running your business in a professionally manner. They won't think non-professional, and probably they'll trust you Gary A Capps (1997).

METHODOLOGY

Methodology means the clear rules and procedures on the basis of which research is designed, results are proved and knowledge is ascertained. (Ojo, 2003). This section contains the methodology, selected for this study and used in this research to find the objectives of this study. Here, in this study the sampled elements were required to evaluate without any manipulation. So survey research design was used to obtain the desired objectives. The theoretical population, selected for this study belongs to the customers of the paint industry in Rawalpindi / Islamabad, cities of Pakistan. The choice of Rawalpindi / Islamabad stems from the fact that these are major cities of Pakistan and corporate headquarters of both the organizations were available in these cities. Moreover, these two cities depict entirely different customers' behavior and purchasing power. That is useful for more reliable research results. For good coverage of data and to keep the cost of survey low, simple stratified sampling technique was adopted to choose the organizations for research purposes. Paint organizations were classified into two groups based on the production strategy; they were being used. Thus we had Mass Customization Paint organizations and Mass Production Paint organizations. One organization was chosen from each group. Customers of these organizations were divided into three main groups: new customers, mid-period customers and old customers. A stratified random sampling system was adopted to choose a total of 200 customers from each strata organization, which constituted our total sample size of 400 customers. It is pertinent to mention here that financial constraints at scholarly level could not allow choosing greater sample size for study.

Primary data was used for this study. Data was collected using a structured questionnaire. The constructs were operationalized by classifying each variable into major factors, depending upon the nature of the variable. The questionnaire also covers the demographic information related to the respondents. All the responses regarding variables were collected on a five point Likert Scale. To ascertain the key satisfaction and dis-satisfaction variables for the customers, 3open-ended questions were also part of the questionnaire. It was also made sure that the respondents have already used the product before some reasonable time period.

Research Sample and Response Rate

The sample for this study was drawn from the Paint Industry of Pakistan. Due to limited time involved in this study, only 02x organizations, one adopting the strategy of mass customization and other adopting the strategy of mass production were selected for the study. Study participants included new, mid-level and old customers. A variety of products from 02x organizations were included in the sample to address possible variances in the satisfaction level

of customers. 400 questionnaires were distributed in selected outlets of both the organizations. Out of 400 questionnaires, only 300 responded back, out of which 212 were found complete in all respects. All Missed Responses were related to the likes and dislikes in the product against open ended questions. As these don't effects directly the satisfaction level of customers, so these were also included, while measuring the satisfaction level of customers. The response rate is 75%. Responses were collected in a time span of 04 weeks. A general problem while the analysis of data regarding the customer satisfaction is the stated and derived importance of factors (Grigoroudis, 2003). Normally, customers stated and derived features of the product, for the measurement of satisfaction level are different.

Results and Findings

For the purpose of reliability check of the variables / items, Cronbach Alpha of the data set is analyzed. Table A explains the Reliability Analysis (C-Alpha) about the 05 variables (1 Dependent and 4 Independent), comprising of 18 items / questions, discussed in this study.

Table A

Variables	No of Items	Reliability
Quality	3	0.706
Price	2	0.466
Services	4	0.800
Performance	3	0.916
Satisfaction	3	0.647

Reliability of one of the variables is below 0.50, while all other variables show the reliability above 0.50. Cumulative Reliability of all items is 0.91. That is very close to 1. So, the internal consistency reliability of the measures can be taken as good. As the reliability is near to 1, data is considered more valid for analysis (Uma Sekaran, 2000, 2003). This shows that item of price needed improvement.

Regression Analysis

Table B depicts the outcome of running regression between the 4x independent variables and 1x dependent variable.

Legend: Coefficient, Standard Error in Parenthesis, t-value in brackets and P-Value in Italic.

Table B

Constant	Independent Variables				R Square	F
	Quality	Price	Services	Product Performance		
-0.504	0.236	0.202	0.033	0.640	.741	210.453
(0.165)	0.039	0.038	0.056	0.057		
[-3.052]	6.025	5.313	0.600	11.148		
<i>.002</i>	0.000	0.000	0.549	0.000		0.000

Table A is the outcome of regression run between the 4x independent variables (Quality, Price, Services, and Product Performance) and 1x dependent variable (Customer Satisfaction), which were chosen for this study. As a whole analysis of the outcomes predicts that the 4x independent variables significantly regresses the Customer Satisfaction ($P < 0.05$; $F = 210.453$ and $R^2 > 0.7$) while (Standard Error < 1.0). The results in Table A indicate that individual β coefficients for all the variables remain positive. Thus, this study interprets that Customer Satisfaction is positively and strongly correlated with the independent variables. Further, Table A states the virtual importance of the independent variables through its respective t value. Here, for customer Satisfaction (Dependent variable) the Quality, Price, Services & Performance (Independent Variables) are significant (t is positive) (Sekeran, 2000; Cooper and Schindler, 2003)

Hypothesis Testing

It was hypothesized that customers of organization that is adopting the strategy of Mass Customization are more satisfied than the customers of organization that is adopting the strategy of Mass Production. Table C shows the results of means of variables, taken in this study.

Table C

Product Category	Quality	Price	Services	Product Performance	Satisfaction	Overall Satisfaction
Customized	77.86	83.60	83.40	88.80	86.40	84.00
Standard	58.00	69.37	67.42	75.00	66.74	67.33

The above table indicates that overall satisfaction level of customers of the organization that is adopting the strategy of mass customization is 84% while satisfaction level of customers of other organization that is adopting the strategy of mass production is 67.33% that is lower to first organization. If we compare the difference of all variables individually, we see that satisfaction level of customers of first organization is lower within all independent variables (Quality, Price, Services, and Product Performance). The large difference is found in Quality variable that is about 20% and the smallest different between satisfaction levels of customers of both organizations is under the variable of Product Performance that is about 13%. The results show that customers of the organizations, that are adopting the strategy of Mass Customization are more satisfied than the customers of organization that is adopting the strategy of Mass Production.

CONCLUSION

On the basis of this research and analysis of data, we conclude that customers of the Paint organization that is adopting the strategy of Mass Customization are more satisfied than the customers of Paint organization that is adopting the strategy of Mass Production. Hence, the strategy of Mass Customization is more successful in the Paint Industry of Pakistan. We can say that Pakistani customers are innovative and have passion to accept the change. Although, it was assumed that Pakistan is a developing country and its customers would be price conscious rather than innovative, but the results rejected the assumption and showed that the most desirable variable for customers' satisfaction in Pakistan is Quality of the product instead of price. Analysis of Demographic Information, received through questionnaires also indicates that Pakistani customers are innovative irrespective of their qualification and profession. They want and like customized products.

This research opens the doors for other industries of Pakistan to Benchmark the strategy of Mass Customization to become leading organizations of the world. On the basis of this research, we are right to say that if Mass Customization strategy is implemented in other industries of Pakistan, it will not only produce satisfied customers but also will be beneficial for

the success of the organizations. It may be a better tool of success for organizations in this age of competition.

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Work-Life Balance
Comparative study of the social effects of 5 days and 6 days
work on individuals

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Abstract

The purpose of this study is the comparison of effects on social life of individual (both male and female), one who work 6 days a week and second who works 5 days a week. From observation, it is found that working long six days a week is affecting social life (self, family, friends-community and work) of individuals as compared to individuals who work 5 days a week. To support the study, collection and analysis of data is done by observations, surveys, textual analysis and previous researches made on work-life balance have been reviewed (qualitative research). This study addressed social effects of long work on the employees of business sector of Pakistan and found that there is need of compressed workweek and family friendly policies that impact positively on social life of individuals.

Introduction

The purpose of this research work is the comparison of the effects on social life of individual, one who work 6 days a week and second who works 5 days a week. The topic, which is selected as mentioned above, is practical experience of my own, my colleagues at workplace and friends working in other organizations. The basic concept to do research on this topic is to identify the effects of 6 days work in a week (9 a.m. - 6 p.m.) in an individual's life (both male and female). From observation, it is found that working long six days a week is affecting social life of individuals who work 6 days a week as compared to individuals who work 5 days a week.

There are many factors and issues on the basis of which the differentiation can be made between 6 days workers and 5 days workers social life, generally observation includes problems arise after long working hours and days some are like psychological effects, frustration, poor health, less time for self, family and friends, effect on leisure activities and household task, absence or expensive domestic help in house work, dissatisfaction, etc. Normally in Pakistan, one family member earns and rest of the family depends on him/her income to fulfill their needs. Father, brother, husband, wife, etc., work for long hours mostly 6 days a week and do not find enough time to spend with him/her self and family or to take part in family matters or to perform the other things that they want to do eventually it creates lot of problems and disturbs their social life. People in Pakistan are poor, income of people is low, their working hours and days are long, proper health and safety standards are not provided to them. The conditions of work differ both in 6 days and in 5 days workers, which comprise providing appropriate wages, hours of work, occupational safety, health and balance between work and social life.

Another observation is that organizations are not following Human Resource Management (HRM) and Human Resource Development (HRD) plans/policies even in case they have human developmental plan with them and this non-execution of rules burden the employees (6 days worker) who then work till late hours after official timings as per instruction of their bosses and this does not leave enough time in their hands to focus on needs and requirements of their social life. This needs to change that only one day rest after 6 days work with many home works and other activities needs amendment in Pakistan business sector which will stop affecting the social life of individual, the research will accept or reject it later.

Overview of existing researches

Many researchers have done their research on “Work-Life Balance”. Work-life balance has been defined by the National Framework Committee for Work-Life Balance Policies as a “balance between an individual’s work and their life outside work”. They also state that, “that balance should be healthy, that personal fulfillment is important inside work and that satisfaction outside work may enhance employees’ contribution to work (www.worklifebalance.ie).

According to the *Quality of Life in Europe survey*, carried out in 28 countries, work-life balance is an increasingly important issue across Europe (European Foundation for the Improvement of Living and Working Conditions, 2004). The survey found that issues such as working conditions, time spent at work, life-long learning, provision of services by the public sector (e.g., childcare) and pensions were all important factors which feed into the balance struck between an individual’s work and personal life. The report by the Forum on the Workplace of the Future (NCP, 2005) also quotes work-life balance policies as a key factor in improving the quality of working life for employees.

According to Harrington (2001) over 1 in 20 workers in Europe work extended hours. Extended hours are generally taken to mean working more than 48 hours a week. It is thought that individuals are working longer hours because of increasing workloads and job demands, job insecurity and performance standards and pressures (Sparks et al, 1997). The assumption is that such long hours could affect an individual’s health, well-being and performance.

A study was conducted in the field of Human Resource Management by researcher Malik A. et al (2008) on Work/Life Conflicts and Desired Work Hour Adjustments: Banking Perspective in Pakistan. This study highlighted the traditional view of male breadwinner and female homemaker model in Pakistan and further explored the desired and preferred work hour choices by bankers. It further assessed the impact of Work Life Balance and Desired Work Hour Adjustments on employees well being. Employees may be willing to achieve a more integrated balance between paid work and leisure/family/community interests to lead a balanced healthier life. This paper presented a qualitative analysis of work-to-life and life-to-work conflicts and work hour adjustments. Interview method was used as a prime research instrument. A total of 80 interviews were administered in 17 different banks of twin cities of Islamabad and Rawalpindi and the results reported significant increases in work–life imbalance and lack of social support. Long working hours has also become a usual norm in banking industry. In order to be accomplished, employees continuously strive for excellence and skills second to none. The implication of the study is to enable the organizations, to recognize the heterogeneity and multiple obligations of the contemporary and diversified future workforce.

A study was conducted by a researcher Dow-Clark (2002) on Work-Life balance in an industrial setting. Researcher, in methodology took five focused groups of 45 employees working for a large employer in an industrial setting in Canada (man and women) where open-ended questions were asked about work-life balance and how the employer could support it. The key findings and conclusion found in the research were: no common definition of work-life balance was recorded, all groups talked about work-life balance in relation to work hours, for example, being able to decline overtime offers, with regard to stressors, all groups mentioned workload. Other stressors included long work hours, hours of work were often thought to impact on work-life-balance. People who had flexible hours or a partial schedule felt their life was more in balance, people thought that there was a pressure to work excessive hours and make family life secondary if they are to get on in the company.

Another research was done by a researcher La Valle et al (2002) on Happy Families? Atypical work and its influence on family life. The researcher adopted methodology: sample of 1165 working mothers who completed a telephone survey and 40 parents who did an in-depth interview (24 mothers and 16 fathers). The questions covered areas including work patterns and reasons for them, family characteristics, parents attitudes towards use of time, what influence work patterns has on family life and views on what kinds of policies would help reconcile work and family life. There were many findings from this study. Some of the most relevant were that 30% of fathers worked over 48 hours a week, this was particularly common in the managerial and professional job category, atypical work was common among families, there was substantial choice among the professional group over when they could work, mothers tended to structure their work hours around their families, atypical work disrupted family activities, long hours were identified as a 'key pressure point' for families, and something that affected fathers in particular.

Major et al (2001) did research on Work time, work interference with family and psychological distress. The researcher completed written questionnaire surveys covering following items: career identity salient, work overload, organizational norms, perceived financial need, non-job responsibilities, parental demands, schedule inflexibility, work time, time base work interference with family, psychological distress and various control variables. The key findings and conclusion were that long work hours are associated with increased work-family conflict and, at least indirectly, with psychological distress and also found that there were strong relationships between work interference with family and work overload and organizational expectations for time spent at work.

A researcher Parasuraman et al (1996) did research on Work and family variables, entrepreneurial career success, and psychological wellbeing. The methodology adopted by the researcher was sample taken 111 male and female (53% male) entrepreneurs who were attending a business class at university. Researcher completed a survey covering the following variables: autonomy, schedule inflexibility, work-role overload, job involvement, parental demands, social support, family involvement, time commitment to work (includes commuting time and time spent at working at home), work-to-family conflict and family-to-work conflict, family satisfaction and control variables. The key finding and conclusion were that the modal time commitment was 50 – 59 hours for men and 40-49 hours for women. Many relationships were found, the most relevant to this review being that: Male subjects devoted more time to work and less time to family than women did. Work-role overload and schedule inflexibility were associated with increased time commitment to work. Time commitment to work was related to work-family conflict. Work-to-family conflict related to life stress. Time commitment to work plays a mediating role with regard to the effects of gender work characteristics and role demands.

Rational of the study

Work has been done on the topic of work life balance and issues as mentioned in the previous researches but no significant study has been conducted on Pakistan business sector employee. This established the basis for doing this study. The focus of this study is to compare the effects on social life of individuals who work 5 days and 6 days a week, mainly the effects on self, family, friends - community, leisure activities and work. And to find out that changing the practice of 6 days work in 5 days work for employees in Pakistan will help to improve their social life or not, possibility for implementation of this concept (reducing work days from 6 to 5) will be found after analysis, and conclusion will be drawn that will be followed by recommendations.

Literature Review

Pakistan being a collectivist country, has always shared the norms and values of male-breadwinner / female-homemaker model. Cultural norms and values are fast facing the changes like women entrants in work force, both parents working, more broken homes etc resulting in intensification of the need to integrate work and family life as a part of every day's reality and a bitter one too. Undeniable is the fact that sometimes employers forget employees have lives outside the workplace, and it is not uncommon nor necessarily a weakness if employees can't leave their troubles at home. It shall be realized that a balance between work and family life can only be promised via an integration of energy and practices of a full set of institutions affecting work and family life. The new global economy, with its focus on 24/7 availability and long work hours, only worsens the problem generated by the lag in the organizations of paid works, as if workers were without personal interests or domestic care concerns (Moen, 2001 and Malik A. et al, 2008).

The most prominent resource in Pakistan is the human resource. Based on sound economic logic, the optimum utilization and development of the human resources to meet the challenges of the environment may be the most important criterion for organizational survival (Durrani, 1987 and Khalid G.K. et al, 2008).

Human Resource Development (HRD) is concerned with training, development and education; it has been defined as an organized learning experience, conducted in a definite time period to increase the possibility of improving job performance and growth (Gene, 2003 and Khalid G.K. et al, 2008). Training is the acquisition of technology, which permits employees to perform their present job up to predetermined standards. It improves human performance on the job the employee is presently doing or is being hired to do. Also it is given when a new technology is introduced into the workplace. Training is defined as learning that is provided in order to improve performance on the present job. Development is training people to acquire new horizons, technologies, or view points (Gene, 2003 and Khalid G.K. et al, 2008). Development is an activity, which makes an employee better, fuller and a more useful contributor to the achievement of large enterprises goals. Thus, development is concerned with making an individual more effective in achieving present and future goals of the organization (Durrani, 1987 and Khalid G.K. et al, 2008).

Organizations who work on training and development of employee consider the human resource their asset for survival in competitive business environment. This type of organization takes human development as its responsibility and takes care of employee work and other life activities. Employee's development can play a vital role in the success of any organization (Durrani, 1987). Employee development is a joint, ongoing effort on the part of an employee and the organization for which he or she works to upgrade the employee's knowledge, skills, and abilities. Successful employee development requires a balance between an individual's career needs and goals and the organization's need to get work done. Employee development programs make positive contributions to organizational performance. A more highly-skilled workforce can accomplish more and a supervisor's group can accomplish more as employees gain in experience and knowledge. Retaining an employee saves the organization a great deal of money. One method of retention is to provide opportunities to develop new skills. While reading research conducted to assess what retained employees, development was one of the top three retention items. Employee development plans take care of future and present manpower requirements, performance appraisal, and establishment of employee training and development programs and evaluation of such schemes. Employee development programs are often necessitated in case an organization is involved in technological changes, which often means an almost constant redistribution of talents from obsolescent skills to newer ones (Jafri, 1976). The

changes in technology, activities, and social values have increased the importance of career planning and career development of human resources of organizations in present days.

The definition of long working hours appears to be quite ambiguous in many researches and few studies describe exactly what constitutes “long working hours” (e.g. Cooper et al, 1982; Duffy and McGoldrick, 1990; Daniels and Guppy, 1995; Clark, 1996). Most research used weekly working hours to define long hours. However, some research (e.g. Westman, Eden and Shirom, 1985; Bliese and Halverson, 1996) presented daily working hours. These differences make the comparison of different research findings more difficult. However, considering daily hours is important because focusing on weekly working hours may disguise the more acute effects of long days (White J., et al., 2003).

Work-Life Balance (WLB) is very much a ‘buzz’ concept at the present time. Many different organisations and sectors of society seem to be advocating it as ‘a good thing’ (White J., et al., 2003). Kodz et al (2001) found that for some people Work-Life Balance concerned flexibility of schedules, whereas for others it was a reduction in working hours. Dow-Clarke (2002) also found different definitions of WLB in a focus group research and found no common definition of work-life balance within a selection of Canadian employees, WLB was defined with reference to, amongst other things, family life, income and the life cycle. Interestingly, all focus groups talked about WLB in relation to work hours: for example, WLB involves being able to decline overtime offers.

It can assume that work life balance does refer, at least in some part, to working hours that are sufficiently short to ensure an individuals’ desired balance between work and family or home life is achieved and maintained (White J., et al., 2003).

Work-Life Balance is not common term. Within the academic research there are a variety of terms that describe a similar concept. For example, studies have examined work-to-nonwork conflict (Wallace, 1999), inter-role conflict (O’Driscoll et al, 1992) and work-family conflict (Fox & Dwyer, 1999, Major et al, 2001).

Kodz et al (2001) note how most research that addresses the effects of long hours on personal and family factors seems to concentrate on attitudinal surveys or case study type research. They note that this may be because measuring the impact of work on home life is very difficult and it is hard to examine direct causal links. Looking at this type of attitudinal research, they conclude that long hours workers tend to feel that they are not happy with the amount of time they devote to work and how it impacts on their family and home life.

Research supported by the Joseph Rountree Foundation and conducted by the National Centre for Social Research in 2001 (La Valle, Arthur, Millward, Scott and Claydon, 2002) involved a telephone survey of over 1,165 mothers and 40 follow-up interviews with mothers and fathers. It explored the impact of atypical work on family life. Nearly a third of fathers worked long hours (over 48 hours a week). Working long hours was associated with disruption to family activities and atypical work (for example, working at the weekend or evenings) was associated with dissatisfaction with the amount of time mothers were able to spend with their children and with dissatisfaction with the amount of time spent as a couple. Also, long hours (of both parents) were associated with less involvement with and disruption to children’s activities.

Employees work long to make their good place in the organization, they do not avail their vacations / leaves and try to perform every task assigned to them whether it take too much time to complete. Companies expect their workers to be active all the time, it can be said that they expect individuals to be machine. Business and industry in modern times is undergoing rapid

changes due to economic conditions. In order to stay with the firms, workers work with every change come from the top management and forget other activities of life which at later stage appear as social problem by not balancing time between job and personal matters which also cause tiredness and stress among individuals.

Compressed work weeks generally refer to a schedule whereby weekly working hours (e.g., 40-48 hours) are compressed into 5 or fewer days. This means that although the weekly working hours are not particularly long, the daily hours can average around 8, but expanding to 6 days is quite long working days. Baltes et al (1999) in a research findings suggested that compressed workweeks positively affect performance (as rated by supervisors), job satisfaction and satisfaction with work schedule. They did not affect productivity of absenteeism. The positive effects of compressed workweek schedules did not diminish over time.

Looking at an example of a study that looked at the effects of a shorter workweek, Ivancevich (1974) compared two groups of employees working at a US manufacturing company. One group was working a 4 day week of 10 hours per day, whilst the controls were working 40 hours over 5 days. Both groups completed a questionnaire at various points in time. Ivancevich found that people working the shorter workweek (therefore, longer days) reported higher job satisfaction than the controls, and there was a small but significant improvement in perceived anxiety-stress and some measures of job performance. There was no effect on absenteeism.

In a book, "Willing Slaves – How the Overwork Culture is Ruling our Lives", Madeleine (1999) stated that from 1977 to 1997 Americans working full time have increased their average working hours from 43.6 hours to 47.1 hours each week. This does not include time required to travel to and from their places of business.

Work-life conflicts exist when the line separating the work and personal/family activities becomes diffused and blur. This work-life conflict can originate in the home or in the work environment (Frone, Yardley, & Markel, 1997). Work-life conflict is often the result of having too many things to do and too little time in which to do them (Greenhaus & Beutell, 1985; Voydanoff, 2002) since work schedules tend to be less flexible than personal schedules Eagle, Miles & Icenogle (1997). Consequently Greenhaus & Parasuraman (1999) found work is more likely the cause of work-to-life conflicts. Work and life can not be treated as separate domains. Changes in one almost always affect the other. Spending more time with family, for instance should require spending less time working. The above situation becomes grimmer when according to some writers irrespective of the antecedents of the work-life and life-work conflicts; an increase in one typically leads to an increase in the other (Frone et al. 1997).

All employees, both male and female, now deal with aspects of homemaking and breadwinning. This can result in people experiencing more worry about life issues during work hours and because they feel guilty about the intrusion on their personal life on their work life, they may also begin to experience more worry about their job during life hours (Quick et al, 2004).

Work hours can be defined as, “the result of the interplay of three factors: hours per week demanded by the employer, hours per week desired by the worker and the institutional and legal environment”. Long work hours may impair personal health and jeopardize safety both directly and indirectly (Spurgeon, Harrington and Cooper, 1997).

More work will leave lesser time to be devoted to family and socialization resulting into role conflict and ultimately life-work conflicts. This is important aspect long hour works, work under pressure affect the individual work, self, family, friends, leisure activities and community. Work is necessity but it should be a source of personal satisfaction as well.

Spurgeon et al (1997) assert that the 'social effects' of long hours (e.g., family, home and leisure life) have not been systematically investigated, despite many passing references to them.

Social issues are matters which directly or indirectly affect many or all members of a society and are considered to be problems, controversies related to moral values, or both. Social issues are related to the fabric of the community, including conflicts among the interests of community members, and lie beyond the control of any one individual.

Methodology

Research Objective

The objective of this study is to identify differences in social life of individual, one who work 6 days a week and second who work 5 days a week in business sector of Pakistan and how the individual social life get affected by this situation.

Hypothesis:

Individual who work 5 days a week face less social problems than the individuals who work 6 days a week.

The research questions are:

- 1- What are the effects of 6 days job and 5 days job on social life (self, family, friends, community and work) of individual of business sector in Pakistan?
- 2- How individuals are meeting needs and requirements of their social life with 6 days job and in 5 days job?
- 3- What benefits and positive changes will come in social life of individual of business sector in Pakistan by reducing job days from 6 to 5?

Sources of Data Collection

The collection and analysis of data is done by observations, surveys, textual analysis and previous researches done in this area. The study is of qualitative nature.

Analysis with application to Pakistani situation

From observation, it is found that working long six days a week is affecting social life (self, family, friends, community and work) of individuals who work 6 days a week as compared to individuals who work 5 days a week of business sector in Pakistan.

The finding gathered from previous researches done under Work-Life Balance or Work Life Conflict subject showed that individuals are giving number of extra hours to the organization per week, and learned that they were not paid for those extra hours at most places. In general, every individual desired of work-hours adjustments and the provision of the family friendly policies, rather than the reduction in the work hours. The increase in extra hours-per week effected the life of individual both at work and in home or socially. We found in studies that the desire to reduce work-hours is highest in both males and females.

Where most organization takes work from individuals without payment which cause stress, the higher is the desire to reduce work hours. The ultimate outcome can be predicted in the form of work-life conflict if extra hours are constantly required and they do not add to any financial gain to the employee, at the same time consumes the time for child/elder care and self-well being.

Majority researches support the fact that the desire of work hour reduction is more in women than men. Women typically do a greater share of the household labor than men. Females are more likely to be involved in family socialization, elder care, child care and nurturance etc. the job list remains almost infinite for women, thus the desire is highest in married women. The

difference in male and female displays the fact that the nature of household activities is different for the two subjects. Families alone cannot change the structure of careers nor alter the availability of child care. Dual working couples with children were expected to experience more of a life-work conflict and hence increased desires to reduce work hours, but a few results are otherwise, thus raising serious concerns in short and long terms about their own emotional and physical well-being. The result is an increase in long work hours accompanied by an unchanged dependency on women as homemaker and care-giver has dramatically increased Role Conflicts for both genders.

Employee development programs/policies are not fully implemented or introduced in many organizations. Less salary, more hours of work, work at home, and family responsibilities jointly cause stress in individuals and affect the social life. The performances of work diminish which does not satisfy both organization and individual personally. It is another reason that employees advocate it as good thing to reduce work hours to have work-life balance.

Bringing work home is another example of Role Conflict and hence a cause of Life-Work Conflict.

Where the studies showed that the workers working under compressed workweeks or with family friendly policies perform better and feel themselves satisfy and get plenty of time to take part in leisure activities and to manage the work, self, family, friends and community.

Conclusion

In conclusion the literature suggests that working long hours is perceived to impact negatively on various aspects of work and home life. Compressed workweeks (one Work Life Balance practice) tend to be associated with positive effects such as increases in job satisfaction and performance.

Those who did not feel in control of their working lives were much more likely to report a sense of powerlessness in their organisation; much less likely to feel loyal to their organisation or that their organisation was loyal to them. They were also significantly less likely to recommend their organisation as a place to work; to want to leave their organisation; to feel that they were being exploited by their organisation and that their organisation did not take their wellbeing seriously. Work hour adjustments is needed now more than ever before.

Work-Life and Life-Work conflicts evolved as a symbol of failure to maintain the line separating the two spheres of an employee. Employers fail to recognize that employees need provisions for family care resulting in a care dilemma. Increasing work force diversity coupled with intensification of work life changes calls for effective and immediate mechanisms of Work Hour Adjustments.

Compressed workweek and hours give workers leisure time to manage their activities for self, family, friends-community and work. Compressed workweek leaves positive effects such as increases in job satisfaction, performance and balancing work and personal life.

Recommendations

The relationship between long working hours and work-life balance requires proper attention to remove the imbalances and to get the equilibrium in life of individuals. Further research is therefore essential if the continuing trend of working longer hours in Pakistan continues.

Further research should aim to investigate whether 48 hours a week is the appropriate 'cut off' for the maximum length of time an individual should work. It could also further

investigate the acute effects of long hours (for example after a long day) and the cumulative effects (for example, after weekly or monthly long hours).

Good quality studies that look at the effects of reducing working hours would shed more light on the impact of long working hours on health and safety. Data from other countries, where a working week of 35 hours has been adopted, can help to make implementation plan for same in Pakistan.

Work-life balance programs, Flexible working hours in the U.S. and EU are known everywhere in the world which can be adopted by the organizations for its employees in Pakistan. The following lists some of the more common work-life benefits:

- Flex-time
- Telecommuting
- Child care
- Elder care
- Leave (e.g. paternity, etc.)
- Job-sharing
- Employee Assistance Programs
- In-house store/services
- Gym subsidies
- Concierge services
- Vacation
- Work hours

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