An Exploratory Review on Dynamics in Productivity with the Intervention of Human Resource Management (HRM) with Special Reference to the Manufacturing Industry

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Abstract

Dynamics in productivity with the intervention of Human Resource Management (HRM) was identified as a significant area with special reference to the global manufacturing industry. Most of the past research in this area were focused on the dynamics in productivity with non HR factors with reference to both manufacturing and service sectors. Manufacturing industry is highly driven by the achievement of goals and objectives. Human Resource (HR) is one of the key significant resource in achieving goals and objectives. Six key objectives were identified. The methodology adopted was the archival method. This review process covered the published research articles, books and conference papers related to HRM and productivity, which were published within the period of 1960 to 2018. In providing a sound theoretical framework theories such as Systems Theory, Abraham Maslow's Hierarchy of Needs Theory, Frederick Herzberg's Two Factor Theory and Douglas McGregor Theory X and Y have been used.

Five main variables were identified through-out the exploratory review. HRM Functions, organizational factors and personal factors were identified as independent variables. The dependent variable identified was the productivity. Motivation was identified as the mediating variable. Effective launch of the HRM functions such as HR Planning (HRP), recruitment and selection, training, remuneration system, system of appraisals, promotion and career advancement, disciplinary management, employee welfare and HRM Information Systems (HRMIS), enhances the organizational productivity. With the careful handling and effective usage of organizational factors such as leadership, team working behavior, organizational culture, empowerment, work environment and communication system, ultimately make a bigger contribution in enhancing productivity. Personal factors such as attitudes, skills, knowledge, behavior, responsibility and interest also make a vital contribution in enhancing productivity. There is a significant mediating effect of motivation in enhancing the productivity. Finally, based on the research findings of the archival method, a model was developed for further expansion of this specific research area with special reference to the manufacturing industry.

Keywords: Human Resource Management (HRM), Productivity, Motivation, Organizational Factors, Manufacturing Industry

INTRODUCTION

Dynamics in productivity with the intervention of Human Resource Management (HRM) was identified as a significant area, specially referred to the manufacturing sector. Through-out the research history many of the studies were launched related to the topic. However, more research were launched to study the dynamics in productivity with non HR factors with reference to both manufacturing and service sectors in the world. Generally, manufacturing industry is highly driven by the achievement of goals and objectives. Human Resource (HR) is one of the key significant resource in achieving goals and objectives of the organizations. Human Resource Management (HRM) is one of the key functional area in the business organizations that, deals with the various requirements and different matters related to the employees of the organizations. Human Resource Management (HRM) is concerned with the human beings in the organizations. "The management of man" is a very important and challenging job because of the dynamic nature of the people (Ganesan, 2014). Human Resource Management is the process of acquiring training, appraising & compensating employees and of attending to their labor relations, health and safety, fairness concerns (Dessler, 2008). Moreover, Human Resource Management is a management function which helps managers to recruit, select, train and develop organization members (Ganesan, 2014). Based on the previous research, it was identified that, there is a significant effect of different Human Resource Management functions on the organizational productivity. The scope of Human Resource Management includes Human Resource Planning, Design of the Organization and Job, Selection and Staffing, Training and Development, Organizational Development, Compensation and Benefits, Employee Assistance, Union/Labour Relations, Personnel Research and Information System (Ganesan, 2014). As well as, the National Institute of Personal Management (NIPM) of India has defined human resources – personal management as that part of management which is concerned with people at work and with their relationship within an enterprise. Its aim is to bring together and develop into an effective organization of the men and women who make up enterprise and having regard for the well – being of the individuals and of working groups, to enable them to make their best contribution to its success. The key definitions given by the different scholars on Human Resource Management (HRM) are summarized below (Table 1).

Table 1: The key definitions on Human Resource Management (HRM)

Author (s)	Year	Definition
Flippo	1984	Human Resource Management is defined as planning, organizing, directing, controlling of procurement, development, compensation, integration, maintenance and separation of human resources to the end that individual, organizational and social objectives are achieved.
Byars and Rue	2006	Human Resource Management is defined as a system of activities and strategies that focus on successfully managing employees at all levels of an organization to achieve organizational goals.
Armstrong	2006	Human Resource Management is a strategic and coherent approach to the management of an organization's most valued assets: the people who are working there who individually and collectively contribute to the achievement of its objectives.
Dessler	2008	Human Resource Management is defined as the policies and practices involved in carrying out the "people" or human resource aspects of a management position, including recruiting, screening, training, rewarding and appraising.
Opatha	2009	HRM is the efficient and effective utilization of employees in order to achieve goals of the organization; and it is about managing people at work, being the human side of Business Administration having policies, procedures, rules, and systems influencing employees of the organization.
Ganesan	2014	HRM is a process of making the efficient and effective use of human resources so that the set goals are achieved.

Productivity is one of the crucial factors in production performances in manufacturing organizations including both public and private sectors. Productivity growth helps businesses to be more profitable (Fuller, 2016). A productivity measure is expressed as the ratio of output to inputs used in a production process, e.g.: output per unit of input. Moreover, the productivity is explained as a ratio of a volume measure of output to a volume measure of input use. According to the Oxford dictionary definition, the productivity is the effectiveness of productive effort, especially in industry, as measured in terms of the rate of output per unit of input. Moreover, according to the Cambridge dictionary definition, the productivity is the rate

at which, a company or country makes goods, usually judged in connection with the number of people and the amount of materials necessary to produce the goods. According to the Adam Smith (1776) labour can be divided into two broad categories, productive labour and unproductive labour. According to Smith (1776), productive labour, is any work which fixed itself in a tangible object. Moreover, unproductive labour, is any work where the value was consumed as soon as it was created (Smith, 1776). Moreover, Smith (1776) contrasted the role of labourers in a manufacturing plant (productive work) with the tasks of a servant (unproductive work). Moreover, the productivity was defined as a measure of output from a production process, per unit of input (Courbois and Temple, 1975). For example, labor productivity is typically measured as a ratio of output per labor-hour, an input. Productivity may be conceived of as a metric of the technical or engineering efficiency of production. As such, the emphasis is on quantitative metrics of input, and sometimes output. Productivity is distinct from metrics of allocate efficiency, which take into account both the monetary value (price) of what is produced and the cost of inputs used, and also distinct from metrics of profitability, which address the difference between the revenues obtained from output and the expense associated with consumption of inputs (Courbois and Temple, 1975). There are different concepts of productivity, which were developed throughout the scientific research process. These are partial productivity, labour productivity, total productivity and multi-factor productivity.

Production is a process of combining various material inputs and immaterial inputs (e.g.: plans & etc.) in order to make something for consumption (the output). The methods of combining the inputs of production in the process of making output are called technology. When all outputs and inputs are included in the productivity measure, it is called total productivity as shown in equation 1.

$$\text{Total productivity} = \text{Output quantity} / \text{Input quantity} \quad (1)$$

According to the above formula, changes in input and output have to be measured inclusive of both quantitative and qualitative changes (Jorgenson and Griliches, 1967). In practice, quantitative and qualitative changes take place when relative quantities and relative prices of different input and output factors alter. In order to accentuate qualitative changes in output and input, the formula of total productivity can be written as in equation 2.

Total productivity = Output quality & quantity/Input quality & quantity (2)

Dynamics in productivity with the intervention of Human Resource Management (HRM) was identified as a significant area, specially referred to the manufacturing sector. Through-out the research history many of the studies were launched related to the topic. However, more research were launched to study the dynamics in productivity with non HR factors with reference to both manufacturing and service sectors in the world. Therefore, it was identified that, there is a significant research gap in this area. It was identified that, employee involvement in terms of delegation of responsibility and systems of collecting proposals from employees have a positive impact on productivity (Arthur, 1994). Moreover, Arthur (1994) identified that, steel mills that use an HRM commitment system have higher productivity levels than those that do not. Koch and McGrath (1996) and Siebers et al (2008) investigated the impact of a set of HRM practices on labour productivity, to find that investments in HR planning and in hiring practices are positively associated with labour productivity. It was identified that, the innovative HRM practices raise worker productivity in steel manufacturing finishing lines in United Sates (Ichniowski and et al, 1997). It was revealed that, the systems of innovative HRM practices have large effects on production workers' performances in steel manufacturing finishing lines in United Sates (Ichniowski et al, 1997). Moreover, it was revealed that, the workers' performance is substantially better under incentive pay plans that are coupled with supporting innovative work practices-such as flexible job design, employee participation in problem-solving teams, training to provide workers with multiple skills, extensive screening and communication, and employment security than it is under more traditional work practices (Ichniowski et al, 1997). When comparing the productivity of Japanese and USA production line workers, empirical evidence shows that USA manufacturers who had adopted a full system of innovative HRM practices patterned after the successful Japanese system, achieved levels of productivity and quality equal to the performance of Japanese manufacturers (Ichniowski and Shaw, 1999; Siebers et al, 2008). This suggests that the higher average productivity of Japanese plants cannot be attributed to cultural differences; instead, this is related to the utilization of more effective HRM practices (Ichniowski and Shaw, 1999; Siebers et al, 2008).

A study of the factors associated with productivity levels clearly establishes that, the factory management must adopt modern practices to achieve higher productivity (Bheda et al, 2003). This will be possible, only if the supervisory and managerial terms are trained to bring in these changes (Bheda et al, 2003). It was identified that, companies could use a blend of in-house

training along with sponsored staff to attend programs at specialized institutions, so as to learn scientific methods of line balancing plant layout, workplace engineering etc. (Bheda et al, 2003). It was revealed that, trainings for managers, supervisors and operators have a positive association with high productivity in Indian apparel manufacturing industry (Bheda et al, 2003). Moreover, according to Bheda et al (2003) it was identified that, induction training has a positive association with high productivity. It was identified that, factories that had invested in operator training had higher productivity (Bheda et al, 2003). Moreover, it was identified that, it is essential to start an in-house operator training programme for skill as well as work culture, so that the operators are made aware of how to achieve world class performance (Bheda et al, 2003). As the factories are likely to have already gained substantially through implementation of the recommendation on productivity improvement, it is the right time to draw-up an incentive plan for the workforce that encourages higher performance and rewards it suitably (Bheda et al, 2003). Siebers et al (2008) studied about the role of the management practices in enhancing the productivity. Siebers et al (2008) mainly concerned on the Operational Management (OM) practices and Human Resource Management (HRM) practices on productivity. OM practices focus on systems management and include Information and Communication Technology (ICT), Just In Time (JIT), Total Quality Management (TQM), and lean production, amongst others (Siebers et al, 2008). HRM practices focus on people management, in particular the recruitment, development and management of employees (Wood and Wall, 2002; Siebers et al, 2008). Typical HRM practices involve training, development, empowerment and teamwork. (Siebers et al., 2008). It was found that, there is a strong and positive relationship between HRM intensity and productivity (Sels et al, 2006; Siebers et al, 2008). According to Al-Aamri (2010) among the factors of production, the human resource is having the biggest challenge, because unlike other inputs employee management calls for skilful handling of thoughts, feelings and emotions to secure highest productivity.

According to Bloom and Reenen (2010), there is suggestive evidence that, certain types of HRM raise productivity. It was identified that, there is certainly a robust positive cross sectional association between bundles of "modern" HRM practices and productivity, but these are not robust in the time series dimension (Bloom and Reenen, 2010). Katou and Budhwar (2015) has introduced a HRM – Productivity framework which consists with three distinctive components; the HRM systems, the HRM outcomes and the production process. According to the HRM – Productivity model of Katou and Budhwar (2015), the HRM system involves the traditional HRM areas of resourcing and development influences employees' ability to perform by

improving their knowledge, skills and, abilities (Katou and Budhwar, 2015). The HRM system involving the areas of compensation and incentives influences employees' motivation to perform by shaping their attitudes of motivation, commitment, and satisfaction (Katou and Budhwar, 2015). Katou and Budhwar (2015), the HRM system including the areas of involvement and job design influences employees' opportunity to perform by shaping their behaviours such as employee retention (counterpart of turnover) and presence (counterpart of absenteeism). Each of these three HRM systems may directly or indirectly influence all three HRM outcomes of employees' skills, attitudes, and behaviours (Katou and Budhwar, 2015). Therefore, the HRM systems may be associated with more than one HRM outcome category (Lepak et al, 2006; Katou and Budhwar, 2015), indicating that the influences of the three HRM systems on productivity may fully or partially be mediated by the three HRM outcomes (Banks and Kepes, 2015; Katou et al, 2014; Katou and Budhwar, 2015). It was identified that, Human Resource Management (HRM) has a positive impact on productivity, through employee skills, attitudes, and behaviour in Greek manufacturing sector (Katou and Budhwar, 2015). It was identified that, there is a strong positive relationship between HRM practices and labour productivity mediated by HR outcomes in manufacturing SMEs in Japan (Gamage, 2015). It was revealed that, certain HRM practices, such as working in teams, greater discretion and autonomy in the workplace and various employee involvement and pay schemes, do motivate workers and generate higher labour productivity (Cully et al, 1999; Boselie and Wiele, 2002; Gamage, 2015). Kumar et al (2016) explored that, there are fifteen (15) major factors identified in enhancing productivity under four key perspectives; motivation perspective, task perspective, human resource perspective, top management perspective in Indian manufacturing industry. Under motivation perspective, it was discussed on four (4) factors; encouragement to effective communication, reward, recognize and break the monetary and rotate. Under task perspective, it was discussed on four (4) factors; accountability, follow-up, demand realistic targets, manage the workforce but avoid micromanagement. Under human resource perspective, it was discussed on three (3) factors; team work, proactive employees, courses and improvement options (Training). Under top management perspective, it was discussed on four (4) factors; tools and equipment to raise the productivity, availability of water, power and other input supplies, positive attitudes and involvement of management, good working conditions. Positive attitudes and involvement management, proactive employees and good working conditions, tools and equipment to raise the productivity, availability of water, power and other input supplies have been ranked as top five factors in enhancing productivity in Indian manufacturing industry (Kumar et al, 2016).

METHODOLOGY

Objectives of the Study

i. To identify the nature of the dynamics in productivity with the intervention of HRM in manufacturing industry
ii. To identify the intervention of Human Resource Management (Main HRM functions affect) in enhancing Productivity in manufacturing industry
iii. To identify the way that, Human Resource Management (HRM) functions motivate employees in enhancing the productivity in manufacturing industry
iv. To identify the way that, organizational factors motivate the employees in enhancing the productivity in manufacturing industry
v. To find out the significant organizational factors, which motivate the employees in enhancing the productivity in manufacturing industry
vi. To identify the way that, Personal Factors motivate employees in enhancing the productivity in manufacturing industry

Selected Methodology

In achieving the objectives of study, the archival method was adopted by the researcher. Similar methodological approaches were used related to the research fields of Human Resource Management (HRM), motivation and productivity during the past research history (Kumar et al, 2016; Siebers et al, 2008). This review process covered the published research articles, conference papers, published books and papers in Human Resource Management (HRM) and Productivity within the period of 1990 to 2017. In order to provide a sound theoretical framework for this review the key theories were used in the fields of Management and HRM, such as Systems Theory, Abraham Maslow's Hierarchy of Needs Theory, Frederick Herzberg's Two Factor Theory and Douglas McGregor Theory X and Y. Based on the literature review and the theoretical background, the researcher has developed a conceptual framework, which could be able to apply for the future research studies under the topic of dynamics of productivity with the intervention of HRM.

LITERITURE REVIEW AND RESULTS

Dynamics in productivity with the intervention of Human Resource Management (HRM) was revealed through-out the past research history by various scholars in different countries in the world. The previous research findings were related to the fields of both manufacturing and service sectors. However, throughout the previous literature, numerous scholars have discovered on different factors which affect and enhance the organizational productivity linked to the manufacturing industry. Most of the researchers have revealed on non-HRM factors such as trade openness, technology transfer, capital investment, technological innovations and Information and Communication Technology (ICT), which effect on organizational productivity. According to the previous literature, consideration of HRM factors in enhancing organizational productivity in manufacturing industry was touched in very little manner with comparison to the non-HRM factors.

According to Petrescu and Simmons in 2008, several human resource management practices raise workers' overall job satisfaction and their satisfaction with the pay. Satisfaction with pay is higher, where performance-related pay, seniority-based reward systems are in place, and a pay structure, which is perceived to be unequal, is associated with a substantial reduction in both non-union members' overall job satisfaction and their satisfaction with pay (Petrescu and Simmons, 2008). Although, effective human resource management practices can raise workers' job satisfaction significantly, if workplace pay inequality widens consequently then non-union members may experience reduced job satisfaction (Petrescu and Simmons, 2008). It was reported that 89% of employers think their people leave for more money, while only 12% of employees actually do leave for that reason (Greenburg, 2008). Compensation alone is not enough to keep the highly skilled motivated and experienced workforce your business needs to excel and in a four years analysis of more than 100,000 employees worldwide, the Corporate Leadership Council discovered that while workers join companies for rational motives; better compensation, benefits and career opportunities they work hard for emotional ones (Greenburg, 2008).

Most important, managers must understand that annual raises and promotion opportunities are not always enough (Jeffords et al., 1997). Non-technical training and high salaries will have a positive impact on Human Resource (HR) outcomes of managers while job security is the most important predictor of HR outcomes for employees (Fey et al. 2000). There are many

dimensions to optimizing the organizational environment in order to improve productivity through improved employee motivation. Successful team building will have far-reaching ramifications in the organization (Fey et al. 2000). Improve the way team members interact and you improve their ability to solve problems. Better problem solving means better efficiency in general. Increased efficiency tends to boost morale and productivity. It also helps to decrease stress, turnover and operating costs. The importance of the job design and job involvement can also increase the job satisfaction and performance because when the employee is fits his educational background on the nature of his work; there is a significant result on the process of performing that specific job (Baker, 2001). According to Robinson (2004) organizations should encourage initiative and creativity of organizational employees by allowing for some flexibility in application of rules and regulations. The reason is too much rigidity in applying the rules may constitute a setback in the modern growth of the organization and reduce the initiative and creativity of employees, which will affect on the morale of the employees (Robinson, 2004). And, it was found that, the absence of employee empowerment in Sri Lankan apparel manufacturing sector is affecting adversely for the competitiveness and number of long-term implications is associated with this (Kapuge and Smith, 2007). Moreover, it was suggested that, corrective actions are highly necessary for the absence of employee empowerment in Sri Lankan apparel manufacturing sector (Kapuge and Smith, 2007).

Effect of Human Resource Management (HRM) Functions on Productivity

Based on the previous research findings, different key dimensions of Human Resource Management (HRM) functions were identified. The identified key dimensions of HRM functions and the related literature are descriptively tabulated below (Table 3.1).

Table 2: Key dimensions of HRM functions and the related literature

Year	Author	Descriptive Literature	Dimensions of HRM Functions
2013	Anyadike	It was revealed that, the Human Resource Planning (HRP) is essential for productivity and organizational effectiveness and efficiency because, it acquires best human resources, focuses on corporate goal, utilizes human resources, develops human resources, reduces uncertainty and labour cost, regularizes production,	**Human Resource Planning (HRP)**

		maintains good industrial relation, keeps records and controls human resources.	
2013	Anyadike	Human Resource Planning (HRP) ensures the employee productivity in Nigerian public organizations.	
1996	Koch and McGrath	It was investigated the impact of a set of HRM practices on labour productivity, to find that investments in HR planning and in hiring practices are positively associated with labour productivity.	
2008	Siebers et al.		
1987	Holzer,	It was found that, extensive recruiting efforts increase the productivity (Holzer, 1987; Huselid, 1995).	**Recruitment & Selection**
1995	Huselid		
1997	Ichniowski et al	It was found that, extensive recruiting and selection is one of the foremost policy area in Human Resource Management.	
2003	Bheda et al.	It was revealed that, companies could use a blend of in-house training along with sponsored staff to attend programs at specialized institutions, so as to learn scientific methods of line balancing plant layout, workplace engineering etc.	**Training**
2003	Bheda et al.	It was found that, trainings for managers, supervisors and operators have a positive association with high productivity in Indian apparel manufacturing industry (Bheda and et al, 2003).	
2003	Bheda et al.	It was identified that, induction training has a positive association with high productivity. As well as, it was identified that, factories that had invested in operator training had higher productivity.	
1994	Bartel	It was identified that, there is a linkage between the adoption of training programs and productivity growth.	
1995	Huselid		
1985	Jette and Katzell	It was revealed that, training, goal setting and socio technical systems design have significant and positive effects on the productivity.	
1995	Huselid		

2005	Gamage	Training and development is one of the significant HRM function which leads to higher labour productivity in manufacturing SMEs in Japan.	
2014	Trehan and Setia	Training is one of the significant HR practice that would support a healthy and innovation-oriented HR system in an organization.	
1997	Ichniowski et al	Training is one of the significant policy area in HRM.	
1998	Guzzo	It was identified that, the training is one of the most powerful way to increase the individual productivity. Moreover, it was further identified that, the effect of training is strongest on output measures of productivity.	
1993	Anderson et al.	Responses to incentives for productivity in the public sector have been studied. It was found that, there is a positive response to incentives.	**Remuneration System**
1997	Cragg		
1997	Courty and Marschke		
1996	Heckman et al.		
1993	Anderson et al	It was identified that, incentive scheme has a positive effect on productivity.	
2005	Rao	It was found that, implementation of incentive scheme motivates the employees of the company to improve production level, achieve better consumption of raw materials and thus achieve higher productivity.	
2006	Rao	It was found that, implementation of a multi-factor incentive scheme motivated the employees of manufacturing company to improve production levels, achieve better consumption of raw materials and thus achieve higher productivity.	
2015	Katou and Budhwar	It was revealed that, employee compensation and incentives play a much more crucial role in	

		determining organizational productivity, than employee resourcing and development, and involvement and job design.	
1992	Garhart and Milkovich	Moreover, it was revealed that, there is are linkages between incentive compensation systems and productivity.	
2016	Tadioeddin	It was identified a positive linkage between wages and productivity in large-medium scale manufacturing industry in Indonesian manufacturing sector.	
2005	Gamage	It was identified that, the compensation management is one of the significant HRM practice which has a positive relation with labor productivity in manufacturing SMEs in Japan.	
2012	Solomon et al.	It was revealed that, there is a significant relationship between incentive system and employee motivation in manufacturing firms in Nigeria. The implication of this is that there is an adequate provision of motivation by Cadbury Nigeria Plc and improvement in employee productivity and, a positive correlation between employee productivity.	
2005	Gamage	It was identified that, performance evaluation is one of the significant HRM practice which has a positive relation with labor productivity in manufacturing SMEs in Japan.	**System of Appraisals**
2014	Trehan and Setia	It was identified that, performance based reward is one of the significant HR practice that would support a healthy and innovation-oriented HR system in an organization.	
2010	Bloom and Reenen	It was found that, promotions is more prevalent in the US and Northern Europe than Southern Europe and Asia. Accordingly, the data on productivity is much better and have shown wide distributions of	**Promotion & Career Advancement**

		productivity within and between countries and HRM appears to mirror these patterns.	
2014	Jayarathna	It was identified that, there is an impact of career development on employee productivity of executive employees of the Apparel Industry in western province in Sri Lanka.	
2017	Anthony	It was found that, the effective disciplinary policy County Education Office Human Resource Department in Turkana County are effective in that the organization has helped in controlling employee's behavior by ensuring there is teamwork and cohesion in the organization.	**Disciplinary Management**
2017	Waititu et al.	It was revealed that, five variables of employee welfare programmes including occupational health; succession plans; training and development; employee referral scheme and remuneration policies, have an effect on employee performance at Kenya Railways Corporation.	**Employee Welfare**
2010	Bloom and Reenen	It was identified that, Information and Communication Technology (ICT) appears particular important with several pieces of evidence that combining ICT with the right fit of HRM practices makes a large difference for productivity.	**Human Resource Management Information Systems (HRMIS)**
2016	Rukumnuaykita and Pholphirulb	Information Technology (IT) plays a key role in enhancing productivity among both professional and production workers in Thai manufacturing sector.	

According to the literature (Table 2), nine (09) key dimensions for HRM Functions, such as, Human Resource Planning (HRP), Recruitment and Selection, Training, Remuneration System, System of Appraisals, Promotion and Career Advancement, Disciplinary Management, Employee Welfare, Human Resource Management Information Systems (HRMIS) were identified.

Effect of Organizational Factors on Productivity

Based on the previous research findings, different key dimensions of Organizational Factors were identified. The identified key dimensions of Organizational Factors and the related literature are descriptively tabulated below (Table 3).

Table 3: Key dimensions of Organizational Factors and the related literature

Year	Author	Descriptive Literature	Dimensions of HRM Functions
2013	Namin et al.	It was identified the most important factors which enhance the productivity among the faculty members of the universities. According to the findings leadership method is one of the significant factor, which enhances the productivity.	**Leadership**
2006	Islam and Shazali	It was identified that, having a good boss is a significant contributory factor for motivating the workforce towards higher output in labor intensive manufacturing industry.	
2009	Battisti and Iona	It was identified that, moderate degrees of "bossing" would be a contributory factor to motivate the workforce.	
2016	Rukumnuaykita and Pholphirulb	It was found that, the non-cognitive skills such as leadership skills are also important and seem to have positive relationship to labour productivity among Thai manufacturers.	
1989	Hussein	It was identified that, informal group behavior significantly effect on productivity.	**Team Working Behavior**
2006	Islam and Shazali	It was found that, working with a good team is a significant contributory factor for	

		motivating the workforce towards higher output in labor intensive manufacturing industry.	
2014	Trehan and Setia	Team development is one of the distinctive HR practice that would support a healthy and innovative-oriented HR system in an organization.	
2015	Kelepile	Organizational culture, which is closely connected to productivity, is critical to the business success as this is the process which an organization develops its internal capacity to be effective in its mandate in the short, medium and long term.	**Organizational Culture**
2015	Kelepile	Managers and leaders are recommended to develop the strong culture in the organization to improve the overall performance of the employees and organization.	
2015	Kelepile	It was revealed that, culture is a key factor not only in achieving organizational goals, but in attracting and keeping desirable employees, creating a positive public image, and building respectful relationships with stakeholders.	
2015	Kelepile	It was revealed that, there is a significant impact of Organizational Culture on productivity and quality management in Diamond Operations Unit.	
2013	Namin et al.	It was identified the most important factors which enhance the productivity among the faculty members of the universities. According to the findings organizational	

		culture is one of the significant factor, which enhances the productivity.	
2013	Namin et al.	It was identified the most important factors which enhance the productivity among the faculty members of the universities. According to their findings empowerment is one of the significant factor, which enhances the productivity.	**Empowerment**
2009	Battisti and Iona	It was identified that, moderate degrees of empowering would be a contributory factor to motivate the workforce.	
2001	Capelli and Neumark	It was identified that, empowering work practices are related to greater productivity (Capelli and Neumark, 2001; Siebers and et al., 2008).	
2008	Siebers et al.		
2013	Namin et al.	It was identified that, environmental conditions is one of the significant factor, which enhances the productivity among the faculty members of the universities.	**Work Environment**
2006	Islam and Shazali	It was found that, favorable working environment is one of the significant factor effect on productivity. It was identified that, a favorable working environment, such as working with a good team, having a good boss, and liking the physical surroundings in the workplace, is a contributory factor for motivating the workforce towards higher output. The presence of all these factors in the workplace could gear up the morale of workers and contributes to increased manufacturing productivity.	

2009	Battisti and Iona	It was found that, there is a strong association between favorable working environment and productivity.	
2016	Rukumnuaykita and Pholphirulb	It was found that, the non-cognitive skills such as communication is also important and seem to have positive relationship to labour productivity among Thai manufacturers.	**Communication**

According to the past literature (Table 3), six (06) key dimensions for Organizational Factors, such as, Leadership, Team working behavior, Organizational culture, Empowerment, Work environment, Communication system were identified.

Effect of Personal Factors on Productivity

It was identified that, Human Resource Management (HRM) has a positive impact on productivity, through employee skills, attitudes, and behavior in Greek manufacturing sector (Katou and Budhwar, 2015). According to the findings of a cross-sectional, single-respondent empirical study of 52 Japanese multinational corporation subsidiaries in the US and Russia, it was identified that, employee skills, attitudes and behaviors play a significant role in order to achieve the firm's outcomes (Park et al, 2003 Siebers et al, 2008). In addition, it was revealed that, the labour productivity of a firm tends to increase if both groups of workers develop different skills (Rukumnuaykita and Pholphirulb, 2016). Behavioral skills, such as social skills, are found to have a statistically significant effect on professional workers in Thai manufacturing sector (Rukumnuaykita and Pholphirulb, 2016). Moreover, it was identified that, the numerical skills and adaptability skill among production workers are found to have a significant impact on an overall improvement of a firm's labour productivity in Thai manufacturing sector (Rukumnuaykita and Pholphirulb, 2016). It was found that, higher degree of skills, favorable working environment and Research and Development (R & D) are important inputs to a labor-intensive manufacturing process, which is positively associated with productivity (Islam and Shazali, 2006). Employee involvement in terms of delegation of responsibility and systems of collecting proposals from employees have a positive impact on productivity (Arthur, 1994). It was revealed that, hiring workers who have a higher education has the most impact on an increase in labor productivity, followed by hiring workers with

secondary education (Rukumnuaykita and Pholphirulb, 2016). It was identified that, the personal factors such as perception of behavior, interest and needs significantly effect on organizational productivity in Sri Lankan apparel manufacturing industry (Sandeepanie and Ubayachandra, 2014). According to the research findings of Shanmugasundaram and Panchanatham (2011), it was suggested that, labour productivity can be improved by imparting knowledge and skills to the workforce by arranging training programmes with experts both from India and abroad.

Mediating Effect of Motivation on the Relationships; Relationship between HRM Functions and Organizational Productivity, Relationship between Organizational Factors and Organizational Productivity, Relationship between Personal Factors and Organizational Productivity

During the early history, employees were considered as just an input into the process of production of goods or services (Dickson, 1973). However, this concept has been changed with the Hawthorne studies which was conducted by Elton Mayo from 1924 to 1932 (Dickson, 1973). The Hawthorne studies began the human relations approach to management, whereby the needs and motivation of employees become the primary focus of managers (Bedeian, 1993). According to the findings of the Hawthorne studies, employees are not motivated solely by the money and the employee behavior is linked to their attitudes (Dickson, 1973). It was identified that, the job motivation is a main criteria and principle in human resource management (Ortiz and Tran, 2007). According to Alibakhshi and et al. (2010), one strategy for reaching ultimate goals and objectives is the motivation. According to Garderner and Lambert (1972), motivation is said to be intrinsic or extrinsic. Motivation is a complex phenomenon, which is influenced of individual, cultural, ethnic and historical factors (Ortiz and Tran, 2007). Job motivation is a main criteria and principle in human resource management (Ortiz and Tran, 2007). The key definitions given by the different scholars on Motivation are summarized below (Table 4).

Table 4: Key Definitions on Motivation

Author (s)	Year	Definition
Atkinson, J.W.	1964	Motivation is defined as the contemporary immediate influence on the direction, vigor and persistence of action.

Bartol, K.M. and Martin, D.C.	1998	Motivation is considered as a powerful tool that reinforces behavior and triggers the tendency to continue. In other words, motivation is an internal drive to satisfy an unsatisfied need and to achieve a certain goal. It is also a procedure that begins through a physiological or psychological need that stimulates a performance set by an objective.
Bedeian, A. G.	1993	Motivation is an internal drives to satisfy an unsatisfied need and the will to accomplish.
Campbell, J.P. and Pritchard, R.D.	1976	Motivation is defined as a set of independents and dependent relationships that explains the direction, amplitude and persistence of an individual's behavior holding constant the effects of aptitude, skills, understanding of a task and the constraints operating in the work environment.
Anne, M.	1999	Motivation is a term that refers to a process that draws, controls, and sustains certain behaviors and also explored that each employee has different needs and desires which means the motivation factors is different from one employee to another
Agbato, J.	1988	Motivation is an important determination of human behavior, it sit that which moves one towards a goal, thus, motivation begat performance.
Gardner, R. C. and Lambert, W. E.	1972	Motivation is about the moving employees toward doing the job and achieving the goal through rewards.
Folajin, L.	2001	Motivation is defined as generally when somebody is stimulated, the interest of a worker so as to be able to work and bring or breeds efficiency in his work.
Robin, S.P. and Decenzo, D.	1995	Motivation is defined as the willingness to exert high level of effort to reach organizational goals, conditioned by the effort's ability to satisfy some individual need.
Anne, M.	1999	Motivation is a term that refers to a process that draws, controls, and sustains certain behaviors and also explored that each employee has different needs and desires which

		means the motivation factors is different from one employee to another
Hislop, D.	2003	Motivation is a kind of force which pushes employees to do things which is a result of the individual needs being satisfied so that they have the inspiration to complete and proceed with the task.
Carver, C.S. and Scheier, M.F.	1998	Motivation is the psychological force that enables action and has long been the object of scientific inquiry

According to Bartol and Martin (1998), motivation is considered as a powerful tool that reinforces behavior and triggers the tendency to continue. In other words, motivation is an internal drive to satisfy an unsatisfied need and to achieve a certain goal (Njambi, 2014). It was revealed that, the motivation is the strength and course of behavior, these three concepts can be referred to as how hard be the individuals‟ efforts and for how long are they maintained (Elliot and Zahn, 2008). And, motivation is a term that refers to a process that draws, controls, and sustains certain behaviors and also explored that each employee has different needs and desires which means the motivation factors is different from one employee to another (Anne, 1999). According to Ran (2009), motivation is the process that accounts for an individual's passion, direction, and determination of effort toward attaining a goal. According to Suwannathep et al (2006) it was identified that, the human resource development process, including motivation effects on the productivity and competitiveness among middle and higher level employees in Thailand. Implementation of the motivational theories successfully over the workers level in a leading apparel manufacturer in Bangladesh, number of resulting benefits return were obtained from the motivated employees, such as the reduction of the rejection rate from 30 % to 5 % and meeting the on time delivery in Bangladesh apparel manufacturing industry (Ahmad S et al, 2010). According to Neff (2002), organizational productivity is increased by the employee motivation. Emery and Oertel (2006) revealed that, by identifying the each employee's needs; both extrinsic and intrinsic employee, motivation process can be launched and it will enhance the organizational productivity ultimately. Moreover, higher organizational productivity is significantly affected by the adequate employee motivation in Nigerian workplaces (Robinson, 2004).

As well as, Chew in 2005 identified that, salary and compensation, fringe benefits, training and development, performance appraisal systems, as well as promotion and career advancement

are significantly effect on employee motivation and employee retention among the talented cadres in an organization. According to Rao (2005), implementation of incentive scheme motivates the employees of the company to improve production level, achieve better consumption of raw materials and thus achieve higher productivity. It was found that, the effect of motivation on employee productivity is of paramount important to the organizations in Nnewi manufacturing firms (Maduka and Okafor, 2014). Moreover, it was investigated that, there is a positive relationship between employee motivation and employee productivity of executive employees in western province of Sri Lanka (Jayarathna, 2014). It was revealed that, monetary benefits such as, year-end bonus, emergency subsidies, pensions, holidays and leave have a positive impact on motivation among both executive and non-executive employees in the public sector in Taiwan (Hong et al, 1995). Moreover, it was identified that, there is a significant relationship between incentive system and employee motivation in manufacturing firms in Nigeria (Solomon et al, 2012). The higher monetary rewards motivate the higher performances towards the organizational goal achievement (Wickramasinghe and Dharmasiri, 2006). According to Sandeepanie and Ubayachandra (2014) it was found that, there is a strong positive relationship between employee motivation and productivity in Sri Lankan apparel manufacturing industry. As well as, it was identified that, different organizational factors such as feedback, co-workers, task design, supervision and rewards significantly effect on employee motivation in Sri Lankan apparel manufacturing sector (Sandeepanie and Ubayachandra, 2014). According to Ortiz and Tran (2007) interesting work, promotion and growth in the organization, personal loyalty to employees, good working conditions and tactful discipline are the key significant motivational factors for the employee motivational process. According to Al-Aamri (2010), employee motivation delivers long-term benefits in the form of high productivity the employee's motivation has a significant direct impact on organizational productivity and growth in private sector organizations in Malaysia. According to Armstrong (2006) employees, who are motivated, produce a high quality work. Malik et al (2011) identified that, there is a significant relationship among all factors; employee's performance and motivation towards the organizational effectiveness. That results showed that increased employee's performance accelerate organizational effectiveness (Malik et.al, 2011). According to Malik (2011), as the employees get self-motivated, spontaneously the organizational effectiveness moves in a positive way. There is a positive and direct correlation between motivation and productivity among organization's employees and being careful about fulfilling the motivation factors causes a considerable improvement (Alibakhshi, 2010).

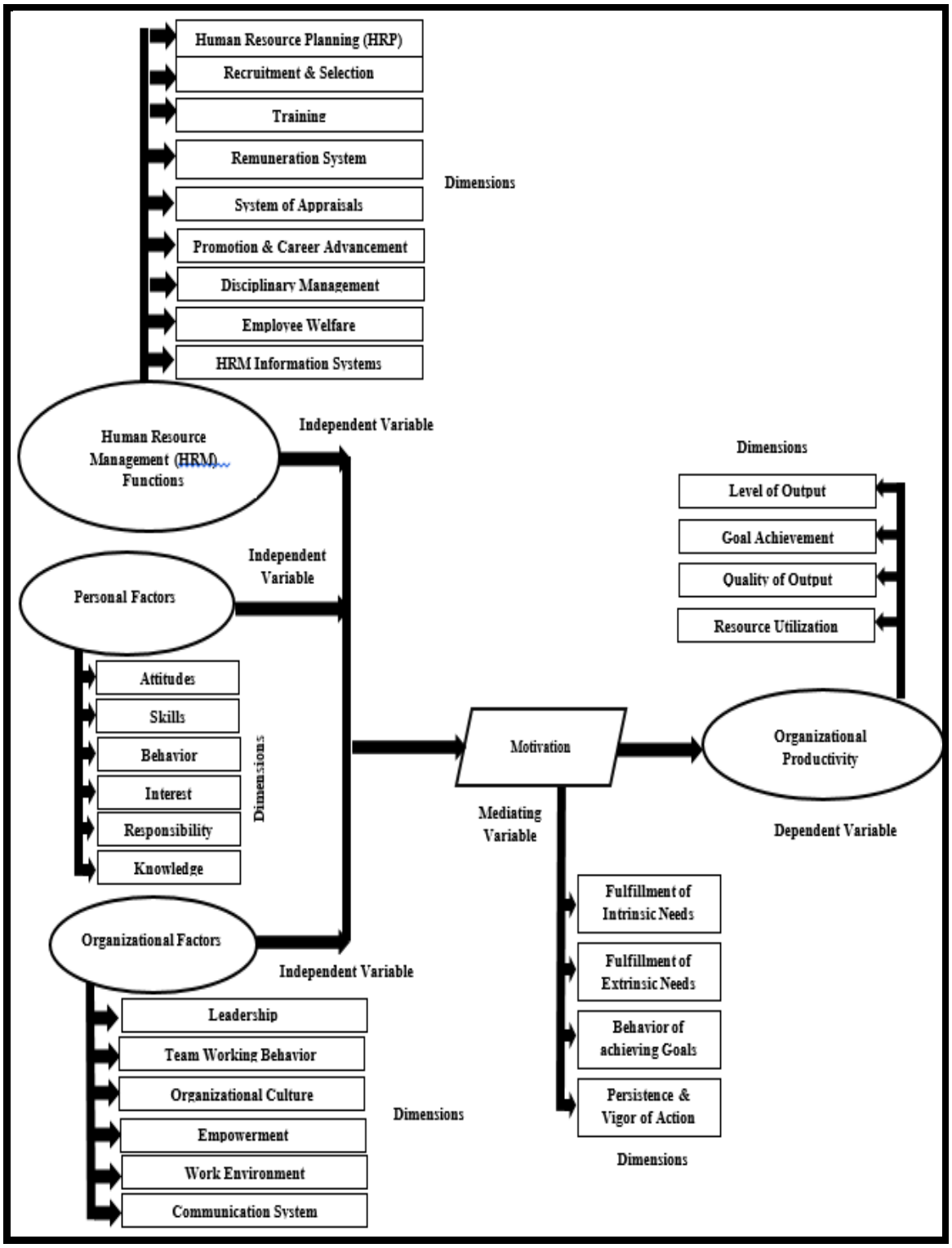
DISCUSSION AND CONCLUSION

Based on the findings of the archival method launch under the research study on "dynamics in productivity with the intervention of HRM", four main variables are identified. Organizational Productivity is identified as the dependent variable of the study. And, the identified independent variables are HRM Functions, Organizational Factors and Personal Factors. Motivation is identified as the mediating variable.

Enhancement of organizational productivity depends upon the efficiency and effectiveness of the management of key HRM functions by the organizational top management. The key HRM functions concerned are Human Resource Planning (HRP), Recruitment and Selection, Training, Remuneration System, System of Appraisals, Promotion and Career Advancement, Disciplinary Management, Employee Welfare, Human Resource Management Information Systems (HRMIS). Moreover, enhancement of organizational productivity depends upon the effective and efficient management of different organizational factors such as leadership, team working behavior, organizational culture, empowerment of the employees, work environment of the company and the existing communication system of the organization. Furthermore, enhancement of organizational productivity depends upon the personal factors such as attitudes, skills, behavior, interest, responsibility and knowledge of the employees. Moreover, there is a mediating effect of Motivation on the three main relationships identified; relationship between HRM functions and productivity, relationship between organizational factors and productivity, relationship between personal factors and productivity.

Finally, a model was developed based on the findings of the archival method (Figure 4.1). The developed model can be utilized for the future research studies on dynamics of the productivity with the intervention of HRM with special reference to the manufacturing industry. This model can be utilized for the comparative studies between public sector and private sector manufacturing industries as well. Ultimately, the identified pool of literature on the dynamics of productivity with the intervention of HRM is a tremendous yield in filling the gaps of this highly important HRM research filed.

Figure 1: The developed Model for the Dynamics in Productivity with the intervention of HRM



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