CHAPTER THREE- HUMAN RESOURCE MANAGEMENT IN THE CONTEXT OF ORGANIZATION PERFORMANCE

3-1 Introduction

Researchers are always in dispute whether human resources can be seen as a source of sustained competitive advantage for organizations (Barney, 1991). The assumption is that human resources are unique to the extent that competitors cannot imitate them. This family of research has led to the classification of a number of human resource management practices that are said to contribute to the company performance across different organizations (Becker and Huselid, 1995).

At present, the contribution of HRM to organization performance is being debated in the literature. In particular, existing literature relevant to this topic, relationship between HRM practices an organization performance, shows that the former has not only been found to influence human resource management outcomes (e.g., turnover, absenteeism, stress and burnout), but also other organizational performance indicators (e.g., reputation, sustained competitive advantage, sales growth, return on investments, and sales per employee).

The nature of the interaction between HRM and performance, and particularly the search for conclusive evidence of the decisive positive impact of the former on the latter, is for many the whole subject area’s ‘Holy Grail’. Yet, despite the substantial empirical evidence that has been amassed worldwide in the 20 years since the pioneering studies into this relationship (Arthur, 1994; Guest and Hoque, 1994; Huselid, 1995; Kalleberg and Moody, 1994; MacDuffie, 1995; Snell and Youndt, 1995), a memorable summation of the state of play in 1997 remains apposite. Researchers in the field still require ‘a theory about HRM, a theory about performance and a theory about how they are linked’ (Guest, 1997).

The purpose of this chapter, however, is to review existing research works focusing on HRM, HRM practices, aspects of organizational performance and the relationship between HRM
practices and performance indicators. Before we embark on such a review, giving background information on each of these elements is considered essential in order to gain a clear understanding on how one should approach this topic. Thus, this chapter has been organized in the following order-

- Part One: Human Resource Management
- Part Two: Organization Performance Management
- Part Three: The link between human resource management and organization performance indicators; and
- Part Four: The aim of the study, objectives, research questions and assumptions.

To gain an adequate understanding on each of these main headings, each of them has a number of sections and sub headings.

3-2 Part One: Human Resource Management

3-2-1 Introduction

The notion of human resource management (HRM) was originally developed in the USA in the last three decades or so (Fombrum et al1984). Nowadays, not only in USA, but also in most of the developed countries, particularly the UK, this concept HRM has assumed a more distinctive nature, rather than merely being labelled as personnel management. To understand how this concept has developed in relation to organization performance, it is useful to review the elements which shape its identity. They are-

- HRM History and Definition
- HRM models
- HRM forms
- HRM perspectives
- HRM practices
- HRM measurements
3-2-1-1 HRM History and Definition

For most part of the literature, HRM has been defined as a set of “employee management activities managing employees and several made an assessment of the effectiveness of the HR function e.g., Huselid et al, Richard and Johnson, 2001.”

The family tree of HRM go back as far as the 1950s, when writers like McGregor pointed out the need for visionary goal-directed leadership and management of business integration. These management scholars also emphasised the ‘value’ aspect of human resources (HR) in organisations and disputed for a better quality of working life for workers. This formed the roots of the ‘organisational development movement’ initiated by Bennis in the 1970s.

The ‘Human Resource Accounting’ (HRA) theory developed by Flamholtz (1974) was the result of these sequential developments in the field of HRM and is considered to be the root of HRM as a defined school of thought. HRA stressed human resources as assets for any organisation. This ‘asset’ viewpoint began to gained momentum in the 1980s. The last thirty-five years or so have then witnessed rapid developments in the field of HRM, which are the result of a number of factors such as growing competition (mainly to US/UK firms by Japanese firms), realisation about the prospects of HRM’s contribution towards firms’ outcomes, slow economic growth in the Western developed nations, creation of HRM chairs in universities and HRM-specific positions in the industry, introduction of HRM into MBA curriculum in the early 1980s and a continuous stress on the involvement of HRM strategy in the business strategy.

Human Resources Management (HRM) is a set of practices that the business uses to ensure that they have an effective labour force in place to meet operational requirements. Research shows that successful organizations are those which value, develop and nurture their human capital to achieve their organizational goals and objectives. HRM Practice is a term used by many organizations which describe the combination of traditionally administrative personnel functions with employee relations, performance and resource planning. The objective of HRM practices is to maximize the return on investment (ROI) from the organization's human capital and minimize
financial risk. It is the responsibility of the human resource managers to conduct these activities in an legal, fair, effective and consistent manner.

Although there are a number of HRM definitions, the frequent factor tying these definitions together is that they give emphasis to the importance of connecting HRM policies and practices to organizational performance (B. Becker, M. Ulrich 2001). Research shows that “firm competitiveness can be enhanced by high performance work systems”.

Beaumont defined HRM as involving all those management decisions and actions that affect the nature of the relationship between the organization and the employee (Beaumont, 1993). Important to note about this definition is the inclusion of the phrase "action'. This has made Beaumont and his colleagues the first to declare that conducting effective HRM practices is the responsibility of line managers (Blyton and Turnbull 1996).

A particular definition of HRM which this study has found very interesting, is the one provided by Miller (1987) when he defined HRM as "those decisions and actions which concern the management of employees at all levels in the business and which are related to the implementation of strategies directed towards creating and sustaining competitive advantage". This definition of HRM is interesting because it covers the main elements involved in the association between HRM practices and aspects of organizational outcomes. We can see that this definition specifies the availability of HRM practices, outcomes standards or strategies, and a way of linking the two issues together in order to have these combinations work. To explain this further on the comprehensiveness and simplicity of this definition, education management, for instance, can develop and implement comprehensive HRM practices, but it cannot claim that organizational outcomes will improve without having outcomes strategies or standards established and an approach to administer these two issues together.

Edwin Flippo defines HRM 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” (Miller 1987).

Storey defined HRM as a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic deployment of a highly committed and capable workforce, using an array of cultural, structural and personnel techniques (Storey, 1992).

Although there is no consensus on the definition or the characteristics of HRM it can be seen from the above definitions that HRM is a combination of people-oriented management practices that views employees as assets, not costs; and its main aim is to create and maintain a skilful and committed workforce to gain competitive advantage.

The differences in the interpretation of HRM have generated two different schools of thought: soft and hard variants of HRM. Soft and hard HRM are also often defined as two main models of HRM. The Soft HRM concentrates on employee training, development, commitment and participation. It is used to define HR functions aimed to develop motivation, quality and commitment of employees; hard HRM, on the other hand, focuses mostly on strategy where human resources are used to achieve organisational goals. It is also associated with cost control and head count strategies, especially in business processes like downsizing, lowering the wages, shortening comfort breaks etc.

The strategic approach to the management of human capital resources which was first introduced by Fombrum, and is still at the epicentre of current research refers to HRM as a bunch of techniques which enables interventions to be made within the business in order to improves quality and enhance productivity. Under this approach, control is more concerned with performance systems, performance management and tight control over individual activities, with the ultimate goal being to secure the competitive advantage of the organization.

Although HRM is a relatively new approach, this should not imply that it does not have its own roots in the old views relevant to the management of human resources. When we start reviewing the HRM models, section 3-2-2 below, we will see that the HRM School
has with other management schools such as the Human Relations School and the Scientific Management School.

3-2-1-2 HRM Models
This section reassess some of the HRM models which have been identified as sources in adopting HRM practices which could be linked with aspects of organizational outcomes. Although the existing literature contains a number of such models, the following have been of great interest to this study:-

1. The Harvard Business School HRM Model;
2. The Michigan Business School HRM Model; and
3. The Best Practice HRM Model

3-2-1-2-1 The Harvard Business School HRM Model
The model was articulated by Beer et al. (1984). The ‘Harvard model’ of strategic HRM is an analytical framework, which is premised on the view that if general managers develop a viewpoint of ‘how they wish to see employees involved in and developed by the enterprise’ then some of the criticisms of historical personnel management can be overcome. This model is termed ‘soft’ HRM (Storey, 1992; Legge, 1995; Truss et al., 1997). It emphasizes the ‘human’ aspect of HRM and is concerned with the employer–employee relationship. The model draws attention to the interests of different stakeholders in the organisation (such as employee groups, government, community, shareholders, management, and unions) and how their interests are related to the goals of management. This aspect of the model gives some awareness of the European context and other business systems that emphasise ‘co-determination’. It also recognizes the influence of situational factors (such as the labour market) on HRM policy choices.

The actual content of HRM, according to this model, is described in relation to four policy areas, namely, human resource flows, reward systems, employee influence, and works systems. Each of the four policy areas is characterised by a series of tasks to which managers must attend. The outcomes that these four HR policies need to achieve are
commitment, competence, congruence, and cost effectiveness. The aim of these outcomes is therefore to develop and sustain mutual trust and improve individual / group performance at the minimum cost so as to achieve individual well-being, organisational effectiveness and societal well-being. The model allows for analysis of these outcomes at both the organisational and societal level. As this model acknowledges the role of societal outcomes, it can provide a useful basis for comparative analysis of HRM. However, this model has been criticised for not explaining the complex relationship between strategic management and HRM (Guest, 1991).

3-2-1-2-2  The Michigan Business School HRM Model

Fombrun et al. ’s (1984) ‘matching model’ highlights the ‘resource’ aspect of HRM and emphasises the efficient utilisation of human resources to meet organisational objectives. This means that, like other resources of organisation, human resources have to be obtained cheaply, used sparingly and developed and exploited as fully as possible. The matching model is mainly based on Chandler’s (1962) argument that an organisation’s structure is an outcome of its strategy. Fombrun et al. (1984) expanded this premise in their model of strategic HRM, which emphasises a ‘tight fit’ between organisational strategy, organisational structure and HRM system. The organisational strategy is pre-eminent; both organisation structure and HRM are dependent on the organisation strategy. The main aim of the matching model is therefore to develop an appropriate ‘human resource system’ that will characterise those HRM strategies that contribute to the most efficient implementation of business strategies.

The matching model of HRM has been criticised for a number of reasons. It is thought to be too prescriptive by nature, mainly because its assumptions are strongly unitarist (Budhwar and Debrah, 2001). As the model emphasises a ‘tight fit’ between organisational strategy and HR strategies, it completely ignores the interest of employees, and hence considers HRM as a passive, reactive and implementationist function.
3-2-1-2-3 The Best Practice HRM Model

Johnson (1990) details, “the best practice or the high outcomes work practices are described as HR methods and systems that have universal, additive and positive effects on organisational outcomes”.

The best practice tool of HRM is based on Universalism. The assumption here is that asset of practices aimed at high commitment or high outcomes will benefit all organisations regardless of context.

The elements of best practices identified by Pfeffer (1998) are now widely recognized, if not widely accepted:

- Employment security/Job security
- Sophisticated selection / Selective hiring
- Team working and Decentralisation
- High Wages linked to Organisation outcomes
- Extensive training
- Narrow status differentials
- Communication and Employee involvement

Although this research has benefited from what has been reported under each of these three HRM models, it has leaned more on the Harvard Business School Model. This may be due to the fact that it is an employee orientated approach, an important issue to both employer and employee.

3-2-1-3 HRM Forms

European HRM professionals particularly in the United Kingdom (UK), have focused more on the contrast between “soft” and "hard" forms or versions of HRM. As Truss et al. (2013), who conducted eight in-depth case studies in the UK, suggested, "Two of the most widely adopted models of human resource management are the hard and soft
versions. These are based on opposing views of human nature and managerial control strategies”.

The soft model highlights individuals and their self-direction and places commitment, trust, and self-regulated behaviour at the base of any strategic approach to people. On the contrary, the hard model stresses the rationalism of strategic fit and places emphasis on outcomes management and an instrumental approach to the management of individuals. The hard model is based on notions of tight strategic control while the soft model is based on control through commitment. A thorough examination of the definitions of these two forms of HRM indicates that the former is similar to the view of the Harvard Business School Model while the latter resembles that of the Michigan Business School Model; both have been defined in the previous section.

This section and the previous one reveal that there are two distinct HRM models, each of which consists of a number of views which have been used to categorise approaches to managing people according to utilitarian-instrumentalist or developmental-humanist principles (Legge, K. 1995). The Harvard Business School Model and the soft version of HRM are represented by the approach, namely the developmental-humanist principle while the Michigan Business School Model and the hard version of HRM are represented by the latter approach, the utilitarian-instrumentalist principle. Although these two views, which have been used to categorise approaches to the management of human resources, are clear in the literature, it is not easy in practice to identify either form of HRM. Truss et al. Reported that they did not find any pure examples of either form. This may be due to the fact that organizations pursuing certain strategies tend to adopt HRM practices, whether they are based on the developmental-humanist principle or the utilitarian-instrumentalist principle, conducive to achieve such strategies.

Guest and Storey (1995) in their definition of soft-hard models of HRM view the key distinction as being whether the emphasis is placed on the human or the resource. Soft HRM is associated with the human relations movement, the utilization of individual talents and McGregor’s Theory Y perspective on individuals (developmental-humanism). This has been equated with the concept of a “high commitment work system” which is aimed at eliciting a commitment so that behaviour is primarily self-regulated rather than
controlled by sanctions and pressures external to the individual and relations within the organisations are based on high level of trust. Soft HRM is also associated with the goals of flexibility and adaptability (which themselves are problematic), and implies that communication plays a central role in management (Storey, Sisson 1993).

Hard HRM, on the other hand, stresses ‘the quantitative, calculative and business-strategic aspects of managing the “headcount resource” in as “rational” a way as for any other factor of production’ (Legge, 1995). Hard HRM focuses on the importance of strategic fit, where human resource policies and practices are closely linked to the strategic objectives of the organisation (external fit) and are coherent among themselves (internal fit) with the ultimate aim being increased competitive advantage.

3-2-1-4 HRM Perspectives
Despite the growing body of empirical HRM research and theory development the field has been criticized for lacking a solid theoretical foundation. David Guest has called not only for a theory about HRM, but one for organizational outcomes as well as one for how the two issues are linked in order to gain a clear understanding of the impact of HRM on organizational outcomes. David Guest in 2001 reported, 'Unless we can develop our own more precise theory, there is a risk (or the promise) that the field will be colonized by economists As industry increasingly recognizes the value of human resources and social assets we can expect a significant stimulus to HRM theory coming from economy theory (Guest, 2001: 1093) ".

In an review of the literature, Delery and Doty (1996) identified three categories of researchers and the perspectives that they have adopted in theorizing HRM. They tagged the first group of researchers 'universalists', the second one as 'Contigency' and the third as 'Configurational'. Guest (1997) has named these modes as descriptive, strategic and normative theories of HRM respectively.

Delery and Doty (1996) tagged the first group of researchers 'universalists' largely because of their interest in identifying 'best practice' HRM policies. Delery and Doty (1996) note that “these researchers posit that some human resource practices are always
better than others and that all organizations should adopt these best practices. " Through this approach, researchers interested in exploring the relationship between HRM practices and organizational outcomes indicators, have to map the field and capture and classify the reality of both issues. Pfeffer (1994, 1998) argued that greater use of HRM practices (e. g., employment security, promotion from within, and training and development) results in higher productivity and profit across organizations. Similarly, Osterman (1994) argued that a number of HRM practices (e. g., teams job rotation, quality circle, and total quality management) result in organizational outcomes improvements. Thus, the assumption is that the adoption of certain HRM policies is likely to result in increased organizational outcomes (Kochan and Dyer, 1993).

The second strand of theorizing identified by Delery and Doty comprises those researchers adopting a contingency approach. In keeping with the early foundation of the contingency perspective within organizational theory, these researchers argue that the success of HRM policies is contingent upon the achievement of a match between human resource policies and other aspects of the organization. For example, researchers adopting this perspective have demonstrated that different human resource policies may be required at different stages in an organization's life cycle (Bird and Beecher, 1995). This group has argued that key environmental factors influence the effectiveness of HRM practices. Thus, a fit between these environmental factors and HRM practices, this group argued, has to take place so organizations can improve aspects of organizational outcomes.

Some of the best-known research in this category was conducted by Hendry and Pettigrew (1990). Their main concern was to identify key environmental influences on HRM. They treated HRM practices as the dependent variable while the environmental context was treated as the independent variable. Thus, their immediate aim was to find out the extent to which HRM practices fit the context. Their ultimate aim, therefore, was to explore whether a good fit will be associated with a good organizational outcomes.

Delery and Doty (1996) identified a third group of HRM theorists as adopting a 'configurational' approach. Delery and Doty (1996, p. 808) noted that this approach is more complex and consists of researchers who seek to "... identify configurations, or unique patterns of factors, that are posited to be maximally effective. " This category of
researchers are also said to approach their subject from a more theoretical perspective and many of the phenomena they identify may not necessarily be empirically observable (Doty and Glick, 1994).

This group of researchers argue that there are specific HRM practices (e.g., promotion from within, information sharing, decentralization, and coherent employee relations) which have characterized organizations that are especially effective in achieving improvements in aspects of organizational outcomes. Thus, configurational theorists have argued that, in order to achieve improvements in aspects of organizational outcomes, an organization must develop an HRM system that achieves both horizontal and vertical fit. The former fit refers to the internal consistency of the organization's HRM policies and practices while the latter fit refers to the congruence of the HRM system with other organizational characteristics, such as total quality strategy.

A consistent theme in all three theoretical perspectives of HRM is the assumption that HRM is linked to organizational outcomes. However, while the literature is rich with claims that HRM are linked to outcomes, there is little empirical evaluation of this and the theoretical foundations upon which these links are based have been described as inadequate (Guest 1997). Accordingly, a better understanding of the role of the implementation of human resources management in creating and sustaining organizational outcomes and competitive advantage should be achieved through further theoretical development and empirical evidence (Jing and Huang 2005).

3-2-1-5 HRM Practices
Wright et al. (1994, p: 304) defined human resources as, "the pool of human capital under the firm's control in a direct employment relationship". They also defined HRM Practices as "the organizational activities directed at managing the pool of human capital and ensuring that the capital is employed toward the fulfillment of organizational goals". Human Resource Management Practices is a term used by many organizations which explains the combination of traditionally administrative personnel functions with outcomes, employee relations and resource planning.
Successful organizations are those which value, develop and nurture their human capital to achieve their organizational goals and objectives. These organizations try to bring out the best in people by creating a pleasant environment where their employees can continue to grow, develop their professional skills, use their creativity and gain greater job satisfaction.

In the last three decades, researchers have suggested many HRM practices that have the potential to develop and sustain organizational outcomes. These practices include emphasis on employee selection based on fit with the company’s culture, emphasis on behavior, attitude, and necessary technical skills required by the job, compensation contingent on outcomes, and employee empowerment to foster team work, among others. Pfeffer (1998) has proposed seven HRM practices that are expected to improve organizational outcomes.

The practices proposed by Pfeffer (1998, p. 96) are:

1. Employment security.
2. Selective hiring of new personnel.
3. Self-managed teams and decentralization of decision making as the basic principles of organizational design.
4. Comparatively high compensation contingent on organizational outcomes.
5. Extensive training.
6. Reduced status distinctions and barriers, including dress, language, office arrangements, and wage differences across levels.
7. Extensive sharing of financial and outcomes information throughout the organization.

Following the first group of HRM researchers (Beer et al., 1984, Kochan et al., 1986, Delaney et al. 1989; Huselid, 1995; Osterman1994; Pfeffer, 1994, 1998;Terpstra and Rozell, 1993) who have adopted the universalistic perspective in identifying HRM practices to be related with organizational outcomes this study solicited the perceptions of educational institute employees towards the level of importance their organization attaches
to a number of HRM issues. Moreover, research has suggested that such HRM issues are interrelated and define a continuum of "bundles' of HRM practices (Bae et al, 1998).

3-2-1-6 HRM Measurements

The fundamental challenge facing HRM researchers is to find HRM practices factors that could be linked to organizational outcomes indicators (Hendry et al., 2000). To measure HRM practices is, as Guest (2001, p: 1097) suggested, "in some respects one of the most difficult methodological issue". This may be due to the complexity of the ways organizations follow to manage human resources which, of course, are influenced by a number of factors (e. g, external influences on HRM policies and practices, technological changes and organizational structure) as well as by the lack of explicit HRM theories (Guest 2001; Kane and Palmer, 1995). Thus, HRM researchers need to be careful when selecting methodologies by which to investigate HRM practices.

A number of these methodologies has been recommended: goal attainment, attitude survey, reputation assessment, and the activity analysis method (Baruch, 1996). The use of attitude surveys which is limited to employee perceptions has several advantages and is widely used (Florkowski and Schuler, 1994). This may explain why HRM researchers particularly those who have adopted the HRM universalistic perspective in identifying HRM practices to be related to organizational outcomes, have used attitude surveys. Having followed this track, namely the universalistic approach this study aims to map the HRM real practices.

Regarding the use of single respondent designs, Gerhart et al (2000b) provided evidence calling into question the reliability of measures of HR practices originating from single respondents. They found single-rater reliabilities to be very low. The results were largely replicated by Wright et al (2001). These two articles suggested that the reliability of single raters may be close to zero. Huselid and Becker (2000), in response to Gerhart et al’s (2000b) article, recommended that in many cases single respondents (ie senior HR executives) were the best placed, and possibly the only ones qualified, to offer HR practice information across a number of jobs. This recommendation led to the debate regarding the most valid source of HR practice information.
As noted above, Huselid and Becker (2000) guarded their use of senior HR executives as the most valid source of HR practice data. But, they also argued that the construct to be measured should be the HR practices actually implemented in the firm rather than HR policies that were not essentially carried out. This led Gerhart et al. (2000a) to suggest that, if one seeks to assess the actual practices, then using employees as the source of HR practice data would be a more logical approach. So the attitude survey technique was used in this study also to solicit the perceptions of educational institution teaching as well as non teaching staffs towards the level of importance their organization attaches to HRM practices.

3-3 Part Two: Organisation Performance Management

3-3-1 Introduction

Performance management (PM) includes activities which ensure that goals are consistently being met in an effective and efficient manner. Performance management can focus on the performance of an organization, a department, employee, or even the processes to build a product or service, as well as many other areas.

PM is also known as a process by which organizations align their resources, systems and employees to strategic objectives and priorities. Performance management integrates the management of organisational performance with the management of individual performance.

Cornelius and Gooch (1998) commented that effective performance management can make a major contribution towards the achievement of business objectives while maximizing the contribution of employees.

Organizations under internal and external pressure have to adopt organization performance management system. Reasons, especially satisfying customers (students) encourage/force organizations to develop plans in such a way that they can continuously improve organization performance. Restated, a number of reasons encourage and/or force
organizations to manage their affairs in such a way that they can continuously improve organizational performance, including meeting the needs of their customers.

In this part, we will be able to learn not only the reasons which have encouraged and/or forced organizations to adopt and practice organizational performance systems, but to familiarize ourselves as well with a number of different features of organizational performance. Some of these aspects are as follows:

- Organizational performance management systems in context;
- Organizational performance Dimensions;
- Organizational performance indicators;
- Reasons for adopting organizational performance management systems; and
- Fundamentals of sound organizational performance management systems

3-3-2 Organizational Performance Management systems in context
Schools are uniquely moral organizations (Greenfield, 1995). They have a strong moral grounding that may not essentially be present in corporates. They function as loosely coupled systems (Orton & Weick, 2000; Weick, 1976) as a result of which, their management turns out to be different from corporate organizations. For instance, while consumers as customers may be influential stakeholders in corporate organizations, students as customers in educational organizations may not have much say in the item for consumption (the teaching). Additionally, while service to customers in corporates is generally focused on profits, service in schools is primarily driven by the service and welfare motive (Newman & Wallender, 1978).

Gamoran and Dreeben (1986) argue that not every school system is loosely coupled. There may be schools that functions like bureaucracies and even within loosely coupled schools, harmonization between various subsystems would exist through various aspects like professional norms, common socialization, flow of resources etc. While elementary schools match more to the image of the rational bureaucracy, secondary schools conform to the image of anarchy or loosely coupled systems (Herriott & Firestone, 1984).
3-3-3 Focus of Organizational Performance Management Systems

It is a truism that ‘Measurement drives behaviour’. Accordingly, the selection of performance measures must serve to encourage people to align their efforts with the strategic directions of the enterprise.

Existing literature indicates that organizational performance management systems focus on different aspects of organizational performance. Nanni et al. (1990) suggest that organizational performance management focuses traditionally on monitoring and maintaining organizational control. From an internal control perspective, the primary aim of organizational performance management is to monitor the implementation of an organization's plans and to determine whether they have been achieved (Atkinson et al., 1997).

Historically, the focus of organizational performance management has been solely on financial measures of organizational performance (Kald and Nilsson, 2000). There is a widespread recognition that the dimensions of organizational performance are broader than financial performance measures alone, and that financial performance indicators measure and make visible only limited aspects of an organization's performance (Kaplan and Norton, 1992, 1993, 1996). Thus, Atkinson et al. (1997) suggest that concentration on financial measures of organizational performance is inadequate for strategic decision making and, indeed, for full internal management and control.

The structure and functions of schools are passing through a change across the globe. From a predominantly academic orientation, schools are now encouraging students to involve themselves in other activities like sports, social service, community service etc. Miske, McDonald and Bloom (1983: 50) defined organizational effectiveness for schools in terms of “quantity and quality of outputs, adaptability and participant attitudes such as job satisfaction”. The criteria for measuring effectiveness appear to need a broader roof to go beyond educational effectiveness, should take into consideration the dynamic focus of child education and the preference of the parents.
Among the existing measures of school effectiveness, student achievement, as operationalized by standardized scores in mathematics and reading seems to be the principal measure (Peterson, 1984; Sweetland & Hoy, 2000). In a review of 40 studies, Hallinger and Heck (1996) found that majority of the studies used student achievement to measure school performance although some of the studies did use additional measures to evaluate school effectiveness. The measures of reading, writing and arithmetic have been termed by Uline, Miller and Tschannen-Moran (1998) as instrumental activities. They have discussed additional criterion to measure effectiveness and have coined them as expressive activities. Expressive activities included teachers’ trust in school health and colleagues and principal. In their study, Uline et al. (1998) established that these six variables explained 72% of the variance in effectiveness.

All these factors that are used as measures to evaluate school effectiveness are controlled by a multitude of individuals. For example, a teachers’ job satisfaction may influence the quality of teaching and therefore student learning. These output factors may also influence some input variables. A school’s effectiveness would pull brighter students for admissions, reputed teachers and principals for employment. These would further add to the school effectiveness.

3-3-4 Measurements of Organizational Performance Management Systems
Performance measurement, monitoring, and management systems are intended to allow organizations to evaluate the outputs and outcomes of their plans on a regular, ongoing basis, so as to improve program management, effectiveness, and efficiency. Outputs are the products, services, or activities that a program delivers to its clients.

Outcomes are the benefits that clients experience during or after their participation in a program. These include a clear focal point on the establishment of benchmarks of achievement that can guide future targets, a means of monitoring whether corrective action has, in fact and led to program improvement. It is also a way of motivating staff by permitting them to see the progress of their clients in a more visible and objective manner etc.
Although the importance of organizational performance is widely acknowledged, its measurement is one of the most difficult topics confronting researcher. This complexity may be due to the fact that performance of an organization is a multidimensional construct, the measurement of which varies, depending on a variety of factors that comprise it. This also may explain why Guest (1995) reported, "There is no general theory about performance measurement per se".

However, restricting the focus of organizational performance management to financial measures seems to have prompted some scholars to come up with a number of organizational performance approaches. Among the most widely referred are the Balanced scorecard, the performance pyramid, integrated performance measurement and performance measurement in service businesses.

From a managerial perspective, Kaplan and Norton's approach: balanced scorecard (Fig: 3-3-4), has achieved widespread recognition as measuring all aspects, financial and non-financial, of an organization. Using the balanced scorecard, organizations can measure organizational performance over a range of dimensions or perspectives.

These perspectives are:

- The financial perspective: reflects the financial return to the owners (shareholders);
- The business-process perspective: reflects what business (organization) must be good at;
- The customer perspective: reflects how customers view aspects of organizational performance; and
- The innovation and learning perspective: reflects how business (organization) continues to develop and add value for money.

Fitzgerald et al.'s (1991) approach suggests that performance in service organizations should be measured across six dimensions:

- Financial (e. g., return on investment);
- Quality of service (e. g., number of student or parents complaints per week/month/year);
- Competitiveness (e.g., number of top ranked students taking admissions per year);
- Flexibility (e.g., number of students transferred to other departments/classes per year);
- Resource utilization (e.g., include utilization of tools and equipments, buildings, classrooms where these equipments are stored and used in different departments such as Science, Business Studies, Arts, Technical education.) and
- innovation (e.g., number of innovative changes made during the year).

Fig 3-3-4: Balanced Scorecard


Fitzgerald et al.'s framework, formulated for the service industry, can be used effectively in the government sector also, where financial measures alone are not sufficient to obtain a complete picture of performance (Ghobadian and Ashworth, 1994).

However Evans and Lindsay (1999) suggest that there are numerous approaches to developing a broad set of performance measures. They determined that measurement is the act of quantifying the performance dimensions of services, process, product and other business
activities. Measures and indicators refer to the numerical information the results from measurement and suggest a business performance scorecard often consists of five key categories as follows:

1. **Customer satisfaction measures**: Customersatisfaction measure encompasses measures of perceived value, rates of complaint, gain and losses, customer retention of customers, recognitions from customers and independent organization.

2. **Financial and market performance measures**: Generally tracked by senior leadership to check the overall company performance and are often used to determined incentive compensation for senior executives. Measures may include operating profit, return on equity, return on investment, pre-tax profit margin, earnings per share, and other liquidity measure. A key financial performance indicator is the cost of quality. Marketplace performance could include market share measures of new product and geographic markets entered, business growth and percentage of new product sales as appropriate.

3. **Human resources measure**: HR measures can relate to employee well-being, satisfaction, development, work system performance and effectiveness.

4. **Supplier and partner performance measures**: Supplier refers to providers of goods and services. Key measures of supplier performance regarding quality, delivery and service and price.

5. **Company-specific measures that support company strategy**: Most company-specific measures relate to product and service quality, process performance and other factors that drive the organization from strategic view point.
3-3-5 Organizational Performance Dimensions

To gain a professional understanding concerning organizational performance management, one would need to be familiar with specific organizational performance dimensions. Efficiency, quality and effectiveness are just examples.

By analyzing organizational performance effectiveness, organizations can identify the extent to which they achieve pre-established goals (kerr et. al, 1999). For example, if College Y sets a strategy to enhance an increase in admission in its MBA department by 10 percent, say in one year's time, college management can measure the extent to which they are effective in achieving such a goal by the end of the time period.

Efficiency is defined as the extent to which organizations are able to maximise resource use (Palmer, 1993). Thus, conducting organizational performance efficiency analysis helps organizations to determine the extent to which they use available resources.

Finally, quality, on the other hand, is defined as the extent to which organizations meet or exceed customer expectations (Deming, 1986). Schools, for example, can also investigate different aspects of quality. They can examine the extent to which they are rendering quality teaching or investigate the extent to which the level of quality of teaching they provide meets student’s need.

Whatever the aspects or dimensions of organizational performance (efficiency, effectiveness and quality) to be assessed are, the importance of measuring them lies in their implications not only for education management personnel, for instance, but also for other parties such as students and agencies in charge of issuing and monitoring regulatory requirements. Thus, it is essential that education institutions, adopt an adequate and clear performance measurement approach.

Rendering effective and efficient organizational performance, organizational performance indicators need to be adopted and practiced. This is because such indicators reflect specific points on the continuum of organizational performance measure.
Organizational performance indicators reflect specific points on the continuum of organizational performance measure. Thus, such indicators are disseminated to a number of end users (e.g., policy makers, teachers, professionals and students). This is because performance indicators, as Ware et al. (1981) suggested are not only useful to these end users, but they can address important social and economic needs as well.

Organizational performance indicators could be system input-oriented (e.g., teacher–student ratio, number of toppers from other schools taking admission), system process-oriented (e.g., number of annual training hours per employee) or system output-oriented (e.g., student passout rates).

School A may be called more effective than school B when school A does better in achieving its core objectives. This is the common understanding of school effectiveness that comes out from about three decades of research conducted under this label.

It is a definition that requires more accuracy, and, moreover, and needs more explanation thus, remains debatable.

First of all, the comparison in the general definition should be “fair”, which means that goal-attainment measures should be adjusted for possibly diverging entrance characteristics of the units (i.e. the students) on which these measures are taken. In research practice this implies that outcome measures that reflect goal-attainment are to be corrected for prior achievement, proxy’s like scholastic aptitude or social-economic status or both (Bosker, 1995). This is also called as the “value-added” perspective in determining school effectiveness. The reality that the determination of school effectiveness is generally conceptualized as a relative endeavor should also be explicitly underlined. Schools are compared among themselves on value-added effectiveness criterion rather than being evaluated by applying absolute standards.

Secondly, “goal attainment” in schooling can have different meanings. What goals? Being the obvious question to be answered. Cheng (1996) illustrates the complexity of this question by referring to various functions of schooling (technical/economic functions,
human/ social functions, political functions, cultural functions and educational functions), each of which likely to emphasize different categories of educational objectives. Goal-attainment of schooling can thus be defined in terms of varying long-term societal effects and in terms of more direct attainment categories at the end of a fixed period of schooling. But also with respect to these more direct attainment categories there are various possibilities and priorities to be set among them: cognitive vs. non-cognitive outcomes and, within the cognitive domain, various types of knowledge and skills, varying from basic subject-matter mastery to higher order problem solving skills.

Thirdly, from an organization-theoretical perspective the concept of school effectiveness could be defined in even broader terms. According to typologies on organizational effectiveness (Cameron & Whetten, 1983; Scheerens, 1992; Cheng, 1996). The “goal-attainment” model, implied in the above general definition, is just one of several models of organizational effectiveness. The goal-attainment model uses “productivity” of the organization’s primary process as the central effectiveness criterion. Other models, like the resource-input model and the organization process model emphasize other criteria, namely procured resources and student intake and smooth internal functioning respectively.

Finally, it should be noted that in school effectiveness research, rather than in some more applied contexts of determining school effects, the inquiry does not stop by, for example rank-ordering schools on the basis of their value-added performance, but, in addition, aims to answer the question to which specific characteristics of school organization or instruction, such differences could be attributed to. School effectiveness is intrinsically a causal concept, in which the black box of “a school” is opened in order to reveal specific variables that relate to the effect criterion. Gradually, as will be explained in subsequent sections school effectiveness research has lead to the development of causal models in which these various characteristics are related to each other and the effect criterion.

In the large majority of educational effectiveness studies, achievement in basic school subjects, reading and writing in the native language and mathematics, is used as effect-criterion. It should also be noted that the bulk of educational effectiveness research is carried out at the level of primary and lower secondary schools. In this context a discussion on the educational significance of this limiting choice of effect criteria in
educational effectiveness research will be left out (see Scheerens, 1992; Cheng, 1996). The implicit position in continuing this review, however, being that achievement in basic school subjects is sufficiently important to figure out how such outcomes are best accomplished.

As mentioned earlier, researchers generally lack consensus on what constitutes school effectiveness. It has been argued in the input-output perspective (Cheng, 1996; Lockheed and Hanushek, 1988); in the perspective of schools in which students progress further than might be expected from consideration of its intake (Sammons and Mortimore, 1995, p. 1); growth in student achievement (Willms, 1992, p. 34); and on a more broader stand that should not focus on mere academic achievement (Rutter, 1983; Sammons et al., 1996; McGraw et al. (1992, p. 4). Reynolds et. al. (1996) are of the view that effectiveness is dependent on people and the resources available. Hence the difficulty in defining school effectiveness is dependent on people who are forced to choose from competing values. (Stoll and Fink, 1996). HM Inspectorate of Schools in Scotland (Drever, 1991) take the view that effectiveness should be judged by the product, and that the ultimate product of schooling is the 'value added': what pupils have gained from their years in school. The fact that the report noted non-cognitive areas that should be part of the product are supported by other researches (e. g. Rutter, 1979; Mortimore et al., 1988a;). There is an argument that a school is effective if school processes result in observable (not always quantifiable) positive outcomes among its students consistently over a period of time (Reynolds, 1985; Ninan, 2006) This implies that the effectiveness of a school is dependent more on its 'processes' and gauged by its 'outcomes' than on its 'intake'. 'Intake', plays only a marginal role in school effectiveness (HMI, 1977). This is in contrast with the argument that differential effect of school plays a role in school effectiveness (Teddlie and Reynolds, 2000, p. 15).

Mortimore’s view was that an effective school adds an extra value to its students’ outcomes in comparison with other schools serving similar intakes (Sammons and Mortimore, 1995). This concept of the ‘value added’ by the school resulted in a need to explicitly focus on student outcomes in all methodologies involving school effectiveness research (McPherson, 1992). This then led to methodological issues such as consistency and stability in effectiveness. Hoy and Miskel (2001, p. 290) argued that a school is
deemed as effective if the outcome of its activities meets or exceeds its goals. Relevant here is the view that an effective school is one that promotes high levels of student achievement for all students in the school (Murphy, 1990) It is no surprise, therefore that academic emphasis and frequent monitoring of student academic progress has been viewed as important correlates of an effective school (Al Waner, 2005). An effective school hence is a school that can achieve or exceed its academic goals. A rather different view is that schools are effective if their pupils perform at a higher than average level than an average school (Cuttance, 1985, p. 13).

School effectiveness is the ability of a school to achieve or exceed its goals. The goals set should be reflective of students’ academic ability. There is a need to take value added scores into consideration of prior achievement of pupils on entry to school (Sammons et al, 1996a in Teddlie and Reynolds, 2000, p. 72). An effective school hence is argued as a school that can achieve or exceed its prior set goals. An Australian view that effective schools are those that successfully progress the learning and personal development of all of their students (ACT, 2005) is a stark contrast from the UK and USA perspective of an effective school being judged merely by academic performance.

Though studies give various perspectives of what constitutes school effectiveness or what an effective school is, the diversified views lead to the conclusion that ‘…… while all reviews assume that effective schools can be differentiated from ineffective ones, there is no consensus yet on just what constitutes an effective school.’ (Reid, Hopkins and Holly, 1987, p. 22)

Schreerens (2000) adds that ‘School effectiveness is a difficult concept to define and once defined is of a nature difficult to reason’. Hence the concept of school effectiveness has various approaches and as Firestone (1991, p. 2) noted that ‘Defining the effectiveness of a particular school always requires choices among competing values’. Hence he further adds that ‘the criteria of effectiveness will be a subject of political debate’.

Hall (1972) identified the following stakeholders in schools–principals, teachers, students, school board members, administrative staff, superintendent of the school and parents,
which has been further refined by Gupta and Vohra as they clubbed school board members, administrative staff and superintendent of the school and named them Administrators.

The researcher had to find a performance indicator which has the following properties:

1. reflects the performance
2. is reliable
3. Is acceptable to all the above mentioned stakeholders if possible or atleast, to most of the stakeholders.
4. is easily measurable
5. institutions are ready to provide the information.
6. Less ambiguous
7. Is common to both school and college

The researcher after considering the above mentioned seven criterias, decided to take “Number of admission forms sold against each vacant seat at the entry level of the institution (AFS)” as the performance indicator of the education institution.

The researcher believed that AFS reflects the performance of the school because the parents/ students buy the form of a certain education institution only when they believe the interest of the student will be taken care in that institution and the record of the school in terms of curricular and extracurricular activity is good.

The researcher also believed that AFS can be measured easily, not ambiguous and can be parted by the institution authorities easily. This value is also common for schools and colleges as we know more reputed institution sale higher number of forms as compared to lesser known colleges. For example a college like St. Stephens College in New Delhi, which was ranked among the top three colleges in the country by India Today, sold 29672 application forms against 450 vacant seats in 2015, which means AFS is around 72. India Today considers five pareameters to rate the colleges. These are- Reputation of Colleges, Quality of Academic Input, Student Care, Infrastructure and Job Prospects.
Delhi university in total received 3, 20, 799 application against 54000 seats in 70 colleges in the same year, so the AFS is around 6. Whereas as already stated St. Stephens is having 12 times more AFS. Now lets evaluate further why is it so?

In 2013, the average package that an undergraduate student got after passing was 8. 5 lakhs per annum. The highest package offered was 19 Lakhs per annum that year. McKinsey, Bain, Citibank, Deutsche Bank, Monitor (Deloitte) Group, DE Shaw, Google, Essex Lake Group, ITC, Jaypee Group, Zomato and Max New York Life Insurance are some firms that have been among the regular recruiters on campuses. Similar trends were there in 2014 also where the highest offer was 14 lakhs per annum and the average salary was above 8 Lakhs. Most of the other colleges in Delhi also provide placement facility, but the number of students picked up by the companies is much lesser and the average package is also lower.

Similarly in Ranchi, St Xavier college is considered to be a good college. In 2012, number of application received by the college for the vocational courses was 12 times the number of seats for admission. So the AFS was 12. Similar trends were there in 2014 also where the AFS at the entry level was around 4, whereas the other colleges recorded an average AFS of 1. 2.

The researcher also found similar trends in schools in Jamshedpur, where 2 of the top schools had AFS of more than 8 at the entry level ( LKG in one school and UKG in the other). Both these schools are known for their curricular and extracurricular activities.

The educationists also believe parents and students are well educated now, so when planning admission in schools or colleges they tend to take source information about the quality or the education level of the teachers and also the head of the institution. The parents also try to find out whether the students get sufficient attention of the faculties during the course duration.

So from all the data mentioned above, the researcher believed that AFS would be the right reflection of the institution performance and both types of institution (schools and colleges) can be brought on a single platform and can be analysed.
The researcher decided to take the views of different stakeholders in order to confirm his understandings. In order to understand the viewpoints of the stakeholders of this decision, the researcher took valuable inputs from 11 educationalists, which included 4 school principals (1 ICSE school, 3 CBSE school), 3 college principals and 4 senior professors each having more than 15 years experience in the field of teaching. All of them have been working in East Singhbhum for the last 10 years.

The researcher approached 31 parents (either mother or father of the ward), who got their wards admitted in different schools in East Singhbhum in the last three years. The researcher also spoke to 28 students who took admission in class 11 (intermediate) in any college in East Singhbhum.

The researcher divided the inputs of the above mentioned people into two groups:

Group 1- 4 school principals, 3 college principals, 4 senior professors.
Group 2- 31 Parents (either mother or father of the ward) and 28 students who took admission in colleges.

Following were the inputs of the above mentioned groups:-

Group 1- The school principals as well as the college principals agreed that whenever the examination results of the institution is good, the sale of forms at the entry level of the institution, increases the next year. The same happens in colleges even when the placements are good. One of the educationists cited an example when one of the students in a school, was the State topper in class 12th Board Examination and the school sold almost double the admission forms in the subsequent admission year. And similarly the sale of forms fall if the results/placements are bad as compared to other schools/colleges.

The result of forms are not only affected by the academic results, but also are affected by students participation and performance in extracurricular activities, especially when such activity news is covered by the media. For example the form sales of an education institute increased when a student’s team of that school won a National Level quiz contest.
Reverse phenomenon is experienced when some trouble is reported in the school and the media reports it.

Nine of the eleven academicians in this group were convinced that AFS can be used as a performance indicator for education institutions.

Group 2- The researcher asked the parents two initial questions. The first question was “Which school was your first preference when they were planning to buy the forms of schools?” and the second question was “Why they wanted their ward to get admission in that school?” If the parents asked clarification, the researcher guided them with further which clarifies the previous asked two questions.

Two important points to be noted here are:

1. the price of the school application form is uniform (Rs 150). No school can charge more than Rs 150. So it eliminates the cost of the admission form as a deciding factor.
2. As per Ganguly Committee recommendations, students living closer to the schools will get preference during the admission process. The applicants would be assessed on a scale of 1 to 100 on which 30 points would go to the students living within a radius of 3 km, 24 points to those residing within 6 km, 18 for students living above 6 and upto 10 km. Students living above 10 km would be awarded 12 points while, those living beyond 15 km will not be given weightage.

Interesting the parents were declaring the address of their relatives to be their address in the admission form, since the preferred school was in proximity to that address and their actual address was further away from the school, which reduces the chance of the ward to get admission in that preferred school.

The general response of the parents were that their first preference school was “good”. When enquired further as why they considered that school to be good. 15 parents said the class 10th or the 12th results are good in these school while 13 of them said that the teachers are good in these schools while 2 were not sure. The other reasons cited by these
parents were the personal touch of the teachers with the students, extracurricular activities conducted in these schools.

The researcher, from the parent’s response noticed that the parent’s top three school preferences were almost the same. Another important observation was that, most of the parents did not study in any of these schools, but they still prefer it for their kids.

The college student’s responses were also on the same lines as above. Only those responses of college students were considered, who had taken admission in the last three years (2013-15) and took the decision to take admission in a certain college, themselves (parents were not involved). Out of the 28 students, 18 stated that the college teachers were good, 7 said that the results were good in the colleges where they took admission, and the remaining three said that they took admission because their friends took admission in the same college.

So from all the stated facts it is quite evident that the parents as well the students decide to buy the admission form of a certain education institution after analyzing the performance of the institution on platforms such as curriculars, extracurriculars, quality of teachers etc.

So the criteria of the “number of admission forms sold against each vacant seat” satisfies most of the stakeholders need and can be considered as an ideal indicator of the performance of an educational institute.

It is also measurable, as the schools keeps data on the number of admission forms sold by them. It is less ambiguous and is common to both schools and colleges.
3-3-7 Reasons for Adopting Organizational Performance Management Systems

The question one may ask is why organizations have to be concerned about organizational performance management. Parker (2000) suggested that "the kinds of reasons, which may vary from one organization to another include:-

- Identifying success;
- Identifying whether the organization is meeting customer requirements unless organizations measure how do they know that they are providing the services/products that their customers require?
- Helping them understand their processes to confirm what they know or reveal what they do not know;
- Identifying where problems (e.g., bottlenecks and waste) exist and where improvements are necessary,
- Ensuring decisions are based on facts, not on supposition, emotion or intuition; and
- Show if improvements planned actually happen.

Kearns (1994) indicated that both policymakers and executives adopt organizational performance indicators to discover the extent to which they are efficient and quality oriented, to justify the need for additional resources, to demonstrate that their presence adds value, and to increase the relevance of their function to the organization.

Cochrane (1993) suggests that performance indicators need to be reported to assess "value for money" and generate notions of accountability in a hierarchical model of managerial control. Finally, Wisner and Fawcett (1991) suggested two reasons for adopting performance management systems: to compare one's own competitive position with that of one's competitors and to check on the accomplishment of one's own objectives.

In order to carry out quality, efficient and effective organizational performance management systems, organizations including education institution, need to fulfil certain fundamentals. The following section, therefore, tackles these requirements.
3-3-8 Fundamentals of Conducting Sound Organizational Performance Management Systems

A number of requirements have to be met in order to conduct efficient, effective and quality organizational performance systems.

Some of these essential requirements are as follows:

- Organizational performance indicators need to be aligned with the organization's strategy. Thus, the starting point is to determine which strategy the educational institution wants to measure. For example, College X may adopt a strategy dedicated to improving the University examination pass out rate\(^{25}\) whereas college Y may target increasing the average percentage marks obtained in the University examination.

- Once the strategy is clearly developed, it is essential that firm’s top management, in particular, are totally committed and dedicated to the strategy;

- An active feedback loop needs to be installed;

- Performance indicators need to be easily calculable from fairly readily available data (Alston, 1995);

- Performance indicators should take account of the circumstances in which service is provided. Moreover, those who devised them as well as those to whom they are applied should agree that they reflect the realities of the situations they describe (Layland and Boddy, 1997) and

- Systematic mechanisms should be adopted to make these essential features or requirements of organizational performance management systems part of organizational culture.

\(^{25}\) Pass out Rate = Number of students passing the University examination x 100/No. of students appearing the University Examination
3-4 Part Three: The Link between HRM Practices and Organizational Performance Indicators

3-4-1 Introduction

Resources can be grouped into two categories\(^{26}\) (Barney, 1991): human capital resources (e.g., teaching staff, admin staff and supportive staff) and fixed capital resources (e.g., desks, benches, white boards and laboratory instruments). As expressed in the first part of this chapter, two distinctive HRM approaches, namely control and commitment, are used to maximize the usage of fixed capital resources.

Searching for a link between a number of interrelated and internally consistent HRM practices and a number of organizational performance indicators has witnessed interesting developments in the last two decades or so. Although there is a lack of a precise theory about how these two issues are linked, there is a growing interest in this issue not only by HRM thinkers, but also by economists (Lazear, 1995; Guest, 2001).

The Human Capital Theory (Smith, 1776; Marshall, 1890; Becker, 1964), the Resource based Theory (Chamberlin, 1933; Robinson, 1933; Penrose, 1959; Day, 1994; Hall, 1992) and the Expectancy Theory (Vroom, 1964), each of which has emphasized the importance of the management of human resources in relation to organizational performance, seem to be very important sources in shaping theories relevant to the three dimensions of this line of research: HRM practices, organizational performance indicators, and the link between them. The Expectancy Theory, in particular, has been recommended by Guest (2001, p: 1094) as, "one possible route to an explanation of how HRM practices have an impact on performance'. It is interesting that Guest (2001, p: 1093) has warned the thinkers of this line of research, including himself, by saying, "Unless we can develop our own more precise theory, there is a risk (or the promise) that the field will be colonized by economists".

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\(^{26}\)
However, economists involvement in the relationship between HRM and organizational performance is not a recent phenomenon as Guest (2001) suggested. As a matter of fact, economists were the founding fathers of the Human Capital Theory as well as the Resource-based Theory. Nerdrum and Erikson. (2001, p: 128) suggested that, 'William Petty (seventeenth century) was the first economist we know who emphasized Labor quality differences and who identified what, much later, was labeled human capital when he argued for an inclusion of the "value of the worker" in accounting for wealth for actual purposes'.

In the Wealth of Nations, Smith (1776) emphasized the importance of employee knowledge and skills in the production process and the quality of performance. Moreover, Fahy (2000, p: 94) suggested that, "The earliest acknowledgement of the potential importance of firm-specific resources is to be found in the work of economists such as Chamberlin and Roninson in the 1930s which was subsequently developed by Penrose'. Indeed, Chamberlin (1933) suggested that some of the key capabilities of firms, which are essential to improve organizational performance included technical know-how and the ability of managers to work together. Thus, the thinkers interested in the relationship between HRM and organizational performance including David Guest, should not only acknowledge the contribution of economists in the field, but also welcome their growing interest. As a matter of fact, the growing interest of economists in this line of research is beneficial because economics, as Guest (2001, p 1093) suggested “is very theory driven”.

Researcher are much interested in exploring associations between variables. Thus, scholars have developed a number of measures by which researchers can see the extent to which variables are associated. Some of these measures of association are as follows (Miller and Salkind, 2002) :

- Pearson's product-moment correlation (r) - This statistical approach is used to measure relationship between two interval variables when both are continuous and the relationship is linear. The coefficient of correlation is most reliable when it is based on a large number of pairs of observations.
- Spearman's rank difference coefficient ($\rho$) - This statistical approach is used to measure association between two rankings. It is used primarily when rankings of individual cases on two ordinal variables are available;

- The Lambda approach- This statistical approach is used to measure the association between two bivariate distributions when both variables are interpreted to be nominal; and

- The Partial Correlation Coefficient approach- This statistical approach is used to measure the relationship between two continuous variables with the effect of third variable(s) held constant.

Because the findings of the studies reported in this part were based on the use of the Pearson product-moment correlation to gauge the degree and direction of linear relationships between variables and because the current research will use the same approach to explore the relationship between HRM practices factors and education institution Performance indicator (AFS), we need to be familiar with certain features relating to this approach. These include, for instance the concept of the Pearson correlation ($r$), the causality of relationship the level of significance and the coefficient of determination ($r^2$).

The following section, section 3-4-2 below, as well as its subsections, provides further details relevant to the concept of correlation in general and the Pearson correlation approach in particular.

3-4-2 The Concept of Correlation

Correlational analyses, as suggested by Cohen et al. (2000), are usually classified as either "exploratory analysis" or as "prediction analysis". The first category is used where little or no previous work has been undertaken while the second is used where ample empirical evidence has been established (Cohen et al., 2000).
As Clark-Carter (2001, p. 334) suggests, correlation coefficients have "a dual function". Clark-Carter (2001, p. 334) continues saying that, "On the one hand, they are used as inferential statistics; researchers can test the likelihood of a correlation coefficient having arisen by chance. On the other hand, they are descriptive statistics in that they describe the relationship between two variables". Moreover, Cohen et al. (2000, p. 199) suggest that correlational analyses are "particularly useful in exploratory studies into fields where little or no previous research has been undertaken".

3-4-2-1 Values and directions of Pearson Correlation Coefficients (r)

As stated earlier, the term correlation refers to a technique used to gauge relationships between variables. Correlation coefficients (r) are commonly calculated in one of two ways depending on the nature of data collected. If the data is ordinal, a Spearman's rank correlation is appropriate. If the data is on an interval scale, application of the Pearson's product moment correlation approach to the data is recommended. Thus the Pearson correlation is used to explore whether there is linear relationship between variables while the Spearman rank correlation is used to explore whether there is rank correlation. A correlation expresses the extent to which two variables vary together. Correlation coefficients vary between -1.00 and +1.00; a correlation coefficient of 0.00 means there is no relationship between variables. Thus, a positive correlation means that as one variable increases so does the other. For example, a researcher may adopt a directional (one-tailed) hypothesis test concerning the relationship between employee dissatisfaction and absenteeism.

The logical ground for assuming a positive relationship between job dissatisfaction and employee absenteeism lies in that as employee job dissatisfaction increases one would assume that employee absenteeism increases. A positive correlation coefficient indicates, therefore, that the two variables covary in the same direction while a negative correlation coefficient suggests that the two variables covary in opposite directions.

The closer the value of r is to 1.00 (whether positive or negative), the stronger the relationship. By the same token, the nearer it is to zero (and hence the further it is from
+1. 00 or -1. 00), the weaker the relationship. Thus, many researchers categorise the values of r into groups in order to gauge the estimated degree of a relationship between two variables. For example, Cohen and Holliday (1982) suggest the following groupings: 0. 19 and below is very low; 0. 20 to 0. 39 is low; 0. 40 to 0. 69 is modest; 0. 70 to 0. 89 is high; and 0. 90 to 1. 00 is very high. Cohen (1988) prefers to use the following categories: 0. 10 and below constitutes a small r, 0. 30 is a medium r and 0. 50 plus is a large r.

As stated above, in keeping with the theme of the current research, only the parametric test, the Pearson product moment correlation, will be addressed.

3-4-2-2 Pearson Correlation Coefficients and Strength of Relationships-
Coefficient of determination (r²)

The Pearson product moment correlation, developed by Karl Pearson, a British statistician (Mine, 1997), is required, as indicated above, when we need to gauge linear relationships between interval variables. Bryman and Duncan (1999, p. 176) suggest, "When variables are interval, by far the most common measure of correlation is the Pearson's Product Moment Correlation Coefficient".

To gauge the strength of correlation between two variables, one needs to compute the Coefficient of determination (r²). This is because computed correlation coefficients do not determine how far variation in one variable is accounted for by the other (Bryman and Cramer, 1999). This coefficient expresses the amount of the variation on one dimension that can be explained or accounted for by the variation on the other dimension. To compute this coefficient, all you need to do is to square the value of the correlation coefficient (r) and multiply it by 100 to convert it to a percentage. For example, if the value of the correlation coefficient (r) is 0. 70, then the value of the coefficient of determination (r) is 0. 49. To convert the (r) to a percentage multiply it by 100 (49%). This means that only 49 percent of the variance in one variable is mathematically explained by the other. Restated, 51 percent of the variation in y is due to variations in variables other than x.
To elaborate on the meanings of computed correlation coefficients and the coefficient of determination in relation to our interpretation of the degree and strength of a relationship between two variables, we need to cite an example. When we correlate two variables $x$ and $y$, and detect that the value of the computed correlation coefficient is 0.70, although this computed correlation coefficient is quite high, it means that less than half of the variance in $y$ can be explained by $x$, 49 percent. Such an elaboration on the features of computed correlation coefficients ($r$) and the coefficient of determination ($r^2$) in relation to the interpretation of a relationship between two variables leads us to the second fundamental feature relevant to the concept of correlation, namely causality.

### 3-4-2-3 Causality of Relationship

In an experimental design study where the aim is to identify causal relationships, the researcher manipulates an aspect of the situation (e.g., coffee consumption) and measures the effect of such manipulations on the behavior of the consumers (e.g., sleeping patterns). In management studies, a team of Harvard University led by Elton Mayo (Mayo, 1946) was asked to study the extent to which certain physical variables are related to employee productivity. The team compared the output of a test group (where these variables were changed) to that of a control group (where these variables were kept at a constant level). This was an experimental design approach.

In non-experimental design studies (e.g., cross sectional designs) researchers do not have to compare the output of a case or a test group to that of a control group. Stated differently, the researcher does not manipulate an aspect of the situation (independent variable), such as coffee consumption, but allocates people to different groups on the basis of their consumption of coffee, or lack of it, in order to compare the sleep patterns (dependent variable) of the subjects.

Thus, in a non-experimental design study, the aim of the researcher is to find out whether coffee consumption (independent variable) and sleep patterns (dependent variable) of subjects are related. Moreover, in non-experimental design studies, such as a correlation design study, even when there is a causal link between two variables we do not know which is the cause and which the effect (Clark-Carter, 2001). Restated, we cannot
determine from an estimate of correlation that one variable (e. g., increase in volume of staff training) causes the other (e. g., decrease in length of patient stay) since correlation provides only estimates of covariance (e. g., the two variables are related).

For example, we may identify a high correlation of 0.80 between training to the nurse and length of patient stay in hospitals, but because this type of research design is non-experimental, we cannot definitely conclude that 64 percent of the variance in one variable is due to the other. Again, this is because we do not know for sure whether there is any causal relationship at all. All we know from this result is that the two variables, training and average length of patient stay, are mathematically related.

Quik (1992), who correlated the relationship between organizational success and organizational culture, indicated that organizational success may not be rooted in its culture, but rather that, the culture may serve to foster employee commitment toward enhancing organizational success.

Thus, to establish a causal relationship between two variables, three criteria have to be fulfilled (Bryman and Cramer, 1999). They are to demonstrate that:

- The distribution of values of one variable is measuring the distribution of values of another variable;
- The relationship between two variables is non-spurious; and
- Cause (e. g., smoking) precedes effect (e. g., lung cancer).

3-4-2-4 Significance Testing

A significance testing is a crucial concept in research. This is because we cannot decide that there is a mathematical relationship between the two variables unless the Pearson's r is statistically significant at a specific probability (e. g., p<0.05).

In statistical analysis, we usually work from the null hypothesis that there is no relationship between two variables (Miller and Salkind, 2002). Restated, the null
hypothesis basically suggests that the correlation between two variables, say HRM practices and AFS, is 0.00.

The probability is usually expressed as being less than the proportion of 0.05 (5/100=0.05) and is normally abbreviated as $p<0.05$, where $p$ stands for probability, $<$ for less than and 0.05 for five times out of a hundred (Howitt and Cramer, 2000). Deciding that the null hypothesis will be rejected at $p<0.05$, for instance, means that there is less than a 5% probability that the result occurred by chance (Waters, 1998). Thus, when a relationship is found which is estimated to occur five times or less out of a hundred if the null hypothesis was actually true of the population, it is decided as being statistically significant; otherwise the relationship is statistically non-significant.

Achieving a statistically significant correlation coefficient is, however, strongly affected, as suggested by Bryman and Cramer (1999) as well as by Krejcie and Morgan (1970), by the size of the population in the sample. For example, a correlation coefficient of 0.17 in connection with a sample of 1,000 cases would be significant at level of 0.001, while a correlation coefficient of 0.43 based on a sample of 42 would be significant at the 0.01 level (Bryman and Cramer, 1999). Using the coefficient of determination to assess the estimated strength of the relationships indicates that the former relationship explains that only 0.03 percent of the variance in one variable is due to the other, while the latter explains that 0.19 percent of the variance in one variable is due to the other. Such a comparison indicates that the latter relationship is stronger.

3-4-2-5 A Review of Findings Reported by Other Studies

In the light of this background information about the concept of correlation in general and the Pearson correlation in particular, we shall undertake a review of studies focusing on the relationship between some aspects of HRM and some aspects related to organizational performance. Interpretation of the meaningfulness or significance of identified correlation coefficients will be presented in the next section; section 3-4-2-6. Over the past decade or so a number of empirical studies have reported results indicating a link between a number of HRM practices factors with a number of organizational performance indicators.
(Arthur, 1994; Huselid and Becker, 1996; Gerhart and Milkovich, 1990; Koch and McGrath, 1996; Terpstra and Rozell, 1993; Delaney and Huselid, 1996; Huselid, 1995; Huselid et al., 1997; MacDuffie, 1995; Patterson et al., 1997; Ichniowski et al., 1997). Such studies have tended to focus on private sector organizations. Moreover, the majority of these studies were interested mainly in linking HRM practices with either a firm's financial performance indicators, such as return on investment (e.g., Huselid, 1995; Ryan et al, 1996; Patterson et al., 1997), or with perceived performance indicators (e.g., Fey et al., 2000; Ngo et al., 1998; Delaney and Huselid, 1996).

Thus, existing literature on the relationship between HRM practices factors and organizational performance indicators shows, unfortunately, a total absence of studies relevant to service industries such as educational institutions. This may explain why Worsfold (1999, p: 343) states that, “A study of service industries comparable to Patterson et al.’s (1997) study of manufacturing industries is not available till date”.

For the current study this means that we will not be able to review studies focusing on the relationship between HRM practices factors and organizational performance indicators in the education industry simply because there is none. Thus in the rest of this chapter, we will review the results of studies conducted in other industries if they use a research design and methodology similar to that of this study. Moreover, the use of HRM practices factors reported by other studies would be limited to those HRM practices factors which are similar to the ones developed and used by the current research in searching for a link between such factors and organizational performance indicators. This situation is unfortunate, but such a study is necessary and the fate of this study is to be the first to conduct one. Restated, it would have been more interesting, indeed easier, to compare the results of the current study of the relationship between HRM practices factors and performance indicators with those of similar studies using the same HRM practices factors and performance indicators.

Huselid (1995) mailed a 13 HRM practices questionnaire to the senior human resources professionals in firms participating in his study. Subjecting these practices to factor analysis technique resulted in two HRM practices factors, namely employee skills (e.g., enhancing employee knowledge, skills, and abilities) and employee motivation (e.g.,
performance appraisals, and focusing on employee merit in promotion decisions). The researcher used four objective performance indicators, namely employee turnover, employee productivity (measured by sales per employee), gross rate of return on assets, and Tobin's q (a market-based measure of profitability) as dependent variables. The correlation coefficients reported below between each of these two HRM practices factors and the four organizational performance indicators were \([n = 816]\): 

-0. 08 between employee skills and turnover, 0. 06 between employee skills and employee productivity, 0. 09 between employee skills and Tobin's q, and 0. 13 between employee skills and the gross rate of return on assets; and 0. 04 between employee motivation and turnover, 0. 03 between employee motivation and employee productivity, 0. 20 between employee motivation and Tobin's q and 0. 01 between employee motivation and the gross rate of return on assets.

As explained earlier in this part, these tiny correlation coefficients mean that less than 1 percent of the dependent variables variance, turnover, employee productivity, gross rate of return on assets, are accounted for by the independent variables, employee skills and motivation (Kline, 1997). Calculating the coefficient of determination \((r^2)\) for each of these correlation coefficients indicates that the strength of such relationships is weak.

The reason lies in that the values of the coefficient of determination \((r^2)\) are near to zero (Waters, 1998). The question one might ask is: what is the coefficient of determination value we should consider for the relationship to be either weak or strong? Waters (1998) suggests that any coefficient of determination value above 50 percent indicates that we have a reasonably strong linear relationship. Thus, when we review the results of other studies presented in the rest of this section, we shall take into consideration the coefficient of determination as an important measure of the strength of relationships between pairs of variables.

Huselid and Delaney (1996) evaluated the association between a number of HRM practices factors and perceptual measures of organizational performance in a sample of establishments and organizations in the USA \((N = 590)\). They reported correlation coefficients \((r)\) as follows:
0. 06 (p≤0. 05) between HRM practices relevant to training (e. g., number of formal training sessions provided and number of employees participating in formal training programs) and perceived organizational performance (e. g., quality of service and products, ability to attract and retain essential employees); and

0. 19 (p≤0. 001) between such an HRM practices factor and perceived market performance (e. g., growth in sales, profitability, and market share).

Kangis and Williams (2000) investigated the relationship between the perceptions of employees in 40 UK companies towards their work environment and a number of organizational performance indicators. The dimensions of the work environment included a number of activities relevant to HRM (e. g., supervisory style, employee training, and rewards). Organizational performance indicators, on the other hand, included profit margins, return on capital employed and sales growth. They reported the following correlation coefficients:

- 0. 48 between supervisory style (the extent to which the company management is open and supportive) and profit margins, 0. 41 between supervisory style and return on capital, and 0. 46 between supervisory style and sales growth. Each of these correlation coefficients is statistically significant at 0. 01 level;
- 0. 54 between employee competence (the extent to which the employees have the proper background training and know-how to do what is expected of them) and profit margin, 0. 47 between employee competence and return on capital and 0. 39 between employee competence and sales growth. Each of these correlation coefficients is statistically significant at 0. 01 level; and
- 0. 29 between rewards (the extent to which rewards such as promotions and salary increase are based on performance rather than other consideration such as favouritism) and profit margin, 0. 20 between rewards and return on capital, and 0. 09 between rewards and sales growth. None of these latter correlation coefficients was statistically significant at p≤ 0. 05.

Huselid et al. (1997) investigated the relationship between two categories of HRM namely technical and strategic, and a number of organizational performance indicators.
Performance indicators included employee productivity (net sales per employee), profitability (measured by two indicators—gross rate of return on assets which is an accounting-based profitability indicator, and Tobin's q which is a market-based profitability indicator). HRM practices data were developed from the perceptions of senior executives in human resource management positions while organizational performance indicators were objective data collected from the 293 publicly owned U.S. firms that participated in the study. Huselid et al. (1997, p: 175) described the strategic HRM as "perceptions of how well the HRM function developed a firm's employees to support its business needs, including facilitating teamwork, communications, involvement, enhancing quality, and developing talent to serve the business in the future'. In contrast, they described the technical HRM as "perceptions of how well the HRM function performed activities traditionally associated with personnel management, including recruitment, selection, training, performance appraisal and compensation".

The results of their study identified the following correlation coefficients between each of these two HRM categories and the three organizational performance indicators (n=293; two-tailed tests):

- 0.08 between strategic HRM and employee productivity and 0.02 between technical HRM and employee productivity. Neither of these two correlation coefficients was statistically significant at p≤0.05;
- 0.13 between strategic HRM and gross rate of return and 0.09 between technical HRM and gross rate of return; and
- 0.10 between strategic HRM and Tobin's q and-0.01 between technical FIRM and Tobin's q.

All correlations greater than or equal to 0.10 are significant at the 0.05 level; r ≥0.13 are significant at the 0.01 level; and r ≥0.16 are significant at the 0.001 level.

Ngo et al. (1998) conducted a study in Hong Kong to explore a link between HRM
practices and organizational performance. Researchers mailed a questionnaire to the human resource directors of 1700 firms in Hong Kong. The survey included 25 HRM practices which were factor-analysed to identify any possible underlying dimensions.

Four HRM practices factors were extracted. They accounted for 37 percent of the variance of the items. They were: structure training and development (7 items, Cronbach's alpha =0. 72) , retention-oriented compensation (7 items, Cronbach's alpha=0. 64) , seniority-based compensation (2 items, Cronbach's alpha=0. 49) , and diversity (2 items, Cronbach's alpha =0. 46). Thus, 7 HRM items were excluded because their factor loadings did not meet the requirements of the study of exceeding 0. 40. In the same survey, participants were also asked to indicate their firm's performance over the past three years as compared to the industry's average in the following areas: sales growth, net profit, development of new products services, satisfaction of employees, and retention of essential employees. Thus, researchers used perceptual performance indicators. Such a trend, using perceptual organizational performance indicators, has characterized the majority of studies tackling the relationship between HRM practices and aspects of organizational performance. Of the total respondents (253 firms) , 99 were local Chinese, 82 American, 38 Japanese and 34 British firms. Correlation coefficients reported between each of the four HRM practices factors and each of the five perceptual (subjective) performance indicators were as follows: -

- 0. 21, 0. 31, 0. 35, 0. 32, and 0. 16 between HRM practices relevant to structuring training and development and sales growth, net profit, new product development, employee satisfaction and employee retention respectively. All these correlation coefficients were statistically significant (p≤0. 01) ;
- 0. 15, 0. 28, 0. 29, 0. 36 and 0. 22 between HRM practices relevant to retention oriented compensation and sales growth, net profit, new product development, employee satisfaction and employee retention respectively. All of these correlation coefficients, except r=0. 15 which was statistically significant at p≤0. 05, were statistically significant (p≤0. 01) ;
- -0. 04,-0. 05,-0. 03, 0. 06, and- 0. 09 between HRM practices relevant to seniority-based compensation and sales growth, net profit, new product development,
employee satisfaction, and employee retention respectively. None of these correlation coefficients was statistically significant at $p \leq 0.05$; and

- 0.04, 0.03, 0.13, 0.16 and 0.12 between HRM practices relevant to diversity and sales growth, net profit, new product development, employee satisfaction, and employee retention respectively. None of the correlation coefficients of 0.04, 0.03 and 0.12 were statistically significant at $p \leq 0.05$. The correlation coefficients of 0.13 and 0.16 were statistically significant ($p \leq 0.05$).

Khatri (2000) undertook a study to search for a link between HRM practices and organizational performance in the largest companies (those who have 40 or more employees) in Singapore. Using the Singapore 1000 directory as the sampling frame for the study, and after applying the criteria of 40 employees or more, he was left with a total of 915 companies. Data on HRM practices and organizational performance were collected with a questionnaire. The chief executive officers of companies who participated in the study were asked to complete the questionnaire section relevant to subjective financial and non-financial indicators while the other section relevant to HRM practices was completed by the head of human resource functions. Of the total 915 companies selected to participate in the study, 222 (24 percent) responded.

The researcher, using principal component analysis factor, analysed the 27 items relevant to HRM practices. Nine HRM practice factors were identified. They were: flexible benefits (2 items, Cronbach's alpha = 0.35), performance-based compensation (2 items, Cronbach's alpha = 0.73), employee participation (3 items, Cronbach's alpha = 0.88), human resource planning (9 items, Cronbach's alpha = 0.89), performance appraisal (2 items, Cronbach's alpha = 0.88), use of structured interviews in selecting new employees (2 items, Cronbach's alpha = 0.70), use of employment tests in selecting new employees (2 items, Cronbach's alpha = 0.76), amount of training (2 items, Cronbach's alpha = 0.82), and training effectiveness (3 items, Cronbach's alpha = 0.91).

Researchers use this internal consistency reliability technique, Cronbach's alpha, to assess the degree to which their measuring instruments possess internal consistency. Such an internal consistency reliability approach is, as suggested by Bryman and Cramer (1999, p. 65), particularly important in connection with multiple-item scales.
The value of the Cronbach's alpha ranges from 0.00 to 1.00. The closer the resulting Cronbach's alpha to the upper limit, that is, to 1.00, the higher the consistency exists among the ratings provided by a group of raters and thus the more internally reliable is the scale being measured (Huck and Cormier, 1996). Although the rule of thumb is that the value of the Cronbach's alpha should be 0.80 or above (Bryman and Cramer, 1999), Nunnally (1978) has suggested that the generally accepted standard for internal consistency reliability estimates is above 0.70. Thus, the values of the internal consistent reliability reported by Khatri (2000) above implies that these HRM practices subscales are sufficiently homogeneous, that is, the HRM items do satisfactorily measure the same construct. One exception is the use of structured interviews in selecting new employee subscale (2 items, Cronbach's alpha = 0.70).

Moreover, the researcher used two subjective financial indicators, namely sales growth and the profit margin, and three non-financial indicators public image and goodwill, quality of service, and efficiency of operations. Conducting factor analysis on these three non-financial indicators, the researcher ended with one non-financial indicator.

The Spearman's correlation coefficients reported between each of the nine HRM practices factors and each of the three performance indicators were as follows (N = 222; one-tailed test) :-

- 0.02 (not significant) between HRM practices relevant to the flexible benefits measure and profit margin,
- 0.04 (not significant) between HRM practices relevant to the flexible benefits measure and sales growth,
- 0.11 (p ≤ 0.10) between HRM practices relevant to the flexible benefits measure and non-financial performance measures;
- 0.12 (p: 50.10) between HRM practices relevant to the performance-based compensation measures and the profit margin,
- 0.15 (p ≤ 0.05) between HRM practices relevant to the performance-based compensation measures and sales growth,
- 0.10 (p ≤ 0.10) between HRM practices relevant to the performance-based compensation measures and non-financial performance measures;
- 0.08 (not significant) between HRM practices relevant to the employee participation measures and the profit margin,
- 0.07 (not significant) between HRM
practices relevant to the employee participation measures and sales growth, and 0.21 \( (p \leq 0.01) \) between HRM practices relevant to the employee participation measures and non-financial performance measures;

- 0.04 (not significant) between HRM practices relevant to human resource planning measures and the profit margin, 0.16 \( (p \leq 0.05) \) between HRM practices relevant to the human resource planning measures and sales growth, and 0.06 (not significant) between HRM practices relevant to the human resource planning measures and non-financial performance measures;

- 0.19 \( (p \leq 0.01) \) between HRM practices relevant to the performance appraisal measure and the profit margin, 0.05 (not significant) between HRM practices relevant to the performance appraisal measure and sales growth, and 0.13 \( (p \leq 0.05) \) between HRM practices relevant to the performance appraisal measure and non-financial performance measures;

- 0.15 \( (p \leq 0.05) \) between HRM practices relevant to the use of structured interviews in selecting new employees measure and the profit margin, 0.03 (not significant) between HRM practices relevant to the use of structured interviews in selecting new employees measure and sales growth, and 0.09 (not significant) between HRM practices relevant to the use of structured interviews in selecting new employees measure and non-financial performance measures;

- 0.05 (not significant) between HRM practices relevant to the use of employment tests in the selection of new employees measure and the profit margin, 0.05 (not significant) between HRM practices relevant to the use of employment tests in the selection of new employees measure and the sales growth, and 0.02 (not significant) between HRM practices relevant to the use of employment tests in the selection of new employees measure and non-financial performance measures;

- 0.17 \( (p \leq 0.01) \) between HRM practices relevant to the amount of training measure and the profit margin, 0.08 (not significant) between HRM practices relevant to the amount of training measure and sales growth, and 0.18 \( (p \leq 0.01) \) between HRM practices relevant to the amount of training measure and non-financial performance measures; and

- 0.14 \( (p \leq 0.05) \) between HRM practices relevant to the training effectiveness measure and the profit margin, 0.02 (not significant) between HRM practices relevant to the training effectiveness measure and sales growth, and 0.14 \( (p \leq 0.05) \) between HRM practices relevant to the training effectiveness measure and non-financial performance measures.
3-4-2-6 Interpretation of Statistically Significant Correlation Coefficients

Earlier in this part, a correlation was defined as a measure of the degree of relationship between two variables on a scale from 0 to 1.00. Researchers are interested in finding out whether their findings are statistically significant, Why? There as onlies in that a statistically insignificant correlation coefficient means, as suggested by Miller and Salkind (2002, p. 390), that the variables in the population from which the data were drawn probably do not have a zero correlation; that is, they are related. The size of a statistically significant correlation coefficient (r), which is the cornerstone in judging the strength of the relationship between two correlated variables, is essential. This is because the square of the correlation coefficient (r), known as the coefficient of determination (r²), provides the best indicator of the meaningfulness or significance of a statistically insignificant correlation coefficient. Through this technique (r²), which measures the proportion of variability in one variable that can be determined from the relationship with the other variables, we can identify the exact amount of variance in one variable accounted for by the variance in another variable. A correlation of r=0.80 (or 0.80), for instance, means that r² = 0.64 (or 64%) of the variability in y (the dependent variable) scores can be predicted from the relationship with x (the independent variable). Restated, 64% of the variability (changes) in y can be predicted by variability (changes) in x. Furthermore, when r = 0, none of the variability (changes) in y can be predicted by variation (changes) in x. Restated, when r² = 0, there is no covariation between x and y. This is why it is important that the size of the correlation coefficient (r) is essential in judging the strength of the relationship between two correlated variables.

Taking into consideration the size of the correlation coefficient (r) as a basic input in calculating the coefficient of determination (r²), which is then used to measure the strength of the relationship between two correlated variables, the size of each of the reported statistically significant correlation coefficients, in the previous section, is small. One exception is those statistically significant correlation coefficients reported by Kangis
and Williams (2000). This exception does not reflect, however, a strong relationship. For example, the size of the correlation coefficient between employee competence and profit margin, which is the largest correlation coefficient not only with respect to the findings of Kangis and Williams, but also in relation to all other correlation coefficients reported in the previous section, equals 0.54 \((p \leq 0.01)\). This correlation coefficient means that only 0.29 (or 29%) of the variability (changes) in the scores can be predicted from the relationship with \(x\). Restated, such a result indicates that 71% of the variance in \(y\) is due to variables other than \(x\). To sum up, although the previous section, 3-4-2-5, reveals a number of statistically significant correlation coefficients, none of these correlation coefficients is large enough to explain that a high percentage, say \(r^2 = 0.50\) or 50%, of the variability (changes) in \(y\) is due to variability (changes) in \(x\).

3-5 Part Four: Aim of the Study, Objectives, Research Questions and Hypotheses

3-5-1 Introduction

Literature shows that methodical attempts to studying the relationship between management of worker and performance did not take pace until the last quarter of the nineteenth century (Taylor, 1895). Since all these attempts looked at this relationship from different perspectives, they were grouped into a number of schools or theories (Loomba, 1978).

All these management schools and some of the major writers who contributed in developing them are:

- Scientific management (Frederick Taylor, Frank Gilbreth and Henry Gantt);
- Administrative management (Henri Fayol and Lyndall Urwick);
- Human relations (Mary Parker Follett, Elton Mayo, Abraham Maslow and Douglas McGregor);
- Behavioural science (Chris Argyris, Rensis Likert, Herbert Simon and James March); and
- Management science (George Dantzig, Russell Ackoff, and Richard Bellman).
While these five types of managements schools have some common properties, they differ in some important aspects with respect to the relationship between worker and work to be performed. Example, the guiding force for the scientific management school was the economic factor. Therefore, for the most part, it relegated the human aspects of organizational tasks and concentrated primarily on the use of human resources as adjuncts to machines (March and Simon, 1958).

In administrative management, the stress was on the development of managerial methods, for example departmentalization and unity of command, to implement pre-established tasks. So, this management school is like the scientific management school in that it majorly ignores the psychological and sociological factors associated with a human being. The human relations school is of importance for it represents the first systematic attempts to study the relationship between human factors and productivity (Mayo, 1946). The behavioural science school seems to be close to the human relations school in relation to the investigation of the relationship between worker management and performance. The difference is that this school studied organizational productivity rather than individual productivity. Stated differently, this school handles the relationship between the management of workers and organizational performance. With the spotlight on specific factors which might influence this relationship, for example individual behaviour, group behavior and organizational behaviour. The thrust of the management science school is to examine problems influencing organizational performance with a systems orientation.

Although the researcher got the advantage from the ideas of each of these management schools, the human relations views and behavioural science views made the greatest impact.

It is worth taking a note that nothing has been mentioned about theories relevant to the relationship between HRM practices and organizational performance. Interestingly, although studies researched in this area of research have produced encouraging empirical findings (Huselid, 1995; MacDuffie, 1995), research has not yet established a specific theory not only in relation to HRM, but also to organizational performance as well as the relationship between the two issues. In order to understand the nature, strength and
significance of the relationship between HRM and organizational performance, one needs, as Guest (1997, p: 263) suggested, "a theory about HRM, a theory about performance, and a theory about how they are linked". All these are complex challenges, but they deserve our utmost attention, for such theories will augment this line of research which has important implications on the management of human capital resources as well as on fixed capital ones.

Taking into consideration what has been addressed so far in relation to HRM, organizational performance and the relationship between them, the aim and objectives of the current study are presented in the next section.

3-5-2 Aim and Objectives of the Study

The current research aims at exploring the extent to which performance indicators relevant to Education institution performance indicator are related to specific HRM practices (e.g., training and development). Policymakers; as well as managers could, via this model, monitor, evaluate, and improve the quality of human resource management practices by taking appropriate steps. Additionally, it is the hope of the researcher that this model will encourage researchers, interested in studying the relationship between HRM and organizational performance, to focus more attention in building up theories relevant to such a relationship.

To be able to monitor, evaluate and improve aspects of organizational performance, the following are needed (Hofstede, 1981): -

- Performance indicators which are measurable and unambiguous; and
- Activities within the monitoring system which are repetitive.

The performance indicators, average number of forms sold against per per year, is both measurable and unambiguous.

To achieve the aim of the current study, the following objectives need to be pursued:-
• Using a reliable HRM practices instrument which can capture the perceptions of education institution employees towards the level of importance their organization attaches to human resource management;

• Collecting the “total number of forms sold per year” and the “number of available seats at the entry level of the institution” for three consecutive years (2013-2015). Based on such data, “average number of forms sold at the entry level against per seat per year” will be calculated.

• Exploring whether education institution employee personal data are related to HRM practices; and

• Exploring the extent to which HRM practices have a consistent pattern of relationships with some aspects of education institutional performance, namely “average number of forms at the entry level sold against per seat per year”.

3-5-3 Research Questions

The following research questions need to be answered by analyzing collected data:-

• Is the instrument of HRM practices factors selected for the current research, reliable?

• Is there a relationship between education institution employee personal data and HRM practices? and

• Is there a relationship between HRM practices and education institution performance indicator?

In order to answer these questions, hypotheses presented in the next section will be tested.
3-5-4 Hypotheses of the Study

In order to answer the research questions the following hypotheses are to be analysed through the use of appropriate statistical and/or graphical techniques:

- From the equality of treatment point of view, with respect to HRM practices (e.g., training and development), the current study assumes that differences in the mean score ratings of employee’s perceptions toward HRM practices in their education institutions are statistically insignificant;

- An increase in the level of importance attached to HRM practices is associated with an increase in the education institution’s performance; and