Review Article

Human Resource Forecasting and Employee Resourcefulness: A Review of Literature

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Abstract

This study examines the relationship between human resource forecasting and employee resourcefulness in an organization. The study is purely conceptual and thus largely adopted a desk research methodology. Literature review was carried out covering the theoretical conceptual and empirical review of the study constructs, dimensions and measures. The findings in extant literature of the study are that human resource forecasting positively and significantly improves employee resourcefulness in organization. Again, the dimensions of human resource forecasting; quantitative and qualitative forecasting positively and significantly enhance employee resourcefulness. The study therefore recommends that the organization should integrate human resource forecasting into the firm's overall human resource management framework. This will significantly improve resourcefulness of employees at work.
Keywords: Employee Resourcefulness, HR Forecasting, Innovativeness, Productivity, Quantitative Forecasting.

INTRODUCTION

The business environment is dynamic and highly competitive, industry players are all scrambling to occupy a reasonable share of the industry's market (Kother & Keller, 2012; Stoner, Gilbert & Freeman, 2013). Hence, organizations integrate their resources and deploy them optimally in order to improve their market share and translate the company to profitability. The critical resource for the integration of assets in the workplace is the human capital (Stoner *et al.,* 2013). Thus, the resourcefulness of the human element at work is highly critical for the effective management of other resources for the achievement of the company's goals and objectives. Human resource is the most important asset of the firm; all other assets are subservient to the human element at work. Therefore, human resources should be effectively planned in the organization.

Employees resourceful in the organization should be carefully planned by the top echelon management through training, succession planning and forecasting of the labour needs of the workplace (Dogan & Sahin, 2015). Hence, employee resourceful is the use of staff cognitive and self-regulatory competences, to cope with environmental challenges in the workplace setting. The resourceful employees at work should dominate dimensions such as innovativeness, creativity and productivity in order to ensure the success of the firm (Mehran & Morteza, 2013; Vilani, 2016). Thus, employee resourcefulness should be predicted with human resource forecasting among several factors driving the resourcefulness of the human capital at work.

Human resource (HR) forecasting involves projecting the labour needs and the effect they will have on the business or the organization. The human resource department in an organization forecasts both short and long term staffing needs based on projected sales revenue, growths of the workplace, staff attrition and other factors that may require the organization's need for labour resource (Stoner *et al.,* 2013). Thus, in addition to forecasting the number and types of labour an organization will need, human resource planning includes analyzing the various cost elements and

administrative work that comes along with increasing or adding more labour or downsizing in the workplace.

The purpose of this study is to examine the relationship between human resource forecasting and employee resourcefulness in organization. The specific objectives are:

i. To examine the relationship between quantitative forecasting and employee resourcefulness in organization.
ii. To ascertain the relationship between qualitative forecasting and employee resourcefulness in organization.

Conceptual Framework

In this study, human resource forecasting is the predictor variable. This variable is divided into two dimensions; quantitative forecasting and qualitative forecasting (Sutanto, 2000). Thus, criterion variable is employee resourcefulness. This construct is divided into two measures; innovativeness and productivity (Dogan & Sahin, 2015). Hence, the conceptual model of this study is illustrated below:
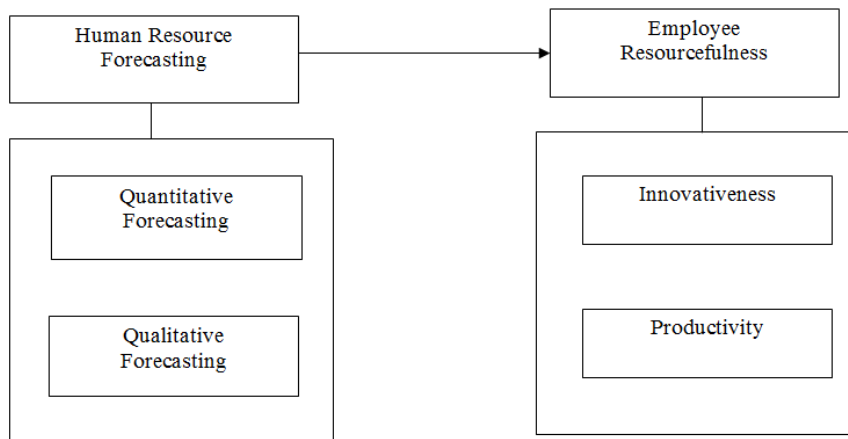

Fig-1: Conceptual Framework of the relationship between human resource forecasting and employee resourcefulness
Source: Dimensions as adopted from Sutanto (2000), while our measures were adopted from Dogan and Sahin (2015).

LITERATURE REVIEW

The Resource Dependency Theory

Resource dependency is a theoretical construct of the workplace which gives explanations around the firm's behaviour in relationship with the critical resources which the company must possess to survive and effectively function in a dynamic environment. Companies do not have all the resources needed for their operations and therefore, relate with the environment for resources (Cemal, Mine & Kudret, 2019; Delke, 2015). The organization is dependent on other firms or individuals in the environment for the supply of resources which it presently lacks. As an outside paradigm, the theory presupposes that companies are open systems that interact with the environment for survival.

The organization depends on other firms in the environment which control resources needed for operations. However, the organization has limited control over these external resources but in order to manage the challenges and dependence externally, workplace managers develop various kinds of programmes such as partnerships, alliances, mergers, business combinations etc. so as to maximize corporate autonomy (Johnson, 2015). Thus, the resource dependency theory is first associated with the works of

Pfeffer & Salancik (1978) with the proposition of the external control of the workplace. This theory presupposes how resources external to the firm influence the behaviour and performance outcomes of the company.

Bringing in external resources to a company is imperative to the tactical and strategic management as firm's owned resources are limited. This helps influence operational effectiveness and performance of the workplace (Chiambaretto, 2015). Thus, the characteristics of the resource dependency theory are that resources emanate from the firm's environment which the company depends on and they form the basis of corporate power in the business environment (Hillman, Withers & Collins, 2009). Hence, institutions are open systems that constantly exchange valuable resources with the environment. People and firms constitute part of the exchange process and impact outcomes of the workplace (Szymanies & Austen, 2011). These people and organizations exercise their powers through their resources which the company tries to leverage through bargaining.

The relevance of the resource dependency theory to the present research work is that resources including labour resources from the labour market are

needed for the growth of the firm. The organization may not have all the labour resources, it must leverage outside capabilities for the supply of labour through the formation of partnerships, alliances, cooptation, business combinations etc (Cemal *et al.,* 2019). Thus, organization requires resourceful employees and part of these employees could be gotten from the firm's operating environment.

The Knowledge Based Theory

The knowledge based theory is an appendage of the resource based view or theory propounded by Edith Penrose in 1959. The thrust of the knowledge based theory is that knowledge is the most critical asset or resource of the firm which is heterogeneous or resides in the human elements and divisions of the work organization (Curado, 2006; Stoner *et al.,* 2013). Hence, knowledge is the most critical asset of the firm which is not resident in an individual employee or individual department but cut across employees, departments and divisions of the work organization. "Knowledge is considered to be a special strategic resource that does not depreciate in the way traditional economic production factors do and can generate increasing returns" (Curado, 2006:1). Thus, the characteristics of knowledge-based resources is that they are essentially intangible and dynamic in nature and largely driven through the human capital of the firm.

The knowledge-based theory which is focused on the intellectual capital heterogeneity of the workplace deposited and loaded with knowledge which is diffused throughout the organization. Firms are heterogeneous personalities enriched with knowledge resources. These knowledge resources which are intangible are the critical basis for sustainable competitive advantage as the assets are difficult for the competition to duplicate or replicate in the market. Knowledge resources deployment leads to successful business performance and attainment of sustainable competitive advantage (Wiklund & Shepherd, 2003; Zack, 2002). The possession of knowledge resources in an organization is imperative as this intellectual asset is used to develop other critical resources of the firm such as machines, materials, methods, information etc. Again, knowledge resources are used to manipulate and drive the positive outcomes of the organization; production, marketing, finance, human resources, research and development etc (Stoner *et al.,* 2013).

The implications of the knowledge based theory to this study is that knowledge asset is critical to sustaining employee resourcefulness in the workplace. The need for labour requirements and employee resourcefulness is largely anchored on the knowledge based view of the firm. Knowledge is important in the development of resourceful workforce. This study human resource forecasting and employee resourcefulness in organization is anchored on the resource dependency theory and the knowledge based

theory. These theories will form the baseline of the study; the next section discusses the conceptual review of the study.

The Concept of Human Resource Forecasting

Human resource forecasting involves the projection of the labour needs and wants, preferences and perception of the company and the effect they will have on the business or organization (Stoner *et al.,* 2013). Thus, the human resource department forecast both short and long term staffing needs based on projected sales revenue, workplace growth, attrition and other factors that affect an organization's need for labour. In addition to forecasting the number and types of labour an organization needs, human resource planning includes the analysis of the various costs and administrative work that comes with recruiting more workers or workforce downsizing.

Human resource forecasting is one of the most important human resource practices in the workplace. Companies rely much on human resource forecasting to determine their current position and needs of manpower. Forecasting is the key to a successful human resource management programme (Samwel, 2018). Hence, a company that implements its human resource forecasting effectively is likely to prosper in the competitive business environment. This is because organizations are formed by people and people are the most important asset of the firm that manages the organization in the face of the dynamics of the environment (Werner, Jackson & Schuler, 2012).

According to Bulla & Scott (2014), human resource forecasting is the process of projecting the human resources needs and requirements and planning for meeting these needs and also analyzing the impact it will have on the company. Thus, it is the work of the organization to determine its current and future manpower requirements that will help to meet its objectives. Human resource forecasting also encompasses collecting and using information on the basis of which it can be discussed as the number of resources spent on labour planning. Mondy and Noe (2006), opined that human resource forecasting and planning is the entry requirements of human resource management concerned with the analysis of human resources requirements and needs, job analysis, recruitment and selection etc.

According to Reilly (2003), human resource forecasting could be defined as the process by which a company attempts to estimate the demand for labour or manpower and analyze the size, nature and sources of labour supply which will be required to meet the labour needs of the organization's leaders. Anyim, Mba and Ekwoaba (2012), posits that human resource forecasting is the genesis and laudable activity of the human resource management programs in the workplace. Again, it must be linked with the overall strategy of the

firm (Khadka, 2009). Thus, labour forecasting serves to achieve the goals of the company by developing prediction, setting the targets and realizing arrangements leading to ensure adequate manpower for the firm (Samwel, 2018).

The main focus of human resource management is to support departments of functional small business units (SBU's) in the organization with adequate manpower and the right people. Forecasting helps to match the requirements and the availability of labour or employees in the workplace. Forecasting is divided into two dimensions which are quantitative forecasting and qualitative forecasting Sutanto (2000), these sub-variables will be discussed.

Quantitative Forecasting
The estimation of future labour in the workplace is driven by quantitative human resource forecasting. Labour demand and supply is usually estimated with the use of quantitative forecasting metrics (Stoner *et al.,* 2013). Hence, there are several analytical tools for the measurement of demand and supply of labour. These methods are regression model, time series analysis, econometric model, linear progression model etc.

Quantitative forecasting is used to measure fluctuations in labour levels. It has an important role in successful human resource management of an organization. By predicting the number of employees to be hired and also by estimating and knowing their quality, a company would get the best manpower for the right work for departments and at the right time (Sutanto, 2000). Hence, quantitative forecasting is good when the organization has historical data upon which the executives will use to project the need for labour and also to analyse the possible impact on the company.

Qualitative Forecasting
An important dimension of human resource forecasting is qualitative forecasting. This is essentially educated guesses or estimates by the human resource management in the workplace (Bulla & Scott, 2014). Hence, the human resource executives employ qualitative techniques such as nominal group discussion, Delphi method, replacement planning and allocation planning.

Qualitative forecasting is all about employing the judgement of HR executives to estimate the labour needs and requirements of the organization. In using a qualitative method of forecasting, management needs to estimate future labour availability and needs, which is to assess the supply of labour both within and outside the company (Anyim *et al.,* 2012). Thus, they need to determine the future demand for specific numbers and types of employees. Supply and demand of labour should be conducted separately. Importantly,

management of the organization should employ both quantitative and qualitative forecasting methods as these factors are complementary (Khadka, 2009; Mondy & Noel, 2006).

The Concept of Employee Resourcefulness
Employee resourcefulness is the generic competence that enables adaptive responses to the demand of complex and volatile aspects of the work environment. Resourcefulness of employees refers to the ability to cope with difficult, stressful and challenging situations and engage in cognitive self-regulating or self-controlling adaptive responses (Sahin, Koksal & Ucak, 2015). Thus, highly resourceful employees direct their behaviours to tolerate aversive environment and sustain coping behaviour. Employee resourcefulness in the workplace should be carefully planned by the top echelon management through training, succession planning and forecasting of the labour requirements of the organization (Dogan & Sahin, 2015).

According to Sahin *et al.* (2015), employee resourcefulness could be defined as the use of staff cognitive and self-regulatory competences to cope with environmental challenges in the work organization. The resourceful employees at work should demonstrate creativity, innovativeness with his/her cognitive map and translate the organization to productivity. Employee resourcefulness is a situation where staff competences are deployed in order to drive organizational success. It is the use of staff cognitive skills and competences to improve the success of the organization as well as coping with the external business environment. Employees being the most important asset at work, leverage their skills, knowledge and competences in order to adapt to the working environment and drive workplace success (Akgunduz, Bardakoglu & Alkan, 2015). Thus, employee resourcefulness in this study is divided into two measures; innovativeness and productivity (Dogan & Sahin, 2015). These variables will be reviewed.

Innovativeness
The operating business environment is dynamic and ever-changing; it is only employees that are creatively innovative that can keep pace with the dynamics of the work environment (Stoner *et al.,* 2013). Thus, employees who are innovative help the organization to adapt to the challenges of the ever-changing business situations. Employee innovativeness is highly important due to dramatic changes occurring in the business environment which is largely driven by globalization and liberalization of markets.

According to Yusof and Said (2014), employee innovativeness is defined as staff's overall innovative ability or capability of introducing new business concepts, ideas and creativity for new products, new services and new technologies. Employee

innovativeness is the process of achieving innovation at work. According to Maritz, Waal & Verhoeven (2011), employee innovativeness could be defined as staff doing something new with ideas, products, services or technology and refining these ideas to market opportunities.

Productivity

The concept of productivity is one of the measures of employee resourcefulness. Employee productivity is when the staff of the organization produces the desired goods and services to the firm efficiently. It is when employees are making more output at work with the efficient use of input resources. According to Syverson (2011), employee productivity could be defined as staff efficiency in workplace production.

Productivity presupposed how employees efficiently utilize economic and material resources for the production of goods and services (Kongkiti, 2013). Thus, what drives productivity is the pattern of operations and human resource integration at work. Clusters of management processes and the right human resources with requisite skills and competences at work will drive employee productivity and translate an organization to success. In the recruitment of employees in the workplace, management of the organization or the human resource executives should pay attention to potential employee skills, knowledge and competences. This will potentially enhance the productivity of employees at work (Stoner *et al.,* 2013).

Empirical Review

Human Resource Forecasting and Employee Resourcefulness

The forecasting of human resources at work usually enhances employee resourcefulness. This foregoing is empirically validated with studies. Sahin *et al.,* (2015), studied the relationship between managerial resourcefulness and job performance in the content of managers in large organizations. The study employed structured survey research methodology and the findings of the study are that managerial resourcefulness is positively associated with the superior ratings of job performance. The study also revealed that managerial resourcefulness explains additional variance in job performance over and above the demographic predictor of job performance.

The above findings are highly supported with the works of Karatepe (2010), who studied the effect of job resourcefulness and customer orientation on performance outcomes, the case of Nigeria. The study employed the Pearson Product Moment Correlation (PPMC). The results of the study indicate that job resourcefulness positively and significantly enhances business performance in the context of the hotel industry in Nigeria. Again, the works of Samwel

(2018), corroborates the above study results. The author investigated human resource planning in predicting human resource requirements in an organization. The study made use of secondary data – literature survey and the findings is that there is a significant relationship between human resource planning and organizational manpower requirements and between human resource planning and organizational performance.

The nexus between human resource forecasting and employee resourcefulness in organization is also validated by the empirical studies of Lunenburg (2012), this study examined the nexus between forecasting and demand/supply of labour in the workplace. The study employed literature review methodology and findings revealed that, human resource planning/forecasting has a positive and significant relationship with the demand and supply of labour in the organization. This is also in agreement with the position of Sutanto (2000), who emphasized that forecasting is the key to successful human resource management in the organization. Forecasting helps to match the requirements and the availability of employees in the workplace. From the expositions above, human resource forecasting is a laudable predictor of employee resourcefulness in organization.

Quantitative Forecasting and Employee Resourcefulness

Quantitative forecasting which is employment of statistical metrics used in analyzing the labour needs of an organization is used in predicting employee resourcefulness in the organization. Afzal, Mahmood and Hassan (2013), studied the effect of human resource planning on organizational performance of the telecom sector. The study employed regression analysis and the findings of the study are that quantitative human resource forecasting is significantly related to organizational performance in the context of the telecommunication industry. Again, this finding is corroborated with the study of Hanan (2017), who studied the impact of human resource management on organizational performance in the context of firms in Saudi-Arabia. The study discovered the value of quantitative human resource forecasting in planning human resources among firms in Saudi Arabia. Quantitative human resource forecasting is a good predictor of performance at work.

Quantitatively predicting the labour needs of an organization was also empirically proved by studies. Khaled, Abdullah, Mohd and Hamza, (2014), they studied the effect of human resources planning and training and development on organizational performance in the context of the government sector in Jordan. The study employed both descriptive statistics and correlation analysis. The result of the study indicates that HR quantitative forecasting and planning significantly correlates organizational performance in the context of Jordanian ministry. It is pertinent to note

that quantitative human resource forecasting improves the resourcefulness of employees in an organization.

Qualitative Forecasting and Employee Resourcefulness

Demand and supply forecasting and the determinants of employee requirements was studied by Wurim (2013), the scholar employed survey research methods and discovered that qualitative demand forecasting of labour needs in the workplace is not a potent tool in the estimation of employee requirements in Nigeria's public organization. These findings quite contrast with the work of Khaled *et al.,* (2014), who discovered that qualitative forecasting is a veritable tool in the estimation of labour needs which brings about performance at work. It was revealed that qualitative human resource forecasting complements quantitative methods of forecasting in predicting labour requirements which alternatively drives organizational performance.

The forecasting position is also highly supported with the empirical evidence of Sahin *et al.,* (2015), the scholars measured the relationship between managerial resourcefulness and job performance. They discovered that in determining the requirements of labour needs qualitative estimation help HR managers to make proper judgement of the labour requirements in terms of type and quality of personnel which ultimately enhance job performance. This is also in agreement with the study of Karatepe (2010), who discovered that the judgement of HR managers in predicting labour requirements and employee resourcefulness is vital to the performance of the organization. This is also in line with the empirical study of Samwel (2018), who examined the association between human resource planning and human resource requirements. The study revealed that in planning the workforce, qualitative estimation helps to predict the future requirements of personnel in the organization.

In human resource planning, forecasting demand and supply is done through quantitative and qualitative methods. Lunenburg (2012), in his study discovered the complementary role of qualitative and quantitative methods of HR forecasting in predicting performance in the workplace. It is imperative to note that, the implementation of qualitative forecasting will enhance employee resourcefulness and bring about organizational performance.

CONCLUSION

From the literature reviewed, study concludes that human resource forecasting positively and significantly improves employee resourcefulness in an organization. Again, quantitative and qualitative human resource forecasting positively and significantly improves employee resourcefulness in the organization. The study findings revealed that human resource forecasting is a laudable predictor of employee

resourcefulness in organization. This is supported with the works of Sahin *et al.,* (2015), Karatepe (2010), Lunenburg (2012) etc. Again, it was revealed that the dimensions of human resource forecasting such as quantitative and qualitative forecasting positively and significantly relates with employee resourcefulness in an organization. Again, this is supported with the empirical works of Afzal *et al.* (2013), Hanan (2017), Khaled *et al.,* (2014) etc. Thus, human resource forecasting is a laudable predictor of employee resourcefulness in organization.

RECOMMENDATIONS
The following recommendations are made:
i. The organizations should integrate human resource forecasting into the firm's overall human resource management framework, this will enhance the employee resourcefulness in the organization.
ii. Organizations should adopt quantitative human resource forecasting metrics in its human resource planning. This will improve the resourcefulness of employees in the workplace.
iii. The organizations should also adopt qualitative human resource forecasting techniques in the planning of manpower requirements. This will significantly improve employee resourcefulness in the organization.

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