

Influence of Supply Chain Management in Human Resource – A Hypothetical Testing

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Abstract: As the world market is getting more and more globalization in the economy, the system of trading has been changed accordingly. In current scenario the universal competitive situation organization's performance becomes progressively entangled through the welfare of its employees. Employees with fewer concerns in their individual survives are more probable to be dedicated and involved at the place of work, which in turn enhances the company's performance, resulting in a win-win situation by aligning both corporate and employee objectives. Many nations have taken various initiatives to motivate organizations to be aware of the potential benefits of adopting work-life (W-L) initiatives.. Some emerging countries have progressively become the manufacturer and supplier of the world requisitions, as compared to relatively developed countries. It has always been a great issue for the companies to reduce the cost of procurement, transportation, inventory etc. The local growing companies realizing that the profit obtained by low budget industries must be set an efficient supply chain management. In this paper we propose the attributes of supply chain that influence the human resource management in a company and the outcomes has been hypothetically validated.

Keywords: Supply Chain, Training, Selection, Payment, Supply Chain Qualitative Performance

I Introduction

In this era of common community, businesses are facing strong competitiveness and indefinite business environment due to extraordinary level of world trading, technical development and frequently changing of clients requisition and prospects. Therefore, manageability is a necessity for businesses to respond in the direction of those fluctuations. In this respect, all the businesses must to covenant with unsparing struggle across the sphere where human assets can be applied by firms as an operative tool to achieve rivalry superiority over their opponents (Becker & Huselid, 1998).

Supply chain management arises at the historic moment, therefore, it is not a solitary corporation control the complete supply chain, but with customer demand as the major premise, through the continuous development of its core business, at the same time abandon non-core business, and work closely with other supply chain in enterprises, more effectively to achieve resource configuration is balanced, to create more added value for clients. In under the guidance of this thought, each enterprise must from the global perspective to the whole supply chain, to establish a new relationship between supply and demand, to ensure that

the whole supply chain system is low cost and highly efficient. The typical supply chain management is shown in figure 1.



Figure 1: Supply Chain Management

II Background of Study

Human Resources Management (HRM) as a commercial meaning incorporates the obligations and responsibilities associated to the societies, their achievement, assortment, exercise and additional events that confirm the improvement of personnel. The objective of human resources management is to support the business to achieve its

premeditated objectives. The elementary postulation of human resources management is that public is not a machine and consequently we must use an interdisciplinary method for observing people in their work location. The top leader of the company is requested to respect the important features like work culture, planning concept, decentralization and distribution of data and information, training, clear job description and its execution, liberty to take action, feedback, inspiration and utilization of resources required for execution.

Management requires the inner procedures that mature the maximum of administrative strategies, observe, and enterprise quality for the collaboration to develop and sustain worker skills (Grumman & Saks, 2011). The preservation of the multifaceted developments and purpose of invention businesses needs noticeably organisation engineering in commercial domination and administration. In last ten years, companies desire to trust on business information system for handling information and refining their concept (Liu, Zhang & Hu, 2005). Companies concentrating on new approaches and customer-oriented attitude for the betterment of dealing, manufacturing competence and cost cutting. They practice the business software platforms to accomplish their objectives. The organization has a numerous risk potential to face from supplier as well as customer side.

The supply chain is an indispensably significant phase for all industries. The business function deliberately cooperated with the trading in particular in a scientific way for enlightening the lifelong characteristics of the specific businesses (Mentzer, 2001). It is similarly supportive to upsurge operational competence and efficiency of the business in relations of artefact transmission and information involvement.

According to (Wilkinson, 1990; Beaumont, 1992) "Human Resource Management is assembled as an organization tool that mostly gives the organisations' workers as strength relatively to the price". Three foremost methods are acknowledged by (Guest, 1987). First, Human Resource Management is a retitled form of personnel management deprived of altering the complete practices. Subsequently, it is a tool that designates the tasks of personnel subdivision and finally, it is an intentional management that conveys encouraging application of human capital.

Human Resources Management comprises the actions, organizational processes and strategies that distress the human behaviour, assertiveness, administrative philosophy and attainments of staff in the commercial system in such a way that improve the efficiency of employees, their agility, sustainability and capability for generating modest benefits. Many philosophers are exploring the phenomenon of success and competitiveness of some famous business organizations, and highlighted the significance of

managerial strategies and decent exercise in human properties management which are as follows:

- Employment and promotion based on knowledge, skills and capabilities.
- Superior communication between administrators and workers and healthier working associations.
- Obligation to excellence.
- Extraordinary level of group effort and group philosophy.
- High level of investment in training of personnel.
- Growth of multiple skills of personnel.
- Motivation of creativities and proposals of personnel.
- Formation of administrative position symbols: administrative cafeteria, coffee shop, uniform, sports facilities, club officers.

III Interdependency of HR and Supply Chain Management

There are robust interdependencies between supply chain management and Human Resource (HR) management and thus it is difficult to recognise specific limitations. Moreover, these limitations are constantly rousing to accommodate an incorporation of supply chain and HR events. The problematic that the logistics expert faces is that managing companywide HR strategies to effect synchronised alteration is often external to their organization possibility. This eradicates the utmost idea of inspiration in attaining cross-functional incorporation for those who have such accountability without acceptable consultant. Furthermore, it is tremendously hard to modify synchronised HR rules that extend practical sections; several logistics specialists' deficient information and knowledge in this composite area. If logistics specialists are to be dependably operative, they must have:

- Integrative *vision* - the vision to dexterities integrative, cross-functional, and cross-company sequencers that allow artefact to move speedily and instinctively over the corporation and the channel.
- *Human resources ability* - the capability to connect the control of HR strategies to guarantee that the sequencers are instigated commendably during the business. Since effective, receptive product flow is important to plan achievement in SCM, engrossed HRM must develop a core component in supply chain management. For instance, purposes such as obtaining, engineering, client facility and vending include logistics in their scheduling and planning in order to enhance the end-to-end supply chain, but their fundamental process is contingent upon the functioning of HR. The capability to manage client associations, both internal to the organization and

external, and supplier associations is fundamental to accomplishment in supply chain management.

IV HRM Practices for Achieving Supply Chain Human Performance

It is challenging for a company to achieve control over outside issues to avoid organizational disturbance. Consequently, it would be additional beneficial to expand interior zones that are unswervingly under the firm's control. Achieving higher-level human performance regarding their task requires a unique set of HRM observes to produce better reactions from personnel (Capelli & Singh, 1992).

a) Selection

Human Resource Managements plays serious role in employing skilled employee that can be operated for accomplishment of companies' objectives. It is essentially procedure of choosing suitable applicant to assign specific job. Administrations are requisite to grow the employees that capable in expending emergent universal scientific resources and also obtaining businesses' anticipations (Snow, 1992). This supports moderating great turnover of employees that is probable to cause organizational performance decline (Arthur, 1994). Selection comprises of two associated process. Initially, companies are engendering a pool of talented persons to apply for a specific position of an organization. Then, it is treated with choosing utmost appropriate contenders for the occupation by pleasing into account management objectives and the legal desires (Bratton & Gold, 2003). Various of techniques can be employed during the selecting process which include various methods of interviews in order to analyse whether job interviewee is met the requirements, curriculum vitae, references among others and assessment centres (Bratton & Gold, 2003).

b) Payment

This is the deliberate solicitation of acknowledgment concerning worker performance that company offers for its operatives' involvement (Pagel, 2004). In order to achieve superior human performance, well-managed payment system is crucial (Swart and Duncan, 2005). Payment scheme also can be used as an inspiration instrument within company to proliferate workers' efficacy (Pagel, 2004). Payment approaches inside businesses can be managed grounded on performance, based on production, based on expertise and based on acquaintance related payment (Brown, 1989). This policy supports procurement for the superior performance providing by workers in order to accomplish specific job by inspiring the staff associates.

c) Training

According to (Swart and Duncan, 2005), expected productivity from work memberships can be achieved over appropriate teaching programs and effective performance

can be guaranteed if workers pose better awareness. Supply chain has a multifaceted edifice that encompasses high amount of understanding of the whole process. Consequently, teaching is used to achieve better employee performance and solid control over the process. Teaching is the formal and methodical archetypal of behaviour that can be gained through learning, which derived as a result of proper education and instruction (Armstrong, 2001). In order to solve organization-related problems, to advance employees performance and to enable continuous improvement of human resource, appropriate training program is a must for every organization that pursue performance excellence and it is required to keep organizations onward of their competitors (Hilb, 1992). Koch and Mcgrath (1996) demonstrated that firms, which are implementing systematic training program for their employees, are more likely to be productive.

d) Appraisal

Employee appraisal is a scheme that is established to screen their performance connected with the specified task to accomplish for a convinced assignment. It is basically a process of examining the employees' contribution in fulfilling the given task within a defined time period (Bogicevic, 2004). This scheme supports firms to recognise the performance variances between anticipated levels and obtain level performance to enable continuous performance enhancement and gain an acceptable level of utilization of employees' performance (Swart and Duncan, 2005).

The most crucial aspect of performance evaluation is to recognize suitable dimension substances as the selected measurement scale will lead workers' activities. In practice, to prevent potential misleading performance evaluation, different aspect of performance measurement must be taken into account (Bogicevic, 2004). The characteristic of performance evaluation system is likely to create a positive employee reaction and, which in turn, motivation to produce better performance (DeNisi and Pritchard, 2006).

V Hypothetical Normality Testing

Qualitative attributes of any hypotheses are least acceptable. We required quantifying attributes so that its quality can be measure to meet the threshold value. Quantification of any attributes is standard of measurements, which is a process quantifying the attributes to describe them according to well define rules. We cannot improve quality if it cannot be measurable.

Hypothetical testing requires that null hypothesis be considered true, until it is proved false on the basis of results observed from the sample data. The null hypothesis is always expressed in the form of mathematical statement which includes the sign (\leq , $=$, \geq) making a claim regarding the specific value of the population parameter (Alam, M, 2014). The population parameter is expressed as $H_0: \mu(\leq, =,$

$\geq \mu_0$ where μ is population mean and μ_0 represents hypothesized value of μ . The test statistic for determining difference between the sample mean \bar{x} and population mean

$$\mu \text{ is given by } t = \frac{(\bar{x} - \mu_{H0})}{\left(\frac{s}{\sqrt{n}}\right)}$$

Where

s = an unbiased estimation of unknown population standard deviation.

\bar{x} = mean of sample

n = sample size

μ = population mean

Our Table sample size are twenty five so we preferred t-test because our sample size is less than 30 ($n < 30$). The collected sample and their mean calculation are described in table 1.

This test statistic has a t-distribution with $n-1$ degree of freedom. Confidence interval estimate of the population mean μ when unknown population with is estimated by sample standard deviation s , given by for two tailed test $\bar{x} \pm$ where α is the level of significance.

Calculation of Parameters

$$t = \frac{\bar{x} - \mu_{H0}}{s/\sqrt{n}}$$

$$t = \frac{2.55 - 2.50}{.82/\sqrt{25}}$$

$$t = \frac{.05}{.82 \times 5}$$

$$t = \frac{.05}{4.1} = .01219$$

Cumulative probability: $P(\bar{x} \leq 2.55) = .6185$

CP: $|t_{cal}| = .6185 < 2.55$

CP: $|t_{cal}| = .6185 < t_{\alpha/2} = 2.50$ at $\alpha/2$ for $df = 24$,

The t distribution calculation is done by online available tool *stattrek* the degree of freedom, standard deviation, population mean and sample mean are provided in this tool and it calculated the cumulative probability $p(\bar{x} \leq 2.55)$. The snapshot of this calculation is depicted in figure 2.

- In the dropdown box, describe the random variable.
- Enter a value for degrees of freedom.
- Enter a value for all but one of the remaining text boxes.
- Click the Calculate button to compute a value for the blank text box.

Describe the random variable

Degrees of freedom	24
Sample standard deviation	
Population mean	2.5
Sample mean (x)	2.55
Cumulative probability: $P(X \leq 2.55)$	0.6185

Figure 2: Snapshot of Cumulative Probability Calculation

Where $\alpha = 0.05$, $df =$ degree of freedom.

The observed value of t is .6185 which is in the acceptance region since $R: |t_{0.025}| (2.5) > .6185$ and thus H_0 is accepted. The normal distribution curve for two tailed t-test figures is presented in figure 4.1.

Table 1: Sample Mean Table

Training	Mean (\bar{x})	Standard Deviation (δ)
#1	2.40	.986
#2	2.67	.816
#3	2.40	.737
#4	2.53	.990
#5	2.73	.704
#6	2.53	.990
#7	2.60	.737
#8	2.40	.737
#9	2.53	.990
#10	2.73	.704
#11	2.53	.915
#12	2.60	.737
#13	2.40	.737
#14	2.53	.990
#15	2.73	.704
#16	2.40	.986
#17	2.60	.737
#18	2.40	.737
#19	2.53	.990
#20	2.73	.704
#21	2.53	.990
#22	2.60	.737
#23	2.40	.737
#24	2.53	.915
#25	2.73	.704
Total	63.76	20.711
Average	2.55	.828

Where $\alpha = 0.05$, $df = \text{degree of freedom}$.

The observed value of t is .6185 which is in the acceptance region since $R: |t_{0.24}| (2.5) > .6185$ and thus H_0 is accepted. The normal distribution curve for two tailed t-test figures is presented in figure 3.

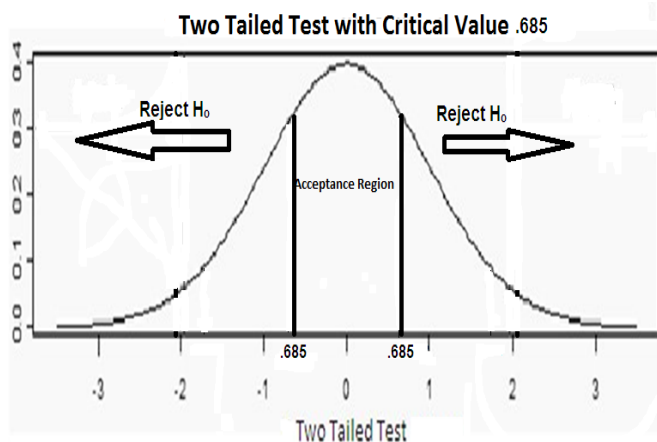


Figure 3: Normal distribution two tailed t-test

V Conclusion

The primary objective of this work was to determine the impact and role of Human Resource in Supply Chain Management in an organization. The importance of this research is a systematic approach of using absolute attention to define the attributes of Human Resource performance in Supply Chain Management by conducting a general survey based on questionnaire specially designed and covering all the characteristics of HR equally obtained data is tested and simulated by SPSS tool to emphasize the content validation of this research work. In our research study it has been observed that more than 70% of the organization supply chain management has been highly influenced by human resources that support the survival of the organization in this global competitive market.

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