

An Analysis of Factors Improving Productivity at Work

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Abstract

This study explored the effect of work engagement, working environment and learning and skill development on employee productivity. The sample included 132 employees of Nepal of various industries. Data was collected using structured questionnaires. Statistical tools such as frequency distribution, mean score, correlation analysis and regression analysis were used to analyse data and was presented using tables. The findings of this research study will help in implementing strategies to improve organisational effectiveness. This research gives significant contribution to organisations by providing a detailed status of factors that enhance the productivity of the business and in what areas does improvement is needed.

Keywords: Work environment; productivity; work engagement; learning and skill development.

1. Introduction

The aspiration of every organisation is to achieve its short-term and long-term goals and objectives. Productivity plays a pivotal role in attainment of goals as it aids in improving performance of employees and boosting profitability of that organisation. If the employees are productive, it costs business less to achieve results. However, productivity depends upon a number of factors – skill sets, work environment, employee engagement, health and safety, work habits, technological factor and organisational culture.

Today as a manager, keeping employees engaged is perhaps the biggest challenge s/he faces. Employee disengagement is increasing and it becomes more important to make workplaces that positively influence workforce (Pech and Slade, 2006). Poor decisions, lack of interest, high absenteeism are some of the symptoms of employee disengagement. The reason that engagement is important is that it ultimately yields long-term commitment from the team (Clapon, 2016). Employee engagement efforts and strategy must be aligned with organisation's goals and overall business strategy.

Employee engagement refers to a positive employees' emotional attachment and employees' commitment (Dernovsek, 2008). Emotion is again emphasized by Perrin's Global Workforce Study which states that engagement is largely affected by many factors which involve both emotional and rational factors relating to work and the overall work experience (Perrin, 2003). Apart from emotion, career opportunity is the top engagement driver globally and the other top engagement drivers are reputation, pay, employee value proposition, and innovation (Adkins & Harter, 2015). Organisations create culture of engagement marked by strong leadership, performance orientation, and brands (internal and external).

Institute of Employment Studies which surveyed 10,000 NHS employees in Great Britain revealed that a sense of feeling valued and involved acts as one of the key driver of employee engagement (Robinson et al., 2004). Organisations that provide value to its employees through their involvement in decision making, career development programs, coaching and mentoring activities and the extent to which employees feel able to voice their ideas have

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identified the improved employee productivity at their workplace. The employees tend to stay longer in those organisations who care about their employee's well-being.

The Aon Hewitt Engagement Model shows that the engagement drivers have two parts namely foundation and differentiators (Adkins & Harter, 2015). There are organisational practices, job security, safety, work environment and mainly the work in foundation while differentiators include reputation, senior leadership and career and development opportunities. Having said this, the model also talks about business outcomes that often result from strong engagement drivers and higher employee engagement levels. The research has consistently found that organisations with higher engagement levels also have better talent, operational, customer, and financial outcomes.

Grappled with competition and challenges, today managers are striving to increase their performance. From decades, the best ways are always contributed by scholars, researchers and consultants. Concepts like Total Quality Management (TQM) and Business Process Reengineering (BPR) helped in increasing organizational performance by focusing on operational and process improvements but now the drivers of sustainable performance have changed (Markos and Sridevi, 2010). Today, the best organisations build and sustain a culture of engagement. Successful are the organisations led by CEOs who understand that employee engagement is not just a “nice to have” but critical to achieving business results (Adkins & Harter, 2015).

Work has the potential to be a valuable way of bringing employers and employees closer together and ultimately make them more engaged at work. Another study has found that almost two thirds' (60%) of the surveyed employees want more opportunities to grow forward to remain satisfied in their jobs (White, 2008). Organisations for a long period of time focused on achieving employee job satisfaction. However, a research shows that there is difference between job satisfaction and engagement in a sense that managers cannot rely on employee satisfaction to help retain the best and the brightest; here employee engagement becomes a critical concept (Fernandez, 2007).

According to one research report, employees want to work in the organizations in which they find meaning at work (Penna, 2007). Apart from revealing consistent, statistically significant relationships between higher levels of employee engagement and financial performance, in their research of 270 global organizations from 2010 to 2013, they also found that strong leadership, reputations, and performance orientation in addition to strong employee engagement drive incremental business performance in sales, operating margin, and total shareholder return. Researches also indicate that the more engaged employees are, the more likely their employer is to exceed the industry average in its revenue growth (Adkins & Harter, 2015).

These various researches provide support that work environment, engagement activities, team work and opportunities to develop skill are attributes that result in employee engagement and ultimately results in increased performance. The only way that a strategy will yield results is if it is started with the “why” of the matter, and about “what” organisation wants to achieve through it, before jumping to “how” it's going to go about it (Clapon, 2016). Now, the same constructs are to be tested in the Nepali organisations which has never before attempted to study the impact. Therefore, research has carried out to find out factors that enhance performance and creativity and come up with change programs to fill the found gaps.

The conceptual framework provides a foundation for focusing specific variables for the study. The framework hypothesises linkages between various constructs derived from different literatures on motivation. The conceptual framework is shown in fig. 1.

2. Methodology

2.1. Nature and Collection of Data

The research is quantitative in nature. It adopted hypothesis testing and descriptive research design since the research also intended to describe the situation at present about the factors that the organisation associates with engagement. The study setting in which the research was conducted was non-contrived. Convenience sampling method was used for the research. 132 employees were taken as a unit of analysis. The total sample size is 132.

The extent of the interference by the researcher was minimal since the information was collected in natural

environment. Similarly, field study was conducted since data would be collected with no such interference. Individuals – employees were the unit of analysis. Since data would be gathered just once, this study was cross-sectional or one-shot study.

This study used four previously developed instruments to collect the data. These instruments were also used by many researches in previous studies. They have been found to be valid and reliable to capture the variables to be studied.

Work engagement was measured using the 17 items Utrecht Work Engagement Scale (Schaufeli and Bakker, 2004). Responses for this variable were obtained in a 7 point likert scale where 0=Never, 1=Almost never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very often and 6=Always.

Working environment was measured using the 12-items scale developed by Hassan and colleagues (Razak, Ma’amor, and Hassan, 2014). Group learning was measured by 7-item measure developed by Aragon and colleagues (Aragón, Jiménez, and Valle, 2014).

Lastly, productivity was measured by 13-item measure developed by Koopmans and colleagues (Koopmans, et al., 2013). For all of these variables, 5 point likert scale was used where 1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree.

2.2. Data Analysis Methods

Data analysis is an important stage of the research process. The purpose of analysing the data is to change it from an unprocessed form to an understandable presentation (Pant, 2012). Mean score, frequency analysis, Pearson’s correlation had been used for the data analysis and presentation. The researcher has used regression analysis to examine relationship and influence between one or more identified variables with one another. After data coding, reliability analyses were performed using Cronbach’s Alpha for each instrument.

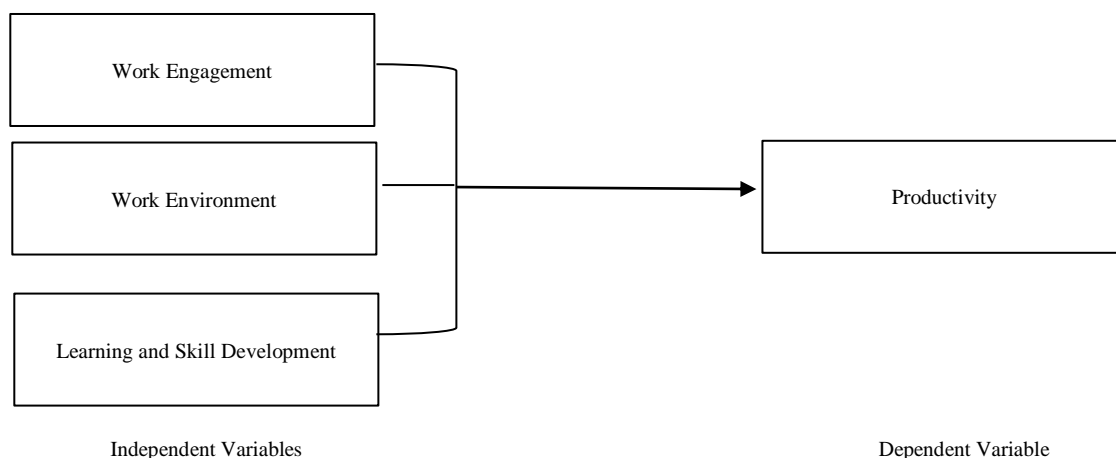


Fig. 1. Conceptual Framework.

3. Data Analysis and Discussion

The study has employed descriptive analysis for describing the data and correlation, ANOVA Test and regression analysis among other statistical tools to analyse data. The results from the statistical tests of significance are presented and analysed in subsequent sections.

3.1. Response Rate

Table 1. Demographic Profile of the Study Variables

Variable	Classification of Variables	Frequency	Percent (%)
Gender	Female	32	24.25
	Male	100	75.75
Years of Association	Less than 1 year	54	40.91
	1-2 years	38	28.79
	3-5 years	24	18.18
	6-10 years	16	12.12

Table 1 is indicative of the results which were obtained from the demographic profile. Among the 132 respondents, about 75.75% were male and 24.25% were female. Majority of respondents are associated with their respective organisations for less than 1 year, which is about 40.91% of the respondents. 28.79% of the respondents have served for 1 to 2 years, 18.18% have served for 3 to 5 years and 12.12% have served or 6-10 years.

3.2. Maximum, Minimum and Mean Values

Table 2. Descriptive Statistics of Study Variables

	N	Min	Max	Mean	Std. Deviation
Work Engagement	132	3.18	6.00	4.32	0.67
Work Environment	132	2.14	4.92	3.82	0.61
Learning and Development	132	2.29	5.00	3.87	0.59
Productivity	132	2.69	4.85	3.77	0.46

The result in Table 2 depicts that employees' overall mean score for work engagement is 4.32 (SD=0.67). It suggests that employee engagement is above average. If it is interpreted according to the scale, it means employees are often engaged in their work.

Similarly, mean values for work environment, group learning and productivity (3.82, 3.87 and 3.77) respectively are all above average. So, when employees are engaged, learn in group and get good environment, productivity is high.

3.3. Work Engagement and Productivity

Table 3. Group Statistics – Gender

Variables	Gender	N	Mean	Std. Deviation
Work Engagement	Female	32	4.10	0.58
	Male	100	4.39	0.68
Productivity	Female	32	3.85	0.46
	Male	100	3.74	0.46

The results in table 3 shows mean values of male and female employees with work and productivity variables. The mean score of female employees in work engagement is 4.10, productivity is 3.85. Similarly, mean scores of male employees in work engagement is 3.85, employee productivity is 3.74. It suggests that male employees are more engaged while female have slightly higher productivity.

3.4. Number of Years of Association and Productivity

Table 4. Group Statistics – Gender

Variables	Gender	N	Mean	Std. Deviation
Work Engagement	Less than 1 year	54	4.29	0.58
	1-2 years	38	4.23	0.69
	3-5 years	24	4.39	0.70
	6-10 years	16	4.54	0.89
Productivity	Less than 1 year	54	3.71	0.44
	1-2 years	38	3.83	0.48
	3-5 years	24	3.71	0.31
	6-10 years	16	3.95	0.67

The mean values of engagement and productivity of employees with different years of association indicated that there is not much difference in engagement and productivity among various age groups. However, more precisely, employees with 6 to 10 years of tenure are slightly more engaged (Mean=4.54, SD=0.89) and have slightly high performance (Mean=3.95, SD=0.67).

3.5. Correlation Analysis

Table 5. Correlation between Dependent and Independent Variable

	Work Engagement	Work Environment	Learning and Skill Development	Productivity
Work Engagement				
Work Environment	0.67**			
Learning and Skill Development	0.60**	0.58**		
Productivity	0.29*	0.27*	0.27*	

** . Correlation is significant at the 0.01 level (2-tailed).

As significance level is 0.00 which is less than 0.05, therefore, alternative hypothesis is accepted. That means to say, increase or decrease in independent variables significantly relate to increase or decrease in dependent variable - productivity.

3.6. Regression Analysis

The regression analysis between various variables is presented in Table 6.

Table 6. Regression Analysis of Different Variables

	B	T-Value	P-Value
(Constant)	2.66	6.39	< 0.001
Work Engagement	0.11	0.95	0.01
Work Environment	0.06	0.52	0.29
Learning and Skill Development	0.09	0.75	< 0.001
R-Square	0.11		
Adjusted R-Square	0.06		
F	2.45		
P-Value	0.72 ^b		

^b P-value were obtained by two sample t-tests.

On the basis of the above finding regression analysis has been developed:

$$Y = 2.66 + 0.11 X_1 + 0.06 X_2 + 0.09 X_3$$

Where,

X₁=Work Engagement

X₂=Work Environment

X₃=Learning and Skill Development

Y = Productivity

From Table 6, we can see that coefficient of determination (R square) is 0.11. This shows that there is only 11 per cent of variation in the dependent variable and the remaining 89 per cent is due to other factors.

Since significance value is less than the alpha value of 0.05 (95% confidence interval), we do not accept the null hypothesis. Therefore, a linear relationship exists between the dependent variable and at least one of the independent variables.

Hypothesis Testing

At the 5% level of significance,

P-value = 0.015 < α = 0.05, hence, we do not accept null hypothesis. This indicates work engagement (x₁) is a significant independent variable for productivity (y).

P-value = 0.028 < α = 0.05, hence, we do not accept null hypothesis. This indicates work environment (x₂) is a significant independent variable for productivity (y).

P-value = 0.028 < α = 0.05, hence, we do not accept null hypothesis. This indicates learning and skill development (x₃) is a significant independent variable for productivity (y).

4. Conclusion and Implications

4.1. Conclusion

The present research study showed that employees valued work environment, work engagement and learning and skill development as a motivating element for better productivity at work. There is no significant difference among gender and years of association in terms of work engagement and productivity. Gender and tenure have no effect on these major variables. Every employee is equally engaged and perform the same level at work irrespective of any characteristics. The direct relationships between productivity and its factors were examined from regression analysis. The regression analysis revealed that there exists no significant relationship of productivity with any of the variables.

The main focus of the study has been on productivity which is defined as the proficiency with which individuals perform the core technical tasks central to his or her job (Koopmans, et al., 2013). Even if the analysis shows that the model is not significant i.e. employees perform their core task without being influenced from engagement activities, environment and team learning, but then the whole set of contextual performance, counterproductive work behaviour and adaptive performance of Individual Work Performance domain is still to be studied.

The findings of this research study will help in implementing strategies to improve organisational effectiveness. This research gives significant contribution to organisations by providing a detailed status of engaged an environment and in what areas does improvement is needed. In conclusion, this research will bring commendable change in motivational aspects to enhance productivity at workplace.

4.2. Implications

The present research was conducted in limited sample population. It includes employees who work in Nepal. The results that has been generated from this research may not be applicable in other countries. The results generated may be biased as well since it is conducted in one-shot survey.

This study relied on self-reported data although group learning and performance could have been considered for supervisory or peer rating. The major problem with self-reported data is that there is always possibility of sources bias. In addition, self-ratings are known to show leniency effects that means, people are naturally motivated to present themselves in a favourable, socially desirable light (Koopmans, et al., 2013). As a result, self-ratings of performance are generally one half to one standard deviation higher than ratings by peers or managers.

This study is cross-sectional in nature, so it can only say that variables were ‘associated’ with performance but cannot say that they ‘predicted’ the performance. The cross sectional data also increases the source bias probability. Longitudinal design would have established the direction of causality.

There is the need for the researchers to conduct further research on this topic. While working in this research, there were fewer than handful research in existence. Identifying and coming into conclusive on this rising topic will definitely bring a commendable change in the corporate business world.

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