



## Enterprise Resources Planning: A Mean of Brand Developing in Nepalese Schools

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### Abstract

*This paper has examined the relationship between implementation of the Enterprise Resource Planning (ERP) software whether it supports in the brand development of higher education institutions in Nepal. Despite the significant, positive relationship between brand development and ERP in the private schools of Kathmandu Valley, there still exists challenges in the wider implementation of the software use in educational institution in Nepal.*

**Key Words:** *Enterprise Resource planning, Brand Development, Information Technology*

### Introduction

Enterprise Resource Planning (ERP) has emerged as one of the major breakthroughs in information technologies (ITs) that can re-shape the manufacturing industry. ERP is the business application that weaves together all the data within an organisation's business processes and associated functional areas (Candra, 2014). Enterprise resource planning (ERP) is an information technology strategy to merge all information within an organisation to create a comprehensive information infrastructure encompassing all organisational units and functions. The strategy requires a central database which places all organisational information into a unified format so that it may serve as a resource in meeting the data needs of managers, stakeholders, customers, employees, and suppliers from a local to a global context (Davenport, 1998). The aim of ERP implementation in universities is to provide colleges, schools and departments, with an enhanced ability for research and teaching at reasonable or low cost. However, there are challenges in ERP implementations at higher education institutions which have revolved around the lack of alignment between the unique organisational characteristics of colleges and universities and the standard characteristics of the enterprise software.

Enterprise Resource Planning (ERP) systems are software packages composed of several modules, such as human resources, sales, finance and production, providing cross-organisation integration of data through embedded business processes. These software packages can be customised to cater for the specific needs of an organisation. Davenport (1998) stated that the business world's embrace of enterprise systems may in fact be the



most important development in the corporate use of information technology. The power of enterprise systems found in the business sector (Friedman, 2005) explained how the global information infrastructures, including ERP, have "flattened" or standardised organisational data so that organisations world-wide can link into complex global supply chains from factories in China, to call centres in Bangladesh, to consumers in Jacksonville, Florida. The size and scope of such globally linked infrastructures has brought about a global "democratisation". As a result of its benefits, ERP has become the backbone of business intelligence for organizations by giving managers an integrated view of business processes (Parr, Shanks & Nash, 2000). ERP is designed to adapt to new business demands easily. The continuous technological advancement and the increasing complexity of ERP require companies to regularly upgrade their systems (Harrison, 2004).

The focus of brand development is a new business and opportunities, as opposed to managing relationships with customers you are already selling your products or services. Brand development is maintaining the consistency in terms of quality, value and trust that consumer finds in the company. ERP can be defined as an industry term for a broad set of activities supported by multi-module application software that helps a manufacturer or other business manage the important parts of its daily operations, including product planning, purchasing parts, maintaining inventories, interacting with suppliers, providing customer service, and tracking orders.

The evolution of ERP systems closely followed the spectacular developments in the field of computer hardware and software systems. Young (2007) stated implementing an ERP system as a major project requiring a significant level of resources, commitment and changes throughout the organisation. Often the ERP implementation project is the single biggest project that an organisation has ever launched. As a result, the issues surrounding the implementation process have been one of the major concerns in industry. A consequence of the growing trend to purchase and install ERP systems is the organisational financial commitment for implementing and maintaining the systems. Implementing technological solutions and techniques such as ERP system could improve and integrate the internal and external flow of information within an organisation. This sort of innovations has always been the improvement of SCM performance, aggrandise decision-making based on exact information and improve the relationship and interchange of information.

ERP involves in automation, standardisation, and integration of shared common data and practices in a real-time mode across the entire organisation (Fui-Hoon Nah, 2003). Companies are beginning to realise that in order to survive and have competitive advantage in the global business environment they must improve not only their organisational efficiency, but also their whole supply chain. It also has been crucial for improvement of movement of any products and services to outsource every supplier, customer, and other partner in the supply chain and finally achieve a competitive advantage and increase profitability (Kremzar & Wallace, 2001). An ERP system is an inbuilt technology infrastructure that always assists a company or entity in accumulating information and reflects from all internal departments within suppliers and customers.

**Operation:** It is concerned with converting materials and labour into goods and services as efficiently as possible to maximise the profit of an organisation. The workflow from one



department to another is automated and clear, making sure that the transition between departments is smooth and fast. This automated template ensures greater transparency and connection between different managers and departments.

H<sub>1</sub>: Operation has a significant positive impact on Brand Development.

**Information Technology:** Information systems are the means to carry out the improvement of any organisational efficiency and effectiveness, thus, providing a competitive edge. Many companies experience difficulty in IT/IS implementation due to their poor experience in evaluating implementation performance.

H<sub>1</sub>: Information technology has a significant positive impact on Brand Development.

**HR Management:** Enterprises that implement ERP must effectively perform the HRM functions to manage the enterprise effectively. It means to arrange the time table for the enterprises and staff flexibly according to the local calendar. The ERP system can record the attendance rate and other relevant information by using a Telemetric Control Unit (TCU). For example, data related to the compensation will be further processed in the compensation management system.

H<sub>1</sub>: HR Management has a significant positive impact on Brand Development.

**Marketing and sales:** Sales and marketing processes are part of ERP and generally are incorporated into the customer relation management (CRM) module of corporate ERP systems. CRM and ERP modules perform subtly different roles and the functions they facilitate are key aspects of modern businesses that, for practical purposes, are inseparable. Marketing automation: Provides the ability to generate qualified leads, streamline the sales process, manage multi-channel marketing campaigns, and collaboration between marketing and sales.

H<sub>1</sub>: Marketing and Sales has a significant positive impact on Brand Development.

**Services:** ERP Software is easier to provide high-quality customer service using an enterprise solution, especially when you're using one as well-equipped as Work wise ERP. Sales and customer service people can interact with customers better and improve relationships with them through faster, more accurate access to customers' information and history.

H<sub>1</sub>: Services has a significant positive impact on Brand Development.

## Study Methods

The study is based on primary data collected through the questionnaire seeking information on both dependent and independent variables using Likert scale and other questions. The population of the study consisted of all those involved directly or indirectly to the use of school ERP system in Kathmandu, including teachers and school directors. The study used simple random sampling for survey, where it sampled 150 respondents including employed teachers, founders, members of administration, and related professors of the school. The respondents were between 22 to 65 years old. In administering the questionnaire out of 130 questionnaires distributed to the teachers and faculty members, 124 were complete and used for data analysis. The study has employed descriptive and causal comparative research designs. The descriptive design has been adopted to find the required fact, and the causal comparative research design for identifying the cause and effect relationship between dependent and independent variables.

## The Model Specification

The model estimated in the study assumes that brand development depends on the operation, service, marketing and sales, information technology and human resource management of the school, thus:

Brand Development=f (Enterprise resource)

More specifically

$$Y= \beta+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3 + \beta_4X_4+ \beta_5X_5+e$$

Where, Y= Brand Development,

$\beta$  = Constant variable

X1= Smooth Operation

X2= Information Technology

X3= HR Management

X4= Marketing and Sales

X5= Servicee= Error  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  are regression coefficients that refer to the amount with which a dependent variable increases when one of these independent variable increases while others remain constant.

## Presentation and Data Analysis

To measure the relationship between independent and dependent variable, Pearson correlation has been used in this study.

**Table 1: Correlation analysis of available variables**

<b>Correlations</b>	<b>Smooth operation</b>	<b>Information technology</b>	<b>Human Resources</b>	<b>Marketing and Sales</b>	<b>Services</b>	<b>Brand Development</b>
Smooth operation	1					
Information technology	.394	1				
Human Resources	.148	.442	1			
Marketing and Sales	.525	.486	.331	1		
Services	.470	.354	.443	.548	1	
Brand Development	.303	.373	.041	.298	.312	1

*Note:* From researchers' survey

Table 1, shows correlation between dependent variable and independent variable with the P value being .303 between smooth operation and brand development; indicating that they have positive relation with each other. Likewise, the P value between IT and brand development is .394 from which reveals a positive relation between information technology and brand development. But the P value of Human Resource Management and brand development show no significant relation (with the value of .148). The P value between Marketing and Sales and brand development is .525 from which indicates that there is a positive relation between marketing and sales and brand development. Lastly, we can see from the table that the P value being .470 is between services and brand development. From which we can infer that there is also a significant relation with each other.

**Table 2: The model summary of the regression table**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.478 <sup>a</sup>	.229	.196	.45657

*Note:* Predictors: (Constant), Services, Information technology, Smooth operation, Human Resources, marketing and sales

The table 2 displays the model summary of the regression illustrating the coefficient of determinant at .196 which is 19.6 percent. It reveals 19.6 percent of the variance in the

dependent variable. The adjusted R square shows that 19.6 percent of the variation in dependent variable is explained by independent variables studied.

**Table 3: Coefficients**

Model	Unstandardised Coefficients		Standardised Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	1.995	.418		4.770	.000
Smooth operation	.063	.098	.066	.646	.520
Information technology	.312	.090	.349	3.464	.001
Human Resources	-.233	.093	-.245	-2.503	.014
marketing and sales	.040	.106	.041	.376	.707
Services	.265	.116	.244	2.278	.025

a. Dependent Variable: Brand Development

Note: From researchers' survey

## Conclusion

Majority of the respondents agree and strongly agree that they feel valued from the way their implemented ERP system has largely been effective in their institutions. Moreover, many employees of the schools have found improvements from this system and want to maximize benefits that an ERP software provides each individual. More than half of the respondents agreed on smooth operation when they were asked about which variable address their brand development, on the other hand only about 35 percent of the respondents agreed when asked they were valued by the system that is implemented in and that infinitely impacts brand building process of their respective schools.

The findings suggest that IT and service have significant impact on brand development of Nepalese schools through ERP implementation. However, activities of human resources, smooth operation and marketing and sales made no significant effect on brand building. Hence, the Nepalese schools implementing ERP mainly focus on IT and service and should adopt strategies that make their brand more successful in their respective schools.



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