

Impact of Business Value Planning on Business-IT Alignment

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Abstract

The purpose of this research is to understand and quantify the impact of Business value planning on Business-IT Alignment and strength of interaction among them. The construct validity was established for both Business Value Planning (BVP) and Business-IT Alignment (BIA). The sample data from 65 firms were obtained through structured questionnaires. Structured equation modeling and Regression analysis were used to understand the impact and the relationships among the constructs. Business value planning identifies the critical business processes and the value indicator for each business process followed by the design and approval of a business case for the initiatives. These activities had a significant effect on the Business-IT Alignment which was confirmed through confirmatory factor analysis. The research output suggests that Business value planning plays a key role to achieve overall Business-IT Alignment (BIA).

Keywords: Business Value Planning, Business-IT alignment, Value indicators

1. Introduction

Business IT alignment is defined as the *extent to which the IT strategy supports, and is supported by, the Business Strategy*.

An empirical research conducted to understand the impact of Strategic Information System Planning (SISP) on SISP success. In one of the constructs "Planning Analysis" explains the need to understand the information needs of the organizational

sub units, identifying opportunities for internal improvements in the business process and fulfilling them through appropriate IT initiatives. The fourth construct Planning Capabilities explains the need to understand business strategy and its information needs and ability to gain cooperation among user groups for IS plans[1].

2. Method

This research is started with the problem identification. The literature survey was conducted and the journal articles were critically reviewed. The research gaps were identified. The constructs were researched and the attributes for each of the constructs were identified from the literature. The construct validity is established, followed by the piloting and data collection. The data collected from 65 organizations is validated, cleaned and the regression analysis was performed. The results were analyzed and inferences were drawn. Finally the analysis was supported by the literature.

3. Literature Review

Teo and Ang Present a set of critical success factors for aligning IT plans with business plans. Some of the critical ones are (1) Top management's knowledge of IT (2) IT management's knowledge of business (3) Business goals and objectives that are known to IT management (4) The corporate business plan being available to IT management (5) The IT department being able to identify creative ways to use IT strategically[2].

The factors for achieving business-IT alignment opined that governance starts at the top. The major factors that impact business-IT alignment are business direction and IT initiative alignment, IT resource alignment, partnership and alignment between IT and the clinical communities, business communities and research, accountability, transparent project request and prioritization processes, effective budget and project management, board-Level IT, executive committee and IT steering committee (ITSC)[3].

The purpose of this research is to understand and quantify the direct and indirect effects of Business Value Planning and Human Resources on Business-IT Alignment. A theoretical framework is proposed regarding the constructs of Business Value Planning (BVP), Human Resources (BHR) and Business-IT Alignment (BIA) and the construct validity was established. The sample data from 65 firms was obtained through structured questionnaires. Structural equation modeling (SEM) was used to understand and quantify the relationships. Business Value Planning had a significant Direct effect on the Business-IT Alignment and Human Resources has a significant Direct and Indirect effect on Business-IT alignment. The tested framework suggests that Human Resources are essential and play a key role during the Business Value Planning contributing to the linkage of Business Value Planning and Business-IT alignment. [4]

A study was conducted in the context of Indian IT industry to understand and quantify the direct and indirect effects of partnership and building human resources on business-IT alignment. The research identified about seven to eight empirical studies that described the interaction between the factors considered in this study and business-IT alignment. A theoretical framework was proposed regarding the constructs of partnership, human resources and business-IT alignment (BIA). The sample data from sixty-five firms was obtained through structured questionnaires. Structural equation modeling (SEM) was used to understand the strength of relationships among the three constructs and estimate the probability associated with the indirect effects using bootstrap technique. The results showed that building human resources and developing partnership between business and IT groups have a significant direct and indirect effect on business-IT alignment. The results suggest that building human resources and partnership is essential and play a key role to establish business-IT alignment contributing to business strategy[5].

Attributes of BIA and BVP

The attributes of BIA are Assessment of the alignment between business and IT, understanding of business case (including the value indicators) prepared for the IT initiatives, building approach for computing the value indicators (the metrics that quantify the business expectations, tracking success of the IT initiatives, updating business case and compares actual benefits with the planned benefits, assessment of value add to the business from each portfolio based on the value indicators. The attributes of BVP are understanding business strategy of my customer organization, understanding of business processes that support the business strategy, understanding the critical business processes (including the parameters that are needed for the success of these processes) of my customer organization, establishing mechanisms or formal organizational roles to perform the above activities, understanding business expectations of the software products/ applications to be delivered to the customer from by preparing a business case or going through an existing business case by involving relevant people, Creating Service Level agreements (SLAs), assigning accountability to roles to ensure the success of the IT Applications/Software Product Initiatives, making the people accountable for the success/failure of IT applications/software products

4. Framework Development, Objectives and Methodology
Research Framework



Figure 0-1 Research Framework

Objective of the Study

The objective of the research is to identify the impact of business value planning on business-IT alignment in the Indian context.

Hypothesis

Business value planning does not have any impact on the business-IT alignment(H1)

Research Design

The basic research design selected for this initiative is cross sectional survey conducted in the IT cover IT Industry in Chennai, Hyderabad, Pune and Noida who are in system integration, product development or captive IT organizations through stratified random sampling from middle and senior management executives with 5 plus years of experience. The questionnaire has been derived with factors of business value planning, and business-IT alignment using a 5 point scale (1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree). The tools used for construct validity are content validity, reliability, content validity, discriminant validity and confirmatory factor analysis. correlation, regression and have been used to acquire appropriate inferences and testing of hypothesis. For confirmatory factor analysis structural equation modelling has been used (herein after called as SEM).

Construct Validity

Construct validity was established using Lawshe's [6] method. It is computed that mean content validity ratio (CVR) = 0.79 as compared to the target value of 0.50.

The pilot survey was conducted with 49 respondents and checked for its reliability (for all the three factors together) with Cronbach alpha test (Cronbach & Meehl, 1955) and found to be 0.81. Since the pilot survey has shown a significant reliability value, the survey was continued to collect the data. Cronbach reliabilities for the pilot study also had been done for all three factors (BVP, BIA) separately and the outcomes are found to be in the range of 0.83 to 0.90. Item convergence was assessed through the calculation of the average variance-extracted scores. Commonly, scores greater than 0.50 support a case for convergent validity [7.] The results support the existence of discriminant validity, as the Average Variance Extracted (AVE) for each of the Constructs was greater than the shared variance between the construct and all other constructs. The following table 4.1 describes the model fit values for both BVP and BIA. The model fit values were found to exceed the desired target values from literature.

Table 0-1 Confirmatory factor analysis

Name of the construct	CMIN /DF	P	RMR	GFI	RFI	CFI	NFI	RMS EA
Business Value Planning (BVP)	1.55	0.06	0.016	0.97	0.96	0.99	0.97	0.045
Business-IT Alignment(BIA)	1.15	0.32	0.01	0.98	0.97	0.99	0.98	0.024

5. Hypothesis testing & Results

Questionnaires and interviews are commonly used methods of gathering data for research purposes. The major inputs considered for designing the questionnaire are the research objectives, hypothesis and the research framework and target population of research

6. Results

Business Value Planning (BVP) affects the Business – IT Alignment (BIA) .The standardized direct effect of BVP on BIA is 0.82 and it is statistically significant at 1% level. Also the direct effect 0.82 indicates that when BVP goes up by 1 standard deviation, BIA goes up by 0.82 standard deviations. This indicates that the direct effect of BVP on BIA is significant. So the null hypothesis (H1) is not supported and alternate hypothesis is accepted.

7. Conclusion

The direct effect of BVP on BIA indicates that it identifies the critical business processes that are critical for the success of the business strategy and translates these requirements into IT requirements, value indicators for understanding the success. The business benefit estimation on account of IT planned during BVP is vital for execution and further tracked during the execution of the initiatives. The (Segars & Grover, 1999) examination of the relationship between analysis, cooperation, improvement in capabilities and alignment. The major activities in the analysis (equivalent to BVP) are improvement of business processes through IT, monitoring of internal business needs and use IS capabilities to meet them, understanding the information needs of organization sub units. The covariance between analysis and alignment is 0.84 which describes the positive relationship between the two constructs. The results of this research are in line with the current study results.

8. Research Implications

For IT organizations, the study recommends to focus on Business Value Planning to optimize the Business-IT alignment. The implications of this research towards the theory are to build a structure of business value planning construct that has impact on the business-IT alignment.

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