Data of the Impact of Aligning Business, IT, and Marketing Strategies on Firm Performance

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Data Article

Title: Data of the Impact of Aligning Business, IT, and Marketing Strategies on Firm Performance

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Abstract

The data presented in this article are related to the research article entitled "The Impact of Aligning Business, IT, and Marketing Strategies on Firm Performance" [1]. *In order to succeed in today's competitive business environment, a firm should have a clear business strategy that is supported by other organizational strategies. While prior studies argue that strategic alignment enhances firm performance, either strategic alignment including multiple factors or strategic orientation of firms has received little attention. This study, drawing on contingency theory and configuration theory, investigates the performance impact of triadic strategic alignment among business, IT, and marketing strategies while simultaneously considers strategic orientation of firms. A research model is tested through SEM and MANOVA using data collected in a questionnaire survey of 242 Yemen managers. The findings indicate that (1) triadic strategic alignment has a positive impact on firm performance and (2) there is an ideal triadic strategic alignment for prospectors and defenders. This research contributes to strategic alignment literature and managers' understanding of how to align business, IT and marketing strategies to improve firm performance.*

Keywords: Strategic alignment, Firm performance, Questionnaire survey, Quantitative Analysis.

Specifications Table

Subject area	Strategy and Management
More specific subject area	Business, IT, Marketing, Strategic Orientations, Strategic Alignment, Organizational Performance
Type of data	Tables and figure
How data was acquired	Data were collected through questionnaire
Data format	Raw, analyzed, Inferential statistical data
Experimental factors	Sample consisted of 242 managers of some companies
Experimental features	The data was collected using self-administrated questionnaire in Yemen from 350 firm
Data source location	Sana'a, Yemen
Data accessibility	http://dx.doi.org/10.17632/pp8j9jtsyz.2
Related research article	Al-Surmi, A., Cao, G., Duan, Y., 2019. The Impact of Aligning Business, IT, and Marketing Strategies on Firm Performance. Industrial Marketing Management. (In Press).

	[1]

Value of the Data

- The data presented will enable company's management to have proper understanding and better insights into how triadic strategic alignment impacts on organizational performance
- The data provides insights into diverse aspects of strategic alignment in general.
- Academics will be provided with a platform upon which to advance further research on the related subject matters

1. Data

The sampling frame contains 1,201 firms of private and public firms ranging from small to large size. Firms that do not satisfy the requirements of conducting the research were removed from the list leading to a sample frame of 700 firms.

Firms selection follows a systematic sampling procedure by picking a firm randomly from a list using Excel [2]. This led to the selection of 350 firms chosen randomly using Excel in an attempt to obtain a sample that appears to be representative of the population.

We had 242 analyzable questionnaires returned from the 350 distributed questionnaires. Numerical data consisting of categorical and seven point Likert scale were analyzed and appear in Tables 1,4-8. The following methods of analysis were employed: Descriptive and One-way MANOVA analyses were computed using Statistical Package for Social Sciences (SPSS) of which computes complicated statistical techniques more easily [3]. Furthermore, the seven point Likert scale data were also used in constructing SEM (Figure 1) based on the analyzed data shown in Table 2-3 to visually present the relationship strength between variables tested. This Structural Equation Modelling (SEM) analysis was performed using Partial Least Square (SmartPLS). This software was used because it handles both formative and reflective measurement models which deemed appropriate for theory development [4].

2. Experimental Design, Materials, and Methods

a. Data collection

The data were collected on a single trip to Sana'a during the summer period of 2014 by distributing the questionnaires to managers using self-administrated paper questionnaires in a cross sectional survey research approach [2]. The survey instrument appears in Supplementary Material.

a. Data analysis

Data collected were organized, coded and entered into SmartPLS and SPSS for analysis. Our data analysis primarily utilizes partial least square analysis of Likert scale. This was used in assessing the reflective and formative measurements in terms of composite reliability, convergent validity, and internal consistency reliability as shown in Table 1. The PLS estimations for the structural model, path coefficients values as well as the item loadings for the research constructs are shown in Figure 1 and Table 2-3. Tables 4-8 are the analyses of

Likert scale using One-way MANOVA analytical technique to assess the different modes of triadic strategic alignment.

Firm Profile	Percentage (%)
Industry	
Telecom	29.8
Banking and Finance	25.2
Manufacturing	11.2
Retail	5.8
Service	4.1
Property	3.7
Other	20.2

Table 1 Respondents' Profiles (n=242)

	Reflective First-order Constructs	Manifest Indicators	Outer Loadings	Indicator Reliability	AVE	Composite Reliability	Cronbach's α
Business Strategic Orientation (BSO)	Proactiveness	PRO1	0.73	0.50	0.51	0.75	0.51
		PRO2	0.70	0.51			
		PRO3	0.71	0.51			
	Defensiveness	DEF1	0.81	0.65	0.61	0.82	0.67
		DEF2	0.83	0.70			
		DEF3	0.69	0.48			
	Analysis	ANA1	0.80	0.65	0.69	0.87	0.78
		ANA2	0.85	0.71			
		ANA3	0.85	0.73			
IT Strategic Orientation (ITSO)	Flexibility	FLEX1	0.66	0.40	0.64	0.84	0.72
		FLEX2	0.85	0.74			
		FLEX3	0.87	0.77			
	Efficiency	EFF1	0.80	0.66	0.66	0.85	0.74
		EFF2	0.85	0.71			
		EFF3	0.77	0.60			
	Comprehensiveness	COMPR1	0.88	0.77	0.71	0.88	0.79
		COMPR2	0.89	0.78			
		COMPR3	0.75	0.58			
Marketing Strategic Orientation (MSO)	Customer-focused	CUS1	0.76	0.58	0.57	0.87	0.81
		CUS2	0.80	0.64			
		CUS3	0.79	0.62			
		CUS4	0.63	0.40			
		CUS5	0.78	0.60			
	Competitor-focused	COMP1	0.78	0.61	0.65	0.88	0.82
		COMP2	0.85	0.72			
		COMP3	0.86	0.73			
		COMP4	0.73	0.54			
Organizational Perfo	Performance	PERF1	0.90	0.82	0.75	0.94	0.92
		PERF2	0.88	0.77			
		PERF3	0.81	0.66			

Table 2 Reflective Measurement Model

Variable	Research Model (a)		Control Variable Model (b)	
	Path Coefficients	t-value	Path Coefficients	t-value
Independent Variables				
PRO -> BSO	0.299	3.297***	0.316	3.294**
DEF -> BSO	0.516	5.623***	0.534	5.566***
ANA -> BSO	0.471	3.951***	0.439	4.089***
FLEX -> ITSO	0.370	4.197***	0.372	3.977***
EFF -> ITSO	0.122	3.312***	0.124	0.994ns
COMPR -> ITSO	0.643	6.394***	0.640	6.548***
CUS -> MSO	0.512	3.822***	0.494	4.048***
COMP -> MSO	0.575	4.905***	0.593	5.126***
TSA -> PERF	0.592	13.374***	0.583	12.601***
Control Variables				
SIZE -> PERF			0.074	1.610ns
INDUSTRY -> PERF			-0.066	1.340ns
JOB -> PERF			0.071	1.533ns
R^2 Value for PERF			$R^2 = 0.365_b - 0.350_a = 0.015^{***}$	

*** p < 0.001, ** p < 0.01, * p < 0.05, ns -not significant

Table 3 Control Variables

Modes	No	Market share		Net profit		Financial liquidity	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Ideal	14	5.36	1.151	5.57	0.852	5.50	0.941
Medium	12	4.33	1.231	4.08	1.165	4.17	1.403
Low	2	3.00	2.828	2.50	2.121	2.5	2.121

Table 4 Descriptive Statistics (Prospector, n=28)

Dependent Variable	F	Sig.	Partial Eta Squared
Net Profit	10.777	.000	.463
Financial Liquidity	7.317	.003	.369
Market Share	3.990	.031	.242

Table 5 Tests of Between-Subject Effects for Prospector

Modes	No	Market share		Net profit		Financial liquidity	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Ideal	21	5.95	1.117	5.38	1.244	5.67	1.155
Medium	18	4.22	0.943	3.89	1.183	3.83	1.098
Low	2	6.00	1.414	6.00	1.414	6.00	1.414

Table 6 Descriptive Statistics (Defender, n=41)

Dependent Variable	F	Sig.	Partial Eta Squared
Net Profit	8.316	.001	0.304
Financial Liquidity	13.612	.000	0.417
Market Share	13.721	.000	0.419

Table 7 Tests of Between-Subject Effects for Defenders

Modes	No	Market share		Net profit		Financial liquidity	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Ideal	92	5.18	1.089	4.99	1.209	5.22	1.239
Medium	35	4.86	1.556	4.86	1.556	4.83	1.339

Table 8 Descriptive Statistics (Analyzer, n=127)

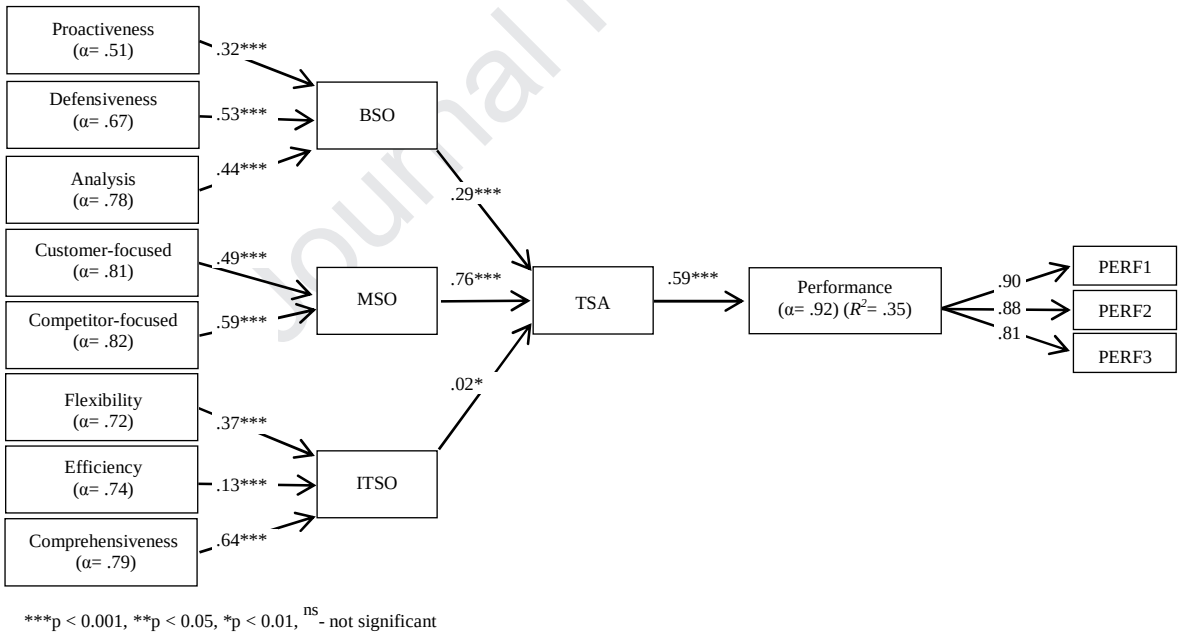

Figure 1 Structural Equation Model

Conflict of Interest

All the co-authors declare that there is no conflict of interest regarding the publication of this manuscript.

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Appendix: Survey Instrument

The questionnaire is structured into seven parts. The first part is preliminary data. Parts 2-7 are answered using a 7-point Likert scale. Scale 1 (Strongly Disagree), scale 2 (Disagree), scale 3 (Somehow Disagree), scale 4 (Neutral), scale 5 (Somehow Agree), scale 6 (Agree), and scale 7 (Strongly Agree).

Part 1: Practical Information

1.1. Category of your position:
- a. Business Manager
- b. IT Manager
- c. Marketing Manager
- d. Other

1.2. Our organization belongs to …….. industry
- a. Marketing & Advertising
- b. Education
- c. Manufacturing
- d. Banking & Finance
- e. Hospital
- f. Electronics
- g. Retail
- h. Service
- i. Transport
- j. Property
- k. Telecom
- l. Other

1.3. The estimated number of employees in our organization is ……
- a. 10-49 Employees
- b. 50-249 Employees
- c. 250-999 Employees
- d. More than 1000 Employees

Part 2: Instrument for Indicating Business Strategy

2.1. Our organization constantly seeks new opportunities related to the present operations

2.2. Our organization seeks market share position at the expense of cash flow and profitability

2.3. Our organization cuts prices to increase the market share

2.4. Our organization uses cost control systems for monitoring performance

2.5. Our organization uses production management techniques

2.6. Our organization emphasizes on product quality through the use of quality circles

2.7. Our organization's IT provides support for decision making

2.8. When making a major decision, we usually try to develop thorough analysis

2.9. Our organization uses planning techniques and uses the outputs of management information and control systems

Part Three: Instrument for Indicating Information Technology Strategy

3.1. Our organization use competitive intelligence systems
3.2. Our organization use IT for product marketing and promotion
3.3. Our organization use IT for obtaining customer feedback and providing service
3.4. Our organization use IT in business processes
3.5. Our organization use IT to support research and development
3.6. Our organization use IT to support manufacturing
3.7. Our organization use IT to support strategic planning and decision-making
3.8. Our organization use IT in risk analysis of processes
3.9. Our organization use IT in human resource management

Part Four: Instrument for Indicating Marketing Strategy

4.1. Our organization continuously try to discover additional needs of our customers of which they are unaware
4.2. Our organization incorporates solutions to unarticulated customer needs in our new products and services
4.3. Our organization brainstorms on how customers use our products and services
4.4. Our organization innovates even at the risk of making our own products obsolete
4.5. Our organization works closely with lead users who try to recognize customer needs months or even years before the majority of the market may recognize them
4.6. Our organization rapidly responds to competitive actions
4.7. Our organization's top management discusses competitor's strategies
4.8. Our organization targets opportunities for competitive advantage
4.9. Our organization's salespeople collect competitor information

Part Five: Instrument for Measuring Organizational Structure

5.1. There can be little actions taken here until a supervisor approves a decision
5.2. A person who wants to make his/her own decision s would be quickly discouraged
5.3. Even small matters have to be referred higher up for a final answer
5.4. I have to ask my boss before I do almost anything
5.5. Any decision I make has to have my boss's approval

Part Six: Instrument for Measuring Environmental Dynamism

6.1. Product/services quickly become obsolete in our industry
6.2. Actions of competitors are quite easy to predict
6.3. Consumer tastes are fairly easy to forecast in our industry
6.4. Technology changes more quickly in our industry than other industries

Part Seven: Instrument for Measuring Organizational Performance

7.1. The sales growth position is much better than our principal competitors
7.2. The market share gains is much better than our principal competitors
7.3. The return on investment position is much better than our principal competitors
7.4. The net profit position is much better than our principal competitors
7.5. The financial liquidity position is much better than our principal competitors