



Sustainable Competitive Advantage and Strategic Leadership in Manufacturing Enterprises: The Mediating Role of IT-Business Strategic Alignment

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Abstract.

The accomplishment of sustainable competitive advantages allied to the management and flourishing organizational systems fusing technologies and business strategies. Our study investigated the association of idealized influence and inspirational motivation leadership with sustainable competitive advantages under the lens of contingency theory. Specifically, emphasizing on the mediating role of IT-business strategic alignment in connection to strategic leadership and sustainable competitive advantages. In this paper business and computer graduates were utilized for pre-testing of study model. Followed by final survey of manufacturing sector of Yunnan, China to test hypothesized model based on executives' response. The study findings reported significant association and came with a conclusion that leaders' idealized influence and inspirational motivation behavior are significant predictor of sustainable competitive advantages. Moreover, IT-business strategic alignment significantly mediated the relationship of idealized and inspirational leadership reaching towards sustainable competitive advantages. Firstly, this paper comprehends to the field of strategic management by emphasizing on neutralization of threats and exploitation of market opportunities. Secondly this paper reported empirical evidence that structured a guideline for the executives working in manufacturing sector to come up with ideal fit for attaining competitive position in the market.

1. Introduction

Competitive priorities in the market foster competing organizations to clutch customers by mapping work innovations. Product itself is the demolishing component of a firm to grasp operating competitions. Intellectual working generates customer satisfaction tools in the form of innovation which cope competitive market demands and ultimate competitive advantage of a firm (see Freeman, Edwards and Schroder [23]). In the context of global competition, studied reported alignment of IT and business is a launching pad for conjoin strategy-value for sustainable competition. Moreover, IT engineering lay down competitive gains to regard to company's strategic position (see

Chan and Reich [13], Gellweiler [26] and Knudsen et al. [37]). The scholars argued clustering of IT-business continually facilitate sustainable customer services as regarded competitive edge. Academic work posted leadership a most readout phenomenon with varying behavioral styles to render stakeholder stipulation of the business (see Miller and Turner [40] and Northouse [41]). Leadership roofs tri-pillar sustainability in manufacturing sector to secure enduring performance. Moreover, Tabassi et al. [64] explained transforming competence of the leaders has profound and potential networks for future. Scholarly work proclaimed managerial and firm abilities and innovation sew competitive edge in challenging strategic globalization (see Barney, Wright and Ketchen [6], Porter [46] and Ritter and Lettl [53]). The nature fierce pressure, uncertainty, and market complexity is bigger that needs managerial courage to capture global markets. In this regard technology is panacea to cope and capture strategic opportunities (see Thai and Chong [66] and Sousa and Rocha [62]). Telecommunication ribbon strategic competition, vast admittance to customer in the endurance of leadership vision, mission and investments in manufacturing enterprises (see Zarrabi and Vahedi [69] and Zhao et al. [70]).

Companies are persistently responding to customer demands, market accuracy, product complaints and product or service innovation mirror sustainable competitive advantage (see Wuryanti Kuncoro and Ode Suriani [68]). According to Srivastava, Franklin, and Martinette [63] durable set of core competence entail companies to serve customers excel than competitors. Resource based view ask for valuable usage, threat neutralization, deception of bias to sail organizational resource (see Dirisu et al. [19]). Contingency theory is a decisive path in entrepreneurial studies catalog, in explaining crucial contingent factors organizing leadership style with competitive market environment (see Pennings [44]). Moreover, the theory comprehends contingent factors like leadership, processes, technology and environment to succeed in dramatic competitive working net (see Donaldson [20] and Sousa and Voss [61]). The work of Porter [47] also obliged the strategy and operational connectivity flourishing sustainable competitive advantage.

Previously, competitive advantage reporting studies emphasized on innovation, demographics, internationalization, SMEs, hotel and strategic dimension of technology, but a vacuum to comprise competitive advantages in IT- business alignment context (see Gellweiler [26] and Ismail, Domil, and Isa [31]). This study worked in manufacturing industry to investigate the association of strategic leadership and competitive advantages via strategic IT-Business alignment as to confine the gape of Shao [56]. The study of Johnson and Lederer [34] call for the assessment of critical factors of IT-business strategic alignment contributing to the course of sustainable competitive advantages. The role of leadership and competitive advantages is immature in connection to mediating role of IT-business strategic alignment in academic work that laid foundation of this study.

2. Literature Review

2.1. Strategic leadership and sustainable competitive advantages

The development of leadership theory platform the working behavior of leaders as transformational stimulated by the work of Bass [9]. Transformational leaders are the visionary and inspirational figure to operate, motivate, stimulate and value creation among

the followers (see Bass and Avolio [11]). The visionary leaders unite building blocks of inspirational motivation, idealized influence, individual consideration and intellectual stimulation drawing competitive work behaviors. Idealized Influence structures confidence and appreciation relating to leadership and opens doorway of accepting radical organization and market change. In addition to this leadership behavior, inspirational motivation portrays inspiring behavior towards the followers; integrative working, stimulating ideas and organizational transformation (see Bass [10]).

Competitive advantages folds and protect from duplication and under direct supervision of intellectual leadership in internal and external competitive surroundings. This mapped leading market position to camp operational capabilities to cover broader spectrum (see Wuryanti Kuncoro and Ode Suriani [68]). Business professionals adopt effective leadership style to charge sustainable strategic position by practicing inspiration, direction and commitment (see Opoku et al. [42]). Theoretical and empirical study showcase leadership styles are the integral factors of organizational competitiveness. The study of Vera and Crossan [67] opened organizational change in connection to transformational leadership streaming institutionalization and competitiveness. Organizational research came the way leadership exerts crucial lifter of individual behaviors relating sustained competitive working (see Kesting et al. [36]).

H1: Idealized influence leadership has positive affect on sustainable competitive advantage in manufacturing enterprises.

H2: Inspirational motivation leadership has positive affect on sustainable competitive advantage in manufacturing enterprises.

2.2. Strategic leadership and IT-business strategic alignment

In today's expectation oriented markets, clear objectivity and alliances of technology, leadership and managerial operations are foundational of victory ladder. Firms are facing challenges to operate in competitive environment where leadership is the ultimate key to success. Transformational leadership is "the ability of a leader to influence values, attitudes, beliefs and behaviors" of others connecting work packages to accomplish organizational mission and vision (see Rouche, Baker and Rose [55]). Transformational leadership comprised of idealized influence, individualized consideration, inspirational motivation and intellectual stimulation (see Bass [9], Rafferty and Grifn [50]). These behavioral aspects of leaders transform human relations into synergic operational position. Transforming leadership obtained moral and ethical aspiration uplifting factor of management and subordinate relationship (see Burns [12]).

IT-business strategic alignment paramount strategic IT plans assimilate business strategies. Demonstrating the connectivity of IT-business workout promulgates identical grounds in terms of vision and objective consistency with business counterparts. The fuse between technology and leadership success not confined to higher competence and low costs (see Skinner [58]). Empirical work measuring technological advancement, competitive capabilities and managerial input exhibit strategic product line, durable service and sustainable performance (see Zarrabi and Vahedi [69]). Leaders' insight sense inclines strategic change at the top that formulate optimistic organizational strategic fit

(see Shao et al. [57]). Diversity, knowledge and IT operations of market and environmental upgrades require executive's strategic sensitivity to analyze theatrical environmental changes and ensure technological business alignments (see Agle, et al. [1]). IT-executive promulgates devotion, work engagement and consensus to design technological platform in support to business operations (see Johnson and Lederer [34]).

H3: Idealized influence leadership has a positive affect on IT-Business strategic alignment in manufacturing enterprises.

H4: Inspirational motivation leadership has a positive affect on IT-Business strategic alignment in manufacturing enterprises.

2.3. IT-Business strategic alignment and sustainable competitive advantages

Manufacturing operation and strategic connectivity develops structure of sustainable competitive advantages claimed by Porter [47]. Furthermore, operational components require strategy to support organization in capturing customer purchasing behavior in challenging competitive environment. Strategic plans back manufacturing investments and adoptability of technology (see Michael et al. [39] and Coyle et al. [17]). Strategic objectives accompany operational strategies by the means of portfolio management reported. Information technologies facilitate novelty and competitiveness in the market to superior accoutered with strategic organizational fit (see Sood and Tellis [60]). Cost and threat neutralization are the ingredients of technology dependent advantages. IT offers improvisation, adjustments, intensification and deflection in business channels (see Rodriguez-Pose and Crescenzi [54] and Grewal, Iyer and Levy [28]). Atkinson [4] argued that organization strategy couple environmental scanning, business alignment and competitive strategic fit to stay alive in sustainable business circle.

Strategic alignment elevate business performance, IT investments in the longer run safeguard directional flexibility towards potential business opportunities (see Anderson, Rungtusanatham and Schroeder [3]). Leaning to this executives have an eye on effective IT-usage, management and information resources impart to work diversity. Numerous scholars and practitioners studied IT dependency and attained outcomes creating competitive advantages. They also pointed out the lake of seriousness to IT tag heavier deficits and organization failure in the core of e-commerce environment (see Smaczny [59]). The study of Droge and Germain [21] investigated corporate information system and came with conclusion of integrated manufacturing infrastructure, organization competitive value, enhances production, return on investment (ROI). A country like Turkey market opportunities opens direct IT usage to ensure competitive advantages. The findings pointed the role of business strategist (CIO) as the antecedent of success sustainable competitive advantages packed with IS strategies (see Hidding [29]).

H5: IT-Business strategic alignment has a positive affect on sustainable competitive advantage in manufacturing sector.

2.4. Mediating effect of IT-business strategic alignment

The superior ability of knowledge integration and knowledge creation is the core existence of organizations to compete with standards of working under knowledge-based theory (see Grant [27]). Grant further states, At the heart of this theory is the idea that the primary role of the firm, and the essence of organizational capability, is the integration of knowledge. Leadership with IT knowledge is likely to position IT-business alignment which roots are opportunities, values and work motivation pressing processes and procedures (see Kearns and Sabherwal [35]).

Alignment structures sustained organizational performance being explorative and exploitative market approach positioning efficient working behaviors (see Jansen et al. [32]) strategic IT alignment holds constructional positing for the firms to understand stay competitive in complex business environment. Their study sparkle around the footsteps of leadership that have the strategic vision to analyze market closely and capture strategic tools for best deal for the consumers in comparison to competitors (see Almajali and Dahalin [2]). Following the Porter's [47] model of competitive advantages; IT is an optimistic to answer building, sustaining and extending competitive edge.

H6: IT-Business strategic alignment mediates the positive relationship between idealized influence leadership and sustainable competitive advantage in manufacturing sector.

H7: IT-Business strategic alignment mediates the positive relationship between inspirational motivation leadership and sustainable competitive advantage in manufacturing sector.

3. Methods

This paper is based on deductive approach to test the study hypotheses under the contingency theory having survey for quantitative analysis. Working on the deductive approach, we started the primary data collection based on non-probability sampling using questionnaire to confirm or contradict the hypotheses.

3.1. Sampling

This study comprises of 192 working executives in manufacturing sector of Yunnan Province in China using convenient sampling techniques to investigate sustainable competitive advantages. Our work adopted two-wave data collection and independent variables are separated from dependent to avoid common bias method (see Podsakoff et al. [45]). Moreover, Cole and Maxwell [16] also proposed two-wave data collection as compulsory to test mediation path. Initially, we collected demographic and strategic leadership data followed by one-month gap to collect IT-business strategic alignment and sustainable competitive advantages in the second phase using online survey. Data confidentially and willingness of the participants is being ensured as part of research ethics in this research as being reported by research scholars.

3.2. Measures

This study collected data from the respondents using adapted survey instrument with five point scale, specifically six items taken from MLQ to measure strategic leadership facets that is idealized influence and inspirational motivation of Bass and Avolio [11], IT-business strategic alignment: a four items from the work of Jennifer et al. [33] to investigate the mediating effect, while sustainable competitive advantages is measured by the five items used in the work of Hosseini, Soltani and Mehdizadeh [30].

3.3. Data analysis

We analyzed study model using Structured Equation Modeling (SEM) technique by using Partial Least square (PLS-3) software, due to its multiple processing and handling errors in unobserved variables, separation from multivariate normal distribution and strong theory prediction power (see Gefen, Straub and Boudreau [25], Chin et al. [15]). PLS-3 is best in terms of bootstrapping re-sampling technique for estimation of t-values (see Temme, Kreis and Hildebrandt [65]).

4. Findings

In regard to demographic characteristics, the participants' age, 21.4% had 25-30 years, 41.1% had 31-35 years, 28.6% had 36-40 years and 6.3% had 41-45 years, while 2.6% were above the age of 45 years. Enterprise age, 8.9% has less than 10-years, while 91.1% have above 10-years existence. 38.0% of the enterprises possess less than 200-employees, while 62.0% of the enterprises keep more than 200-employees.

4.1. Measurement model

Convergent and discriminant validity and composite reliability are estimated in measurement model. Convergent validity indicates items measuring the same construct having average variance extracted (AVE) over 0.5 (see Pavlou and Fygeson [43] and Fornell and Larcker [22]). Moreover, also verified having factor loading over 0.60 and 0.7 (see Chin [14] and Gefen and Straub [24]). All of the study variables verified the criteria of convergent validity having AVEs range (0.587 to 0.754) greater 0.5 (table.1). However, construct reliability verifies internal consistency of the set of items. The values of composite reliability (CR) ranging from 0.850 to 0.902 and also Cronbach's alpha .761 to .839 are well above 0.70 for all study variables reported good (see Bagozzi and Yi's [5]). Here the construct's reliability is being assured based on said results.

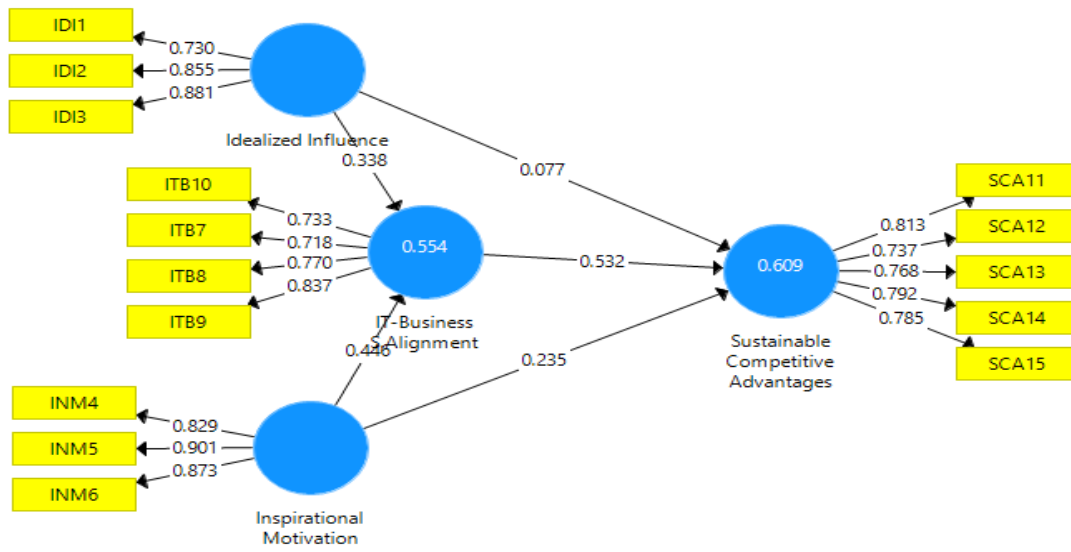


Figure 1: Study model.

Table 1: Convergent validity.

Construct	Items	Loadings	Cronbach's Alpha	CR	AVE
Idealized Influence	IDI1	0.73	0.761	0.864	0.68
	IDI2	0.855			
	IDI3	0.881			
Inspirational Motivation	INM4	0.829	0.837	0.902	0.754
	INM5	0.901			
	INM6	0.873			
IT-Business Strategic Alignment	ITB10	0.733	0.764	0.850	0.587
	ITB7	0.718			
	ITB8	0.77			
	ITB9	0.837			
Sustainable Competitive Advantage	SCA11	0.813	0.839	0.886	0.608
	SCA12	0.737			
	SCA13	0.768			
	SCA14	0.792			
	SCA15	0.785			

Note: IDI: Idealized Influence; INM: Inspirational Motivation; ITB: IT-Business Strategic Alignment; SCA: Sustainable Competitive Advantages; CR: Composite Reliability; AVE: Average Variance Extracted.

The degree of construct's differentiation by the items reports discriminant validity. The verification of discriminant validity is being examined (Table 2) as the square root of all the AVEs are well above the inter-correlation between the constructs reported by (see Chin [14]).

Table 2: Discriminant validity.

Latent variable	1	2	3	4
IT-Business Strategic Alignment	0.766			
Idealized Influence	0.693	0.825		
Inspirational Motivation	0.715	0.796	0.868	
Sustainable Competitive Advantage	0.753	0.633	0.677	0.78

Note: the diagonal values represents square root of average variance extracted.

4.2. Structural model

Structural model estimates path coefficient, to see the existing of variance in endogenous variables by exogenous using inferential analysis. Before analyzing structural paths of the relationship all validity pre-conditions (convergent, discernment, reliability and colinerity) are secured. Direct and indirect paths are being tested using bootstrapping technique of Preacher and Hayes [48] with 1000 re-samples to investigate study hypotheses. We examine the significant effect of strategic leadership (SL) on sustainable competitive advantages (SCA) without mediator. Statistical results indicate significantly positive total effect of IDI ($\beta = .25$, $t = 3.335$, $p < .05$, [.121, .405]) and INM ($\beta = .48$, $t = 6.722$, $p < .05$, [.333, 603]) on SAC supports H1–H2 (see Table 3). The predictive power of the model reported under R-square = 0.485, explained 48.5% variance in sustainable competitive advantages without mediator.

Table 3: Total Effect of IDI and INM on SCA.

Hypotheses	Construct	Total effect	t-value	P-values	95% confidence intervals
H1	IDI→SCA	0.251	3.355**	0.001	[.121, .405]
H2	INM→SCA	0.482	6.722**	.000	[.333, 603]

4.3. Mediation testing

Refereeing table.4 the study results indicate significant effect of strategic leadership (SL) under the facets of IDI ($\beta = .33$, $t = 4.279$, $p < .05$, [.186, .497]) and INM ($\beta = .44$, $t = 5.915$, $p < .05$, [.291, .587]) on IT-business strategic alignment (ITBSA) supporting H3–H4. Our results pose significant effect of ITBSA ($\beta = .53$, $t = 6.964$, $p < .05$, [.379, .679]) on SCA supports H5. Here, the statistical results show significant direct effect of INM ($\beta = .23$, $t = 3.247$, $p < .05$, [.092, .374]), while insignificant for IDI ($\beta = .07$, $t = 1.114$, $p > .05$, [−.059, .206]) on SCA in the presence of mediation. Mediating effect of IT-business strategic alignment on strategic leadership (SL) facets and sustainable competitive advantages (SCA) relationship is being tested having Preacher and Hayes [48] criterion using bootstrapping technique. Table.5 examining the indirect effect of IDI and INM on SCA through ITBSA, we find significant indirect effect IDI

Table 4: Direct Effect Bootstrapping results.

Hypotheses	Construct	Direct effect	t-value	95% confidence intervals
H5	ITBSA→SCA	0.532	6.964**	[.379, .679]
H3	IDI→ITBSA	0.338	4.279**	[.186, .497]
	IDI→SCA	0.077	1.114	[-.059, .206]
H4	INM→ITBSA	0.446	5.915**	[.291, .587]
	INM→SCA	0.235	3.247**	[.092, .374]

Note: ITBSA: IT-business strategic alignment; IDI: idealized influence; INM: inspirational motivation; SCA: sustainable competitive advantages. ** $p < 0.05$.

Table 5: Indirect Effect of IDI and INM on SCA through ITBSA.

Hypotheses	Constructs	Indirect effect	t-value	95% confidence intervals
H6	IDI ITBSA SCA	0.178	3.461**	[.096, .296]
H7	INM ITBSA SCA	0.234	4.91**	[.153, .359]

($\beta = .17$, $t = 3.461$, $p < .05$, [.096, .296]) and INM ($\beta = .23$, $t = 4.91$, $p < .05$, [.153, .359]) also non-zero value in between confidence intervals proposed by Preacher and Hays [48]. Hence, supporting H6-H7 and pointing mediating effect. The estimation of model predictive power, the value of R-square = 0.609, explained 60.9% variance in sustainable competitive advantages and R-square = 0.554 enlighten 55.4% variance of IT-business strategic alignment with mediator.

5. Discussion

Empirical findings of the study revealed significant association of inspirational and idealized leadership with sustainable competitive advantages linking the work of (see Zarrabi and Vahedi [69]). Meaning that leader arouses vision, emotions and symbols to capture enduring market existence. Moreover, the exhibition of willingness to take risk, connectivity and communication from the leaders stem realistic course of action to handle the market pressures and gear consumption behaviors.

The study results portrayed that strategic leadership facet are positive and significant predictors of IT-business strategic alignment in manufacturing industry. Meaning that, visionary and devoted leaders emphasized on the significance of tactical alignment which technology and business operations on lane of organizational success connecting the work of (see Shao et al. [57] and Johnson and Lederer [34]). Leaning on this, the results clarify that transforming behaviors are acceptable in manufacturing sector to capture internal and external forces around the organizational boundaries. Adding to this, the managerial tire can obtain best IT-business strategy by switching towards cooperative work out-fit. Our results declared positive association of IT-business strategic alignment with employee sustainable competitive advantages align the study of Jennifer et al. [33] and

supported by Kearns and Sabherwal [35]. This explains that strategic level technology and business alignment engender operational system of competitive edge. Furthermore, IT-business strategic alignment is being proved meditating factor in between the positive relationship of strategic leadership facets and sustainable competitive advantages supported by the studies (see Ravishankar et al. [51], Cumps et al. [18] and Reich and Benbasat [52]). The findings elucidate that prioritizing vision, sustaining technical architecture and procedural layout raise market exploitation and counterbalance threats. Technology is a supreme force of future success under visionary and intellectual capacity of the leadership. Hence, the study endow with organizational insight for enduring development and economic sustainability.

6. Study Implications

Our study furnishes insight about competitive advantages in assorted ways, especially in connection to the mediating role of IT-business strategic alignment in the relationship between idealized and inspirational leadership with sustainable competitive advantages. Our study strengthen coalesce part of strategic leadership ensures sustainability, positive role of IT-business aligned neutralizing market threats and catch potentials. Meaning that, well decorated work operations obtain blood from technology to stay alive in the competition. Study expands the field of work by assimilating mediating path that declares best route to neutralize market threats and suffice market opportunities. Joint venture of IT-business executives shape indispensable knowledge, vision and mission that help employees to work as a team. Finally, our study contributes in literature by adopting contextual approach to test hypothesized model and validated it in Chinese manufacturing sector to answer organizational dimensions of competition.

This study enclosed several practicable implications that add to organizational decision making by means of operational alignment of IT-business in manufacturing sector to gain competitive direction in technological web era. Our findings advocate the significance of idealized and inspirational leadership behavior that fetters sustainable marketing edge. Finally, study strongly equipped the management of industries to develop a sound landing pad of internal resource exertion and structure organizational reputation leading to market landmark.

7. Conclusion and Future Direction

Strategic leadership is foundational pillars of functional veins of the organization. Stakeholders watch managerial expertise intensely to see strategic thinking and understanding of working maturity and sensitivity to stay upright in challenging markets (see Almajali and Dahalin [2]). This study spotted comprehensive approach of competitive advantages along life lane of the organization requiring consistency of business and technology mapping. Finally, the study declared operational connectivity of business and IT stem strategic advantages and intellectual charisma of organizational leadership.

This paper possess few limitations like the sample size keep the findings applicable to the limited extent but appropriate enough to study the dimensions of sustainable

competitive advantages. Our study contributed by validating the scale in the study setting along with the findings in particular. Previously the scholars studied that strategic leadership predicts IT-business strategic alignment (see Shao [55]), but this study came up with new conclusion shielding IT-business strategic alignment as integral element of sustainable competitive advantages in manufacturing context. This study will provide baseline for future work to add the constructs of leadership and strategic alignment as proposed by the full range theory of leadership and strategic alignment model. Next, future studies can investigate the moderating role of organizational culture in relation to the mediation model of this study. Furthermore, the future work can also incorporate the constructs of Porter's five force model of competitive advantages in the study sector.

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