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The effect of innovation and leadership on performance in China and Vietnam

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ABSTRACT

To be competitive, firms have focused their resources on innovation. The success of innovation, however, depends on several factors. One of these factors is the capacity and ability of firms' leaders. This study aimed to examine the relationship between leadership, innovation and organizational performance in two socialist countries, China and Vietnam. Four hypotheses were proposed to test the direct and indirect relationships. 334 SMEs responded to the survey that revealed that SMEs leaders who practised behaviours that associated with design leadership fostered firms' ability to be innovative and in turn, affected the organizational performance outcomes. Discussion and implication are also provided.

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Introduction

Small and Medium Enterprises (SMEs) are seeking ways to engage in developing and maintaining innovation to build their competitive advantage (Casals 2011). The significance and contribution of SMEs to a country's economy has been well documented. For example, according to OECD (2016), SMEs comprise 97% of all firms in countries, accounting for 60% of GDP and there were about 11.7 million SMEs, accounting for 94.2% of all firms (OECD 2016). Based on the initial idea of what constitutes design leadership by Turner and Topalian (2002) and Topalian (2002), this paper aims to examine the relationship between leadership and workplace innovation and organizational performance within the context of SMEs in China and Vietnam. The key research question of this study was: 'what role does workplace innovation play on the relationship between leadership and organisational performance?'

A conceptual framework was developed to demonstrate the proposed relationships and hypotheses were tested. The current paper presented a relevant literature review, followed by the analysis and findings. The current study increases our understanding of the relationship between leadership and workplace innovation in former socialist

countries in Asia. The findings also contribute to the development leadership training that would enhance workplace innovation and in turn, improve organizational performance.

Literature review and hypothesis

The relationships between leadership, innovation and organizational performance

The link between leadership and innovation has been increasingly drawing attention in research (Rowley, Ishikawa, and Oh 2019; Rowley and Oh 2020; Muenjohn et al. 2018). However, regarding the relationships between design leadership and workplace innovation, limited research was conducted in this area (Muenjohn and McMurray 2017).

The majority of studies investigate the positive effects of transformational leadership on innovation and organizational performance. For example, Gumusluoglu and Ilsev (2009) developed a model of the impact of transformational leadership on both creativity at an individual and organizational level and confirmed that transformational leadership has positive relationships with employees' creativity and organizational innovation. Jung, Chow, and Wu (2003) revealed a significantly positive relationship between CEOs' transformational leadership and organizational innovation. Kissi, Dainty, and Tuuli (2013) examined the role of transformational leadership of portfolio managers in project performance and found that innovation championing and a climate for innovation both partially mediated the relationship between transformational leadership and project performance. Jung, Chow, and Wu (2003) found that transformational leadership has a positive effect on organizational innovation captured as the patents granted to the organization. Makri and Scandura (2010) explore the effects of creative CEO leadership on innovation in high-technology firms and found that operational leadership and creative leadership do not work independently to affect innovation productivity, however, they do interactively. Therefore, the following hypothesis was formed:

H 1: Design leadership has a significant effect on Workplace Innovation

In order to improve performance, leadership and innovation have been identified to be positively related to performance (Rowley and Oh 2020; Sok, O'Cass, and Sok 2013; Tseng, Lin, and Vy 2012; Varis and Littunen 2010; Arham and Muenjohn 2012). Sok, O'Cass, and Sok (2013) developed a model to investigate the combined effect of marketing, innovation, and learning capabilities on performance. Their findings suggest that marketing, innovation, and learning capabilities have a positive relationship with SME performance. Tseng, Lin, and Vy (2012) investigated the mediating effect of technological innovation capabilities and firm performance in Vietnam. They found that Vietnam enterprises which invested in enhancing seven dimensions of technology innovation capabilities including learning, R&D, resource allocation, manufacturing, market, organizational, and strategic planning capabilities are more likely to lead to competitive performance. Humphreys, McAdam, and Leckey (2005) conducted a longitudinal study of innovation implementation in SMEs within six years and revealed that innovation implementation in SMEs requires ongoing effort, commitment and understanding beyond that continuous improvement. Varis and Littunen (2010) examined the information sourcing practices of

SMEs associated with the development of different types of innovation (i.e. product, process, market and organizational). They indicated that the introduction of novel product, process and market innovation is positively associated with firm performance. Rujirawanich, Addison, and Smallman (2011) investigated how the five factors associated with innovation interact with Hofstede's five cultural dimensions to influence the innovation process. Their finding suggests that Thai SMEs may tend to produce or adopt incremental innovation rather than radical ones more effectively. Further, Thai SMEs are likely to experience difficulties in adopting novel innovation effectively. Therefore, the following hypotheses were proposed:

H 2: Design leadership has a significant effect on Growth

H 3: Design leadership has a significant effect on Profitability

Several studies suggest that innovation and R&D activities are heavily dependent on leadership styles which foster innovation and lead to improving team performance and satisfaction. Varis and Littunen (2010) investigated the information sourcing practices of SMEs associated with the development of a product, process, market and organizational innovation and indicate that the introduction of a novel product, process and market innovation is positively associated with firm performance. Kissi, Dainty, and Tuuli (2013) examined the role of transformational leadership of portfolio managers in project performance and found that innovation championing and climate for innovation both partially mediated the relationship between transformational leadership and project performance. Ryan and Tipu (2013) reveal that active leadership styles have a significant positive effect on innovation propensity, while passive-avoidant leadership has a significant weakly positive effect on innovation propensity. Talke, Salomo, and Rost (2010) found that top management teams affect innovativeness and performance via the strategic choice to focus on innovation fields. As a result, the following hypotheses were developed:

H 4: Workplace innovation mediates the relationship between Design leadership and Organizational Performance

Research method

A Design Leadership Questionnaire (DLQ) was developed by Muenjohn et al. (2013) which comprises four dimensions of Design Leadership. The final DLQ contained 18 items capturing four components of Design leadership; namely 'envisioning the future' (5 items), 'directing design investment' (4 items), 'manifesting strategic intent' (4 items) and 'creating and nurturing an environment of innovation' (5 items). The twenty-four item Workplace Innovation Scale (WVE) instrument developed by McMurray and Dorai (2003) measured the four dimensions of workplace innovation. The 8-item measurement of growth and profitability were adopted by Matzler et al. (2008) and Tan (2007). Participants were asked to judge to what degree they agree with each item, using a five-point Likert scale: 0 = strongly disagree (SDA); 1 = Disagree (DA); 2 = Neutral (N); 3 = Agree (AG); 4 = strongly agree (SAG).

The study employed a questionnaire survey targeting SMEs in China and Vietnam. The sampling method was convenient. Questionnaires were distributed in both countries with 201 questionnaires returned in China, and 215 questionnaires returned in Vietnam. Among the 416 returned questionnaires, 343 were determined to be usable. SME owners have the highest percentage of respondents, with 43% of the total population and followed by the middle managers at 22%. For the age groups, the majority of respondents were aged between 31–40 years old with 34%. About 26% were aged between 41–50 years, and 19% were respondents aged between 26–30 years. There were 47% male and 53% female respondents involved in this study.

Data analysis

Table 1 provides means and standard deviation distribution for Chinese respondents. Total design leadership scored a mean of 2.96, whereas total workplace innovation has a mean score of 2.71. Between two dependent variables, growth ($M = 2.21$) scored a higher mean than profitability ($M = 2.46$). Compared with the results from combined mean scores, Chinese respondents scored lower than the combined scores for all variables. At the factor level for design leadership, directing design investment has the highest mean score ($M = 3.07$) whereas, at the factor level for workplace innovation, individual innovation scored the highest mean ($M = 2.88$).

Table 2 provides means and standard deviation distribution for Vietnamese respondents. Total design leadership scored a mean of 2.87, whereas total workplace innovation

Table 1. Mean scores of Chinese respondents ($N = 171$).

Measures	Mean	SD
Design Leadership	2.96	.55
Envisioning the Future	3.02	.62
Directing Design Investment	3.07	.59
Manifesting Strategic Intent	2.81	.64
Creating and Nurturing an Innovative Environment	2.94	.59
Workplace Innovation	2.71	.54
Organization Innovation	2.64	.74
Individual Innovation	2.88	.56
Team Innovation	2.56	.65
Workplace Innovation Climate	2.71	.71
Profitability	2.21	.86
Growth	2.46	.91

Table 2. Mean scores of Vietnam respondents ($N = 163$).

Measures	Mean	SD
Design Leadership	2.87	.50
Envisioning the Future	2.93	.51
Directing Design Investment	2.93	.61
Manifesting Strategic Intent	2.84	.55
Creating and Nurturing an Innovative Environment	2.88	.53
Workplace Innovation	2.66	.46
Organization Innovation	2.74	.50
Individual Innovation	2.70	.52
Team Innovation	2.53	.59
Workplace Innovation Climate	2.67	.55
Profitability	2.63	.66
Growth	2.65	.60

has a mean score of 2.66. Both were lower than Chinese and the combined total mean scores. Between two dependent variables, Vietnamese respondents scored higher than the Chinese with growth ($M = 2.65$) scoring slightly higher mean than profitability ($M = 2.63$). At the factor level for design leadership, directing design investment and envisioning the future have the highest mean score ($M = 2.93$) whereas at the factor level for workplace innovation, organization innovation scored the highest mean ($M = 2.88$).

Hypothesis testings

Effect of design leadership on workplace innovation

By using a standard multiple regression (see Table 3), a significant model emerged, a significant model emerged ($F = 202.25$, $p = 0.00$), altogether, the dimensions of design leadership predicted 48.6% (adjusted R^2) of variability in workplace innovation. Thus, it can be concluded that H1 is fully supported which indicated that design leadership has a significant effect on workplace innovation.

Effect of design leadership on growth

Table 4 indicated that the dimensions of design leadership predicted 21.7% (adjusted R^2) of variability in growth performance. Thus, it can be concluded that H2 is fully supported which indicated that design leadership has a significant effect on growth performance. The other dimensions of design leadership were not good predictors of growth performance.

Effect of design leadership on profitability

Table 5 revealed that the dimensions of design leadership predicted 21.5% (adjusted R^2) of variability in profitability. Thus, H3 is fully supported which indicated that design leadership has a significant effect on profitability performance. However, only envisioning the future dimension ($p < 0.01$) and manifesting strategic intent ($p < 0.001$) were having significant contributions to profitability.

Table 3. Regression results of design leadership on workplace innovation.

Dimensions	B	SEB	β
(1) Envisioning the future	0.709	0.036	0.155***
(2) Directing design investment	0.143	0.034	0.070
(3) Manifesting strategic intent	0.063	0.036	0.317***
(4) Creating and nurturing creative environment	0.236	0.038	0.258***

Notes: $R^2 = 0.491$; Adjusted $R^2 = 0.486$ ($N = 334$, $p = 0.000$)

Table 4. Regression results of design leadership on growth.

Dimensions	B	SEB	β
(1) Envisioning the future	0.101	0.069	0.076
(2) Directing design investment	-0.072	0.064	-0.56
(3) Manifesting strategic intent	0.386	0.069	0.302***
(4) Creating and nurturing creative environment	0.139	0.072	0.104

Notes: $R^2 = 0.215$; Adjusted $R^2 = 0.217$ ($N = 334$, $p = 0.000$)

Table 5. Regression results of design leadership on profitability.

Dimensions	B	SEB	β
(1) Envisioning the future	0.228	0.071	0.162**
(2) Directing design investment	0.099	0.066	0.073
(3) Manifesting strategic intent	0.293	0.072	0.218***
(4) Creating and nurturing creative environment	0.061	0.075	0.044

Notes: $R^2 = 0.224$; Adjusted $R^2 = 0.215$ ($N = 334$, $p = 0.000$)

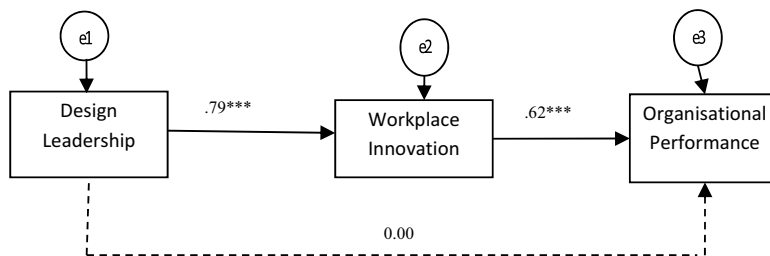


Figure 1. Workplace innovation as mediator in design leadership and organizational performance. Note: Dashed line denote non-significant relationships; *** $p < .001$ Goodness of fit statistics: GFI = .903, AGFI = .886, RMSEA = .051, CMIN = 3.276, CFI = .914

Workplace innovation as a mediator in design leadership and organizational performance

The final path model was developed to test the final hypothesis of this study. As presented in Figure 1, this mediation model produced a good fit model. It indicated the proposed model fit well with the data. The goodness-of-fit statistics were as follows: $\chi^2 = 1385.781$, $df = 423$, $\chi^2/df = 3.276$, RMSEA = .051, GFI = .903 CFI = .914 and AGFI = .886. Figure 1 showed that the relationship between design leadership and organizational performance is mediated by workplace innovation. The direct path between design leadership and organizational performance was found to be insignificant ($\beta = 0.00$, $p > .05$). But the paths between design leadership to workplace innovation ($\beta = 0.79$, $p < .001$) and between design process and team satisfaction ($\beta = 0.62$, $p > .001$) were found to be significant. Thus, the results showed a full support for Hypothesis 4 which stated that workplace innovation mediates the relationship between design leadership and organizational performance.

Discussion

The results of indicate that design leadership has a significant effect on Workplace Innovation. Three dimensions of Design Leadership, namely 'manifesting strategic intent', 'Envisioning the future' and 'Creating and nurturing a creative environment' contribute significantly to workplace innovation. Wiltbank et al. (2006) argue that firms need to develop strategic plans to adapt to the changing environment and innovation and design process starts with a strategic planning period. Therefore, our findings are consistent with the research of Wiltbank et al. (2006). Bass and Avolio (1990) and Conger (1991) also confirm this finding when they claim that vision generation is a prerequisite for leaders to become

transformational or charismatic. The research also found that the creative environment is positively related to innovation. Without innovation, firms have to rely upon following ways of doing business, consecutive products and services, and traditional distribution channels. Therefore, firms need to cultivate an innovation environment (Lee, Lee, and Pennings 2001).

The results also confirm that design leadership has a significant effect on growth performance. However, only the 'manifesting strategic intent' factor was having a significant contribution to growth. The other dimensions of design leadership were not good predictors of growth performance. The possible reason to explain the effect is that the strategic planning and planning flexibility have helped firms set up their directions and resources in a way that would assist them to have the confidence to expand its operations in the future. To support this, Titus, Covin, and Slevin (2011) and Wiltbank et al. (2006) confirm that the firm's strategic planning processes such as identifying and implementing the firm's strategic initiatives influence innovation which generates positive outcome performance.

According to the findings, design leadership has a significant effect on profitability performance. However, looking further, envisioning the future and manifesting strategic intent were having significant contributions to profitability. The other two factors of design leadership were unlikely to be good predictors of profitability performance. The possible reason to explain this effect is that a design leader plays an even more important role during product design or manufacturing process design, since the processes need to be coordinated, rather than being treated as independent sets of decisions and activities occurring sequentially in time (Rungtusanatham and Forza 2005). Therefore, the dimensions of envisioning the future and manifesting strategic intent ensure the design leader can anticipate the future, what the customers' needs and wants are, and design and implement the effective strategic planning during the design and manufacturing processes.

Practical implication

The investigation of the direct and indirect relationships among leadership, workplace innovation, and organizational performance present practical implications. The findings offer a better understanding of how leadership behaviour and workplace innovation are related in former socialist countries in Asia. The findings also assist with the development of leadership training to enhance and improve organizational performance. The findings reveal that leaders who practice behaviours that associate with design leadership would affect the individual, team and organizational innovation and in turn, the innovation can affect both of the organization outcomes; namely growth and profitability. The findings are consistent with the research conducted by Becan et al. (2012), Ryan and Tipu (2013) and Simpson (2009), who found that the leadership style could significantly foster innovation. It can be further explained that creative leaders support innovative thinking and action. Therefore, it is critical to create an innovative environment and encourage individuals and teams to pursue innovative activities.

Theoretical implication

The empirical findings of this study have theoretical implications. The findings have contributed to design leadership literature, a new emerging concept of leadership, as limited research examined this new leadership concept. The study not only confirmed the

validity and reliability of the Design Leadership Questionnaire (DLQ) but also expanded the reference and literature into the research of the new leadership concept. Also, it contributes to limited research on the relationship between workplace innovation, leadership, and organizational performance in the two socialist countries: China and Vietnam. It confirmed the theoretical and conceptual relationships which reveal that workplace innovation either has positive relationships with the organizational performance or mediate the relationship between leadership and performance.

Conclusion

Within an intense business competitive world, innovation becomes a source of building long-term competitive sustainability that leads to the superior performance of organizations. To be competitive, firms have focused their efforts and resources in providing innovative products and services to their customers. The current study aimed to examine the relationship between leadership, innovation and organizational performance in two socialist countries focussing on Small and Medium Enterprises (SMEs). The results of this study revealed that leadership played an essential part in firms' ability to be innovative and therefore, indirectly affected its performance. Some limitations of the study should be considered. The study employed a self-response survey where the respondents assessed their situation and behaviours. The results, therefore, were presented from perspectives of self-assessment. Also, it is acknowledged that the relatively small number of representations of SMEs in both countries as millions of SMEs are operating in China and Vietnam. As a result of the limitations, future research should include other assessments into the study. It is also recommended that a larger sample of SMEs could be extended.

Disclosure statement

No potential conflict of interest was reported by the authors.

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