

Mindsets and Internationalization Success: An Exploratory Study of the British Retail Grocery Industry

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Despite the growing pressures of internationalization, failures in international efforts are becoming increasingly widespread. Previous literature has developed external environmental and internal firm-specific explanations of international success, but has ignored the role of mindsets in understanding international failures. This gap is especially important because recent studies contend that the mindsets or the way top managers make sense of their global environment is central to international decision making and outcomes. We propose that mindsets are important in explaining international success. We compare the mindsets of two matched firms in the British retail grocery industry—one successful (Tesco) and another unsuccessful (Sainsbury)—from 1988 to 2003. Our results suggest systematic differences between the successful (Tesco) and the unsuccessful (Sainsbury) firm in two specific facets of mindsets—complexity and reactivity. These results, although exploratory, do highlight the importance of mindsets in the process of internationalization and raise interesting questions for future empirical examination.

Keywords: Internationalization, mindsets, retail grocery industry

Saturation of domestic markets, convergence of global consumer tastes, and opportunities for reaping the benefits of economies of scale are pressurizing domestic firms to aggressively internationalize. However, the process of internationalization is not straightforward. Scholars recognize that the international environment presents one of the toughest managerial challenges (Calori, Johnson, & Sarnin, 1994; Govindarajan & Gupta, 2001). This is evident in the widespread internationalization failures around the world in terms of slow speed of international entries, withdrawals from foreign markets, divestments, and closure of foreign operations. In a survey of Australian SMEs, Welch and Wiedersheim (1980) found that for every two successful exporters there was one “failed exporter” that achieved minor export results before abandoning the foreign market. Similarly, Boddewyn (1979) reported that of the 4700 subsidiaries added by 180 largest U.S. multinational corporations (MNCs), less than 2300 affiliates survived between 1967 and 1975. Recently, Barkema, Bell and Pennings (1996) found that of the 225 foreign direct investments (FDI) made by large Dutch multinational corporations (MNCs) from 1966 to 1988, just over half still existed in 1988. Finally, Kawabata (1999) showed that of 393 overseas stores opened by Japanese retailers between 1955 and 1999, about 217 were closed.

This evidence of widespread failures in international efforts has underscored the importance of

developing explanations of international success. The internationalization literature provides several external environmental (e.g. home and industry characteristics, host country and industry characteristics, global industry conditions, and country differences) (Dunning, 1980; Erramilli, 1996; Fagre & Wells, 1982; Graham, 1990; Hofstede, 1980; Johanson & Vahlne, 1977) and internal firm-specific explanations (e.g. lack of key resources) (Buckley & Casson, 1976; Dunning, 1980; Hennart, 1991) of why some firms succeed and others fail in their international efforts. Despite the long history of research in this area, several gaps in our understanding of international failures persist. An important gap relates to the paucity of research examining the role of mindsets in international success. This gap is especially disturbing because recent studies consider internationalization as a cognitive process (Kobrin, 1994) and argue that the mindsets of top managers or the way top managers make sense of their organizations and the global environment is central to international decision making and international outcomes (Caproni, Lenway & Murtha, 1992).

In this study, we address this gap by examining the differences in the mindsets of firms in the British retail grocery store industry. We compare the mindsets of two matched firms in the British retail grocery industry—one successful (Tesco) and another unsuccessful (Sainsbury) in internationalization—from 1988 to 2003. Our results suggest systematic differences between the successful (Tesco) and the unsuccessful (Sainsbury) firm in two specific facets of mindsets—*complexity* and *proactivity/reactivity*. Although our results are exploratory, these results do suggest the importance of mindsets in the process of internationalization and raise interesting questions for future empirical examination.

Mindsets And International Success

A mindset (also called dominant logic, cognitive map, mental model, strategy frame, and belief structure) refers to the knowledge structures that top managers use to make strategic decisions (Huff, 1982; Prahalad & Bettis, 1986). It reflects the way in which top management team (TMT) views the world and the lens through which firm's managers evaluate the environment and make decisions. Mindsets provide the lens through which strategic decision-makers interpret information about uncertain situations (Daft & Weick, 1984; Dutton & Jackson, 1987) and translate it into strategic actions (Huff, 1982). The strategy literature has elaborated three mechanisms by which mindsets influence future strategic actions: *scanning*, *diagnosis* and *choice of alternatives*. Scanning is the mechanism through which strategic decision-makers become aware of issues or concerns relevant to them (Daft & Weick, 1984; Prahalad & Bettis, 1986). Mindsets influence diagnosis by enabling decision-makers to postulate cause-effect relations amid ambiguous information (Dutton, Fahey & Narayanan, 1983; Martins & Kambil, 1999). And, because diagnosis influences the choice of strategic actions, mindsets also influence firms' responses to environmental change and alternatives considered in decision making (Martins & Kambil, 1999; Thomas, Clark & Gioia, 1993).

The notion of managerial mindsets in internationalization dates from Perlmutter's (1969) conceptualization of the ethnocentric (home country orientation), polycentric (host country orientation) and geocentric (world orientation) multinational mindsets. The Uppsala model of internationalization suggests that a firm's general and experiential knowledge affects commitment to international investments (Johanson & Vahlne, 1977). The process models of

internationalization have focused mainly on the top management's knowledge about *international markets*. Here, lack of experiential knowledge about international markets significantly increases perceived costs of internationalization (Eriksson et al., 1997), psychic distance between the home and host markets (Johanson & Vahlne, 1977) and costs of acquiring market-specific information (Liesch & Knight, 1999), thus determining a firm's readiness for internationalization (Liesch & Knight, 1999). Recently, Nadkarni and Perez (forthcoming) demonstrated that domestic mindsets mediated the relationship between prior resources and early international commitments made by domestic firms.

Mindsets are especially important in international success because firms are likely to use their mindsets to scan international opportunities, diagnose constraints imposed by the foreign markets, and to guide alternative internationalization choices. The contention that firms use their existing mindsets to evaluate new stimuli is well recognized in the organizational learning literature (Johnson, 1988; Kiesler & Sproull, 1982; March & Simon, 1958; Martins & Kambil, 1999). A key question here is—which specific facets of mindsets foster successful internationalization? We integrate the organizational cognition literature with the internationalization literature to propose that two facets of mindsets will drive successful internationalization activities—*complexity*, and *proactive/reactive thinking*.

Propositions

Complexity of mindsets

Complexity reflects the breadth and variety of knowledge embedded in a mindset (Calori et al., 1994; Eden, Ackerman, & Cropper, 1992). It is represented as the total number of strategic concepts (attributes, variables or categories) and links between concepts in the mindset. The greater the number of concepts and links between concepts, the greater the complexity of the mindset.

We expect successful internationalizing firms to have more complex mindsets than unsuccessful internationalizing firms for two reasons. First, the process of internationalization is triggered by external environmental events such as domestic market saturation, domestic competitive threat, and foreign market opportunities that initiate information search about foreign markets (Johanson & Vahlne, 1977; Liesch & Knight, 1999). However, only receptive firms will recognize these triggers (Nadkarni & Perez, forthcoming). Organizational learning literature suggests that complex mindsets foster *comprehensive scanning* by increasing managers' *awareness* of diverse environmental stimuli and allowing managers to notice and respond to more new stimuli (Dutton & Jackson, 1987; Fiske & Taylor, 1991; Kiesler & Sproull, 1982). Thus, firms with complex mindsets are more likely to recognize environmental triggers than firms with simple mindsets. Firms that recognize these triggers are likely to respond by initiating major international efforts (Johanson & Vahlne, 1977). Complex frames also allow firms to *absorb* and assimilate new knowledge needed to interpret new stimuli (Bogner & Barr, 2000; Fisk & Taylor, 1991; Kiesler & Sproull, 1982; Eisenhardt & Martin, 2000). Recent process studies concur that varied domestic knowledge and experience enable firms to assimilate new and unfamiliar market information in their existing mindsets and overcome lack of experiential knowledge about foreign markets (Andersen, 1993). For example, complex frames may allow

firms to overcome lack of international experience by drawing their attention to new competitors and learning from the strategies of these international competitors. This is likely to reduce misinterpretations and errors in decision making that result in international failures.

Second, complex mindsets may help firms better understand the foreign markets. Firms have problems in understanding the foreign markets because they fail to identify critical differences between domestic and foreign markets and to absorb new foreign market information (Johanson & Vahlne, 1977; Kogut & Singh, 1988; O'Grady & Lane, 1996). Organizational learning literature suggests that firms fail to recognize critical differences in environments due to the *oversimplification bias* in interpreting new and unfamiliar stimuli (Dutton & Jackson, 1987; Fiske & Taylor, 1991; Keisler & Sproull, 1982; Weick, 1995). Firms tend to simplify new and unfamiliar environments by filtering out important stimuli such as new competitors, regulations and technologies (Keisler & Sproull, 1982). This lack of awareness creates a gap between the actual environment and strategic decision makers' perceptions of their environment.

Firms' tendency to oversimplify unfamiliar environment is closely tied to the complexity of their mindsets. Simple mindsets evoke a narrow focus in interpreting new environments and prevent firms from noticing and differentiating critical new information (Bogner & Barr, 2000; Eisenhardt & Martin, 2000), which adversely affects their internationalization efforts (O'Grady & Lane, 1996). On the other hand, complex mindsets evoke diverse and detailed interpretations of environments, allowing firms to better recognize and interpret differences in new stimuli (Keisler & Sproull, 1982). When firms do not ignore important stimuli in taking internationalization decisions, the risk of international failures is likely to reduce. Thus, we can attribute international success to complexity of mindsets.

Proposition 1: Firms that are successful in their international efforts will have more complex mindsets than those that are not successful in their international efforts.

Proactivity and reactivity

Several streams of strategic literature differentiate between proactive and reactive approaches to strategy. Miles and Snow (1978), in their seminal work, identify *reactors* and *prospectors* as different strategy types. Reactor strategists maintain status quo, do not engage in aggressive environmental scanning and alter strategies when external environments force them to. On the other hand, the prime capability of a prospector is to aggressively find new markets and opportunities (Daft & Weick, 1984; Miles & Snow, 1978). The strategic change literature also differentiates between proactive and reactive change (Weick & Quinn, 1999). Tushman, Newman and Romanelli (1986) argue that reactive reorientations that are forced changes in response to performance crises are likely to fail. On the other hand, Tushman et al. (1986) found that "... the most successful reorientations occurred in organizations whose managers foresaw the need for radical change and initiated it before crises occurred" (p. 11). Similarly, Brown and Eisenhardt (1997) used the term *time-paced* change to describe proactive and planned future oriented change initiated by firms and the term *event-paced* change to reflect changes in reactions to specific external events.

The organizational cognition literature suggests that the likelihood of firms engaging in proactive and reactive strategies is closely tied to the assumptions embedded in their mindsets (Dutton, Fahey, & Narayanan, 1983; Fahey & Narayanan, 1989). For example, Fahey and Narayanan (1989) found that firms that had higher proactive causal links (strategy → environment) in their mindsets undertook more aggressive and proactive strategies. On the other hand, firms whose mindsets were dominated by reactive causal links (environment → strategy) were passive and slow in undertaking strategic actions. The internationalization literature emphasizes that the ability to proactively identify new opportunities and implement planned changes is critical to internal success (Vermeulen & Barkema, 2001). Because the organizational cognition literature suggests that strategic approaches undertaken by firms are related to the assumptions embedded in their mindsets, we expect that firms with proactive mindsets are likely to better identify new market opportunities and undertake planned changes. Firms with reactive mindsets are likely to emphasize status quo and forced reactions to external situations.

Proposition 2a: Firms that are successful in their international efforts will have more proactive mindsets than firms that are not successful in their international efforts.

Proposition 2b: Firms that are successful in their international efforts will have less reactive mindsets than firms that are not successful in their international efforts.

Research Methods

British retail grocery store industry

To examine the issue of international success, we had to select an industry that is characterized by three factors: 1) intense pressure to internationalize, 2) strong internationalization challenges, and 3) aggressive internationalization undertaken by incumbent firms over a long period of time. The British retail grocery industry satisfied these three criteria. First, the British retail grocers faced intense pressures to internationalize due to four dynamic phenomena: the application and impacts of information technology, the increasing globalization of business activity (Vida, Reardon, & Fairhurst, 2000), the saturation of their domestic competitive spaces, and the stiffening of competition (including foreign entrants) within that space (Gielens & Dekimpe, 2001).

Second, the retail grocery industry also imposes significant challenges for internationalization because firms cannot internationalize gradually and incrementally starting with exports before making major commitments in the form of foreign direct investments (FDI). Retail grocers have to start their international efforts with FDI. Making significant international commitments without gaining adequate experience through exports and other smaller steps in internationalization increases their risk of international failures (Johanson & Vahlne, 1977).

Finally, the British retail grocery industry has relatively long history of internationalization (about fifteen years) (Crawford, 1998; O'Connor, 1997), which is especially important for the longitudinal design used in this study.

Sample selection

We used the matched-pair sample design to examine differences in mindsets of successful and unsuccessful internationalizing firms in the British retail grocery industry. Such matched-pair design has been used to examine differences in the mindsets of high and low performing firms within an industry (Barr, Stimpert, & Huff, 1992; Fahey & Narayanan, 1989). We identified a matched-pair of firms in the British retail grocery industry in two steps. First, we classified the British retail grocers into successful and unsuccessful based on two facets of internationalization success—*speed* (Vermeulen & Barkema, 2002) and *performance* (Brouthers, Brouthers, & Werner, 1999; Hsu and Boggs, 2003). We measured speed of internationalization by two established measures—the number of years between successive international activities and the total FDI investments made by firms between 1988 and 2003 (Vermeulen & Barkema, 2002). The fewer the number of years between successive international activities and the higher the total FDI investments made by firms between 1988 and 2003, the greater the speed of internationalization. We measured internationalization performance by yearly growth in foreign sales and foreign operating profits between 1988 and 2003. We then split the firms into successful and unsuccessful based on the median values of the four measures of international success. ANOVA results confirmed that there were significant differences between successful and unsuccessful firms on each individual measure of international success (F-values ranged from 9.75, $p < 0.001$ to 14.93, $p < 0.001$).

Second, we used Euclidean distance to match each successful firm with every unsuccessful firm based on three sets of variables that could potentially confound the differences in mindset and international success: 1) demographic (age, sales, number of employees, and number of business units), 2) strategy (R & D intensity, capital intensity, and advertising intensity), and 3) overall organizational performance (ROI and net profits). We chose the Tesco-Sainsbury pair because it had the lowest Euclidean distance. Table describes the demographic, strategic, and organizational performance variables of the two firms in 1988, whereas table 2 shows the speed and performance of internationalization of the two firms. As shown in Table 1, the demographic, strategic and overall organizational performance of Tesco and Sainsbury are similar. However, Table 2 shows that Tesco exhibits a solidly better internationalization performance than Sainsbury during the period under study.

Data source

We use CEO's letter to shareholders published by the companies in the annual report as a data source for constructing mindset variables. These letters are public statements made by chief executives charged with charting their companies' future. They are official documents that discuss strategic themes important to the firm (Osborne, Stubbart & Ramaprasad, 2001). These themes partially outline the mindsets of firms by publicly addressing major priorities. The letters are used to inform stakeholders, including regulators, stock analysts, and shareholders of past achievements, current challenges, and future plans. They must be written to survive the critical scrutiny of regulatory authorities and the marketplace. Researchers have used CEO's letters to

Table 1
Description of Tesco and Sainsbury in 1988

	Sainsbury	Tesco
Demographic variables:		
Number of employees	30,566	25,106
Age (from IPO)	17 years	43 years
Number of business units	2	3
Strategy variables:		
R and D intensity	0.0009	0.0006
Capital intensity	0.110	0.095
Advertising intensity	0.009	0.007
Overall organizational performance variables:		
Return on Investment	22.4	19.6
Net profit	497.85	420.7
Market share	22.04	11.6
Sales	8.4	7.3

Table 2
International success variables of Tesco and Sainsbury from 1988 to 2003

International success variables	Tesco	Sainsbury
Speed of internationalization		
Number of international ventures undertaken from 1988 to 2003	12	5
Average time period (in years) between the international ventures from 1988 to 2003	1 years	3 years
International Performance		
Growth in international Sales from 1988 to 2003	456%	169%
Growth in foreign profits from 1988 to 2003	395%	148%
Divestments		
Number of divestments	3	7

identify corporate strategies (Bowman, 1978), assess causal reasoning of strategic decision makers within firms (Bettman & Weitz, 1983; Fahey & Narayanan, 1989), and explain organizational cognition differences in joint venture activity (Fiol, 1989).

Derivation of causal maps

We elicited mindsets from annual reports using causal mapping. Causal mapping is a form of content analysis that isolates the key causal assertions within a document (Axelrod, 1976). Causal mapping is especially useful in our study because it avoids the recall bias that plague interviews (Axelrod, 1976). Causal mapping also provides detailed rigorously collected information about mindsets that we do not typically find in case studies (Barr et al, 1992).

We constructed causal maps from the CEO's letters to shareholders in the annual reports in a five-step procedure (Axelrod, 1976). We illustrate this procedure in Appendix I. In the *first* step, two raters not involved in the study identified statements from the CEO's letters to shareholders that explicitly contained a cause-effect relationship. Examples of key words used in identifying causal statements included 'if-then', 'because', 'so', 'as'. In the *second* step, the same two raters separated the causal statements identified in the first step into 'causes' and 'effects' to construct the 'raw causal maps.' In the *third* step, based on the procedure suggested by Carley and Palmquist (1992), two raters aggregated the actual phrases used in the annual reports into 214 *raw concepts* to move the coded text beyond explicitly articulated idea to implied or tacit ideas and to avoid misclassification of concepts due to peculiar wording by individuals. In step *four*, we classified the 214 raw concepts into 35 broad categories shown in Appendix II. Generalizing similar concepts in the document is useful in comparing causal maps across firms by enabling researchers to set up common basis across diverse contexts (Carley & Palmquist, 1992). We grouped firm and industry specific concepts into broader categories that we could then compare across firms and industries. We used generalized rather than actual concepts to enhance the robustness of the coding scheme. In the *final* step, we recast the raw causal maps in step-2 into coded causal maps based on the coding scheme developed in step-4.

Measures

Complexity of strategy frames. We used two established measures of complexity--*comprehensiveness* and *connectedness* (Calori et al., 1994; Eden et al., 1992). We measure comprehensiveness as total number of categories (1-35 shown in Appendix I) in a causal map. We measure connectedness as total number of linkages between categories in a causal map divided by number of categories. As comprehensiveness and connectedness are highly correlated, we create a composite measure by averaging the z-scores of the two measures.

Proactive and reactive thinking. Extant literature defines reactive strategies as strategies undertaken in reaction to industry environment, whereas proactive strategies as strategies undertaken to influence the industry environment (Miles & Snow, 1978; Porter, 1985). Based on these definitions, we measured proactive and reactive thinking in three steps. First, we identified the links in the causal map that involved environment (concepts 1 to 7 in Appendix II) and strategy (concepts 8 to 25, 30 to 35 in Appendix II). Second, we defined proactive links as environment → strategy and reactive links as strategy → environment (Miles & Snow, 1978; Porter, 1985). Third, we computed the proportion of proactive (number of strategy → environment links/total links in the causal map) and reactive (environment → strategy links/total links in the causal map) links in the causal map to identify the relative importance of these links. Proportion

of links is important in the analyses of causal map, because it indicates the relative importance of the links in the map (Carley & Palmquist, 1992; Knoke & Kuklinsky, 1982).

Results

We compared mindset complexity, proactive, and reactive thinking of Tesco (successful internationalizing firm) and Sainsbury (unsuccessful internationalizing firm) using the Mann Whitney U test (Table 3). Comprehensiveness of mindsets of Tesco is weakly higher than that of Sainsbury ($p < 0.10$), whereas connectedness in the mindsets of Tesco is significantly higher than that of Sainsbury ($p < 0.01$). These results suggest that Tesco had more complex mindsets than Sainsbury. Tesco's mindsets depicted significantly higher proactive thinking than that of Sainsbury ($p < 0.05$). On the other hand, Sainsbury's mindsets reflected significantly higher reactivity than that of Tesco ($p < 0.05$). These results are in line with propositions 1, 2a, and 2b.

Table 3
Mann Whitney test results of the differences in the causal maps of Tesco and Sainsbury

Causal Map variables	Tesco	Mean Sainsbury	Mann Whitney U ($n = 30^1$)	Z score ($n = 30^1$)
Complexity				
Comprehensiveness	27.0	22.0	18.5	1.25†
Connectedness	0.99	0.70	24.0	2.41**
Proactive thinking	0.30	0.15	19.0	1.75*
Reactive thinking	0.05	0.11	20.5	1.67*

† $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

¹N represents causal mapping variables of the two firms (Tesco and Sainsbury) over 15 years (1988 to 2003)

Discussion

Despite the growing recognition of internationalization as a cognitive process, extant research has ignored the role of mindsets in international success. To address this gap, we explored the differences in the mindsets of a successful and an unsuccessful British retail grocery firm using a matched-pair design. Our results present two interesting insights on the role of mindsets in international success. First, the successful internationalizing firm (Tesco) had more complex mindsets than the unsuccessful firm (Sainsbury). Second, the successful internationalizing firm (Tesco) had more proactive and less reactive mindsets than the unsuccessful firm (Sainsbury). We do recognize that given the limitations of the sample size, our results are suggestive rather than conclusive. However, these results hint at the importance of mindsets in understanding international success. In what follows, we discuss the implications of these results.

Implications

Our study contributes to extant literature in two ways. First, previous literature has proposed firm resources as the primary firm-specific drivers of international success (Buckley & Casson, 1976; Dunning, 1980; Hennart, 1991). These studies imply that ownership of specific resources automatically translates into positive international outcomes. Our results suggest that mindsets are important in understanding international success. We found that significant differences in complexity, proactivity, and reactivity of mindsets corresponded with differences in speed and performance of internationalization after matching the two firms on various resource variables (advertising intensity, capital intensity, R & D intensity, and demographic variables). Although we did not formally test the relationship between mindset, resources, and international success, our results are in line with recent resource-based studies in strategy that argue that resource assets do not automatically affect strategic decisions (Amit & Schoemaker, 1993). Resource decision making variables such as mindsets affect which resource TMTs consider important and how TMTs use them in strategic actions (Nadkarni & Perez, forthcoming). Amit and Schoemaker (1993) stress that resource decision making variables such as mindsets may be even more important in predicting strategic outcomes than resource assets. However, international business research (Caves, 1996; Dunning, 1977, 1980; Hymer, 1976) has ignored the resource decision making variables. Our study demonstrates the importance of a resource decision making variable—mindset—in international success. This result calls for greater attention to resource decision making variables as potential predictors of international success.

Second, international business literature has defined mindsets as organizational culture (Perlmutter, 1967), innovative capabilities (Cavusgil, 1980), international experiential knowledge (Johanson & Vahlne, 1977; Liesch & Knight, 1999), and employees' knowledge about global objectives of the firm (Bartlett & Ghoshal, 1989). Our results extend this research by focusing on the mindsets of top managers. The strategic choice (Child, 1972) as well as upper echelon (Hambrick & Mason, 1984; Finkelstein & Hambrick, 1996) theories have underscored that strategic decision making context is unique and distinct from other levels in the firm. Recent international business studies have also hinted at the importance of top management perspective in internationalization (Sanders & Carpenter, 1998). However, these studies have focused on demographic characteristics of TMTs in established MNCs. Our results point to the need to extend the definition of mindsets in international business by including the mindsets of top managers and to integrate the two parallel streams of literature (mindsets and upper echelon) in international business by demonstrating that mindsets of TMTs play an important role in the early international activities.

Limitations and conclusions

Some limitations deserve acknowledgement. First, the choice of sample limits this study. While the comparison between Sainsbury and Tesco is, as seen above, is fruitful, it remains the case that these are two British retail grocers. The generalizability of the results across countries and industries is in question. Replicating our study using a large sample of firms spanning multiple industries would strengthen the exploratory findings of our study. Similarly, examining the role of external environmental factors such as home country and industry characteristics, host country and industry characteristics, and country differences would be important extensions of our study.

Second, we used annual statements to construct mindsets, in part because large-scale empirical studies are, for pragmatic reasons, often limited to textual sources of data. Future studies may want to replicate our study using primary data sources.

In conclusion, this study represents a first step in recognizing the importance of mindsets in explaining international success. We hope that the preliminary results yielded by this study spur additional research on the issues and relationships surrounding external environments and mindsets, and international success.

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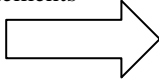
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APPENDIX 1

An illustration of the four step procedure of constructing causal maps

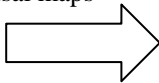
STEP 1
Identification of causal
statements



Example of a causal statement:

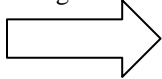
“In order to meet evolving demands of our major customers,
we have invested in online retailing technology”

STEP 2
Constructing raw
causal maps



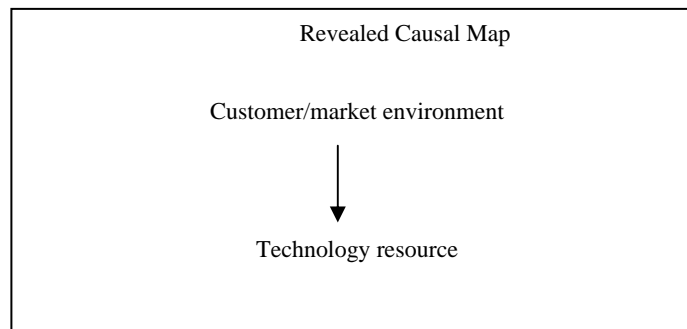
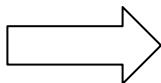
<u>Cause</u>	<u>Causal connector</u>	<u>Effect</u>
Meet evolving demands of major customers major customers	In order to →	We have invested in online retailing technology

STEP 3
Coding scheme



<u>Raw Phrase</u>	<u>Coded concept</u>
1. Meet evolving demands of our major customers	Customer/market environment
2. Invested in online retailing technology	Technology resources

STEP 4
Recast raw causal
Maps into revealed
causal maps



APPENDIX 2

List of categories used to code concepts in the causal maps

1. Macroenvironment
2. New entrants/barriers to entry
3. Customer/Market environment
4. Competition
5. Substitute markets
6. Suppliers
7. Industry change
8. Co-operative alliances
9. Portfolio analysis
10. TMT/Corporate governance
11. Strategic vision
12. Internal growth
13. Strategic objectives
14. Financial objectives
15. Service actions
16. New product actions
17. Market actions
18. Low cost/pricing actions
19. Capacity related actions
20. Human capital resources
21. Organizational tangible resources
22. Technological resources
23. Physical capital resources
24. Organizational tangible resources
25. Financial resources
26. Product performance
27. Strategic performance
28. Manufacturing performance
29. Financial performance
30. Organizational structure
31. People
32. Strategic processes
33. Strategic controls
34. Organizational culture
35. Strategic change

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