学位論文及び審査結果の要旨

横浜国立大学

氏　　名	Razafindrazaka Ylias
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学位論文題目	Impact Of Absorptive Capacity On Achieving Congruence Between Environmental Uncertainty And Organizational Mechanisms: A Contingency View On Japanese Manufacturing And Service Industries (環境不確実性と組織メカニズムの間の整合性の達成に知識吸収能力が及ぼす影響についてーわが国の製造業とサービス業における環境適応の視点からー)
論文審査委員	主査　横浜国立大学　田名部 元成　教授 横浜国立大学　松井　美樹　教授 横浜国立大学　山岡　徹　教授 横浜国立大学　佐々木 秀綱　准教授 中央大学　ヘラー、ダニエル　教授

I. Outline

The ability to develop a sustainable competitive advantage depends on a firm's ability to convert knowledge into capabilities to meet environmental demands (Tu et al., 2006). Therefore, it is a preliminary requirement to be able to identify the environmental demands. Recent practices in the evolution of manufacturing and service industries also include extensive use of information to attain the best knowledge on customer preferences in a timely manner. In a certain way, it could be considered as a competitive advantage for an organization to have such important information at hand. However, considering the speed at which information technology spreads among competitors, this represents an ephemeral advantage. What might make the difference lies in the way organizations use such huge amounts of information. Internally, that may include, but is not limited to, a continuous readjustment to the environment by continuously changing the balance between mechanistic and organistic structure.

The best practices paradigm focuses on the continuous development of best practices on all areas within a company and is supported by research showing links between the adoption of best practices and improved performance. However, previous researchers such as Dow et al.

(1999) and Powell (1995) found that some practices did not have a significant impact on performance. One potential explanation of such findings is that the best practices are context-dependent. As Sousa and Voss (2002) stated, that problem in implementing best practices may be the result of too great a mismatch between the proposed form of best practices and the organisational context. Galbraith (1977) emphasized the necessity of the organisation to adapt to its external environment, stating that as patterns of task uncertainty, diversity, and external conditions change, the organisation must change its structure for decision-making in order to remain effective. The present research intends to address the congruence between organizational mechanisms and environmental uncertainty as one of the possible explanations of the mixed findings concerning the impact of best practices on performance.

Another possible explanation of why some practices did not have a significant impact on performance is related to the presence of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge to produce a dynamic organizational capability, which relates to the organization's absorptive capacity as stated by Zahra and George (2002). Taking this into consideration, the present research investigates absorptive capacity as another possible explanation of such mixed findings on the impact of best practices on performance.

II. Research objectives and questions

The set of organisational mechanisms, practices considered in this research, are not necessarily an exclusive and exhaustive set of organisational mechanisms. However, they are selected by considering required information processing capacity for decision making. On one hand, in business units evolving in a relatively stable market, organizational mechanisms enhancing top-down information flow and observation of rules are expected to work well. On the other hand, in business units evolving in a relatively dynamic market, mechanisms should enhance the communication of the information flow from the point of contact with customers to the point of decision-making (Galbraith, 1977).

The contingency view explicitly states that there is no one best way to organize, and any way of organizing is not equally effective under all conditions. From a contingency view, we sought to answer which set of organizational mechanisms improve return on sales under higher uncertainty and lower uncertainty environments.

RQ1: Which set of organizational mechanisms are congruent within different levels and sources of environmental uncertainty, thereby improving financial performance?

We also sought to find the impact of realized absorptive capacity on achieving congruence within lower uncertainty environments and the impact of potential absorptive capacity on achieving congruence within higher uncertainty environments. We address those questions through the Resource Base Theory lens and by conceptualizing congruence as dynamic

capability. We did so with the theoretical support that dynamic capabilities aim at matching internal resource configurations with the environment.

RQ2: What is the impact of absorptive capacity on achieving congruence in such different environmental uncertainties?

III. Research design and methodology

III.1. Survey conducting

The present research uses the survey method to collect data among the targeted companies in Japan. The targeted companies are listed on the first section of the Tokyo Stock Exchange, and include manufacturing, construction, and service industries. Those companies are targeted for their assumed maturity in term of use of practices. This is consistent with Sousa and Voss's (2008) recommendation that the assessment of congruence in Operations Management practices contingency research should concern the match between context and practices when the practices have reached a stable level of development. The mail survey package included the survey instrument, a return envelope with postage pre-paid and an introduction letter to provide a brief description of the research purpose and to ensure the confidentiality of the data collected. The survey instrument was sent to 2024 companies. Reminder e-mails were sent after approximately two months, and a web-survey link was sent to increase responses rate. Ultimately, 126 responses were collected, with four non-valid, yielding 122 usable responses. The sample representing a variety of industries—around 50% in manufacturing, followed by 44.3% in services and 7 % in construction.

Regarding the survey conducting period, Jaworski and Kohli (1993) used a three-wave mailing survey method, described as follows. First, a copy of the questionnaire, a personalized letter, and a return envelope were mailed to the two respondents for each strategic business unit. Second, after one week, a reminder postcard was mailed to each individual targeted respondent. Third, after three weeks, a replacement copy of the questionnaire and a personalized letter were mailed to the informants. For our research, an initial mail survey package was sent in mid-December 2017. Then a first reminder was sent in February 2018 through the inquiry form on the company's homepage. A second reminder including the link to access the survey online was sent on April 2018 through the company's inquiry form. A third reminder including the web link was sent July 2018. Then a fourth reminder was sent December 2018.

III.2. Profile deviation method

We then consider the case where the congruence will be identified between contextual variables (environmental uncertainty), response variables (organizational mechanisms), and performance variables (return on sales). The procedure described by Drazin and Van de Ven (1985) could be considered in investigating the effect of congruence on performance; they

mentioned that whatever the conceptual approach of congruence adopted, it should correspond to a particular analytical approach consistent with such conceptualization.

Concepts and findings from existing literature are borrowed to operationalize the measure of congruence. The method proposed by Venkatraman and Prescott (1990) assumes that if an ideal profile is specified for an environment, a business unit's degree of adherence to such an ideal profile will be positively related to performance. Deviation from the ideal profile implies a weakness in context-response congruence, resulting in a negative effect on performance. For each contextual variable, in consistence with Venkatraman and Prescott (1990), the deviation is conceptualized as MISALIGN and operationalized as a weighted distance between the ideal profile and the significant response variables. To find evidence of the impact of congruence between a given contextual variable and a set of response variables on performance, the correlations of the MISALIGN and performance variable should be negative and significant. In other words, the greater the deviation, the lower the performance.

IV. Research findings

The results suggest that socialization mechanisms should be used in less uncertain environments. Specifically, sequential socialization tactics should be used in lower supply-uncertainty and lower technology-uncertainty environments. Coordination mechanisms should be used in higher uncertainty environments, namely, cross-functional interface and job rotation.

The results suggest that under lower uncertainty environments, specifically lower supply uncertainty and lower technology uncertainty, knowledge transformation improves the congruence achieved with sequential socialization tactics, a socialization mechanism. Under higher uncertainty environments, specifically higher supply uncertainty, knowledge acquisition improves the congruence achieved with job rotation, a coordination mechanism.

With those answers and taking into consideration the corresponding limitations, we make a modest contribution to the academic body of knowledge in Strategy and in Organizational Behaviour. We answered the call of Sousa and Voss (2008) about using resource-based theory and contingency approach complementarily, allowing us to suggest a way to conceptualize congruence as a dynamic capability. Second, this research extends the findings of Jansen et al. (2005) in two points. One point is by considering the reverse causality between organizational mechanisms and absorptive capacity. Jansen et al. (2005) suggested how to improve absorptive capacity through organizational mechanisms. This research considers the reverse causality by suggesting that absorptive capacity somehow impacts organizational mechanisms through congruence. Jansen et al. (2005) also suggest that coordination mechanisms improve potential absorptive capacity, and socialization mechanisms improve realized absorptive capacity. We contribute by completing the other part of the dynamic relationship, suggesting that knowledge

acquisition enhances the congruence achieved with coordination mechanisms, and knowledge transformation enhances the congruence achieved with socialization mechanisms. Moreover, by showing another aspect of the dynamic relationship between absorptive capacity and organizational mechanisms, we bring into consideration the context under which such organizational mechanisms are effective.

For practitioners, this research may provide some insights on the internal actions of companies listed on the first section of the TSE (Dec. 2017- Dec. 2018) in parallel with their significant investments in R&D, as described by the National Institute of Science and Technology Policy report (NISTEP-RM283) in 2017. The trends show us that relatively higher investment, nearly 72% of national R&D expenditure, may be required but are not enough to face multiple environmental uncertainties at once. In addition to the investment in R&D, a business unit may seek collaboration between functions; this is one way, yet not the only way, to face a relatively higher uncertain market and technology. This may explain the constantly increasing amount of industry investment in joint projects with academia in Japan. Moreover, business units may choose to secure social relations with reliable partners by establishing commonly accepted norms. This may be one way, again not the only one, to anticipate the evolution of production technology in a more stable market. This way of valuing social relations with reliable partners may be one of the reasons why companies remain listed on the Tokyo Stock Exchange for an average of eighty-nine years.

審査結果の要旨

本論文では、環境の不確実性に対応して組織機構を適応させていくコングルエンス（適合性）の概念を再検討し、この適合性を高めるために企業が蓄積すべき能力としてアブソープティブ・キャパシティ（知識吸収能力）が果たす役割に焦点を当てる。これらの関係性について、コンティンジェンシー・アプローチと資源ベース・アプローチに依拠した分析枠組みと研究仮説を構築し、質問票調査によって日本企業から収集されたデータを用いてこれらの仮説を検証している。

既存文献レビューを通じて、環境の不確実性の源泉としては供給、需要、技術の３つ、組織機構としては調整機構（職能間インターフェイスやジョブ・ローテーション）、システム機構（職務の文書化、規定遵守、権限の階層と委譲）、社会化機構（部門間連携や社会化戦術）の３つに大別され、知識吸収能力については知識の取得、同化、変換、利用の４段階区分が採用される。

これらの準備の下で、不確実性が低い場合と高い場合に分けて、分析枠組みが構築され、以下の研究仮説が提示される。不確実性が低い場合、職務の文書化、規定遵守、権限階層と委譲、逐次的社会化戦術によって売上利益率を向上させることができ、知識を変換・利用する活動が必要となる。他方、不確実性が高い場合、職能間インターフェイス、ジョブ・ローテーション、部門間の連結性によって売上利益率を高めることができ、知識を取得し吸収する活動が必要となる。

これらの仮説を検証するため、必要なデータをバイアスなく収集できるよう質問調査票が設計さ

れ、東証一部上場の製造企業とサービス企業 122 社より有効回答が得られた。このサンプルの基本特性を確認し、無回答や調査票の設計に起因するバイアスはなく、測定尺度の信頼性と妥当性に問題がないことが確認された。その上で、サンプルを較正サンプルと検証サンプルに分け、まず較正サンプルを用いて環境の不確実性と組織機構の間の適合関係を検討する。そのモデルを用いて検証サンプルの各企業の非適合度を推計し、それらの企業の知識吸収能力が非適合度に与える影響を分析するという二段階の仮説検証方法が用いられる。

分析の結果、次のことが示された。供給や技術の不確実性が低い場合、逐次的社会化戦術が適合的な組織機構となり、知識の変換活動がそれらの適合関係を高めるために重要となる。供給の不確実性が高い状況では、ジョブ・ローテーションが適合的な組織機構となり、知識の取得活動がそれらの適合関係を高めるために重要となる。需要の不確実性が高い状況では、職能間インターフェイスが適合的な組織機構となる。技術の不確実性が高い状況では、職能間インターフェイスとジョブ・ローテーションの両方が適合的な組織機構となる。サンプルが 122 社で必ずしも十分とは言えないことや無回答によるバイアスの有無の検証方法に改善の余地があるが、手堅い方法論を用いて興味深い分析結果を導いている。また、本論文に繋がる学術論文が国際会議論文集に採択され、研究発表も積極的に行っている。以上のことから、審査員一同は、本学府博士号審査基準（２）に照らして RAZAFINDRAZAKA, Ylias 氏が博士（経営学）の学位を授与するに値すると判断する。