Exploring Perceived Environmental Uncertainty of Managers for UK firms in the context of Brexit.

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INTRODUCTION

Post the 2007 financial crisis until 2017 with the snap announcement of a UK election together with highly decisive election in France and Germany, UK and world business have been operating in an environment of intense uncertainty. The question that arises is how can HRM use an understanding of how managers deal with perceived environmental uncertainty to assist the firm develop their top managers to survive and thriving in "hyperturbulent" environments (Meyer, 1982).

We use the UK's exit from the European Union (Brexit) to explore and test PEU of managers and its connections with managerial and organizational characteristics related to the function of the manager and the firm's risk propensity. Uncertainty, politically, economically and regulatory has been the dominant description of its impact on business in economic (Kierzenkowski et al., 2016) and business (Hunter and Wasik, 2017) reporting.

We are guided in our study by the two questions. First, what are the experiences of executives and managers as it pertains to the perceived environmental uncertainty (state, effect or response) related to decision making in the context of Brexit on their firm? Second, how do the managerial characteristics (position tenure, industry tenure, functional role and focus, risk propensity) impact these experiences?

Our study will explore whether and how the PEU (state, effect and response uncertainty) theoretical framework and expectations are still appropriate, given this particular source of uncertainty, political, with its impact on interconnected uncertainties i.e. legal, regulatory, employment and trade. It will also provide evidence of the value of this psychometric questionnaire and its insights as a practical strategic foresight tool to be use by managers during planning in an environment of intense uncertainty. Finally, it will highlight evidence of the added consideration of the different dimensions of the managerial

characteristics of function in responding to the state, effect and response uncertainty.

THEORETICAL FRAMEWORK

Our proposed theoretical framework (and conceptual model see Figure 1) will be perceived environmental uncertainty and characterised as state, effect and response (Milliken, 1987, Ashill and Jobber, 2010); and TMT and executive characteristics impacting uncertainty (Finkelstein and Hambrick, 1996, Hoskisson et al., 2016, Kor, 2003, Strandholm et al., 2004).

Uncertainty has been variously defined in terms of future events as lack of the ability to ascertain a probability (Knight, 1921), a lack of information (Duncan, 1972) and the inability to assign a cause and effect relationship (Duncan, 1972, Lawrence and Lorsch, 1967). Common to all definitions is the perceived environmental uncertainty (PEU) of the manager and their behavioural response to it in their strategy (Wernerfelt and Karnani, 1987).

Deconstructing PEU produces three elements: state, effect and response uncertainty (Milliken, 1987). These elements are the sources of the uncertainty based on the lack of and interpretation of the cognitive information experienced by the manager and require different decision making processes and strategies to address the uncertainty (Doty et al., 2006). State, relate to the state of the manifestation of the sources of the uncertainty, effect, how the uncertainty will affect the decision making of the manager and the firm; and response, how the manger will respond in terms of strategic decision making and strategy to deal with the uncertainty. Further, a psychometric measurement of these elements is important tool for managers and academics on how to assess and address PEU (Ashill and Jobber, 2010).

Within the organization, PEU and its connection with information processing capability impacts on managerial on decision making and is linked to its performance and effectiveness in an environment of uncertainty (Heavey et al., 2009). The relationship connection has been tested and explained, with the information levels of a manager in organizational decision making and their performance and effectiveness in an environment of uncertainty (Moser et al., 2017). Broad-in-scope information, for example broad-in-scope accounting can influence the decision facilitating role of management control systems and enhance a manager's performance in situations of environmental and task uncertainty (Nguyen et al., 2017). In addressing the deficit of information and the resulting PEU, managers use scanning to monitor the environment and increase the level of information and their cognitive interpretation to understand and respond to the uncertainty (Sund, 2013).

In terms of the manager, the values and judgement (Matusik et al., 2008) and heuristics and judgement (Akinci and Sadler-Smith, 2012) are important in strategic decision

making when dealing with uncertainty and dramatic change. The managerial cognitive capabilities as part of a firm's dynamic capabilities when faced with an environment of strategic change is connected to the differential performances of firms (Helfat and Peteraf, 2015). Connected to the exploration of psychometric determination of the constituent parts of PEU previously described, is the examination the effects managerial characteristics have on it. Strandolhm et al., 2004 explored the relationships between the PEU, organizational performance and managerial characteristics (risk propensity, industry tenure and job function focus (internal versus external). Managers PEU result from uncertain environments showing variability (instability of change) and complexity and is linked to their personality variable of locus of control (Ashill and Jobber, 2014). This locus of control related to individual perception, is defined both as the cause or control of events which managers feel are related to themselves (internal control) or to external environmental factors (external control) (Krenl, 1992). Additionally, the characteristics of the CEO and the TMT such as personality (Herrmann and Nadkarni, 2014), tenure (Luo et al., 2014), risk taking (Hoskisson et al., 2016) and heuristics (Artinger et al., 2015) also have an impact on PEU. We develop and test the hypothesis related to the relationship as shown in the black arrows in Figure 1.

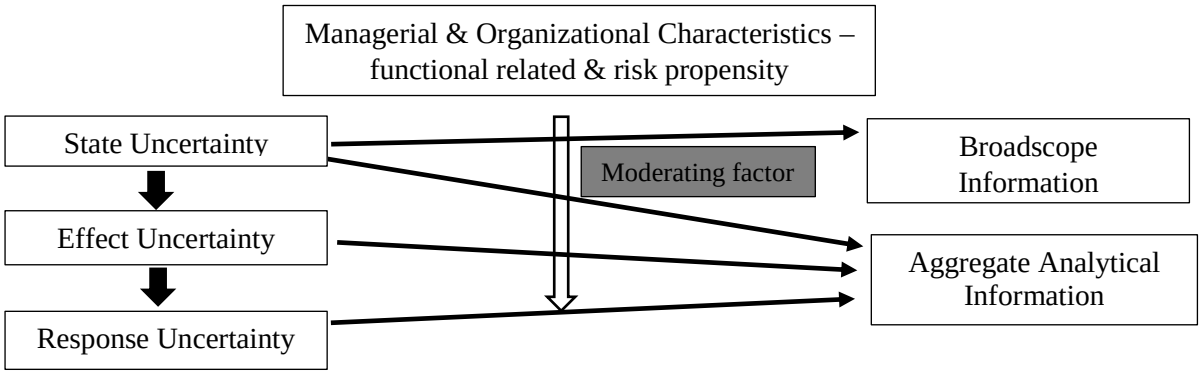

Figure 1. Conceptual Model (based on one in Ashill and Jobber (2010:2093)

METHODS

Sample

Our sample are executives in firms in sectors that would be significantly affected by Brexit e.g. manufacturing, financial services, import/export and services. The participants are drawn from companies in the UK. We will use an established business network at the university to recruit participants for the study and supplement this with business contacts from the networks of the authors. Our study will be mixed methods involving both interviews and an online survey. We will interview, executives responsible for strategic direction and/or

strategic advice for the firms. In some cases they are heads of strategy for their firms, in others they are executives responsible for providing advice either in government relations or foresight planning, or in the case of SMEs they may be the CEO. Our interview sample size is 20 senior executives from 20 companies. The interviews will be semi-structured and will last 30-45mins. We will also conduct an online survey for other senior executives and managers from such functions as strategy, marketing, HR or finance, drawn both from the sample firms and the wider business community. Our survey sample size will be 400 and the participants will also have strategy as part of their job description. Mixed methods as a methodological approach to studying organizations and managers by employing both qualitative (i.e. interviews) and quantitative (i.e. surveys) methods can provide a rich layered investigation and analysis of theoretical frameworks to reveal the intricacies of real life phenomenon, such as strategic decision making under uncertainty (Molina-Azorin et al., 2017). It provides through triangulation, a way for the researcher to test the validity of results and also to reveal any nuances that may occur when complex human, organizational and behavioural theories are tested in real life or in new areas of investigation. (Creswell, 2013). We will use a thematic synthesis method to analyse the interviews to develop descriptive themes and later provide higher-level newer interpretation. This will draw out a deeper understanding of the motivations of mangers and organization in addressing the information deficit in each of the types of uncertainty when making strategic decisions under uncertainty. Similarly the results from our questionnaire will be analysed using structural equation modelling (SEM) to ascertain relationships, predictive paths and mediation of the uncertainty variables. The interview analysis will had texture and layers to the hypothesis testing done in the SEM analysis.

Measures

We utilize a number of measures in our study in both the interview and questionnaire. To investigate PEU, we used state, effect and responses uncertainty, broadscope strategy information, and aggregate analytical strategy information (Ashill and Jobber, 2010). To explore relationships between managerial characteristics in PEU, we employ functional role, functional role history, function (internal or external focussed), risk propensity (Strandholm et al., 2004). Finally, we used the measures: firm age, firm size (both in terms of employees and revenues) and firm industry to explore the impact of these in environments of uncertainty (Cannella et al., 2008, Heavey and Simsek, 2013). These final measures could affect the

availability and level of experience in assessing and dealing with uncertainty. The Ashill and Jobber (2010) measures will assess uncertainty as it related to the availability, confidence and usability of information to deal with the uncertainty around Brexit. The Strandholm et al. (2004) measures sort to assess the relationships between these and PEU. With the broadscope and aggregate information measures, the assessment is the importance of these as types of information and their relevance in addressing the individual types of uncertainty.

ANALYSIS AND RESULTS

As part of our analysis we will use the answers from the interviews to add rich texture to the individual types of uncertainty; state, effect and response. We will seek to assess the level and uncertainty for each of the types and the impact that information play on each of them, whether equally or differently and seek to explain the differences. We will explore whether the expected results as previously described by PEU theory Milliken's (1987) is that the information resolution flow will be in the direction of state to effect and then response and if managers considerations and decision making logic matches this in reality. We will reveal the impact of the use of broadscope and aggregate information on the each of the types of uncertainty and PEU in entirety and whether each or both types of information similarly or differently assist managers in addressing environmental uncertainty. Our expectation is the importance of broadscope information will be greatest in state and decrease with the movement towards effect and then response. Additionally, with aggregate analytical information the importance is greatest in the opposite direction from response to state.

For each of the considerations mentioned previously we will also reveal how managerial and firm characteristics impact on the perception of uncertain and the subsequent response. Previous results have revealed that length of time in terms of functional role history, firm age and size, length of time with firm should have a negative relationship with a manager's and a firm's PEU. Job functions that are more externally focussed will tend to have lower PEU and higher risk propensity for risk taking and ones internally focussed the opposite. Industries like financial services with investment type services have a higher risk propensity and a lower PEU compared to other industries. We would also expect that industries which rely on investment, regulations, trade and customers within the EU and more internationally will be affected more than the rest. However given the reach and depth of the effect of a "hard Brexit" i.e. totally leaving the single market of the EU with a disadvantageous trade deal, couple with other major political and economic uncertainties like the change of administration in the US, Brexit is likely to impact strongly on all areas of the

economic life of the UK.

CONCLUSIONS

Our study advances our understanding of how the PEU of senior executives given the lack of and scarcity of information impact their strategic decision using Brexit as the context. We provide rich texture and insights through our interviews and empirically test the relationships between the constituent parts of PEU, including the possible moderating factors of broadscope and aggregate analytical information, and managerial characteristics. Our results may be used by managers to systematise their information processing when faced with environments of great uncertainty, provide deeper insights into strategy-in-practice in such situations, and act as a psychometric tool when assessing the suitability of managers using their managerial characteristics in dealing with such high uncertainty environments.

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