

Determinants of Organizational Technology Adoption for Travel Firms: Prospects and Challenges

Andrew J. Spencer^a,
Dimitrios Buhalis^a, and
Miguel Moital^a

^aBournemouth University, England
{aspencer, dbuhalis, mmoital@bournemouth.ac.uk}

Abstract

This conceptual paper examines the diffusion of innovation theory and the technology acceptance model, and explores the factors influencing the decision to engage in technology adoption in firms. This is done by using the theory of organisational decision-making to identify concepts and constructs which relate to the decision to adopt. The paper aims to identify the genesis of adoption decisions in particular where owners are themselves the managers and provide leadership for the organization. There are different rates at which countries adapt and utilize technologies and there are lessons to be learned from a developing country and cultural perspective. In taking an A priori look at this disparity it may be felt that this is caused by differences in resources (human, financial, technical and technological), target markets, and the level of technology acceptance. The roles of leadership, ownership and culture are therefore explored to a greater extent than previous research.

Keywords: technology adoption, decision-making, innovation, diffusion

1 Introduction

The adoption of technologies in organisations speaks to the broader issue of how the decision process unfolds in organisations. Organisational decision-making theory provides an overarching framework for the analysis in this paper. Organisational behaviour researchers focusing on behavioural decision research advance arguments rooted in the bounded rationality concept of Simon (1957). The discourse is based on individual decision-making and its relationship to organisational decision-making.

2 Literature Review

2.1 Innovation Diffusion and Leadership

Rogers's work supports the leadership literature by highlighting that opinion leadership may be influential. He identifies that opinion leaders may assist with the innovation diffusion process. This generalization is useful as optional innovation-decisions rarely result in comprehensive adoption for the social system. Collective innovation-decisions

gain more traction but are leadership driven though there is consensus by the team. This consensus usually stems from a charismatic leader (Hitt *et al.*, 2001) or an opinion leader (Rogers, 2003). The Theory of Reasoned Action (Fishbein & Ajzens, 1975), which states that an individual's behaviour is a result of their attitude towards a specific activity, sums up the debate appropriately as an understanding of innovation adoption must have its genesis in an understanding of individual decision-making and adoption.

2.2 Travel Intermediaries

A discussion of leadership is important in providing strategic change for information-intensive industries, which are significantly impacted by the internet. The Internet means lower distribution costs and higher revenues (Laws, 2001) and also gives rise to new tools to transact business and provides consumers better means to comparison shop (Christodoulidou *et al.*, 2010). Hatton (2004) argues that given the millions paid for commission, pressures from consumers for lower prices and increasing demands for ROI from investors, many seek to remove these payments. Reduced transaction cost and commission therefore present a strong case for the complete elimination of intermediaries (Buhalis & Licata, 2002). This argument identifies the interplay between the firm and the markets, where firms make strategic decisions that enhance profit and consumer behaviour leans towards greater value for money. Internet adoption may however be the only way in which agencies can compete across platforms.

3 The Way Forward: A Conceptual Framework

Classical theorist (Rogers, 1962) and subsequent research on drivers of technology adoption have focused on singular relationships between variables. This paper identifies the multiplicity of factors driving technology adoption and establishes how these factors interact. More fundamentally the paper argues that within the framework of organisational decision-making it is the key decision-maker, such as the owner/manager who drives the process. Other factors such as culture, resources and strategy play a complementary role in the process as seen in Fig. 1.

The work of Westwood and Low (2003) is crucial to this work as it identifies a relationship between national culture and innovation and may be seen in the above framework in the component "experiences". It is surprising that the extant literature on culture and innovations tends to focus on internal organisational culture (Sarros *et al.*, 2008; McLean, 2005) as opposed to national cultures. Perhaps this relationship is indirectly addressed by literature on the global digital divide (Gyamfi, 2005; Willis & Tranter, 2006; Stump *et al.*, 2008). Given that this work attempts to highlight the importance of leadership as drivers of technology adoption, an assessment of the influence of national culture on leadership is essential. Elenkov and Manev (2005) make the claim that cultural context influences leadership and moderates its relationship with organisational innovation. This view coincides with literature on leadership (Hitt *et al.*, 2001; Ghobadian & O'Regan, 2006; Falk, 2008) which makes a solid case that

innovation is influenced by cultural norms. The role of leadership in technology adoption however may be seen through its influence over resource use and firm strategy. Resource-based discussions are grounded in debates about a firm's distinctive competencies and diversification strategy (Mahoney and Pandian (1982). They argue that distinctive competence is a function of the resources a firm possesses. The RBV however is not intended to provide managerial prescriptions (Barney, 2001). While this is so, it points to implications of why some firms have a strategic competitive advantage over others and can therefore be of great value to managers (Kraajenbrink *et al*, 2010).

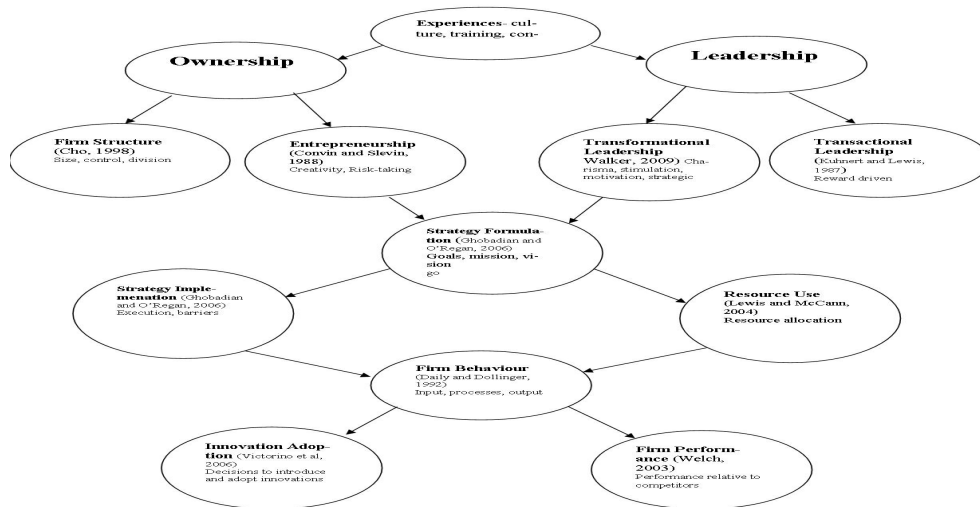


Fig. 1. Organisational Decision-Making

Strategic management theory addresses factors that drive competitiveness. In his seminal work Porter (1985; 2001) points to five competitive forces, which have been extensively used by researchers (Kim *et al.*, 2004; Stonehouse & Snowdon, 2007; Poon, 1993). The research indicates that firm strategy must be influenced by competitors as well as markets. While these are useful arguments they are both output driven, with little emphasis on inputs such as ownership and resources and has superficially assessed the impact of strategy on technology adoption.

In the final analysis, what may be seen from the organisational decision-making framework in Fig. 1 is that owners/leaders are shaped by their experiences which are

driven by cultural context. The reality however is that these individuals may or may not engage in innovative behaviour despite previous exposure, which is evidenced by different innovative behaviours even where individuals share cultural backgrounds. This may be related to leadership types such as transactional or transformational; or it may be a function of owners' risk aversion. It therefore comes down to a disaggregation of decision-making to understand individual decision-making. If there is a greater understanding of key decision-makers then their influence over processes of strategy formulation and resource use will clearly point to why firms adopt technologies.

References

- Barney, J.B. (2001). Resource-based Theories of Competitive Advantage: A ten year Retrospective on the Resource-Based View. *Journal of Management* 27: 643.
- Buhalis, D. & Licata, M. C. (2002). The Future eTourism Intermediaries. *Journal of Tourism Management* 23: 207-220.
- Cho, M.-H. (1998). Ownership Structure, Investment and the Corporate Value: An empirical Analysis. *Journal of Financial Economics* 47(1): 103-21.
- Christodoulidou, N., Connolly, D.J. & Brewer, P. (2010). Travel Meta Search: Opportunity or Threat. *Tourism Analysis Journal* 14(6): 821-833.
- Covin, J.G. & Slevin, D.P. (1988). The influence of organization structure on the utility of an Entrepreneurial top management style, *Journal of Management Studies* 25(3): 217-234.
- Daily, C.M. & Dollinger, M.J. (1992). An Empirical Examination of Ownership Structure in Family and Professionally-Managed Firms. *Family Business Review* 5(2): 117-36.
- Elenkov, Detelin S. & Maney, I.M. (2005). Top Management Leadership and Influence on Innovation: The Role of Socio-cultural Context. *Journal of Management* 31(3): 381-402.
- Falk, M. (2008). Effects of Foreign Ownership on Innovation Activities: Empirical evidence for twelve European Countries. *National Institute Economic Review* 204: 85-97.
- Fishbein, M. & Azjen, I. (1975). *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Ghobadian, A. & O'Regan, N. (2006), The Impact of Ownership on Small Firm Behaviour and Performance. *International Small Business Journal* 24: 555-584.
- Gyamfi, Alexander. (2005). Closing the Digital Divide in Sub-Saharan Africa: meeting the challenges of the information age. *Information Development* 21(1): 22-30.
- Hatton, M. (2004). Redefining the relationships- the future of travel agencies and the global agency contract in a changing distribution system. *Journal of Vacation Marketing* 10: 101.
- Hitt, M.A., Ireland, R.D. & Hoskisson, R.E. (2001), *Strategic Management: Competitiveness and Globalization* (4th Ed.). Mason, OH: South Western Publishing.
- Kim, Eonsoo, Dae-Il Nam and J. L. Stimpert (2004). The Applicability of Porter's Generic Strategies in the Digital Age: Assumptions, Conjectures, and Suggestions. *Journal of Management* 2004 30(5): 569-589.
- Kraajenbrink, J., Spender, C. & Groen, A. (2010). The Resource-Based View: A Review and Assessment of its Critiques. *Journal of Management* 36: 349.
- Kuhnert, K. & Lewis, P. (1987). Transactional and Transformational Leadership: A Constructive/Developmental Analysis. *The Academy of Management Review* 12(4): 648-657.

- Laws, E. (2001). Distribution Channel Analysis for Leisure Travel. In D. Buhalis & E. Laws (Eds.), *Tourism Distribution Channels: Practices, Issues and Transformations* (pp. 53-72). London: Continuum.
- Lewis, B. & McCann, P. (2004). Service failure and recovery: evidence from the hotel industry. *International Journal of Contemporary Hospitality Management* 16(1): 6-17.
- McLean, L.D. (2005) Organizational Culture's Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development. *Advances in Developing Human Resources* 7(2): 226-246.
- Mahoney, J.T. & Pandian, J.R. (1992). The Resource-Based View within the Conversation of Strategic Management. *Strategic Management Journal*, 13: 363-380.
- Poon, A. (1993). *Tourism, Technology and Competitive Strategies*. Wallingford: CAB
- Porter, M. (1985). *Competitive Advantage*. New York: The Free Press.
- Porter, M. (2001). Bewährte Strategien werden mit dem Internet noch wirksamer. *Harvard Business Manager* 5: 64-81.
- Rogers, E. (1962). *Diffusion of Innovations*. New York: The Free Press.
- Rogers, E.M. (2003). *Diffusion of Innovations* (5th Ed.). New York: The Free Press.
- Ryan, B. & Gross, N. (1943). The diffusion of hybrid seed corn in two Iowa communities. *Rural Sociology* 8: 15-24.
- Sarros, James C., Brian K. Cooper. & Joseph C. Santora. (2008). Building a Climate for Innovation Through Transformational Leadership and Organizational Culture. *Journal of Leadership & Organizational Studies* 15: 145-158.
- Simon H.A. (1957). *Models of Man*. John Wiley and Sons. Inc: New York.
- Stonehouse, G. & Snowdon B. (2007). Competitive Advantage Revisited: Michael Porter on Strategy and Competitiveness. *Journal of Management Inquiry* 16(3): 256-273.
- Stump, Rodney L., Wen G. & Li, Z. (2008). Exploring the Digital Divide in Mobile-phone Adoption Levels across Countries: Do Population Socioeconomic Traits Operate in the Same Manner as Their Individual-level Demographic Counterparts? *Journal of Macromarketing* 28: 397-412
- Tatum, B., Eberlin, R., Kottraba, C. & Bradberry, T. (2003). Leadership, Decision- Making and Organizational Justice. *Management Decision* 41(10): 1006-1016.
- Victorino, L., Verma, V., Plaschka, G. & Dev, C. (2006). Service innovation and customer choices in the hospitality industry. *Managing Service Quality*: 555-576.
- Walker, J. (2009), *Introduction to Hospitality* 5th edition. New Jersey: Prentice Hall.
- Welch, E. (2003), The Relationship between Ownership Structure and Performance in Listed Australian Companies. *Australian Journal of Management* 28(3): 287-306.
- Westwood, R. & Low, D.R. (2003). The Multicultural Muse Culture, Creativity and Innovation. *International Journal of Cross Cultural Management* 3(2): 235-259.
- Willis, Suzanne & Bruce Tranter (2006). Beyond the 'digital divide': Internet diffusion and inequality in Australia. *Journal of Sociology* 42(1): 43-59.