Editorial

Purnendu Mandal

James Cook University Australia,
600 Upper Thomson Road, 574421, Singapore
E-mail: Purnendu.mandal@jcu.edu.au

Gone are the days when technologies are developed in response to development; now new technologies push development. This new phenomenon of technology leading development is particularly true in case of information technologies (IT). While the IT manufacturers/developers are investing heavily in development of new technologies and pushing those technologies to market, the response towards their use or adoption in the society has shown complex reactions. The general feeling is that people's perceptions and beliefs greatly influence the adoption and use of IT.

Personal beliefs are simply a set of do's and don't's ingrained in one's mind through the process of conditioning from the environment of one's upbringing. Personal beliefs are strong convictions which are imparted by authoritative sources such as parents, guardians, peer groups or other elements of society. These beliefs are so strong that a person will follow them blindly despite compelling alternative evidences. This is perhaps the reason why there are people who are technology-averse; there are also technology-bias people.

Closely related to personal beliefs is the concept of personal values. Personal values are choices which have nothing much to do with outside influences or the environment; they simply define who we are as individuals. There is a subtle difference between values and beliefs which is embedded in the idea of change. Personal values change often over time; whereas beliefs change rarely. With time, one might reassess and adjust one's values and change one's lifestyle. But the beliefs will often remain constant. However, an extraordinary event or strong evidence contradicting earlier beliefs may change one's personal beliefs.

It is true that personal beliefs and personal values share the idea of individual choice. In the context of the IT industry, individual choices play a great role. Lewis et al. (2003) observed that individual beliefs about technology use have a profound impact on individual behaviours toward IT. They suggest individuals form beliefs about IT use within broad influences germinating from the individual, institutional, and social contexts in which people interact with IT. Their findings suggest that beliefs about technology use can be influenced by top management's commitment to new technology and by the individual factors of personal innovativeness and self-efficacy.

User beliefs and attitudes drive information technology usage (Bhattacherjee and Premkumar, 2004). Bhattacherjee and Premkumar (2004) argue that perceptions may change with time, as users gain first-hand experience with IT usage, which, in turn, may change their subsequent IT usage behaviour. They report that emergent factors such as disconfirmation and satisfaction are critical to understanding changes in IT users' beliefs and attitudes.

A study regarding the attitude towards technology adoption (Bagchi et al., 2011) shows that there are differences in attitudes between developed and developing countries. Young Indian men with a high income are likely to be keen adopters of IT, but American men are keen regardless of age or income. In the USA, religious values do not seem to influence technology adoption, whereas they do in India. In contrast, a positive attitude towards science correlates with adoption of IT in the USA but not in India. A tendency to conform is linked to adoption in both countries, as is a positive attitude towards democracy, whereas competitiveness seems to influence people in neither.

Motivation for adopting IT has been investigated through the lens of TAM, TPB, UTAUT and the like (Venkatesh et al., 2003; Morris et al., 2005; Gefen and Straub, 1997). Researchers have investigated the 'why' question of adoption and come out with constructs such as 'ease of use' and 'usability'. To address pro-technology bias, one also needs to study the 'why' question of rejection, dislike, or discontinuance of the use of a technology (Rogers, 1995), which, however, has rarely been addressed in the literature. What is the relative importance of various beliefs and values in IT adoption and use? A value-based approach to technology adoption in these kinds of studies is absent.

Do personal beliefs and values differ in developed and developing countries? Yes, to some extent as per Bagchi et al. (2011), but more studies are needed to make an informed judgment. No doubt, large IT/IS such as ERP, supply chain systems have been a proven operations strategy to improve business effectiveness, particularly in developed economies. Many researchers have illustrated the impact of supply chain strategy on organisational performance with examples of actual input-output data. For businesses in developing countries, however, the scenario is not that rosy. The spread of supply chain and its effectiveness in operations at best has been moderate. It could be that the personal belief factors such as religious values, democratic values, attitude towards science, attitude towards competition, etc., play a significant role in IT adoption in developing countries. As decision makers in charge of IT/IS implementation (and workers) are motivated and guided by their personal beliefs, it is most likely that the business managers will behave differently in developing and developed countries.

This special issue attracted submissions responding to many of the questions raised above. The authors addressed issues of IT investment, organisational cultural, government policies, ethical integrity, IT for developing countries, and many other key areas with a focus on personal beliefs and values of users or developers. The first paper – by Allen, Natarajan and Price – focuses on social and cultural factors at international level in determining IT expenditures. The analysis included variables such as math and science education, freedom of press, percentage of English speaking, percentage of protestants, and number of vacation days. This study suggests two factors that give countries an advantage in assimilating information and communication technologies. One is a high quality of math and science education. Another is a government that protects freedom of the press.

The second paper – by Bourrie, Sankar and McDaniel – studied how ERP implementations are influenced by leadership, management team, and organisational culture. Through longitudinal study, the authors showed how leadership and culture enabled a company to avoid bankruptcy; other valuable lessons to ERP practitioners are also provided.

The third paper – by McBride, Carter and Ntuen – studied the impact of personality on nurses' bias towards the acceptance of automated decision aid (ADA). The authors conducted an experiment with novice and experienced nurses to assess the role of

personality in positive bias towards ADA utilisation. The results of the Myers-Briggs type indicator indicate that there is a significant difference in ADA bias for judging and perceiving personalities.

The fourth paper – by Smith, Cazier, Fox and Kitunda – looked at ethical integrity and consumer buying behaviour. The ethical integrity of companies is important to assess, as business faces challenges that arise from different social and environmental responsibility issues. The use of child labour in cell phones industry was studied. The survey results show that consumers identify child labour as socially unjust and are willing to pay more for phones that can be certified as child labour-free.

The fifth paper – by Mandal, Mukhopadhyay, Bagchi and Gunasekaran – studied the impact of people management practices and organisational culture on industry performance. The basic assumption that better people management, technology management, organisational culture, practices, and strategies lead to better organisational performance was tested. A nationwide survey of US manufacturing firms provides strong support for the above assumption.

The final paper – by Vong, Fang and Insu – studied how poor and un-bankable people in rural Cambodia could be served by mobile banking. Mobile technologies are powering up economic and social development in developing countries. The paper asserts the need for mobile technologies and their strong impact on micro-enterprises and micro-entrepreneurs in rural Cambodia.

Clearly, much work remains to understand the role of personal beliefs in IT developments and strategies for implementation. This issue is a good start, and my hope is that researchers will carry on with the work reported here.

References

Bagchi, K., Mandal, P. and Mukhopadhyay, A. (2011) 'Attitude towards technology development: a cross-cultural study of India and the USA', *Int. J. Information Systems and Change Management*, Vol. 5, No. 1, pp.3–21.

Bhattacherjee, A. and Premkumar, G. (2004) 'Understanding changes in belief and attitude toward information technology usage: a theoretical model and longitudinal test', *MIS Quarterly*, Vol. 28, No. 2, pp.229–254.

Gefen, D. and Straub, D. (1997) 'Gender difference in the perception and use of e-mail: an extension to the technology acceptance model', *MIS Quarterly*, Vol. 21, No. 4, pp.389–400.

Lewis, W., Agarwal, R. and Sambamurthy, V. (2003) 'Sources of influence on beliefs about information technology use: an empirical study of knowledge workers', *MIS Quarterly*, Vol. 27, No. 4, pp.657–678.

Morris, M.G., Venkatesh, V. and Ackerman, P.L. (2005) 'Gender and age in technology adoption and usage decisions: toward the emergence of a unisex work force', *IEEE Transactions on Engineering Management*, Vol. 52, pp.69–84.

Rogers, E.M. (1995) *Diffusion of Innovations*, 5th ed., Free Press of Glencoe, New York, NY.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003) 'User acceptance of information technology: toward a unified view', *MIS Quarterly*, Vol. 27, No. 3, pp.425–478.