The Role of Human Capital and Market Orientation as Determinants of Service Innovation

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Abstract

This study examines the effectiveness of human capital and market orientation in determining service innovation, and how the interactions between these two have an effect on service innovation. Previous studies on innovation have highlighted the importance of people as organisational capital for innovation; indeed human capital has been considered as the most important capital for innovation as creativity and ideas are embedded in the people. At the same time, other organisational factors have also been recognised as determining firm's innovation performance. In this study, we focus on market orientations which reflect firm's strategic orientation which will determine the goal and performance pursued by the firm. A number of studies have discovered that market orientation is positively related to innovation performance. However, there are no studies which have specifically examined the link between market orientation and human capital in delivering innovation.

This study will fill this gap by considering market orientation as providing direction for firms in exploiting their innovative capacity in terms of their human capital. This is because market orientation will play a key interface role between firms and their markets. Top management who has a strong market orientation will be able to direct firms' resources to innovate and create an advantage in the markets as they are able to read the situation and consider the constituents in the markets. Therefore, market orientation strengthens the relationship between organisational capital and their performance (advantage) in the markets. In other words, we consider a positive interaction (synergy) between market orientation and human capital in achieving innovation advantage. Since this study is focused on the external aspects of market orientation, we only included customer orientation and competitor orientation aspects of market orientation, and excluded inter-functional coordination.

In achieving the objective of this study, we test a number of hypotheses and we start with the baseline hypotheses. While we have mentioned earlier that both human capital and customer orientation have been shown as having a positive effect on innovation, we believe that it is still important to re-examine the relationship as we focus this study on service innovation which is different from product innovation in manufacturing context. Therefore, we hypothesize as below:

Hypothesis 1: Human capital has a positive effect on service innovation
Hypothesis 2: Customer orientation has a positive effect on service innovation
Hypothesis 3: Competitor orientation has a positive effect on service innovation

Customer orientation, specifically, helps firms understand customers' needs, including the characteristics of products or services they want. Therefore, as customer orientation increases, it provides firms with a clear direction to exploit their human capital to produce new services which serves customers' needs. Similarly, competitor orientation also provides firms with an overview of what competitors offer to the markets which will help firms in differentiating their products from their competitors'; thus, achieving innovation advantage. Accordingly, we test the following hypotheses:

Hypothesis 4: There is a positive interaction between human capital and customer orientation in determining service innovation

Hypothesis 5: There is a positive interaction between human capital and competitor orientation in determining service innovation

The empirical data was drawn from 228 responses (out of 1,500 mailed out survey) received from middle to senior managers from service organisations in Australia. The scale for human capital was adopted from Subramaniam and Youndt (2005), the market orientation scale was adopted from Narver and Slater (1990), and service innovation scale was operationalized based on Den Hertog's (2000) concept of service innovation. All scales passed the validity (congeneric factor analysis) and reliability (Cronbach's alpha) tests before the composite scores were calculated using the mean score for each scale.

Moderated hierarchical regression was used to test the hypotheses and four control variables were applied: firm's size, firm's age, environmental dynamism and environmental competitiveness. The results of the baseline hypotheses show that human capital, customer orientation, and competitor orientation have a positive effect on service innovation ($\beta = 0.11$ at $p<0.1$; $\beta = 0.17$ at $p<0.01$; $\beta = 0.20$ at $p<0.01$); therefore, H1, H2, and H3 are supported. In testing the interaction between human capital and customer orientation, we standardized all variables before the product terms were calculated to minimise the potential multicollinearity. The results show that the interaction between human capital and customer orientation has a positive effect on service innovation ($\beta = 0.17$ at $p<0.01$); therefore, H4 is supported. The interaction between human capital and competitor orientation is also statistically significant, however, the coefficient is negative ($\beta = -0.15$ at $p<0.05$); therefore, H5 is not supported. This last result is intriguing given the baseline relationships show that both human capital and competitor orientation have a positive effect on service innovation.

The findings overall show the importance of both human capital and market orientation as organisational capital and strategy in determining service innovation. Also, there is a synergy between human capital and customer orientation where their effect will be strengthened as each of them gets stronger. Therefore, improving both will create a synergy and positive impact on innovation performance. We are still puzzled, however, with the negative interaction effect between human capital and competitor orientation on service innovation. Could that result suggest that competitor orientation may, to certain degree, cause firms to direct their human capital on simply beating the competitors (which is not different from "me-too" innovation) and therefore moving away from what is truly innovative? This question warrants further studies which will improve our understanding on the interaction between firms' capital and their strategic orientations in determining innovation performance.

References

1. Den Hertog, P., (2000) "Knowledge-Intensive Business Services as Co-Producers of Innovation", *International Journal of Innovation Management,* Vol. 4, No. 4, pp. 491-528
2. Narver, J. C. & Slater, S. F. (1990). "The effect of a market orientation on business profitability", *Journal of Marketing*, Vol. 54, No. 4, pp. 20-34
3. Subramaniam, M. and Youndt, M.A., (2005) "The influence of intellectual capital on the types of innovative capabilities", *Academy of Management Journal,* Vol. 48, No. 3, pp. 450-463