Linking Strategic Orientations, Dynamic Capabilities, and Firm Performance: Evidence from the Pakistani Pharmaceutical Industry

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Abstract
The paper aims to extend the resource-based view to a dynamic capability view under dynamic environment, by investigating the effects of three strategic orientations (i.e., customer, competitor, and technology) on firm performance mediated through dynamic capabilities. A sample of 180 pharmaceutical firms of Pakistan was drawn using simple random sampling. Data were collected through a self-administered questionnaire and analyzed using the variance-based structural equation modeling. The findings demonstrated that customer, competitor, and technology orientations have both a direct and indirect relationship with firm performance. The study offers Pakistani pharmaceutical firms a better comprehension of their strategic orientations and demonstrates how the alignment of strategic orientations with dynamic capabilities may result in better firm performance.

Introduction
In today’s marketplace, firms are facing an intense operating environment that continuously poses a challenge for these firms to develop and sustain their performance (Lonial & Carter, 2015). The resource-based view (RBV; Barney, 1991) posits that firms sustain their competitive edge through the utilization of their resources (i.e., valuable, rare, inimitable, and non-substitutable (VRIN), which ultimately enhances performance (Wiklund & Shepherd, 2003). In this regard, the concept of strategic orientation, an important resource (Menguc & Auh, 2006), is gaining utmost attention, as a fundamental concept analyzing firm performance and maintaining competitive edge (Aloulou & Fayolle, 2005). Prior studies on strategic orientation mostly focus on its link with firm performance (Aloulou, 2019). Research scholars (e.g., Lee, Dedahanov & Rhee, 2015) claimed that emphasizing on strategic orientation alone does not result in superior performance rather there is a need to investigate some underlying mechanism through which strategic orientation increases firm performance. The proponents of the dynamic capability view (DCV) extended the concept of RBV to volatile environments (Helfat et al., 2007). These researchers doubted that possession of resources (e.g., strategic orientation) by firms does not guarantee sustainable performance under volatile environment (Teece, Pisano & Shuen, 1997). For this reason, Teece (2007) suggested that in dynamic environment firms need to reconfigure their resources for sustainable competitive advantage. Strategic orientation being an important resource leads to a sustained competitive advantage when combined with dynamic capabilities (i.e., sensing, seizing and reconfiguration). As a consequence, this study has identified dynamic capabilities as a vital mechanism (mediator) linking strategic orientations and firm performance. Following Teece (2007), processes related to sensing and seizing opportunities, and reconfiguring resources were conceptualized as important elements of dynamic capabilities. Whereas, three essential components of strategic orientations including customer, competitor and technology orientations were chosen. The selection of these particular strategic orientations was not merely based on their importance to achieving long-term success, but because they were relevant to the firms operating in the Pakistani pharmaceutical industry.
Despite the growing interest in dynamic capabilities, much research remains theoretical (e.g., Helfat et al., 2007), in particular, to learn the underlying mechanism of dynamic capabilities and only a few studies empirically address this concept (e.g., Wilden, Gudergan, Nielsen & Lings, 2013). In fact, there is limited knowledge regarding the applicability of the DCV in respect of linking resources with dynamic capabilities and firm performance under dynamic environment (Wu, 2010). For this reason, the concept of DCV needs further investigation. Therefore, this study delineates the following purpose.

**Purpose of the Study**

The main aim of the study is to extend the RBV to the DCV under dynamic environment, and empirically examine how strategic orientations affect firm performance, directly and indirectly via dynamic capabilities, controlling for firm size and firm age. Building on the RBV (Barney, 1986) and the DCV (Teece et al., 1997), in particular, this study investigates (1) the direct impacts of customer, competitor, and technology orientations on dynamic capabilities, (2) the direct impact of dynamic capabilities on firm performance, (3) the direct impacts of strategic orientations (i.e., customer, competitor, and technology) on firm performance (4) the mediating role of dynamic capabilities in the links between strategic orientations and firm performance.

**Significance of the Study**

This study is significant in four important ways. The very first significance of this study resides in the need for extending the concept of RBV to DCV in a dynamic environment. Since, building dynamic capabilities is important for firms in a dynamic environment (Zhou & Li, 2010); therefore, this study empirically applies the concept of the DCV by examining dynamic capabilities as a mediator in the link between strategic orientations and firm performance. Second, concerning theory, this study intends to contribute to the existing literature concerning a particular research setting i.e., the Pakistani context. So far, there is limited knowledge and only a few studies have been conducted in this context (e.g., Hussain, Ismail & Akhtar, 2015; Khuwaja, Shaari & Bakar, 2017). A better understanding would be developed by conducting the study in the Pakistani context. Third, unlike most previous empirical studies that would either focus on the RBV or the DCV, this study integrates the two views. Fourth, this study may also guide the policymakers of pharmaceutical companies with important recommendations for strategic decision-making processes. These managers would decide in a challenging way as to how the possession of specific resources along with certain processes lead towards sustainable performance.

**Theoretical Background and Hypotheses**

**Strategic Orientations and Dynamic Capabilities**

In a customer-centric approach, firms show constant aggressive inclination, in order to recognize and meet customers’ explicit and implicit demands (Han et al., 1998). Customer-oriented firms outstand in building and maintaining ties with their customers. With frequent changes in customer demands, customer-centric approach supports firms to identify changes in customer needs, invest in essential resources in order to create adequate innovative goods and services, advanced production techniques, and above all serve their customers with flexible product line in order to address their changing desires (Slater & Narver, 1998). The significance of customer orientation in determining dynamic capabilities (adaptive capability) is also revealed from literature (e.g., Kaehler, Busatto, Becker, Hansen & Santos, 2014).

Competitive oriented firms actively engage themselves to collect information associated with their rivalry, and keenly observe their rivals’ actions. This orientation is meant to enhance the firm’s ability to adjust itself according to market dynamics. It also assists organizations to arrange and rearrange their resources and abilities, whilst, compiles competition based information, and enhances competencies in order to deal with a competitive marketplace (Zhou & Li, 2010). The literature provides support for the positive link between competitor orientation and dynamic capabilities i.e., adaptive capability (e.g., Kaehler et al. 2014).

Technology orientation is related to all three elements of dynamic capabilities (i.e., sensing, seizing, and reconfiguring). For instance, technology-centered firms’ past experiences and processes enable them to compile plenty of technical knowledge reserves like a substantial investment in R&D, rapidity in the procurement of advanced technologies, and acquirement of latest technology-related information. A number of studies have reported a positive association between technology orientation and dynamic capability (e.g., Kaehler et al., 2014). In line with the above discussion, the following hypotheses are developed:

H1a: Customer orientation has a direct positive effect on dynamic capabilities.

H1b: Competitor orientation has a direct positive effect on dynamic capabilities.

H1c: Technology orientation has a direct positive effect on dynamic capabilities.
Dynamic Capabilities and Firm Performance
Teece (2007) claimed that it is necessary for firms to sense and seize opportunities, along with reconfiguration of their capabilities and resources for meeting changing customer needs and sustaining competitive advantage. For instance, only a slight improvement in sense-making can ultimately benefit a firm to achieve sustainable advantage (Haeckel, 1999). Dynamic capabilities of a firm are significant in a number of ways especially guaranteeing the long term profitability (Teece, 2018). A few studies have witnessed the association between dynamic capabilities and performance. For instance, Lin and Wu (2014) reported that dynamic capabilities positively affect the return on assets in large Taiwanese firms. Wilden et al. (2013) also claimed the positive impact of dynamic capabilities on firm performance. On the basis of these arguments, the following hypothesis is formulated:

H2: Dynamic capabilities have a direct positive effect on firm performance.

Strategic Orientations and Firm Performance
The following sub-sections are based on the set of hypotheses explaining the relationship between customer, competitor, and technology orientations with firm performance.

Customer Orientation and Firm Performance
Firms that value customers as a part of their mission are often in a position to produce much more loyalty, satisfaction, performance, and innovation-related outcomes (Kirca, Jayachandran & Bearden, 2005). Empirical studies offer support, and reveal that customer orientation is positively linked with export profit (Lengler, Sousa & Marques, 2013), and logistics performance (Sinkovics & Roath, 2004). Empirically, quite a few studies have provided support for the positive relationship between customer orientation and firm performance (e.g., Hilman & Kaliappen, 2014). Based on the above facts, the following hypothesis is formulated:

H3a: Customer orientation has a direct positive effect on firm performance.

Competitor Orientation and Firm Performance
Prior studies (e.g., Chin, Lo & Ramayah, 2013; O’Dwyer & Gilmore, 2019) have signified the importance of competitor orientation. Having thorough understanding and insight into competitors’ strong points and weaknesses, and the capacity to estimate their possible reactions is vital to create and sustain a competitive edge (Day & Wensley, 1988). Numerous studies offer support for the positive relationship between competitor orientation and firm performance (e.g., Noble, Sinha & Kumar, 2002). Therefore, the following hypothesis is formulated:

H3b: Competitor orientation has a direct positive effect on firm performance.

Technology Orientation and Firm Performance
A firm’s technical know-how is a valuable aspect for new product development, and improving processes and services. The approach towards technology and innovation defines a firm’s capability to achieve competitive edge (Hitt, Hoskisson& Ireland, 1990). The extent of a firm’s technology orientation determines its tendency to innovate and is considered valuable for achieving competitive advantage (Humphreys, McAdam & Leckey, 2005), which in turn results into superior performance (Voss & Voss, 2000). Literature provides support for the positive association of technology orientation with firm performance (e.g., Masa’deh, Al-Henzab, Tarhini & Obeidat, 2018). Hence, it can be inferred from the above debate that technology orientation and firm performance are positively related. Overall, it is concluded:

H3c: Technology orientation has a direct positive effect on firm performance.

Mediating Role of Dynamic Capabilities
According to the RBV, strategic orientation is considered as a vital resource (Menguc & Auh, 2006). While, the DCV (Teece, 2007) asserts that reconfiguring the resources becomes vital for firms in order to sustain their competitiveness. Hence, strategic orientation (being VRIN resource), when combined with dynamic capabilities (sensing, seizing, and reconfiguring), leads to a competitive edge. Wu (2007) claimed that dynamic capabilities act as a mediator between a firm’s resources and performance. Wilden et al. (2013) further argued that the indirect positive link of dynamic capabilities with firm performance is attained via organizing, expanding, and altering the firm’s resource base. Implicitly, the above evidence suggests that strategic orientation and firm performance are linked via dynamic capabilities. The above argument leads to the following hypothesis:
H4: Dynamic capabilities mediate the relationships between (a) customer orientation and firm performance, (b) competitor orientation and firm performance, and (c) technology orientation and firm performance.

Method and Procedure of the Study

This survey-based study was conducted in the pharmaceutical sector of Pakistan. Pakistan has 627 pharmaceutical firms (Drug Regulatory Authority of Pakistan, 2017). The data was collected from a target group of 242 senior managers, using simple random sampling technique. An altered version of the total design method was used to maximize the level of response (Dillman, 2011). A folder including a cover letter, survey form, and a postage-paid return envelope was dispatched to all the participants. Extrapolation method based on successive waves (Armstrong & Overton, 1977) was used to conduct the survey. Data collection was performed over a period of approximately three months, starting from August 2017 and ending in October 2017. Three weeks after the first wave of sending 242 survey questionnaires and introductory letters, reminders in the form of letters were dispatched to the ones who did not respond initially. Overall, 185 with 180 usable and complete survey questionnaires were received by the closing date of the survey, with an overall response rate of nearly 74.3 percent. The measurement details, i.e., constructs, their scales including a number of items and references are given in Table 1. All constructs were quantified using a 7-point Likert scale with scale anchors ranging from 1 = “strongly disagree” to 7 = “strongly agree.” The demographic information was also recorded.

Table 1. Constructs, Items and Scale Reference

<table>
<thead>
<tr>
<th>Constructs</th>
<th>No of items</th>
<th>Scale Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Orientation</td>
<td>4</td>
<td>Grissemann et al. (2013)</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>3</td>
<td>Zhou &amp; Li (2010)</td>
</tr>
<tr>
<td>Dynamic Capabilities</td>
<td>12</td>
<td>Fainshmidt &amp; Frazier (2016)</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>5</td>
<td>Al-Ansari et al. (2015)</td>
</tr>
</tbody>
</table>

Data Analysis

This study used Partial least squares (PLS), specifically SmartPLS v. 3.2.7 (Ringle, Wende & Becker, 2015) to estimate the measurement model and the structural model. We used the bootstrapping method (1,000 resamples) to evaluate the significance of path coefficients. The second-order construct – dynamic capabilities – was estimated through the repeated indicators approach (Wetzels, Odekerken-Schröder & Van Oppen, 2009).

Results

Evaluation of Measurement Models

The measurement model was assessed through confirmatory factor analysis (CFA) for estimating reliability, convergent validity, and discriminant validity for all the scales. All the alpha coefficients, composite reliabilities, and average variance extracted (AVE) values were greater than their threshold values of 0.7, 0.7, and 0.5, respectively (Hair Jr, Hult, Ringle & Sarstedt, 2016). For establishing convergent validity, factor loadings on respective constructs of all items were assessed. All item loadings appeared to be well above the cut-off value (0.7), except for one item from firm performance scale (0.670), but this item was retained for further analysis as the AVE of firm performance was higher than 0.5. As discussed before, dynamic capabilities were modeled as a second-order reflective construct. CR and AVE for dynamic capabilities equaled 0.907 and 0.765, respectively, providing evidence of reliable second-order construct. Further, all loadings of the second-order construct on the first-order constructs were significant at p< 0.01.

Table 2. Means, Standard Deviations, and Standard Deviations among Constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Firm Size</td>
<td>4.83</td>
<td>1.63</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Firm Age</td>
<td>4.77</td>
<td>1.61</td>
<td>0.521</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Customer Orientation</td>
<td>6.21</td>
<td>0.82</td>
<td>0.013</td>
<td>-0.040</td>
<td>0.850*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Competitor Orientation</td>
<td>5.98</td>
<td>0.95</td>
<td>0.054</td>
<td>-0.064</td>
<td>0.429</td>
<td>0.793*</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
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<table>
<thead>
<tr>
<th>5. Technology Orientation</th>
<th>5.92</th>
<th>0.83</th>
<th>-</th>
<th>0.090</th>
<th>0.051</th>
<th>0.533</th>
<th>0.404</th>
<th>0.914*</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Dynamic Capabilities</td>
<td>5.93</td>
<td>0.74</td>
<td>-</td>
<td>0.054</td>
<td>-0.054</td>
<td>0.603</td>
<td>0.684</td>
<td>0.605</td>
</tr>
<tr>
<td>7. Firm Performance</td>
<td>5.59</td>
<td>0.87</td>
<td>0.324</td>
<td>0.285</td>
<td>0.533</td>
<td>0.607</td>
<td>0.568</td>
<td>0.709</td>
</tr>
</tbody>
</table>

Note. The square root of AVE values on the diagonal (bold).

The Fornell and Larcker (1981) criterion were used to evaluate discriminant validity. The square root of the AVE values for all constructs was more than their respective correlations with every other construct (see Table 2). Overall, these findings provided support for convergent and discriminant validity.

Evaluation of the Structural Model

In the case of a structural model, the model fit was estimated through the $R^2$. The value of $R^2$ for dynamic capabilities was 0.639, signifying 63.9% variance in the outcome variable. The $R^2$ for firm performance was 0.634. Together, these results represented an adequate and significant model. The results of bootstrapping resampling analysis specified that path coefficients linking dynamic capabilities with customer orientation ($\beta = 0.255; t=4.090; p<0.01$), competitor orientation ($\beta = 0.460; t=8.030; p<0.01$), and technology orientation ($\beta = 0.283; t=4.902; p<0.01$) were statistically significant, lending support to H1a, H1b, and H1c. Similarly, dynamic capabilities had a positive significant association with firm performance ($\beta = 0.348; t=3.902; p<0.01$), supporting H2. In a similar vein, customer orientation ($\beta = 0.150; t=2.587; p<0.01$), competitor orientation ($\beta = 0.194; t=2.798; p<0.01$) and technology orientation ($\beta = 0.186; t=3.058; p<0.01$) had significant positive effect on firm performance, supporting H3a, H3b and H3c. The result of control variables showed that firm size had a significant positive effect on firm performance, whereas, the effect of firm age was not significant.

The bootstrapping method was used for testing the significance of the indirect effects (Preacher & Hayes, 2004). The findings showed that dynamic capabilities mediated the links between customer orientation and firm performance, competitor orientation, and firm performance, and technology orientation and firm performance with point estimates of 0.089, 0.160, and 0.099, respectively. Since, zero was not involved in the 95% bias-corrected confidence intervals (0.037; 0.155) for customer orientation, (0.063; 0.246) for competitor orientation, and (0.036; 0.177) for technology orientation, therefore, it was inferred that indirect effects were significantly different from zero. Thus, H4a, H4b and H4c were supported.

Discussion

This study intended to extend the RBV to the DCV through investigating the direct and the indirect associations between customer, competitor, and technology orientations, and firm performance mediated through dynamic capabilities. Theoretically, this study makes a significant contribution to the literature in several ways. First, the different effects of strategic orientations on dynamic capabilities (H1a, H1b, and H1c) were investigated. For all three strategic orientations, it was found that their effects on dynamic capabilities were positive and significant. These results are in line with previous studies (Kaehler et al., 2014).

Second, the positive association between dynamic capabilities and firm performance (H2) found in this study underscored the contribution, dynamic capabilities, may make to firm performance. This result is in accordance with earlier studies (e.g., Wilden et al., 2013). The result signified that pharma firms efficiently sense, seize, and reconfigure their competences, for addressing the changing environment that ultimately contributes towards enhanced performance.

Third, the results for H3a, H3b, and H3c demonstrated the separate contribution of each element of strategic orientation to firm performance. These findings are in accordance with earlier studies (e.g., Noble et al., 2002). Specifically, the results revealed that competitor, technology, and customer orientations seem to be a wise choice for pharmaceutical firms; since these orientations enable firms to gain better performance.

Fourth, this study considered dynamic capabilities as a mediator between strategic orientations–firm performance relationships. In doing so, it was confirmed that dynamic capabilities act as a mediator between customer orientation–firm performance relationship, competitor orientation–firm performance relationship, and technology orientation–firm performance relationship. These results affirmed that the possession of resources is not enough but in dynamic environment firms need to deploy dynamic capabilities in order to gain the latent value of resources (e.g., Teece, 2007).
Conclusion
By investigating the link between strategic orientations and firm performance through dynamic capabilities, this study adds to our knowledge about extending the RBV to the DCV through the underlying mechanisms that link strategic orientations with firm performance. This study has demonstrated that all three strategic orientations facilitated the development of dynamic capabilities, and also had a direct and indirect effect on firm performance. The study adds to the literature especially pertaining to strategic management by complementing strategic orientations and dynamic capabilities and demonstrating how this important complement may enhance firm performance.

Research Implications
The current research has far-reaching implications for business managers and policymakers. First, the senior managers of pharma firms should be knowledgeable about the kind of research pertaining to dynamic capabilities and strategic orientations influencing firm performance. Second, the environment of the pharma industry should be designed with the deployment of specific orientations and dynamic capabilities in mind. Finally, the current study will enable pharma firms to develop policies based on customer, competitor and technology orientations as to remain competitive in the marketplace.

Limitations and Recommendations
The limitations of this study offer avenues for a future research study. The study stresses the significance of dynamic capabilities (sensing, seizing, and reconfiguring) in relation to strategic orientations (i.e., customer, competitor, and technology) and firm performance. However, a few other strategic orientations (e.g., selling, learning, and entrepreneurial) that were not considered as a part of this study, could be considered for future research. Another limitation of the study is its design (i.e., cross-sectional), as longitudinal design can provide an assessment of the relationships over time in a better way. Lastly, the Pakistani context was used to conduct this study, many other developing countries in the Middle East, Africa, and Asia, are facing similar circumstances. Thus, cross-national studies are needed to confirm the relationships examined in this study.
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References


