How does learning orientation generate product innovativeness and superior firm performance?

Meral Dulger,
Marmara University, Istanbul, Turkey
Guven Alpay
Muzaffer Bodur
Boğaziçi University, Istanbul, Turkey
Cengiz Yilmaz
Middle East Technical University, Ankara, Turkey

Keywords
Product Innovativeness, Learning Orientation, Performance, Turkey

Abstract
This paper attempts to shed light on the role of learning orientations of firms on two dependent variables: product innovativeness and firm performance. Hierarchical regressions were run with data from a random sample of 121 firms operating in Turkey. Findings indicate that internally-focused learning and market-focused learning have significant effects on product innovativeness. When firm performance is included as the eventual outcome variable into the analysis, internally-focused learning and product innovativeness emerge as its main predictors. In fast-paced, highly unpredictable market environments, managers can make use of these findings to their benefit in terms of elevating their firms’ innovativeness and performance levels.

1. Introduction
The 21st century has established itself to be an era of uncertainty, heightened competition, complex environmental dynamics and constant change which leaves firms with the sole option of innovativeness (Hult et al., 2004; Wang and Ahmed, 2004; Blumentritt and Danis, 2006; Hsu, 2007; Lin et al., 2008; Man and Wafa, 2009; Rhee et al., 2010; Dulger et al., 2014). Hence, firms should extend ways to learn more about their customers, stakeholders, competitors and the marketplace if they are to survive by higher levels of innovativeness. Moreover, these activities must take the center stage where elevating levels of innovativeness will boost firm performance. Thus, this study seeks to discover the relationships of learning orientation, firm performance and the role of product innovativeness as a full or partial mediator.

On top of this, as an underrated country in emerging market research, Turkey actually provides a unique setting by being the 18th biggest economy of the world with its GDP of over 798 billion dollars (World Bank, 2016). Also, it is the first and only country that entered Customs Union of the European Union (EU) in 1996 without becoming a full member. Therefore, fierce competition from developed and emerging markets comes in. Currently, firms face the need to become innovative for overcoming the defects in the domestic marketplace whilst addressing the competition and customer needs. Dynamic ways to compete appeared whereas lags occurred in other aspects and consequently, we find the responses of Turkish firms noteworthy. A comprehensive model tests a representative sample of domestic and multinational business to consumer (B2C) firms.

2. Model Development
a) Conceptual Model
Research on innovativeness/innovations in developed markets tends to focus on R&D while our model is based on firm-level activities. For emerging economies, Pietrobelli and Rebellotti (2011) underline three points to consider in drawing conclusions about innovation activities: First, most
innovation is based on non-R&D activities which consist of operationalizing technology that is new to the situation of application (Bell, 2007); second, universities, R&D laboratories and/or research institutes may be inadequate and linkages among them and with local firms may be weak or nonexistent; third, especially international inflows of knowledge and technology from external sources are vital factors of the innovation and learning processes.

As this conceptual model aims to find out about how firms manage to learn about and adapt to the free market conditions and competition, we emphasize the multidimensionality of the constructs. Adhering to Wang and Ahmed’s (2004) research, product innovativeness will be employed as the propeller of organizational performance along with three dimensions of organizational learning (Weerawardena et al., 2006). The model in Figure 1 proposes that product innovativeness may influence firm performance through various learning orientations.

The general research question is whether organizational learning dimensions are predictors of product innovativeness and ultimately firm performance. In particular, the sequence of effects from organizational learning to innovativeness and firm performance are well-established in prior research In addition, due to lack of prior evidence, whether the mediating role of product innovativeness is full or partial and how this role differs across dimensions of learning orientation remains as another exploratory question. Further, we investigate the effects of organizational age, industry, organizational size, and export income as control variables.

**b) Turkey as an Emerging Market**

To establish the macro setting, we provide common features of emerging markets with respect to Turkey. Such markets supply valuable case studies and natural laboratories in the context of global integration (Danis et al., 2010). Emerging markets are characterized by low-income, rapid-growth and having economic liberalization as the key driver for development (Hoskisson et al., 2000). Competition is promoted domestically, supporting local firms to cultivate international levels of competitiveness (Aulakh and Kotabe, 2008). The early years of transition are characterized by economic decline, social upheaval and political uncertainty resulting in a highly ambiguous environment (Danis et al., 2010) while the competitive landscape stabilizes as ongoing economic and institutional reforms take hold (Warner and Cornelius, 2002). Emerging markets have different ways of processing market information and thus, the resulting strategies quite different than the ones in mature economies (Bruton et al., 2007: 118). In addition, the efficacy of organizational processes may be contingent upon the economic context in which firms compete (Li et al., 2010: 64).

The Turkish the market was liberalized in 1984 but it struggled with high inflation, coalition governments, instable economy and corruption. However, since 2003, the one-party government generated stability and forseeability through sustainable reforms: GDP increased from 232 billion dollars in 2002 to over 798 billion dollars in 2014, inflation fell from 45% in 2002 to 8.3% in 2014 and total reserves increased to over 127 billion dollars in 2014 from 28 billion dollars in 2002 (World Bank, 2016, not updated for 2015 yet).

c) **Hypotheses**

i. **Innovativeness and learning orientation**
Even if a particular organization has room for innovative ideas to flourish, generating tangible innovations might take a long time, there might be resistance or managers might lack adequate interest. Hence, as a construct, we chose innovativeness and we are interested in how it is affected under diminished market stability and predictability as these may jeopardize the ultimate realization of innovations.

Academic research usually approaches innovativeness as a measure of the degree of “newness” of an innovation (García and Calantone, 2002). As innovativeness requires new information and knowledge so that new ideas can flourish, the aptitude to learn more rapidly than competitors may be the only sustainable competitive advantage in volatile environments (Slater and Narver, 1995). Hence, the learning orientations of firms emerge as an area of interest. Rhee et al. (2010) define learning orientation as the adoption of a basic learning process. Besides, the association between innovativeness with learning orientation is verified by numerous researchers (Baker and Sinkula, 1999, 2002; Calantone et al., 2002; Hult et al., 2004; Lin et al., 2008; Rhee et al., 2010; Dulger et al., 2014).

Wang and Ahmed (2004) identify five main areas that establish an organization’s overall level of innovativeness which are product, market, process, behavioral and strategic innovativeness: Product innovativeness emphasizes the novelty and meaningfulness of products while market innovativeness points out to the originality of approaches that firms adopt to penetrate and take advantage of their targeted markets. Process innovativeness captures the introduction of new production methods, management approaches and technology to advance production and management processes. Behavioral innovativeness aids the configuration of an innovative culture. Lastly, strategic innovation is the aptitude to manage ambitious organizational purposes and existing resources so that it is able to leverage limited resources productively. For the purposes of this particular paper, we will only deal with product innovativeness.

Weerawardena et al. (2006) identify three types of learning orientations: market focused learning, relationally focused learning and internally-focused learning. They describe market focused learning as the capacity of the firm to acquire, disseminate, unlearn and use market information for organizational change. Such activities are beneficial in the speed and effectiveness of responses to environmental opportunities and threats. Thus, to realize higher levels of product innovativeness, firms need to relentlessly scan, evaluate, reflect on and learn about their environments:

H1: Higher levels of market-focused learning will generate higher product innovativeness.

Internally focused learning is the capacity and extent a firm develops knowledge through internal sources (Weerawardena et al., 2006). It includes learning by practice, tentative learning along with in-house R&D and is crucial for attaining new knowledge. So, we propose that technical knowledge is a noteworthy source in stimulating novel and superior ideas:

H2: Higher levels of internally-focused learning will generate higher product innovativeness.

Firms also learn from other firms and external research institutions, such as universities and industry associations and the capacity and extent an organization acquires knowledge through external linkages or networks describe relationally focused learning (Weerawardena et al., 2006). Consequently, we posit that for prompting novel ideas, firms need to have relations that provide quality knowledge:

H3: Higher levels of relationally-focused learning will generate higher product innovativeness.

ii. Effects on Performance
As for the relation between learning orientation and organizational performance, the literature provides academic evidence (Baker and Sinkula, 1999; Lei et al. 1999; Calantone et al., 2002; Hanvanich et al., 2006; Frank et al., 2012; Dulger et al., 2014). Organizational learning is priceless in terms of providing better insight about customers and efficiently meeting their requirements and needs through new products, services and ways of doing business (Slater and Narver, 1995). Firms that learn about customers, competitors and regulators have superior odds of perceiving and acting upon incidents and tendencies in the market and this leads directly to greater new product success, superior customer retention, higher customer-defined quality, and, ultimately superior growth and/or profitability (López et al., 2005). We consequently suggest that:

\[ H4: \text{Higher levels of (a) market focused learning; (b) internally focused learning and (c) relationally focused learning will generate greater organizational performance.} \]

Finally, we observed that recent research has revealed that product innovativeness is associated with business performance (Cooper, 2000; Calantone et al., 2002, Hult et al., 2004; Dulger et al., 2014). Hult et al. (2004) assert that, to respond to the turbulent milieu, it is vital to fuel innovativeness, which is critical for achieving high performance. Thus, we propose that:

\[ H5: \text{Higher levels of product innovativeness will generate greater organizational performance.} \]

3. Method

a) Sample and Data Collection

The sampling enclosed available membership lists of chambers of commerce of major trading cities in Turkey such as Istanbul, Izmir, Ankara, Kocaeli, and Adana. Executives of 700 randomly chosen firms were contacted via telephone and/or e-mail, and as a result and 121 B2C firms agreed to participate in the study. One respondent from each firm answered structured questionnaires through face-to-face interviews.

Respondents were on average 40.5 years old with a standard deviation of 9.8 and have an average organizational tenure of 9.1 years with a standard deviation of 7.3. Eighty seven percent of the respondents are male, 9.1 percent are primary, middle school and high school graduates, 52.1 percent hold university undergraduate degrees, and 38.8 percent hold post-graduate degrees. Ninety one percent of the respondents are middle and top managers, while 8.2 percent are specialists, experts, and consultants. The firms are from a wide variety of industries, including textiles and clothing, financial services, consumer durables, construction services, tourism, food and other FMCG, logistics, transport and warehousing, automotive, and other services and manufacturing firms. Overall, 51.3 percent of the firms are in manufacturing and 48.7 percent are in services industries. Firm ages range from 2 to 221 years with a mean of 24.5 years and a standard deviation of 24.4 years. Firm size ranges from 16 to 174,000 employees with a mean of 2706.2 and a standard deviation of 16209.2. Forty nine percent of the firms do not have any export income, 42 percent retain up to 50 percent of their income from exports and 9 percent retain 51 to 100 percent of their income from exports.

b) Measures

The questionnaire was constructed using the measures that are explained in the next paragraph. Each measure has multiple-items with 5-point summated rating scales with anchors of 1 being strongly disagree and 5 being strongly agree, except for firm and respondent demographics. For each construct, we ran exploratory factor analyses with varimax rotation and averaged the mean scores of each dimension separately.

To measure innovativeness, Wang and Ahmed’s (2004) 29-item scale was utilized. 13 items were eliminated and the reliability estimate is 0.87 which is above the threshold levels suggested by Nunnally (1978). Market-focused learning (\( \alpha=0.76 \)) was measured via the 8-item scale developed by
Weerawardena (2003), internally-focused learning ($\alpha=0.92$) was measured via an 8-item scale of an adapted version of measures developed by Atuahene-Gima (1993) and relationally-focused learning ($\alpha=0.66$) was measured via 8-items developed by Cohen and Levinthal (1990) and Rothwell (1992). To measure firm performance ($\alpha=0.70$), respondents were asked to indicate their firms’ level of performance for the last 3 years of operations on return on investment, market share, and total sales growth (e.g., Baker and Sinkula, 2009). We also included a judgmental assessment of overall performance as in the study of Jaworski and Kohli (1993). All four performance items use five-point scales with anchors 1 being much worse than competition and 5 being much better than competition. The rationale for using a three-year performance is that changing market conditions, developments in technology and crises may easily lead firms to make sure they achieve short term goals.

4. Results

The descriptive statistics and the bivariate correlations across the constructs are exhibited in Table 2 to provide a general depiction of the relationships of interest.

<table>
<thead>
<tr>
<th>Product Innovativeness (5)</th>
<th>3.5233</th>
<th>0.8795</th>
<th>0.494*</th>
<th>0.478**</th>
<th>0.413**</th>
<th>0.245**</th>
</tr>
</thead>
</table>

**p<0.01**

Table 1: Pearson Correlation Results

To test the hypotheses, we employed 2 hierarchic regression models so that we could see each construct’s contribution to each model one by one. Specifically, we entered the control variables as the first set of independents, followed by learning orientation dimensions. Product innovativeness was the dependent variable for the first three regression analyses to test H1 – H3. We ran the second regression analysis where firm performance was the dependent variable to test H4 and H5. The outcomes of these analyses are depicted in Table 2 and 3.

Firstly, learning orientation dimensions were analyzed as predictors of product innovativeness. As Table 2 exhibits, the control variables explain only 2 percent of the variability in product innovativeness, which is statistically non-significant ($F_{(4;109)} = .0545$). With the addition of learning orientation dimensions, the explained variance explained increases in a statistically and substantively significant sense ($\Delta R^2 = .257; \Delta F_{(7;106)} = 12.538; p < .01$).

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Regression Coeff.</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>0.170</td>
<td>0.101</td>
<td>-0.096</td>
<td>0.109</td>
<td>-0.053</td>
</tr>
<tr>
<td>Organizational Age</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning Orientation Dimensions</th>
<th>Regression Coeff.</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internally-focused Learning</td>
<td>0.362</td>
<td>0.101</td>
<td>0.377***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market-focused Learning</td>
<td>0.341</td>
<td>0.156</td>
<td>0.217**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationally-focused Learning</td>
<td>0.036</td>
<td>0.142</td>
<td>0.025</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Provided in the Table are the results of two sequential regression runs. Model 1 regresses Product Innovativeness against the control variables only, and the following model includes learning orientation dimensions after control variables hierarchically.

5th International conference on Business & Economic Development (ICBED), April 2016, NY, USA
As for the individual effects of learning orientation dimensions (Table 2, Model 2), internally-focused learning ($\beta_i = .377; p < .01$) followed by market-focused learning ($\beta_i = .217; p < .05$) exert the highest positive impact on product innovativeness. This denotes that an increase in internally-focused and market-focused learning will reflect itself in amplified product innovativeness.

Finally, in the second model, learning orientation dimensions and product innovativeness were analyzed as predictors of ultimate firm performance. As Table 3 depicts, the control variables explain only 5.3 percent of the variability in firm performance, which is not statistically significant ($F_{(4,109)} = 1.516$). In this analysis, only industry significantly affects firm performance, pointing out that, firm performance is better in service firms than in production firms. After the addition of learning orientation dimensions into the analysis in the second model, the proportion of variance explained increases in a statistically and substantively significant sense ($\Delta R^2 = .210; \Delta F_{(7,106)} = 5.402; p < .01$). After the inclusion of product innovativeness, the incremental variance explained is significant ($\Delta R^2 = .078; \Delta F_{(8,105)} = 6.781; p < .01$).

### Table 3: Regression Results for Firm Performance

<table>
<thead>
<tr>
<th>Learning Orientation Dimensions</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Age</td>
<td>0.003</td>
<td>0.002</td>
<td>0.110</td>
</tr>
<tr>
<td>Industry</td>
<td>0.221</td>
<td>0.120</td>
<td>0.193*</td>
</tr>
<tr>
<td>Organizational Size</td>
<td>0.000</td>
<td>0.000</td>
<td>0.031</td>
</tr>
<tr>
<td>Export Income</td>
<td>-0.003</td>
<td>0.002</td>
<td>-0.121</td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internally-focused Learning</td>
<td>0.233</td>
<td>0.067</td>
<td>0.370***</td>
</tr>
<tr>
<td>Market-focused Learning</td>
<td>0.113</td>
<td>0.103</td>
<td>0.110</td>
</tr>
<tr>
<td>Relationally-focused Learning</td>
<td>0.061</td>
<td>0.094</td>
<td>0.065</td>
</tr>
<tr>
<td>Innovativeness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Innovativeness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.018</td>
<td>0.714</td>
<td>0.290</td>
</tr>
<tr>
<td>$\Delta$ in R Square</td>
<td>1.516</td>
<td>10.079***</td>
<td>12.374***</td>
</tr>
<tr>
<td>$F$ for $\Delta$ in R Square</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$ for ANOVA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Provided in the Table are the results of three sequential regression runs. Model 1 regresses Firm Performance against the control variables only, and the following models include learning orientation dimensions and product innovativeness one after the other hierarchically.

Concerning the individual effects of learning orientation on firm performance (Table 3, Model 2), internally-focused learning ($\beta_i = .370; p < .01$) has a positive impact on performance. In the subsequent analysis including product innovativeness (Table 3, Model 3), only internally-focused learning ($\beta_i = .247; p < .05$) is positively related to firm performance. Lastly, product innovativeness ($\beta_i = .328; p < .01$) has a significant effect on firm performance such that higher levels of product innovativeness leads to higher firm performance.

Organizational innovativeness emerges as a partial mediator between learning orientation and performance. The internally-focused learning dimension’s standardized regression coefficient decreases (from $\beta_i = .370; p < .01$ to $\beta_i = .247; p < .05$) when we introduced product innovativeness into the analysis (Table 4, Model 3).
In summary, H1 is supported, since market-focused learning is significant for product innovativeness. For H2, the results indicate full support as the proposed relationship is true for product innovativeness as well. H3 is not supported since relationally-focused learning does not have a significant effect on product innovativeness. H4 is partially supported because only internally-focused learning has a significant relationship with firm performance whereas market-focused and relationally-focused learning do not affect firm performance significantly. Lastly, H5 is supported since product innovativeness turns out to be a significant factor for performance. Thus, the results indicate significant values for the majority of the proposed relationships. In particular, the significant relationships are between (a) market-focused learning and internally-focused learning with product innovativeness and (b) internally-focused learning and product innovativeness with performance.

5. Discussion and Implications

As this study is conducted in an ambiguous environment where firms are less familiar to learning as an integral part of business life and indigenous innovation, we believe the outcomes are rather noteworthy. When product innovativeness is considered, the results indicate a positive relationship only with market-focused learning and internally-focused learning. Also, internally-focused learning seems to have a higher impact on product innovativeness when compared with market-focused learning with respect to their standardized regression coefficients. Seeing support for H1 and H2, but no support for H3, we submit the subsequent justifications: New product development requires both market knowledge and information generated from R&D activities to assess the real-life applicability of and the potential demand for the idea. Obviously, relationally-focused learning activities are always useful for new product development; nevertheless, it takes time to establish and nourish new relationships and/or evaluate whether such liaisons are healthy and trustworthy. Also, relationally-focused learning is actually very new for the Turkish market; as they have become a part of business practices around the 1990s. Conversely, even when the economy was a closed one, there were a few firms in the domestic market since the 1950s. Although their activities and supply capacity were limited, some of these firms were acquainted with taking an inquisitive attitude towards their competitors since then. Thus, firms are more accustomed to market-focused learning at an earlier date when compared to relationally-focused learning. Another reason why relationally-focused learning has not emerged as a significant relationship in this analysis, or why H3 is not supported, might be either because the firms have not yet formed external relationships or their existing relations have little to offer in terms of new product development. Also, the firms might be inexperienced or at the early stages of external relationship-building which verifies the perspectives of Bell (2007) and Pietrobelli and Rabello (2011). Still, this model verifies firms are now advancing their competitive practices by trying to extract learning opportunities to compete more efficiently.

Lastly, as for firm performance, internally-focused learning and product innovativeness have significant relationships. About this outcome and partial support for H4 and support for H5, we provide the following reasons: It is apparent that firms seem to perform better with different and innovative goods/services. From this point of view, it is only plausible for the firms to secure continuous inflow of customers by product innovativeness which is created via intensifying internal R&D activities.

To sum up, the Turkish market, as a typical representation of emerging markets, seems to have conquered basic obstacles towards economic stability as exhibited in World Bank figures in today’s highly competitive and dynamic business milieu. The findings depict that the firms have started to appreciate the importance of organized learning activities and having a concrete strategy on elevating their innovativeness and performance levels. Still, there are not significant for all of the proposed relationships. This outcome illustrates that firms are on the verge of creating sophisticated
strategies and learning practices that will precisely address the demands of the local market, global competition and consumers.

6. Conclusion
When faced with fierce competition, firms have to find ways to survive in the highly demanding marketplace. This research explores product innovativeness, learning orientation and performance of the firms in Turkey through world field literature and tested methods. The results reveal that dimensions of learning orientation associates with product innovativeness and overall firm performance through different paths. Internally-focused learning is related to product innovativeness, and overall firm performance. Market-focused learning emerges as a determining factor on and product innovativeness. Most strikingly, product innovativeness is a significant factor in determining overall firm performance. These findings highlight the interplay between learning and innovation as they jointly yield superior firm performance, particularly in emerging nations where the rules of the game are probably much different from those in developed economies.

Thus, managers who are already striving to survive in such a milieu and those who wish to come in to the emerging markets need to be aware of the realities of the conditions. We believe that these finding may help them, as Lu et al. (2008) put it, to devise interesting and novel managerial practices that will fit their specific needs. As time goes by, managers in emerging nations will learn considerably from these studies and find occasions to introduce their own rules into the global competition game. However, until then, we believe that in the fast-paced, highly unpredictable market atmosphere of emerging markets, managers can make use of these findings to their advantage in terms of elevating their firms’ innovativeness and performance levels.

7. Limitations and Future Directions
The first limitation is the small sample size and thus, the study needs to be replicated with larger and more heterogeneous samples and in other emerging markets, to generalize the findings. Despite our rationale, the 3-year performance measurement might be considered as one that is short-term oriented. Even if the nature of innovativeness and learning is dynamic and continuous (Jean and Sinkovics, 2010), we conducted the empirical analysis with cross-sectional data. In effect, some outcomes could be the result of such data and might alter in a case where a longer term indicators and longitudinal data are employed.

References


Focused Firms in Emerging Economies: Caveats on Capabilities, Networks and Real Options. 


Danis, W.M., Chiaburu, D.S. and Lyles, M.A. (2010). The Impact of Managerial Networking 
Intensity and Market-Based Strategies on Firm Growth During Institutional Upheaval: A 
Study of Small and Medium-Sized Enterprises in a Transition Economy. *Journal of International 

Data.worldbank.org, (2016). *Turkey Data*. [online] Available at: 

Dulger, M., Alpay, G., Yilmaz, C. and Bodur, M. (2014). How do learning orientation and 
strategy yield innovativeness and superior firm performance?. *South African Journal of Business 

of SMEs and its impact on firm performance. *Journal of Marketing Development and 
Competitiveness*, 6(3), pp.29-41.


Hanvanich, S., Sivakumar, K. and Hult, G.T.M. (2006). The Relationship of Learning and 
Memory with Organizational Performance: The Moderating Role of Turbulence. *Journal of the 


Hsu, S.H. (2007). Human Capital, Organizational Learning, Network Resources and 


*Journal of Marketing*, 57(3), pp.53 – 70.

Via Advanced Information Technology: The Case of Taiwanese Dragon Electronics Firms. 


Li, Y., Zhang, C., Liu, Y. and Li, M. (2010). Organizational Learning, Internal Control 
Mechanisms, and Indigenous Innovation: The Evidence From China. *IEEE Transactions on 

and Learning Orientation on Business Performance. *International Journal of Manpower*, 29(8), 
pp.752 – 772.


