

# THE ROLE OF ENTREPRENEURIAL ORIENTATION AND MARKET ORIENTATION IN FACULTY PERCEPTIONS AND ENGAGEMENT TENDENCIES

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## ABSTRACT

*Much research shows that entrepreneurial universities contribute to economic development. While most of this research focused on the technical university faculties (e.g., engineering, computer sciences etc.), very few studies examined university's more diversified non-technical fields of study. Utilizing tools developed in Entrepreneurial Orientation and Market Orientation literature, this paper applies content analysis to in-depth interviews of 35 faculty members from the fields of English, History, Political Studies, Psychology and Sociology. This study purports that the internal orientation may be a significant stumbling block for non-technical fields to be relevant, to function above the "silo" mentality, and be actively involved with their external stakeholders.*

**Keywords:** Entrepreneurial Orientation, Market Orientation.

## INTRODUCTION

The concept of entrepreneurial universities as sources of economic development has gained significant recent attention. Although much research has lately been done exploring “*technical*” university fields (e.g., Engineering, Computer Sciences, Health Sciences), to date, very little research focused on examining university’s more diversified non-technical fields of study (e.g., English, History, Political Studies, Psychology and Sociology) (Abreu & Grinevich, 2014). To that end, this study attempts to provide greater understanding on how university actors – in this case professors of non-technical fields – describe the concepts of Entrepreneurial Orientation, and by extension Market Orientation in terms of their everyday work. Because we are seeking a more complete understanding of issues and concepts, an exploratory study approach is hereby employed (Yin, 1994).

To gain better clarity, study results were analyzed using both the Entrepreneurial Orientation (EO) and the related Market Orientation (MO) constructs. Findings shows that faculty in non-technical fields show evidence of little awareness of the outside environment (apart from expressed emphasis on Industry Collaboration) and have no clear view of who their customer or competitors are. Further, when it comes to the EO dimensions of Research Mobilization and Unconventionality, faculty view demonstrated extreme internal orientation – that is as it pertained to the Internal University Environment. This study purports that the internal orientation may be a significant stumbling block for non-technical fields to be relevant, to function above the “*silo*” mentality, and be actively involved with their external stakeholders. Following, the literature review is presented, which is followed by the method section. Next findings and conclusions are presented, which are wrapped up with conclusionary remarks.

## LITERATURE REVIEW

The perception that large organizations can benefit from doing things in an entrepreneurial manner is instituted by a stream of literature on the “*Entrepreneurial Orientation*” of firms. Entrepreneurial Orientation is often seen as a capability of an organization within RBV paradigm (Cuero Acosta et al., 2014; Greven et al., 2020). Analyses of Entrepreneurial Orientation link entrepreneurial orientation with the resource-based view of the firm (RBV) (Lumpkin & Dess, 1996). The key supposition of RBV is that the heterogeneity of their resource base distinguishes organizations from one another. The main objective of RBV is to enhance understanding of how competitive advantage is reached and how that advantage might be sustained in the future (Barney, 1991; Eisenhardt & Martin, 2000; Nelson, 1991; Penrose & Penrose, 2009; Schumpeter, 1934; Teece et al., 1997; Wernerfelt, 1984). An entrepreneurial orientation can be interpreted as a search for supplementary rents (i.e., profits) given the resource base of an organization.

Entrepreneurial Orientation literature recognizes that entrepreneurship occurs at different levels – the individual entrepreneur, organization, or society (Lee & Peterson, 2000), but is concentrated on the organizational level of analysis. The potential role an entrepreneurial university may play in a society has long been recognized (Etzkowitz, 2003;2013). Recently, the mutual relationship between the university and industry through the exchange of knowledge has become a global trend (Dal-Soto et al., 2021). Research indicates that scientific discipline is likely to play a role in an academic’s engagement in different activities of technology and knowledge transfer (Abreu & Grinevich, 2014). As argued by Abreu & Grinevich (2014), general academics in nature sciences (Engineering, Physics and Biological sciences) are more likely to engage in all types of activities through which technology and knowledge are transferred to industry than are academics in non-technical fields of study. Considering that strategic orientation is recognized for its strong potential to improve organizational promise (Ali et al., 2020), there is a lack of clear understanding about the role a strategic orientation, such as Entrepreneurial or Market orientation, has on non-technical fields within universities.

### Entrepreneurial Orientation

Entrepreneurial Orientation literature recognizes that entrepreneurship occurs at different levels – the single entrepreneur, organization, or society (Lee et al., 2001) – but is focused on the organizational level of analysis. Miller (1983) provided the first operationalization of the EO construct, which includes the dimensions of innovation, risk-taking, and proactiveness. This definition is the base for several more recent studies (Covin & Slevin, 1989; Lumpkin & Dess, 2001; Wiklund, 1999). Entrepreneurial Orientation is associated with improved performance in private sector corporations (Bauweraerts, 2019; Liu et al., 2021; Wiklund, 1999).

Literature provides strong support for a positive relationship between EO and organizational performance (Covin & Slevin, 1989; Falahat et al., 2021; Hina et al., 2021; Lumpkin & Dess, 2001; Sahin & Gurbuz, 2020; Smart & Conant, 1994; Weinzimmer et al., 2021). In his study of the Entrepreneurial Orientation-performance relationship, Wiklund (1999) found that EO produces long-term sustainable improvement in performance. Entrepreneurship is also shown to benefit universities and institutions of higher learning (Etzkowitz, 2003;2013; Todorovic et al., 2011). Ma & Todorovic (2011) argue that the amount of EO within a university will have a significant positive relationship with performance. In developing an EO scale for universities (ENTRE-U scale), Todorovic et al. (2011) shows that EO in universities is positively

and significantly related to university performance outcomes. Further, Todorovic et al. (2011) demonstrates that EO within universities is a latent variable with three interrelated dimensions: Unconventionality, Industry Collaboration and Research Mobilization.

## Market Orientation

Another type of strategic orientation mentioned earlier is the Market Orientation of Firms (Santos-Vijande et al., 2005). Market Orientation has gained significant interest by researchers in the last three decades. Kohli & Jaworski (1990) published work was based on previous literature review, which they subsequently confirmed with field interviews. Moreover, Kohli & Jaworski (1990) proposed that Market Orientation has three dimensions: intelligence generation, intelligence dissemination, and responsiveness. Further, Market Orientation is found to be directly associated with organizations' business performance, employees' job satisfaction, organizational commitment, customer satisfaction and customer repeated purchase behaviour. Kohli & Jaworski (1990) also propose that market turbulence and technological turbulence moderate the relationship between market orientation and business performance.

Narver & Slater (1990) consider Market Orientation as an organizational culture. Organizations that have the aspiration to create superior value for customers via sustainable competitive advantage will strive to maintain the market-oriented culture. Therefore, Narver & Slater (1990) proposed that market-oriented culture consists of three behaviour components: customer orientation, competitor orientation and inter-functional coordination. Since customer orientation and competitor orientation include activities that involve acquiring information about customers and competitors in the target market (and disseminating it throughout the business), the three dimensions of Market Orientation (MO) proposed by Narver & Slater (1990) are aligned with the three dimensions proposed by Kohli & Jaworski (1990). The three dimensions proposed by Narver & Slater (1990) are also widely used in later studies.

Although it is assumed that, just like EO, MO will have a positive effect on higher education, however, the MO application in higher education is still limited. Currently, there is no agreement in the literature defining the "customer" of higher education. Further, considering that often each department in a university may exhibit completely different mindset and culture, the application of marketing orientation is often limited at the department level (Flavián & Lozano, 2006; Hammond et al., 2020). Another challenge of applying MO to higher education is the definition and measurement of organizational performance. For example, while (Tran et al., 2015) used students' satisfaction, Plewa & Quester (2006) used university industrial relationship. Finally, it is important to recognize that EO and MO are closely correlated to each other and individually and collectively to organizational performance (Badrinarayanan, 2004; Baker & Sinkula, 2009; Khan & Bashir, 2020; Ma & Todorovic, 2011; Mulyana & Hendar, 2020). Such strong relationship suggests that using both entrepreneurial and market strategic orientations will also enable a better understanding of the strategic position of non-technical faculties of higher education.

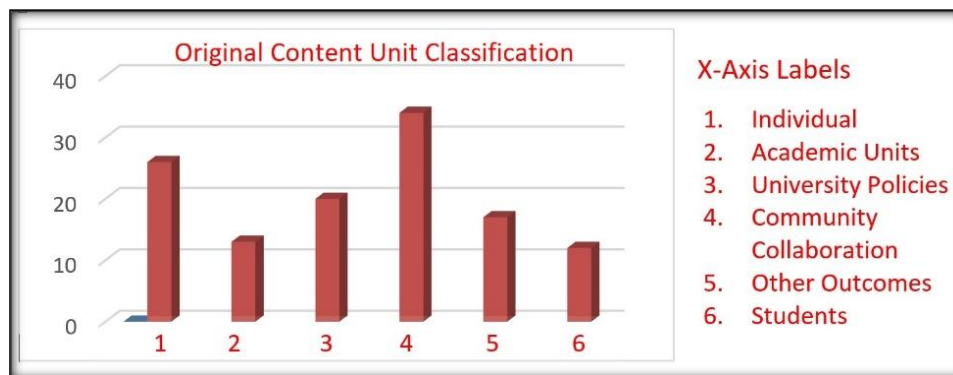
## METHOD

This study reports on in-depth open-ended anonymous interviews of 35 randomly selected tenured faculty members from the Purdue University System. Exploratory approach is found to be appropriate as the variables involved are not well understood (Menon et al., 2022; Yin, 1994). The entire faculty was randomly selected from the departments of English, History,

Political Studies, Psychology and Sociology. Before the beginning of the interview, participants were asked to describe “*looking from the perspective of their specific faculty, what do they consider to be the outcomes of an entrepreneurially oriented university*”. After the completion of the interviews their responses were tabulated and analyzed using content analysis approach. A total of 122 text units falling within the EO construct were collected as well as a total of 59 text units within the MO. Two EO and two MO experts were used to sort the text codes within the EO and MO framework respectively. Care was taken that both EO and MO experts had no connection to any of the departments from where the respondents originated. Additionally, two of the experts came from the business school background, while the other two came from the management sciences background.

## Findings and Discussions

Results of an in-depth interview of thirty-five professors show that when it comes to entrepreneurial orientation, professors expressed concerns most frequently about community collaboration (34 coded units) followed by their own individual performance (teaching and research) which brought out 26 coded units. Following are the expressed concerns about university policies (20 coded units) and academic unit policies (13 coded units). Students come on the bottom of the list with only 12 out of a total of 122 coded units. Graphical presentation of findings is shown in Figure 1.



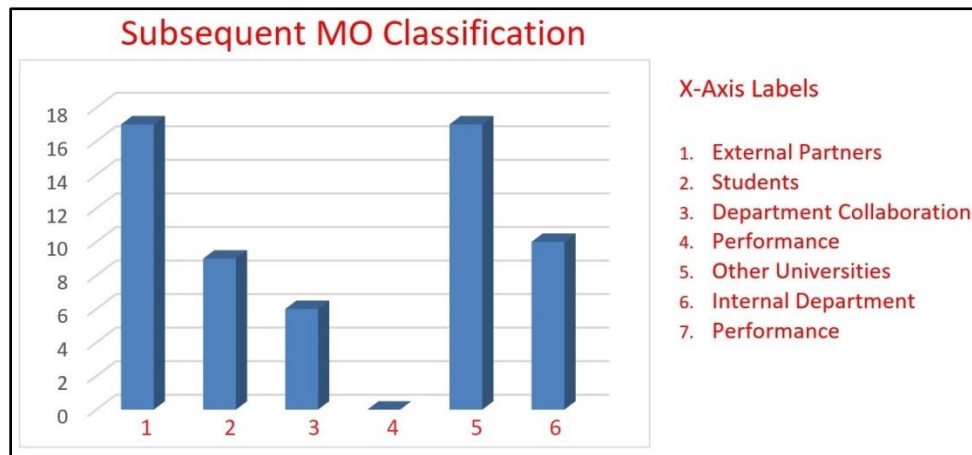
**FIGURE 1**  
**ORIGINAL CONTENT UNIT CLASSIFICATION**

## Entrepreneurial Orientation

Compared to accept dimensions of university EO (Unconventionality, Research Mobilization and Industry Collaboration) as presented by Todorovic et al (2011), factor of Industry Collaboration appears to have retained its importance. Unlike the technical fields, in non-technical fields teaching was identified more dominantly than research (in place of the Research Mobilization factor). Additionally, university and academic unit policies appear to carry next highest significance in non-technical fields.

## Market Orientation

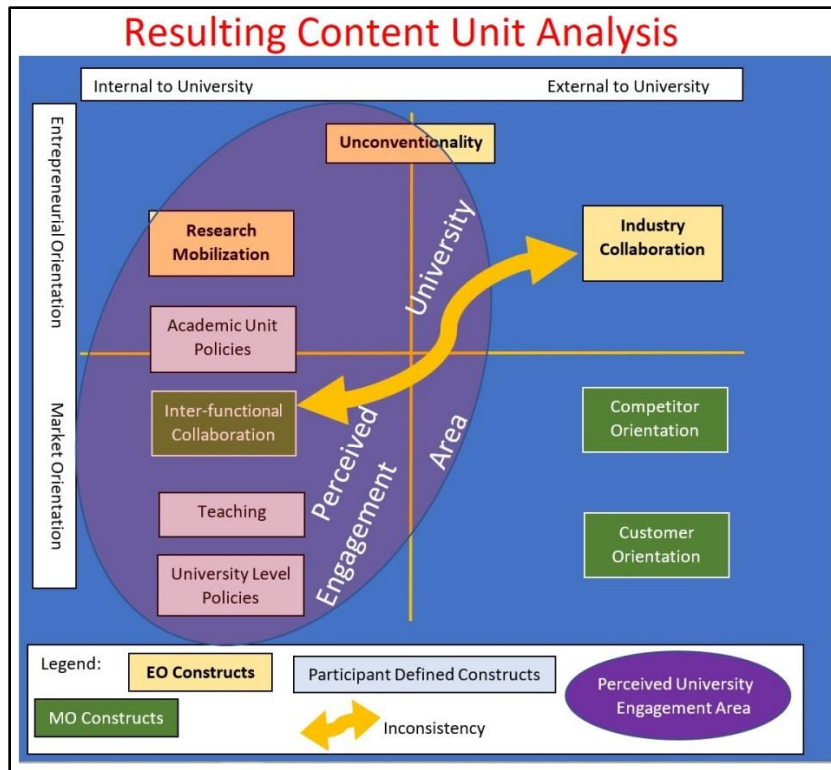
To gain a clearer picture from this study, Market Orientation context was added to the above analysis. Considering that MO is closely related and correlated to Entrepreneurial Orientation (Badrinarayanan, 2004; Baker & Sinkula, 2009; Khan & Bashir, 2020; Ma & Todorovic, 2011; Mulyana & Hendar, 2020), Market Orientation dimensions of Internal Collaboration, Customer Orientation and Competitor Orientation bring more illumination towards a better understanding of these observations. Figure 2 shows the graphical representation of subsequent MO categorization.



**FIGURE 2**  
**SUBSEQUENT MO CLASSIFICATION**

Contrary to what we would expect, no respondent even mentioned another competing university (i.e., the Competitor Orientation) nor was the concepts of competitive environment brought into the discussion at any time. It was observed, however, that although two of the three Market Orientation dimensions focus on the outside environment, all but one criterion mentioned by faculty focuses on the internal environment. Perhaps because it is seen as a source of additional revenue, community collaboration (i.e., “*External Partners*”) was the only external category identified that can be identified as external to the university. Further, it was also observed that all the mentions made of students reveal the view of students being a product rather than a customer or a client. Students were often presented as someone they build, improve, or develop (Figure 2).

To understand better the world view of the respondents, Figure 3 presents respondents views in a table with MO and EO on the Y axis and “*Internal to University*” and “*External to University*” on the X axis. The resulting figure graphically shows the observed internal orientation of the analyzed statements (Figure 3).



**FIGURE 3**  
**CONTENT UNIT ANALYSIS RESULTS**

### Analysis

Figure 3 shows graphically the observations made in this study and compared to the dimensions of both EO and MO. These factors are further individually discussed herein.

**EO-Unconventionality** -Although Todorovic et al. (2011) presents unconventionality as both internal and external factor, participants referred to unconventionality exclusively in internal context. Most often unconventionality referred to student teaching, approach to research problem solving or an approach to restrictive university policies.

**EO-Industry Collaboration** -Industry collaborations was presented mostly from the perspective of being relevant to the industry around or producing relevant student outcomes. This is the only “*External to University*” factor from either EO or MO.

**EO-Research Mobilization** -Although research was mentioned, it was always mentioned in terms of student teaching or individual development. The concept of Research Mobilization to solve external/industry problems, as presented in Todorovic et al. (2011) was not dominant in these responses.

**MO – Competitor Orientation** - One of the two external MO dimensions was not found in the responses from the faculty interviewed.

**MO – Customer Orientation** - Second of the two external MO dimensions was also not found in the responses from the faculty interviewed. It should be noted that at couple of occasions, it appears that faculty perceived other units within the university as competitors (most likely for resources or students), nonetheless it was not frequent enough to comfortably draw any conclusions.

MO –Inter-functional Collaboration - This was mostly discussed within the perspective of collaboration or problem resolution within the department.

Items identified and shown on Figure 3 show a resounding heavy “*internal*” orientation of the respondents. Closer examination of Figure 3 shows a possible relationship between “*Industry Collaboration*” and “*Inter-functional Collaboration*” (a MO dimension) – which was represented with a thick “*inconsistency*” line. Further demographic review reveals that none of the respondents had a record of “*Industrial Collaboration*” connection. Observing a very strong internal predisposition in the rest of the responses, one may wonder if “*Industry Collaboration*” was simply an expected proper answer, or if Industry collaboration was viewed from the perspective of the Inter-Functional collaboration (it self an MO dimension). This would suggest that respondents simply see Industry as a partner towards the goal of developing their product – the student. This research provides insignificant insight to further understand the reasoning why Industry Collaboration was included in responses even though no one of the respondents actually engaged in it.

It is generally understood that both EO and MO are related to firm performance because these strategic orientations align the strategy and the actions of the entity to the needs in the outside environment. It also follows that within the institution of higher learning, the same conditions apply. Studies have already shown the benefit of EO within the university (Etzkowitz, 2003;2013; Todorovic et al., 2011). Considering the close correlation of EO to MO, it only ensues that it is reasonable for a strategic orientation, such as MO to improve the attainmeny of university outcomes.

Using an open ended interview approach, this research provides significant evidence to show that faculty within universities are too internally focused to gain entrepreneurial outcomes, and are missing the external strategic viewpoint. This appears even more to be the case in non-technical university fields of study. Extrapolating from the lessons learned in private sector, it follows that university internal orientation makes it difficult for universities to be relevant, and satisfy their external stakeholders.

This report also supports a few other observations. While entrepreneurial technical faculties may be more focused on research (i.e. Research Mobilization), respondents, within the same system, appear to be more focused on teaching. This conclusion agrees with the earlier observation that students are perceived more as product rather than customer or client. To that end, it is also more understandable why faculty in non-technical universities appear to focus more on university and academic level policies. Finally, this focus may also suggest that faculty in non-technical fields may feel that they have fewer options when it comes to resources and budgets. More research is needed to establish if this is the case.

It is also recognized that both EO and MO align resources of the organization to better serve the customer. Consequently, firms that do not embrace Entrepreneurial or Market Orientation tend to be more bureaucratic and consist of internal “*silos*”. This study appears to support the notion that because of lack of EO and MO in non-technical fields at a university, most such universities will exhibit unnecessary bureaucracy and departmental “*silo*” mindset.

## CONCLUSION

Benefits of an Entrepreneurial university to the local economy are well documented. While technical university fields have been well studied, entrepreneurship within non-technical university fields has yet to be understood. Employing tools developed in Entrepreneurial and Market Orientation literature this paper applies content analysis to in-depth interviews of 35

faculty members from the fields of English, History, Political Studies, Psychology and Sociology. This study finds that non-technical faculties of higher education institutions may be burdened with excessive internal orientation, which may be a significant stumbling block for non-technical fields, thereby making them irrelevant and inside a “*silo*” mentality. Consequently, academics in these fields may find it hard to be actively involved with their external stakeholders. In fact, present writers conclude that this short-minded internal focused, silo-based mentality may be a more significant obstacle toward the development of an efficacious and effectual entrepreneurial university of the future.

## REFERENCES

- Abreu, M., & Grinevich, V. (2014). Academic entrepreneurship in the creative arts. *Environment and Planning C: Government and Policy*, 32(3), 451-470.
- Ali, G.A., Hilman, H., & Gorondutse, A.H. (2020). Effect of entrepreneurial orientation, market orientation and total quality management on performance: Evidence from Saudi SMEs. *Benchmarking: An International Journal*.
- Badrinarayanan, V. (2004). Adoption of an emerging technology: An examination of the direct and combined effects of market orientation and entrepreneurial orientation. Paper presented at the *American Marketing Association Conference Proceedings*.
- Baker, W.E., & Sinkula, J.M. (2009). The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses. *Journal of small business management*, 47(4), 443-464.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Bauweraerts, J. (2019). Entrepreneurial orientation and performance in private family firms: A configurational model. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 36(3), 418-431.
- Covin, J.G., & Slevin, D.P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic management journal*, 10(1), 75-87.
- Cuero Acosta, Y.A., Nabi, N.U., & Dornberger, U. (2014). Entrepreneurial orientation and its impact on the improvement of technological capability in Colombia. *International Journal of Entrepreneurship and Small Business*, 21(2), 231-245.
- Dal-Soto, F., Souza, Y.S.D., & Benner, M. (2021). The entrepreneurial orientation in the transformation of universities. *BBR. Brazilian Business Review*, 18, 255-277.
- Eisenhardt, K.M., & Martin, J.A. (2000). Dynamic capabilities: what are they? *Strategic management journal*, 21(10-11), 1105-1121.
- Etzkowitz, H. (2003). Research groups as ‘quasi-firms’: The invention of the entrepreneurial university. *Research policy*, 32(1), 109-121.
- Etzkowitz, H. (2013). Anatomy of the entrepreneurial university. *Social science information*, 52(3), 486-511.
- Falahat, M., Lee, Y.Y., Soto-Acosta, P., & Ramayah, T. (2021). Entrepreneurial, market, learning and networking orientations as determinants of business capability and international performance: the contingent role of government support. *International Entrepreneurship and Management Journal*, 17(4), 1759-1780.
- Flavián, C., & Lozano, J. (2006). Organisational antecedents of market orientation in the public university system. *International journal of public sector management*.
- Greven, A., Strese, S., & Brettel, M. (2020). Determining scientists’ academic engagement: perceptions of academic chairs’ entrepreneurial orientation and network capabilities. *The Journal of Technology Transfer*, 45(5), 1376-1404.
- Hammond, K.L., Webster, R.L., & Hammond, N.L. (2020). Antecedents of market orientation in higher education: Empirical results from four key informant perspectives. *Global Journal of Management and Marketing*, 4(1), 113.
- Hina, S. M., Hassan, G., Parveen, M., & Arooj, S. (2021). Impact of entrepreneurial orientation on firm performance through organizational learning: The moderating role of environmental turbulence. *Performance Improvement Quarterly*, 34(1), 77-104.
- Khan, I., & Bashir, T. (2020). Market Orientation, Social Entrepreneurial Orientation, and Organizational Performance: The Mediating Role of Learning Orientation. *Iranian Journal of Management Studies*, 13(4).



- Kohli, A.K., & Jaworski, B.J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of marketing*, 54(2), 1-18.
- Lee, C., Lee, K., & Pennings, J.M. (2001). Internal capabilities, external networks, and performance: a study on technology-based ventures. *Strategic management journal*, 22(6-7), 615-640.
- Lee, S.M., & Peterson, S.J. (2000). Culture, entrepreneurial orientation, and global competitiveness. *Journal of world business*, 35(4), 401-416.
- Liu, Y., Xi, M., Jia, Y., & Geng, X. (2021). Chief Executive Officers Entrepreneurial Orientation, Dynamic Capabilities, and Firm Performance: The Moderating Effect of the Manufacturing Industry. *Frontiers in Psychology*, 12.
- Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, 21(1), 135-172.
- Lumpkin, G.T., & Dess, G.G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of business venturing*, 16(5), 429-451.
- Ma, J., & Todorovic, Z. (2011). Making universities relevant: Market orientation as a dynamic capability within institutions of higher learning. *Academy of marketing studies journal*, 15, 1.
- Menon, V., N. Varadharajan, Praharaj, S. K., & Ameen S. (2022). Why do manuscripts get rejected? A content analysis of rejection reports from the Indian journal of psychological medicine. *Indian Journal of Psychological Medicine*, 44(1), 59-65.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management science*, 29(7), 770-791.
- Mulyana, M., & Hendar, H. (2020). Market and entrepreneurial orientation on business performance: Role of networks innovation agility. *Journal of Small Business & Entrepreneurship*, 1-17.
- Narver, J.C., & Slater, S.F. (1990). The effect of a market orientation on business profitability. *Journal of marketing*, 54(4), 20-35.
- Nelson, R.R. (1991). Why do firms differ, and how does it matter? *Strategic Management Journal*, 12(S2), 61-74.
- Penrose, E., & Penrose, E.T. (2009). *The Theory of the Growth of the Firm*. Oxford university press.
- Plewa, C., & Quester, P. (2006). Satisfaction with university-industry relationships: the impact of commitment, trust and championship. *International Journal of Technology Transfer and Commercialisation*, 5(1-2), 79-101.
- Sahin, F. & S. Gurbuz (2020). Entrepreneurial orientation and international performance: The moderating role of cultural intelligence. *Journal of Management and Organization*, 26(2), 263-287.
- Santos-Vijande, M.L., Sanzo-Perez, M.J., Alvarez-Gonzalez, L.I., & Vazquez-Casielles, R. (2005). Organizational learning and market orientation: Interface and effects on performance. *Industrial marketing management*, 34(3), 187-202..
- Schumpeter, J.A. (1934). *The theory of economic development (Seventh Edition)*. Cambridge, MA: Harvard University Press.
- Smart, D.T., & Conant, J.S. (1994). Entrepreneurial orientation, distinctive marketing competencies and organizational performance. *Journal of Applied Business Research*, 10(3), 28-38.
- Teece, D.J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 18(7), 509-533.
- Todorovic, Z.W., McNaughton, R.B., & Guild, P. (2011). Entre-u: An entrepreneurial orientation scale for universities. *Technovation*, 31(2-3), 128-137.
- Tran, T.P., Blankson, C., & Roswinanto, W. (2015). Market orientation: An option for universities to adopt? *International journal of nonprofit and voluntary sector marketing*, 20(4), 347-365.
- Weinzimmer, L.G., Michel, E.J., & Robin, J. (2021). The nature of entrepreneurial orientation strength: The impact of shared values on firm performance. *Journal of Management & Organization*, 27(4), 715-735.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.
- Wiklund, J. (1999). The sustainability of the Entrepreneurial Orientation--performance relationship. *Entrepreneurship: Theory & Practice*, 24(1), 39-50.
- Yin, R. (1994). *Case study research, design and methods (Second Edition Vol. 5)*: Sage Publications.

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