

Relationship between Innovation and Performance among Palestinian Firms

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Abstract: This paper explores the relationship between the performance and innovation in Palestinian firms. The main goal was to see the impacts of knowledge creation or investment in shaping innovation at different business components such as product, process, organizational and marketing innovations. This research article used A sample of 110 managers from different Palestinian firms, a self-administered questionnaire was used to get the accurate results. The results showed items in the organizational constructs have positive and strong correlation with each other between $r = .463$ and $r = .654$. Organizational constructs also showed positive and strong correlation with marketing construct while weak and negative correlation with product and process construct. However, the findings indicated a stronger correlation existed for manufacturing and services firms between innovation and business performance, the study concluded that both the knowledge creation and investment contribute vitally in shaping the innovation and relationship between innovation and performance of the Palestinian firms.

Keywords: *Innovation, Performance, Product innovations, Process innovations, Organizational innovations, Marketing innovations.*

1. Background

There is an indispensable relationship between the economic development of a country and innovation. Innovation is a foundation of economic development in the modern economies. Certainly, the economic growth of a nation is dependent upon innovation. However, for the countries like Palestine, the relationship between innovation and economic development may be questioning, amidst lack of resources and political and economic stabilities (Maria, OrosSimona, & Salisteanu, 2015; Suenaga, 2016). For the economies, where knowledge comes out as vital factor, innovation is a crucial driver for growth. Without knowledge creation, such economy is unable to differentiate itself from others and attain the goal of specialization.

Currently, there is a dearth of existing literature available investigating the relationship between performance and innovation in Palestinian firms. The current research tends to bridge the research associated with it. By identifying the relationship between innovation and performance using the sample of small and medium companies, the investigation will find the set of key drivers affecting innovation and performance among Palestinian firms. Analysis is expected to help in confirming the hypothesis associated with knowledge creation and innovation respectively.

The remaining part of the paper is structured in following sections. The second part provides literature review on innovation, performance, market orientation and their relationship. The third part describes and justifies the choice of methodological design and research framework. The fourth section present and discuss the results. The last part of this paper offers conclusion and limitations of the study. The findings of the investigation are expected to have significant impacts on the existing financial and

business literature. As to the best of our knowledge, this study is the first of its kind in identifying the relationship between innovation and performances of firms in Palestine.

2. Literature Review

Academic researchers (Almudallal, Muktar, & Bakri, 2016; De Luca & Atuahene-Gima, 2007; Maria et al., 2015) find the interdependence of knowledge and innovation on each other to drive economic growth. Although the two factors have varying spatial influences overgrowth, but these effects are individually and collectively important for driving sufficient growth. However, the growth from innovation is more universal than from knowledge creation. Based on knowledge specificity, it is important to understand that whether knowledge creation is an underlying factor behind growth and economic performance, or innovation as explained by Schumpeter (2008) in his ‘Theory of Innovation’. According to him, like other investment theories of the business cycle, which declares that the transformation in investment supplemented by monetary development is the major factors behind the business fluctuations. He defined investment and monetary developments to represent innovation. On the other side, other researchers regard knowledge creation as a strong base for innovation (Kang & Kang, 2007).

Nevertheless, both the investment transformations as well as knowledge creation appear as challenging facet to be achieved in Palestinian economy. Almudallal et al. (2016) describe knowledge creation challenges of this economy by stating, “*KM practices and initiatives in the Palestinian HEIs have been facing great external challenges due to the political and economic instability over there. Certainly, human security, freedom of expression, thoughts, information, and movement are indispensable requirements for the development of knowledge societies*” (p. 97). Based on the current situation of Palestinian, it is extremely important to understand what the key drivers of innovation are and how innovation is contributing towards the overall economic growth and performance of the economy. Specifically, the small and medium-sized companies in the country in different industries are recognised as the key pillars to economic growth. These companies do not only bring investment but also drive significant innovation according to the changing technological environment and business trends. Canh, Liem, Thu, and Khuong (2019) identify that most of the organisations focus on the product innovation in modifying their products according to changing market needs, and by modifying the ways of producing the products. However, the same is only applicable to the manufacturing firms. For understanding how the knowledge affects innovation in service firms, organisational and marketing innovations are also recognised as significant components in the literature (Capello & Lenzi, 2014; Crossan & Apaydin, 2010; Damanpour, 1991). These set of innovation affects the overall performance of the firms rather than only the economic innovations (Griffith, Huergo, Mairesse, & Peters, 2006; Mohnen & Hall, 2013).

Most of organizations are facing tremendous pressure from competition; therefore, they have to optimize their decision-making capabilities on such forces. However, in order to survive and thrive in hyper connected and competitive markets, organizations find innovation as the best solution (Kim & Mauborgne, 2005). Furthermore, in developed economies the dilemma is whether knowledge or advanced knowledge, or marketing innovation or tech innovation; in countries with limited investing capabilities that dilemma turns into knowledge creation or innovation.

The definition of innovation is comprised by Crossan and Apaydin (2010) as the “production or adoption, assimilation, and exploitation of value-added novelty in economic social spheres; renewal and enlargement of products, services, and markets; development of new methods of production, and establishment of new management systems. It is both a process and an outcome”, or a new structure pertaining to organization members (Damanpour, 1991).

Various opposing definitions can be identified depending on the typology or dimension on which innovation is analyzed. Innovation can be technical (product and service) or administrative (process) innovation (Gopalakrishnan & Damanpour, 1997; Skerlavaj, Song, & Lee, 2010) radical versus incremental innovation is the main dichotomy in organizational innovation typology emerged early in literature (Ettlie, Bridges, & O'keefe, 1984) also product and process innovation.

3. Market Orientation and Innovation

One important debate in literature regarding market orientation and innovation is whether the former fosters the latter or rather causes incremental improvements in products coming from customer preferences modifications (Vázquez, 2001). Despite the debate going on for decades there is great amount of research confirming the positive relationship between market orientation and innovation (Baker & Sinkula, 1999; Greenley, 1995; Lewrick, 2009; Zhou, Chi, & David, 2005). Lado and Maydeu-Olivares (2001) also argue that adopting market orientation principles affects positively innovation activities, their magnitude, and effectiveness.

Other literature also explores the relationship from the context of company maturity: start-ups and matured companies. Lewrick, Omar, and Williams Jr (2011) find that in Startup companies, the relationship between a strong competitors' orientation and an incremental innovation is positive. However, when the same relationship is put in the context of mature companies, it proves to be contra productive. Moreover, Lewrick et al. (2011) find that in mature organizations being more customer-oriented is positively related with radical innovation. Overall, it seems that authors give evidence to (2001) findings.

Market orientation is seen as a tool for an organization to build and to improve its competitive advantage (Lewrick et al. 2011). Market orientation efforts combined with organizational capabilities, enhance performance (Vázquez, 2001) or improve innovation relate innovation to organization abilities recognizing market opportunities and materializing commercial relationships. Information acquisition, dissemination, and its usage are involved in the innovation process, as a process of knowledge absorption and transforming it into action, therefore, learning orientation through such process is a significant antecedent of innovation (Skerlavaj, Song, & Lee, 2010).

Improving competitive advantage and recognizing market opportunities requires intelligence generation from different market operators such as competitors, clients, and partners.

Market innovation requires complex organizational knowledge in order for the intelligence generated to be disseminated and absorbed within the organization. deem innovativeness as an aspect of firm's culture and openness toward new ideas. They also introduce the capacity to innovate, which is defined as "the ability of the organization to adopt or implement new ideas, processes, or products successfully ". Market orientation components adopted in this construct describe a structural flow of information acquisition, absorption, and reaction. Therefore, the better the intelligence generated from the organization (adoption of new ideas) the better the information to be disseminated (implementation of new ideas, processes, or products) and the better the responsiveness (qualified as successful) (Vázquez, 2001).

4. Market Orientation, Innovation, and Firm Performance

Literature has confirmed the positive relation between innovation and firm performance (Calantone, Cavusgil, & Zhao, 2002; Koellinger, 2008; Lado & Maydeu-Olivares, 2001; Omri, 2015; Rosenbusch, Rauch, & Bausch, 2013; Vincent, Buckley, & Schott, 2004). Innovation effects on firm performance vary from innovation type whether it is a product, process, organizational, or marketing innovation. Its effects depend on firm performance and on type of industry.

Rosenbusch et al. (2013) argued that the innovation effect on firm performance depends also on firms' size, finding that newly and small firms show more evident effects on performance from innovation than bigger and well-established firms. The described theory relating innovation and performance, raises the hypothesis: of which: higher innovation in the company will have a positive relationship with company performance. In addition, the effect that size and sector have on the relationship between innovation and performance. Lastly, based on the distinction of innovation as a process and innovation as an output relationship, assessed a which appears tautological. Despite this common perception, this assumption by using different constructs. Thereby, these elements raise the following hypothesis: the higher the innovation as a process in the company, the higher the innovation as an output.

5. Research Framework and Methodology and Sample Selection

The focus of the paper was the analysis of the Palestinian firm's responsiveness to the different kind of innovation in increasing their performances. Based on the restricted access to financial data of the listed Palestinian firms online, the pool of 110 firms' managers was used to assess their experience of innovation in their companies. The random selection of 110 managers of the different Palestinian firms in different industries, a representative sample was obtained. The managers were contacted by the team of researchers, who supported and guided the research participants fill in the questionnaire is provided (Bryman & Bell, 2015; Saunders, 2011). The innovation instrument was comprised of 15 items, thereby categorised into four different types of innovation such as product innovation (items = 4), process innovation (items = 3), organisational innovation (items = 5) and marketing innovation (items = 3). The items were assessed using a 5-point Likert scale, ranging from 1 strongly agrees to 5 strongly disagree. It was a self-constructed questionnaire developed by the researchers based on the literature review in section 2 (Skerlavaj et al., 2010). In the product innovation construct, a respondent were asked to share whether their companies launch new products, extend numbers of lines, enlarge new markets and is responsive in customising their products according to the market demands. In the process innovation construct, respondents were asked to share whether their companies are adaptive to the real-time process control technologies, advanced automatic quality restriction equipment, and advanced programmable equipment. In the organisational construct, the respondents were asked whether the companies have adopted innovative reward systems, innovative designs, innovative administration, organisational reconstruction and business process re-engineering. Lastly, in the marketing construct, respondents were asked to share whether their companies are leading through innovative distributing methods, promoting methods and capable of a large potential market demand.

6. Results

The Table number one reports the descriptive statistics results gathered for the questionnaires administered on the sample of 110 Palestinian firms. The results informed a low standard deviation in the responses of the participants relative to their means. Additionally, findings substantiate the presence of normally distributed data set, necessary for reaching appropriate findings.

The following Table 1 investigates the questionnaires I have provided for the 110 managers which they involved in the sample process.

Furthermore, the construct validity of all the items was tested by assessing the internal consistency. It was extremely important to assess how individual items were closely relating the development of physical rate variable. Based on the results of Cronbach alpha (Table 2), it was found that Product innovations scale (0.45) and Process innovations scale (0.236) had Cronbach's alpha $> .70$, while Organisational innovations scale and Marketing innovations scale showed a very good internal consistency (Cronbach's alpha above .80). In this regard, to make construct reliability satisfactory, items affecting the internal consistency of product and process scales should be excluded. However, based on the results of the item-total statistics, none of the item could have increased the reliability above 0.7 upon its deletion. The general rule of thumb is that a Cronbach's alpha of 0.70 and above is good, 0.80 and above is better, and 0.90 and above is best.

Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group.

It is considered to be a measure of scale reliability. A "high" value for alpha does not imply that the measure is unidimensional. If, in addition to measuring internal consistency, you wish to provide evidence that the scale in question is unidimensional, additional analyses can be performed.

Table 1.
Descriptive statistics.

		Prod1	Prod2	Prod3	Prod4	Proc1	Proc2	Proc3	Org1	Org2	Org3	Org1	Org5	Mar1	Mar2	Mar3
N	Valid	110	110	110	110	109	110	110	110	110	110	110	110	110	110	110
	Missing	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Mean		.9455	1.2091	1.0182	.6818	.5046	.5636	.7091	.4364	.5000	.4091	.4455	.3636	.3636	.3636	.3727
Median		1.0000	1.0000	1.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Std. Deviation		1.03902	1.07597	.81254	.86663	.70216	1.08811	1.17579	.91398	.92617	.84913	.87353	.82091	.84297	.86446	.88679
Variance		1.080	1.158	.660	.751	.493	1.184	1.382	.835	.858	.721	.763	.674	.711	.747	.786
Skewness		1.210	.696	.175	1.532	1.046	1.944	1.519	2.101	1.729	2.030	1.852	2.273	2.780	2.688	2.565
Std. Error of Skewness		.230	.230	.230	.230	.231	.230	.230	.230	.230	.230	.230	.230	.230	.230	.230
Kurtosis		1.137	-.075	-.969	2.860	-.222	2.880	1.268	3.810	2.025	3.429	2.613	4.601	8.154	7.315	6.414
Std. Error of Kurtosis		.457	.457	.457	.457	.459	.457	.457	.457	.457	.457	.457	.457	.457	.457	.457

Note: * Mean, Median, and Mode Measures of Dispersion or Variation. * Range, Variance, Standard Deviation.

Table 2.
Reliability statistics.

	Cronbach's Alpha	N of Items
Overall instrument	.725	15
Product innovations scale	.045	4
Process innovations scale	.236	3
Organisational innovations scale	.884	5
Marketing innovations scale	.849	3

In order to assess the relationship between the different categories of innovation and performance of the Palestinian firms, Pearson correlation was calculated. Findings of the study reveals that items in the organisational constructs have positive and strong correlation with each other between $r = .463$ and $r = .654$. In [Table 3](#) the results also showed that positive and strong correlation between the constructs of marketing and organisational innovation. Contrarily, weak and negative relationship was identified between the product innovation items and other items.

A correlation matrix table showing correlation coefficients between variables. Each cell in the table shows the correlation between two variables. A correlation matrix is used to summarize data, as an input into a more advanced analysis.

[Table 4](#) The ANOVA table shows the statistics used to test hypotheses about the population means. When the null hypothesis of equal means is true, the two-mean sum of squares estimate the same quantity (error variance) and should be about of equal magnitude. In other words, their ratio should be close to 1.

The ANOVA findings confirm positive relationship between the items showing sig. values less than alpha (0.05). Items from organisational and process innovation mainly show alpha value less than 0.05.

7. Conclusions and Recommendations

The study concludes significant relationship between the different categories of innovation and performance of the Palestinian firms. It can be deduced from these findings that the companies are responsive towards the organisational and market innovations relatively more than the product and process innovations. The overall process of organisational innovation substantiates the importance given by the Palestinian firms to the knowledge creation through the adoption of innovative designs and business process re-engineering. Palestinian firms are capable of responding the changes necessary for innovating the organisational design in order to stay responsive to the market and product innovation approaches. These findings further confirm the literature and theories related with both the innovation and investment transformation attracting the improved performance of the firms in the market. These findings further open up a platform for further analysis of the market data i.e. profits and returns and stock market performances to view how these innovations are helping the Palestinians firms in attracting high performance above their competitors.

Table 3.
Correlation matrix.

		Prod 1	Prod 2	Prod3	Prod4	Proc1	Proc2	Proc3	Org1	Org2	Org3	Org1	Org5	Mar1	Mar2	Mar3
Prod1	Pearson Correlation	1														
	Sig. (2-tailed)															
	N	110														
Prod2	Pearson Correlation	.043	1													
	Sig. (2-tailed)	.655														
	N	110	110													
Prod3	Pearson Correlation	-.162	-.004	1												
	Sig. (2-tailed)	.091	.964													
	N	110	110	110												
Prod4	Pearson Correlation	.103	.072	-.005	1											
	Sig. (2-tailed)	.285	.455	.961												
	N	110	110	110	110											
Proc1	Pearson Correlation	.007	.084	.106	.002	1										
	Sig. (2-tailed)	.945	.383	.275	.980											
	N	109	109	109	109	109										
Proc2	Pearson Correlation	-.102	-.008	-.074	-.051	-.124	1									
	Sig. (2-tailed)	.287	.938	.443	.595	.198										
	N	110	110	110	110	109	110									
Proc3	Pearson Correlation	-.021	-.017	.073	-.101	-.015	.309**	1								
	Sig. (2-tailed)	.831	.862	.450	.295	.875	.001									
	N	110	110	110	110	109	110	110								
Org1	Pearson Correlation	-.197*	-.047	-.035	-.136	-.147	.488**	.401**	1							

	Sig. (2-tailed)	.039	.626	.713	.157	.127	.000	.000								
	N	110	110	110	110	109	110	110	110							
Org2	Pearson Correlation	-.133	-.115	-.037	-.086	-.025	.437**	.455**	.553**	1						
	Sig. (2-tailed)	.165	.231	.704	.373	.797	.000	.000	.000							
	N	110	110	110	110	109	110	110	110	110						
Org3	Pearson Correlation	-.026	.076	-.117	-.146	-.152	.463**	.515**	.654**	.542**	1					
	Sig. (2-tailed)	.784	.429	.222	.129	.114	.000	.000	.000	.000						
	N	110	110	110	110	109	110	110	110	110	110					
Org4	Pearson Correlation	-.175	-.168	-.037	-.053	.019	.477**	.422**	.559**	.573**	.544**	1				
	Sig. (2-tailed)	.067	.079	.698	.579	.843	.000	.000	.000	.000	.000					
	N	110	110	110	110	109	110	110	110	110	110	110				
Org5	Pearson Correlation	-.202*	-.004	.004	-.042	-.067	.580**	.443**	.716**	.676**	.653**	.604**	1			
	Sig. (2-tailed)	.034	.969	.969	.662	.489	.000	.000	.000	.000	.000	.000				
	N	110	110	110	110	109	110	110	110	110	110	110	110			
Mar1	Pearson Correlation	-.092	.087	-.037	-.041	-.081	.255**	.348**	.352**	.247**	.431**	.301**	.390**	1		
	Sig. (2-tailed)	.337	.364	.705	.670	.404	.007	.000	.000	.009	.000	.001	.000			
	N	110	110	110	110	109	110	110	110	110	110	110	110	110		
Mar2	Pearson Correlation	-.090	.144	.030	-.040	-.140	.258**	.204*	.227*	.229*	.308**	.197*	.252**	.623**	1	
	Sig. (2-tailed)	.349	.132	.758	.678	.148	.006	.032	.017	.016	.001	.040	.008	.000		
	N	110	110	110	110	109	110	110	110	110	110	110	110	110	110	
Mar3	Pearson Correlation	-.057	.148	.041	-.035	-.055	.170	.219*	.160	.117	.198*	.080	.266**	.602**	.731**	1
	Sig. (2-tailed)	.552	.122	.667	.715	.573	.076	.021	.096	.222	.038	.407	.005	.000	.000	
	N	110	110	110	110	109	110	110	110	110	110	110	110	110	110	110

Table 4.
ANOVA.

		Sum of Squares	Df	Mean Square	F	Sig.
Prod1	Between Groups	9.501	3	3.167	3.103	.030
	Within Groups	108.172	106	1.020		
	Total	117.673	109			
Prod2	Between Groups	6.919	3	2.306	2.050	.111
	Within Groups	119.272	106	1.125		
	Total	126.191	109			
Prod3	Between Groups	.308	3	.103	.152	.928
	Within Groups	71.656	106	.676		
	Total	71.964	109			
Prod4	Between Groups	3.425	3	1.142	1.543	.208
	Within Groups	78.439	106	.740		
	Total	81.864	109			
Proc1	Between Groups	.601	3	.200	.400	.753
	Within Groups	52.646	105	.501		
	Total	53.248	108			
Proc2	Between Groups	10.188	3	3.396	3.028	.033
	Within Groups	118.867	106	1.121		
	Total	129.055	109			
Proc3	Between Groups	12.074	3	4.025	3.078	.031
	Within Groups	138.617	106	1.308		
	Total	150.691	109			
Org1	Between Groups	8.432	3	2.811	3.606	.016
	Within Groups	82.622	106	.779		
	Total	91.055	109			
Org2	Between Groups	4.628	3	1.543	1.840	.144
	Within Groups	88.872	106	.838		
	Total	93.500	109			
Org3	Between Groups	8.241	3	2.747	4.139	.008
	Within Groups	70.350	106	.664		
	Total	78.591	109			
Org4	Between Groups	2.817	3	.939	1.239	.299
	Within Groups	80.356	106	.758		
	Total	83.173	109			
Org5	Between Groups	9.166	3	3.055	5.037	.003
	Within Groups	64.289	106	.606		
	Total	73.455	109			
Mar1	Between Groups	43.255	3	14.418	44.688	.000
	Within Groups	34.200	106	.323		
	Total	77.455	109			
Mar2	Between Groups	50.255	3	16.752	56.912	.000
	Within Groups	31.200	106	.294		
	Total	81.455	109			

References

- Almudallal, A. W., Muktar, S. N., & Bakri, N. (2016). Knowledge management in the palestinian higher education: A Research Agenda. *International Review of Management and Marketing*, 6(S4), 91-100.
- Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of The Academy of Marketing Science*, 27(4), 411-427. Available at: <https://doi.org/10.1177/0092070399274002>.
- Bryman, A., & Bell, E. (2015). *Business research methods*: Oxford University Press.
- Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515-524. Available at: [https://doi.org/10.1016/s0019-8501\(01\)00203-6](https://doi.org/10.1016/s0019-8501(01)00203-6).
- Canh, N. T., Liem, N. T., Thu, P. A., & Khuong, N. V. (2019). The impact of innovation on the firm performance and corporate social responsibility of vietnamese manufacturing firms. *Sustainability*, 11(3666), 1-14.
- Capello, R., & Lenzi, C. (2014). How firms can get ideas from users for sustainable business innovation. *Journal of Regional Science*, 54(2), 186-214.
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154-1191. Available at: <https://doi.org/10.1111/j.1467-6486.2009.00880.x>.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-590. Available at: <https://doi.org/10.5465/256406>.
- De Luca, L. M., & Atuahene-Gima, K. (2007). Market knowledge dimensions and cross-functional collaboration: Examining the different routes to product innovation performance. *Journal of Marketing*, 71(1), 95-112. Available at: <https://doi.org/10.1509/jmkg.71.1.095>.
- Ettlie, J. E., Bridges, W. P., & O'keefe, R. D. (1984). Organization strategy and structural differences for radical versus incremental innovation. *Management Science*, 30(6), 682-695. Available at: <https://doi.org/10.1287/mnsc.30.6.682>.
- Gopalakrishnan, S., & Damanpour, F. (1997). A review of innovation research in economics, sociology and technology management. *Omega*, 25(1), 15-28.
- Greenley, G. E. (1995). Forms of market orientation in UK companies. *Journal of Management Studies*, 32(1), 47-66. Available at: <https://doi.org/10.1111/j.1467-6486.1995.tb00645.x>.
- Griffith, R., Huergo, E., Mairesse, J., & Peters, B. (2006). Innovation and productivity across four European countries. *Oxford Review of Economic Policy*, 22(4), 483-498. Available at: <https://doi.org/10.1093/oxrep/grj028>.
- Kang, K., & Kang, J. (2007). How do firms source external knowledge for innovation? Analysing effects of different examining the different routes to product innovation performance. *Journal of the American Marketing Association*, 71(1), 95-112.
- Kim, W. C., & Mauborgne, R. (2005). *Blue ocean strategy: how to create uncontested market space and make the competition irrelevant*. Boston, Mass: Harvard Business School Press.
- Koellinger, P. (2008). Why are some entrepreneurs more innovative than others? *Small Business Economics*, 1(31), 21-37. Available at: <https://doi.org/10.1007/s11187-008-9107-0>.
- Lado, N., & Maydeu-Olivares, A. (2001). Exploring the link between market orientation and innovation in the European and US insurance markets. *International Marketing Review*, 18(2), 130-145. Available at: <https://doi.org/10.1108/02651330110389972>.
- Lewrick. (2009). Market orientation and innovators' success: An exploration of the influence of customer and competitor orientation october. *Journal of Technology Management and Innovation*, 6(3), 48-62. Available at: <https://doi.org/10.4067/s0718-27242011000300004>.
- Lewrick, M., Omar, M., & Williams Jr, R. L. (2011). Market orientation and innovators' success: An exploration of the influence of customer and competitor orientation. *Journal of Technology Management & Innovation*, 6(3), 48-62. Available at: <https://doi.org/10.4067/s0718-27242011000300004>.
- Maria, A., OrosSimona, P. O. E., & Salisteanu, F. (2015). Innovation and economic growth: An empirical analysis for CEE countries. *Procedia Economics and Finance*, 26, 461-467.
- Mohnen, P., & Hall, B. (2013). Innovation and productivity: An update. *Eurasian Business Review*, 3, 47-65.
- Omri, S. (2015). Market orientation and innovators' success: An exploration of the influence of customer and competitor orientation. *Journal of Technology Management and Innovation*, 6(3), 48-64.
- Rosenbusch, N., Rauch, A., & Bausch, A. (2013). The mediating role of entrepreneurial orientation in the task environment-performance relationship a meta-analysis. *Journal of Management*, 39(3), 633-659. Available at: <https://doi.org/10.1177/0149206311425612>.
- Saunders, M. N. (2011). *Research methods for business students* (5th ed., pp. 213). India: Pearson Education.
- Schumpeter, J. A. (2008). *The theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle, translated from the German by Redvers Opie*. New Brunswick (U.S.A) and London (U.K.): Transaction Publishers.
- Skerlavaj, M., Song, J. H., & Lee, Y. (2010). Organizational learning culture, innovative culture and innovations in South Korean firms. *Expert Systems with Applications*, 37(9), 6390-6403.
- Suenaga, K. (2016). Knowledge creation and economic development. *The Review of Economics and Political Science*, 9(3), 46.
- Vázquez. (2001). Expectations a comparison standard in measuring service quality: An assessment of a reassessment. *Journal of Marketing*, 58(1), 132-139.

- Vincent, A., Buckley, C., & Schott, J. M. (2004). Potassium channel antibody-associated encephalopathy: A potentially immunotherapy-responsive form of limbic encephalitis. *Brain*, *127*, 701-712. Available at: <https://doi.org/10.1093/brain/awh077>.
- Zhou, K. Z., Chi, K. Y., & David, K. T. (2005). The effects of strategic orientation on technology- and market-based breakthrough innovations april 2005. *Journal of Marketing*, *69*(4), 42-60. Available at: <https://doi.org/10.1509/jmkg.69.2.42.60756>.