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The moderating effect of intellectual property rights on relationship between innovation and company performance in manufacturing sector



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SUMMARY			
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Abstract

This paper aims to study the effects of Intellectual Property on the relationship between innovation capability and business performance in the manufacturing sector. The study was conducted using hypotheses and tests with survey data from small manufacturing businesses from Romania.¹ Multi-item scales were tested with the statistical method of exploratory factor analysis, avoiding multi-collinearity or error variance correlation with each set of scale item using the principal axis with the varimax.² The study has shown a positive outcome on patenting and new investment growth, access to new capital and to new knowledge.³

Keywords

Intellectual property; innovation; patents; trademarks; small business; moderating effect.

Summary

The authors provided a theoretical framework, then presented the hypotheses and tests using the survey data. The theoretical background is:

- Intellectual property rights (IPRs) – The survey covers empirical and theoretical contributions related to IPR and innovation by small businesses and includes patents, trademarks, copyrights, goodwill, know-how, industrial designs, trade

¹ Barbu/Militaru – The moderating effect of Intellectual property rights on relationship between innovation and company performance in the manufacturing sector. [2019]

² *Ibid*

³ *Ibid*

secrets and geographical indications.⁴ This section of the article relates to how intellectual property is beneficial to businesses when trying to get income from investors, to invest in research and development (R&D) projects and how the competitiveness of markets directly depends on the incentives for IPR protection.⁵ Together with human capital, which has limited economic value when compared to IPR, Intellectual Property is one of the main assets that helps companies to improve their competitiveness in the market.

- Innovation - The authors point out that some studies show that, in general, firms do not regard IPR protection as very important to protect their competitive advantage.⁶ However, other studies relate IPR protection to the level of R&D investments of a firm. The manufacturing sector struggles to protect its investments against the copying of their methods by their competitors, resulting in significant financial losses. This means that this sector, and particularly small businesses which are more innovative in competitive markets, demands IPR protection in order to safeguard its intangible assets. The authors also add that the lack of ability to protect IPRs is seen as a lack of ability to capitalize opportunities.

The survey created by the authors developed the following hypothesis:

- ***(H1) Innovation potential of small business from the manufacturing industry has a positive influence on the business performance.***

Technological innovation can be divided into products and process innovation.⁷ Using less material and having an efficient production can help the firms to achieve sustainable production and, consequently, economic growth.

- ***(H2) Patent rights will moderate the relationship between innovation potential and business performance.***

The authors argue that the degree to which innovations are protected affects how firms profit from innovation investments.⁸ Patents give the owner an exclusivity right that can boost innovation. However, patent rights can affect technology transfer and infringements can destroy a competitive position and profitability.⁹

- ***(H3) Trademarks will moderate the relationship between innovation potential and business performance.***

Trademarks distinguish companies from one another by the usage of names, logos and other features, diminishing consumers search costs and pushing

⁴ *Ibid*

⁵ *Ibid*

⁶ *Ibid*

⁷ *Ibid*

⁸ *Ibid*

⁹ *Ibid*

manufacturing companies to invest in quality.¹⁰ Regarding the positive impact of trademarks on a company's performance, some authors discuss its usage to inform consumers about their new products.

- ***(H4) Copyrights will moderate the relationship between innovation potential and business performance.***

Although copyright offers a broad protection of original works of authorship (from books to source codes), it cannot protect ideas. However, works protected by copyright can't be copied or explored without prior permission of the holder and such exclusivity can help firms to gain and maintain a sustainable competitive edge in the marketplace.¹¹

- ***(H5) Trade secrets will moderate the relationship between innovation potential and business performance.***

Trade secrets protect manufacturing, industrial or commercial secrets.¹² Any confidential information that gives a manufacturer a competitive edge can be considered as a trade secret.¹³ Since it is not time-limited, does not require disclosure and costs relatively little, it is usually used to safeguard innovation.

After the data analysis, the study has found that the innovation potential has a significant positive interaction with company performance ($\beta=0.694$, $p<0.01$).¹⁴ It has also found that patent rights have a significant positive interaction with company performance ($\beta=0.388$, $p<0.01$) and trademarks moderate the relationship between innovation potential and business performance ($\beta=0.559$, $p<0.01$).¹⁵

Copyright and trade secrets, however, do not support the hypothesis created by the authors. The results of the data analysis concluded that the indirect effect of trade secrets was negatively influenced by company performance.¹⁶

¹⁰ *Ibid*

¹¹ *Ibid*

¹² WIPO, what is a trade secret? Available at:

https://www.wipo.int/sme/en/ip_business/trade_secrets/trade_secrets.htm

¹³ Barbu, Militaru – The moderating effect of Intellectual property rights on relationship between innovation and company performance in the manufacturing sector. [2019]

¹⁴ *Ibid*

¹⁵ *Ibid*

¹⁶ *Ibid*