

How Does The Use Of Technology In Entrepreneurial Process Affect Firms' Growth?

[https://doi.org/10.21272/sec.5\(1\).5-12.2021](https://doi.org/10.21272/sec.5(1).5-12.2021)

Halil D. Kaya, ORCID ID: <https://orcid.org/0000-0002-7535-9857>

Department of Accounting and Finance, College of Business and Technology, Northeastern State University, Broken Arrow, OK, USA

Abstract

This paper summarizes the arguments and counterarguments within the scientific discussion on the issue of how technology use in entrepreneurial process relates to firm performance and business owner's optimism in U.S. states. We specifically focus on each U.S. state's success in employing internet as a tool during the startup process, the tax payment process, and the licensing process. We try to answer the following question: "Do the small firms that operate in an internet-friendly state perform better than the small firms that operate in a less internet-friendly state?" We also examine how internet usage affects owners' outlook for the future. Our results show that the prevalence of internet use for tax payments or for licensing in a state is not related to companies' performance or their owners' outlook. The prevalence of internet use during the startup process also does not affect firms' performance. However, our findings indicate that the prevalence of internet use during the startup process affects owners' outlook for the future. If a state is more business friendly in terms of the internet startup process, the small business owners in that state tend to be more optimistic in terms of future hiring plans and in terms of encouraging others to start a business in their state. The relevance of these findings is that, to improve the environment for small businesses, states should focus on starting an internet startup process or on improving their existing process. Investigation of the impact of technology use on growth and on owner's optimism in the paper is carried out in the following logical sequence: First, each state is assigned into one of two groups based on their "Internet start score". The states that have a score higher than the mean state were assigned into the "High-Internet Start Score" group and the others were assigned into the "Low-Internet Start Score" group. Then, the two groups were compared in terms of firm growth and owner's optimism. Then, the same procedure is followed for "Internet Tax Score". The states that have a score higher than the mean state were assigned into the "High-Internet Tax Score" group and the others were assigned into the "Low-Internet Tax Score" group. The two groups were compared in terms of firm growth and owner's optimism. Finally, the same procedure is followed for "Internet Licensing Score". The states that have a score higher than the mean state were assigned into the "High-Internet Licensing Score" group and the others were assigned into the "Low-Internet Licensing Score" group. Then, the two groups were compared in terms of firm growth and owner's optimism. We used nonparametric tests to compare high and low score states in each category. Only 41 states had sufficient data to run the analyses. The paper presents the results of these nonparametric tests which showed that internet start score, internet tax score, or internet licensing score does not explain firm growth. However, the prevalence of internet use during the startup process affects owners' outlook for the future. The results of the research can be useful for state or local governments that want to support their small businesses by improving the technology use in these areas.

Keywords: entrepreneur, entrepreneurship, technology, growth, optimism, small business.

JEL Classification: G38, L25, L26.

Cite as: Kaya, H.D. (2021). How Does The Use Of Technology In Entrepreneurial Process Affect Firms' Growth? *SocioEconomic Challenges*, 5(1), 5-12. [https://doi.org/10.21272/sec.5\(1\).5-12.2021](https://doi.org/10.21272/sec.5(1).5-12.2021).

Received: 18.12.2020

Accepted: 26.01.2021

Published: 30.03.2021



Copyright: © 2021 by the author. Licensee Sumy State University, Ukraine. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

In this study, we examine the relation between technology use during the entrepreneurial process in each U.S. state and small firms' growth. Are the states that promote the use of internet during the startup process, the tax payment process, or the licensing process more successful in promoting growth of their small businesses? We also look into the relationship between the technology use during the entrepreneurial process in each U.S. state and small business owners' optimism. Are the small business owners in the states that allow the use of internet during the startup process, the tax payment process, or the licensing process more optimistic about their firm's future success?

Since the use of technology (or Internet) makes the process easier, we expect a positive relation between technology use and firms' growth in each state. We also expect this positive effect to be reflected in owners' outlook for the future.

In this study, our data come from Thumtack.com and Kauffman Foundation's joint survey on U.S. small businesses (i.e. the "United States Small Business Friendliness Survey"). Using the responses in each state, we first compute each state's scores on internet startup, internet tax payment and internet licensing processes. Then, we compare small firms' growth across high- and low-internet startup score states. We do the same comparison for high- versus low-internet tax score states. Finally, we compare small firm characteristics across high- and low-internet licensing score states. Then, we do the same analysis for owners' optimism. We compare business owners' optimism across high- and low-internet startup score states. We do the same comparison for high- versus low-internet tax score states. Finally, we compare small firm characteristics across high- and low-internet licensing score states.

Our results will show how technology use relates to small businesses' success. We are hoping that policymakers can benefit from these findings. If we find a positive relationship, then policymakers should allocate more resources into technology. If we do not find a positive relationship, then spending money on tech use during the entrepreneurial process is not beneficial.

The paper's layout is as follows: Section 2 goes over the previous literature; Section 3 explains our methodology; Section 4 shows the empirical results, while Section 5 concludes.

2. Literature Review

There are several previous papers that examine the relationship between government support and entrepreneurship. These papers which include Rothwell and Zegveld (1982), Henrekson and Rosenberg (2001), Li (2002), Ariff and Abubakar (2002), Trajtenberg (2002), Markman et al. (2004), Gilbert et al. (2004), Carland and Carland (2004), Korosec and Berman (2006), Lee et al. (2006), Rasmussen (2008), Bennett (2008), Wiklund and Shepherd (2008), Michael and Pearce (2009) show how important government support is for entrepreneurs.

Other than these papers on the relationship between government support and entrepreneurship, there are several papers that specifically focus on entrepreneurs' use of technology. Gartner and Shane (1995) argue that changes in technology, values, attitudes, and government regulations have a significant impact on entrepreneurship. They also contend that the social and economic changes in the world also affect entrepreneurial activity.

Wennekers and Thurik (1999) explain that both culture and institutional framework are important for entrepreneurial activity in an economy. They contend that, demographic, technological, and economic forces are also important for entrepreneurial activity.

Zahra and Garvis (2000) explore how technological changes, aggressive government intervention, and fierce local rivalries affect U.S. firms' activities in other countries. The authors show that, when the international environment is hostile, U.S. firms tend to struggle.

Keuschnigg and Nielsen (2001) argue that training programs and government subsidies promote entrepreneurship, but that to improve welfare, government services should be cost-effective.

According to Carlsson and Mudambi (2003) argue that government policy should focus on making entrepreneurship easy. Gilbert et al. (2004) suggests that governments have started focusing on supporting new companies rather than constraining existing ones. Kropp and Zolin (2005) explain that government programs should consider the capabilities and interests of the small firms into account.

Acs and Szerb (2007) contend that middle income and developed economies should promote entrepreneurship in different ways. While middle income economies should focus on human capital and technology, developed economies should focus on deregulating their financial markets and reforming their labor markets.

Todd and Javalgi (2007) examine how communication infrastructure and information technology affect SMEs in India. They argue that, to promote international growth by SMEs, governments should focus on improving the infrastructure. Fatoki and Chindoga (2011) argue that young entrepreneurs in South Africa cite the need of more government support, workforce skills, and capital as the impediments to entrepreneurship. Dreher and Gassebner (2013) contend that bureaucracy and minimum capital requirement as the main impediments.

3. Data and Methodology

Our objective is to see how technology use during the entrepreneurial process affects firm performance and owners' optimism. For technology use, we focus on each state's score on internet startup process, internet tax payment process, and internet licensing process to see how they impact firm performance and owners' optimism in each state.

The survey asks small business owners their opinions on their state's internet startup process, internet tax payment process, internet licensing process, as well as on their firm's performance. It also asks how optimistic they are for the future.

Our variables are:

Technology use variables:

Internetstart: the percentage of respondents in a state that have used the internet to form/start the business (computed from the individual responses in each state)

Internettax: the percentage of respondents in a state that have used the internet to pay the taxes on business earnings (computed from the individual responses in each state)

Internetlicensing: the percentage of respondents in a state that have used the internet to get a license or permit to do business (computed from the individual responses in each state)

Firm performance variables:

“Growthinrevenue”: each state's score on the question “Over the past 12 months, did your company's revenues increase or decrease?” The answers ranged from “decreased a lot” (which we coded as “0”) to “increased a lot” (which we coded as “4”).

“Growthinemployees”: each state's score on the question “How do you expect the number of employees at your company to change in the next 12 months?” The answers ranged from “decreased a lot” (which we coded as “0”) to “increased a lot” (which we coded as “4”).

Owners' optimism variables:

“Stategovsupport”: each state’s score on the perceived support given to startups. Individual responses ranged from very unsupportive (which we coded as “0”) to very supportive (which we coded as “4”).

“Localgovsupport”: the local government’s score on the perceived support given to startups within each state. Individual responses ranged from very unsupportive (which we coded as “0”) to very supportive (which we coded as “4”).

“Encourageothers”: each state’s score on the question “Would you discourage or encourage someone from starting a new business where you live?” The answers ranged from “highly discourage” (which we coded as “0”) to “highly encourage” (which we coded as “4”).

When doing the empirical analyses, we will run nonparametric tests that compare the firm performance variables (as well as the owners’ optimism variables) in the states with high- and low-scores in each technology use category. To divide between high- and low- score states in each category, we use the mean value. The states with scores higher than the mean are classified as high-score states, and the states with scores lower than the mean are classified as low-score states.

First, we divide the 41 states in the survey into high- and low- internet start score states, using the mean internet start score (i.e. “internetstart”) among the 41 states as the dividing point. Then, we compare high- and low- internet start score groups’ firm performance variables as well as the owners’ optimism variables. Then, we do the same for the internet tax score (i.e. “internettax”). Do high- and low-internet tax score states differ in terms of firm performance variables (as well as the owners’ optimism variables)? Finally, we do the same analysis for internet licensing score (i.e. “internetlicensing”). Do high- and low-internet licensing score states differ in terms of firm performance variables (as well as the owners’ optimism variables)?

The summary statistics is reported in Table 1.

Table 1. Summary Statistics

| Variable | Mean | Median | Stdev | Min | Max |
|-------------------|-------|--------|-------|-------|-------|
| Internetstart | 58.21 | 58.62 | 6.39 | 37.50 | 69.11 |
| Internettax | 34.54 | 34.78 | 6.71 | 20.83 | 54.51 |
| Internetlicensing | 32.94 | 32.93 | 10.07 | 18.30 | 64.09 |
| Growthinrevenue | 2.08 | 2.10 | 0.16 | 1.77 | 2.46 |
| Growthinemployees | 2.14 | 2.13 | 0.10 | 1.86 | 2.40 |
| Encourageothers | 2.74 | 2.76 | 0.22 | 2.20 | 3.14 |
| Stategovsupport | 2.42 | 2.43 | 0.23 | 1.96 | 2.92 |
| Localgovsupport | 2.54 | 2.57 | 0.20 | 2.00 | 2.97 |

Source: Author’s own work.

4. Empirical Results

Table 2 compares the firm performance (as well as owners’ optimism for the future) across high- and low- internet start score states. As explained in the data and methodology section, “growthinrevenue” is our variable for firm performance, and “growthinemployees”, “encourageothers”, “stategovsupport”, and “localgovsupport” are our variables for owner’s optimism for the future.

Table 2. Comparison of States with High- and Low-Internet Start Scores

| Variable | High | | Low | | Mann-W. |
|-------------------|------|------|------|------|---------|
| | Mean | Med. | Mean | Med. | p-value |
| Growthinrevenue | 2.05 | 2.10 | 2.12 | 2.07 | 0.2037 |
| Growthinemployees | 2.16 | 2.16 | 2.12 | 2.12 | 0.0515 |
| Encourageothers | 2.79 | 2.77 | 2.68 | 2.69 | 0.0886 |
| Stategovsupport | 2.44 | 2.43 | 2.40 | 2.42 | 0.3895 |
| Localgovsupport | 2.56 | 2.57 | 2.51 | 2.56 | 0.3152 |

Source: Author’s own work.

As we can see from the table, the internet start score does not have a statistically significant impact on “growthinrevenue”. The median value of the “growthinrevenue” variable is 2.10 (out of 4) in high-score states versus 2.07 in low-score states (the p-value of the difference is 0.2037).

We are seeing that the internet start score has a statistically significant impact on two of the four optimism variables. The median value of the “growthinemployees” variable is 2.16 (out of 4) in high-score states versus 2.12 in low-score states (the p-value of the difference is 0.0515). The median value of the “encourageothers” variable is 2.77 (out of 4) in high-score states versus 2.69 in low-score states (the p-value of the difference is 0.0886).

On the other hand, the internet start score does not have a statistically significant impact on the other two optimism variables, which are “stategovsupport” and “localgovsupport”.

The median value of the “stategovsupport” variable is 2.43 (out of 4) in high-score states versus 2.42 in low-score states (the p-value of the difference is 0.3895). The median value of the “localgovsupport” variable is 2.57 (out of 4) in high-score states versus 2.56 in low-score states (the p-value of the difference is 0.3152).

Therefore, from Table 2, we conclude that although the internet start score does not have a statistically significant impact on “growthinrevenue” (i.e. firm performance), it has a significant impact on two of the four optimism variables which are “growthinemployees” and “encourageothers”.

We conclude that the small firms that operate in the states where internet use for business startup is more prevalent do not perform significantly better than the small firms that operate in the other states. Also, the small business owners in those states and in the other states do not feel significantly different in terms of how they feel regarding the support of their state or local governments. However, the small business owners that operate in the states where internet use for business startup is more prevalent feel more optimistic in terms of their plans for hiring in the near future when compared to the other owners. These owners are also more willing to encourage others to start a business in their state when compared to the owners in the other states.

Table 3 compares the firm performance (as well as owners’ optimism for the future) across high- and low- internet tax score states. As we can see from the table, the internet tax score does not have a statistically significant impact on “growthinrevenue”. The median value of the “growthinrevenue” variable is 2.10 in high-score states versus 2.05 in low-score states (the p-value of the difference is 0.1497).

Table 3. Comparison of States with High- and Low-Internet Tax Scores

| Variable | High | | Low | | Mann-W. |
|-------------------|------|------|------|------|---------|
| | Mean | Med. | Mean | Med. | p-value |
| Growthinrevenue | 2.10 | 2.10 | 2.06 | 2.05 | 0.1497 |
| Growthinemployees | 2.14 | 2.16 | 2.14 | 2.13 | 0.3042 |
| Encourageothers | 2.77 | 2.79 | 2.71 | 2.74 | 0.2473 |
| Stategovsupport | 2.45 | 2.48 | 2.39 | 2.39 | 0.2115 |
| Localgovsupport | 2.54 | 2.58 | 2.54 | 2.53 | 0.3565 |

Source: Author’s own work.

We are also seeing that the internet tax score also does not have a statistically significant impact on any of the four optimism variables. The median value of the “growthinemployees” variable is 2.16 in high-score states versus 2.13 in low-score states (the p-value of the difference is 0.3042). The median value of the “encourageothers” variable is 2.79 in high-score states versus 2.74 in low-score states (the p-value of the difference is 0.2473). The median value of the “stategovsupport” variable is 2.48 in high-score states versus 2.39 in low-score states (the p-value of the difference is 0.2115). The median value of the “localgovsupport” variable is 2.58 in high-score states versus 2.53 in low-score states (the p-value of the difference is 0.3565).

Therefore, from Table 3, we conclude that the internet tax score does not have a statistically significant impact on firm performance or on owners’ optimism for the future. The small firms that operate in the states where internet

use for business tax payments is more prevalent do not perform significantly better than the small firms that operate in the other states. Also, the small business owners in those states are not significantly more optimistic than the owners in the other states.

Table 4 compares the firm performance (as well as owners’ optimism for the future) across high- and low- internet licensing score states. As we can see from the table, the internet licensing score does not have a statistically significant impact on “growthinrevenue” (i.e. firm performance). We are also seeing that the internet licensing score does not have a statistically significant impact on any of the four optimism variables.

Table 4. Comparison of States with High- and Low-Internet Licensing Scores

| Variable | High | | Low | | Mann-W. |
|-------------------|------|------|------|------|---------|
| | Mean | Med. | Mean | Med. | p-value |
| Growthinrevenue | 2.09 | 2.12 | 2.07 | 2.05 | 0.2530 |
| Growthinemployees | 2.15 | 2.14 | 2.14 | 2.12 | 0.2170 |
| Encourageothers | 2.75 | 2.71 | 2.74 | 2.80 | 0.4174 |
| Stategovsupport | 2.42 | 2.43 | 2.42 | 2.43 | 0.4740 |
| Localgovsupport | 2.53 | 2.53 | 2.56 | 2.58 | 0.2786 |

Source: Author’s own work.

The small firms that operate in the states where internet use for licensing is more prevalent do not perform significantly better than the small firms that operate in the other states. Also, the small business owners in those states are not significantly more optimistic than the owners in the other states.

5. Conclusion

In this study, we examine the impact of small business owners’ internet usage on their firm’s performance. We specifically focus on each state’s score on internet usage for startup process, for tax payment process, and for licensing process. We try to answer the following question: “Do the small firms that operate in internet-friendly states perform better than the small firms that operate in other states?” We also examine how internet usage affects owners’ outlook for the future.

We first examine the impact of internet use during the startup process on firm performance. Our results show that the small firms that operate in the states that are more business friendly in this area do not perform better (or worse) than the small firms that operate in the other states.

Next, we look at the possible impact of internet use during the startup process on owners’ outlook for the future (i.e. optimism). We find that the prevalence of internet use during the startup process affects owners’ outlook for the future in a positive way. If a state is more business friendly in terms of the internet startup process, the small business owners in that state tend to be more optimistic in terms of future hiring plans and in terms of encouraging others to start a business in their state.

After that, we examine whether internet use in tax payment process affects firm performance. We find that the prevalence of internet use for tax payments in a state does not matter in terms of companies’ performance. It also does not affect owners’ optimism for the future.

Finally, we examine whether internet use in licensing process affects firm performance. We find that the prevalence of internet use for licensing in a state does not matter in terms of companies’ performance. It also does not affect owners’ optimism for the future.

We conclude that the states that want to improve the environment for small businesses should focus on starting an internet startup process or on improving their existing process.

Funding: self-funded.

Author contribution: conceptualization, Halil D. Kaya; data curation, Halil D. Kaya; formal analysis, Halil D. Kaya; funding acquisition, Halil D. Kaya; investigation, Halil D. Kaya; methodology, Halil D. Kaya; project administration, Halil D. Kaya; resources, Halil D. Kaya; software, Halil D. Kaya; supervision, Halil D. Kaya; validation, Halil D. Kaya; visualization, Halil D. Kaya writing – original draft, Halil D. Kaya; writing – review & editing, Halil D. Kaya.

References

1. Acs, Z. J. and Szerb, L. (2007). Entrepreneurship, economic growth and public policy. *Small business economics*, 28(2-3), 109-122. Available at: <https://link.springer.com/article/10.1007/s11187-006-9012-3>.
2. Ariff, M. and Abubakar, S. Y. (2003). Strengthening entrepreneurship in Malaysia. *Malaysian Institute of Economic Research, Kuala Lumpur*, 1-22. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.451.9951&rep=rep1&type=pdf>.
3. Bennett, R. (2008). SME policy support in Britain since the 1990s: what have we learnt?. *Environment and Planning C: Government and Policy*, 26(2), 375-397. Available at: <https://journals.sagepub.com/doi/abs/10.1068/c07118>.
4. Carland, J. and Carland, J. (2004). Economic development: Changing the policy to support entrepreneurship. *Academy of Entrepreneurship Journal*, 10(2), 104-114. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.510.9224&rep=rep1&type=pdf>.
5. Carlsson, Bo and Mudambi, R. (2003). Globalization, entrepreneurship, and public policy: a systems view. *Industry and Innovation*, 10(1), 103-116. Available at: https://www.researchgate.net/profile/Ram_Mudambi/publication/227347888_Globalization_Entrepreneurship_and_Public_Policy_A_Systems_View/links/0deec52d463a865b7e000000.pdf.
6. Dreher, A. and Gassebner, M. (2013). Greasing the wheels? The impact of regulations and corruption on firm entry. *Public Choice*, 155(3-4), 413-432. Available at: file:///C:/Users/kaya/AppData/Local/Temp/Dreher-Gassebner2013_Article_GreasingTheWheelsTheImpactOfRe-3.pdf.
7. Fatoki, O. O. and Chindoga, L. (2011). "An investigation into the obstacles to youth entrepreneurship in South Africa." *International Business Research*, 4(2), 161. Available at: https://www.researchgate.net/profile/Olawale_Fatoki/publication/50934447_AN_INVESTIGATION_INTO_THE_OBSTACLES_TO_YOUTH_ENTREPRENEURSHIP_IN_SOUTH_AFRICA/links/5ca3a116a6fdc12ee8ecb14/AN-INVESTIGATION-INTO-THE-OBSTACLES-TO-YOUTH-ENTREPRENEURSHIP-IN-SOUTH-AFRICA.pdf.
8. Gartner, W. B. and Shane, S. A. (1995). Measuring entrepreneurship over time. *Journal of Business Venturing*, 10(4), 283-301. https://www.sciencedirect.com/science/article/pii/088390269400037U?casa_token=yg9hLuvpfiEAAAAA:tFhWdmHx-oklirw9D8AxIdiHUSmRrAdkO7Y0VxRdlkB2uJFAPae1qoZIG2C2Y3iA_V0f_jo.
9. Gilbert, B. A., Audretsch, D. B. and McDougall, P. P. (2004). The emergence of entrepreneurship policy. *Small Business Economics*, 22(3), 313-323. Available at: <https://link.springer.com/article/10.1023/B:SBEJ.0000022235.10739.a8>.
10. Henrekson, M. and Rosenberg, N. (2001). Designing efficient institutions for science-based entrepreneurship: Lesson from the US and Sweden. *The journal of technology transfer*, 26(3), 207-231. Available at: <https://www.econstor.eu/bitstream/10419/56278/1/333190394.pdf>.
11. Keuschnigg, C. and Nielsen, S. B. (2001). Public policy for venture capital. *International Tax and Public Finance*, 8(4), 557-572. Available at: https://www.econstor.eu/bitstream/10419/75796/1/cesifo_wp486.pdf.
12. Korosec, R. L. and Berman, E. M. (2006). Municipal support for social entrepreneurship. *Public Administration Review*, 66(3), 448-462. Available at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1540-6210.2006.00601.x?casa_token=Lv-MeQzru9YAAAAA%3A_doUynaIT011dlsQK2IU0EyDQQgM6Aa0dmK7vDZ-kMThUF3rBRPOe9mBmJnhKu-w48cYLJWxUmNb.
13. Kropp, F. and Zolin, R. (2005). Technological entrepreneurship and small business innovation research programs. *Academy of Marketing Science Review*, 1. Available at:

https://www.academia.edu/2411493/TECHNOLOGICAL_ENTREPRENEURSHIP_AND_SMALL_BUSINESS_INNOVATION_RESEARCH_PROGRAMS.

14. Lee, S. M., Lim, S. B., Pathak, R. D., Chang, D., and Li, W. (2006). Influences on students attitudes toward entrepreneurship: a multi-country study. *The International Entrepreneurship and Management Journal*, 2(3), 351-366. Available at: https://www.researchgate.net/profile/R_Pathak/publication/226935051_Influences_on_students_attitudes_toward_entrepreneurship_A_multi-country_study/links/5715cc1d08ae8ab56695b8c4.pdf.
15. Li, W. (2002). Entrepreneurship and government subsidies: A general equilibrium analysis. *Journal of Economic Dynamics and Control*, 26(11), 1815-1844. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0165188901000112>.
16. Markman, G. D., Gianiodis, P. T., Phan, P. H., and Balkin, D. B. (2004). Entrepreneurship from the Ivory tower: do incentive systems matter?. *The Journal of Technology Transfer*, 29(3-4), 353-364. Available at: https://www.researchgate.net/profile/Phillip_Phan/publication/5152761_Entrepreneurship_from_the_Ivory_Tower_Do_Incentive_Systems_Matter/links/0a85e5323a5ed2174d000000.pdf.
17. Michael, S. C. and Pearce, J. A. (2009). The need for innovation as a rationale for government involvement in entrepreneurship. *Entrepreneurship and Regional Development*, 21(3), 285-302. Available at: <https://rsa.tandfonline.com/doi/abs/10.1080/08985620802279999#.YAZuQhZ7IPY>.
18. Rasmussen, E. (2008). Government instruments to support the commercialization of university research: Lessons from Canada. *Technovation*, 28(8), 506-517. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0166497207001526>.
19. Rothwell, R. and Zegveld, W. (1982). Innovation and the small and medium sized firm. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1496714.
20. Todd, P. R. and Javalgi, R. G. (2007). "Internationalization of SMEs in India: Fostering entrepreneurship by leveraging information technology." *International journal of emerging markets*, 2(2), 166-180. Available at: <https://www.ingentaconnect.com/content/mcb/ijoem/2007/00000002/00000002/art00004>.
21. Trajtenberg, M. (2002). Government support for commercial R&D: lessons from the Israeli experience. In *Innovation Policy and the Economy*, 2, 79-134. MIT Press. Available at: <https://www.journals.uchicago.edu/doi/pdfplus/10.1086/653755>.
22. Wennekers, S. and Thurik, R. (1999). Linking entrepreneurship and economic growth. *Small business economics*, 13(1), 27-56. Available at: <https://link.springer.com/article/10.1023/A:1008063200484>.
23. Wiklund, J. and Shepherd, D. A. (2008). Portfolio entrepreneurship: Habitual and novice founders, new entry, and mode of organizing. *Entrepreneurship Theory and Practice*, 32(4), 701-725. Available at: <https://journals.sagepub.com/doi/abs/10.1111/j.1540-6520.2008.00249.x>.
24. Zahra, S. A. and Garvis, D. M. (2000). International corporate entrepreneurship and firm performance: The moderating effect of international environmental hostility. *Journal of Business Venturing*, 15(5), 469-492. Available at: https://www.sciencedirect.com/science/article/pii/S0883902699000361?casa_token=fBQbBVa6wBUAAA:AA:IUf9LQhMxz1rO6XI7Lheg61l_UjjFu2XebLBVJ8EliVttNzfvDuxVQ4exhtPq460BfTYpDc.