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### BARRIERS TO THE VENTURE CAPITAL INVESTMENTS IN UKRAINE

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The research examines current complexities of the venture capital investments market in Ukraine. The current state of venture capital influx into the Ukrainian technology industry is revealed, the venture investments dispersion through the technology sector of Ukrainian economy is examined and barriers to be eliminated to enhance the sector are highlighted. To have a well-researched analysis of the Ukrainian venture investment market, the direct observation is necessary to get the real-time picture of the venture deals dynamics on the Ukrainian technology market scene. Among quantitative methods data collection and documentary analysis have been used. The venture investments in IT sphere currently strengthen its position, as this sphere is one of the most attractive, both in the short and in the long-term prospective. The role of governmental intervention in the activities of the investment institutions is critically important. Stabilization of the political situation and the implementation of the successful reforms in terms of deregulation will lead to the increasing investment attractiveness of Ukraine. The recently discovered tendencies of quantity and equity value growth for the members of the venture investment funds augment the practical necessity to define possible barriers on the road to venture capital investments growth in the Ukrainian technology segment. **Keywords:** investments, venture capital, information technology (IT), venture capital fund, venture capital market.

Introduction. Ukrainian venture capital market formation has started in the beginning of the second decade of the century and started developing very rapidly. Ukraine has always had a long history working on innovations that were influential in many spheres of economy such as aerospace, machine and shipbuilding, and computer science. Among all the industries, which provide a considerable share in the GDP gross value of Ukraine, IT industry is the most dynamic and promising one. The technology industry itself should reinvest the money into its development so that it attracts more financial support for its growth. The recent several years have brought many difficulties to the Ukrainian economical situation and damaged its image greatly. Despite such conditions, Ukrainian tech product and outsourcing companies are still growing in a slow but stable pace. Ukraine is also a valuable residence place for many global tech players who have put their research and development centers in Ukraine. The political situation in the country is rather complex still, however, thanks to the industry specifics its players weren't affected by the situation too much. It is an obstacle for faster growth, though, as international clients might not be sure about the country's stability. Ukraine's tech industry has the biggest advantage - its talented workforce. However, successful and effective changes in business law should take place before that happens. The proficiency in English of the workforce in the tech industry is much higher than in other industries. Since 2014 Ukraine managed to climb higher in many business rankings that evaluate quality of business processes, transparency and easiness. Many international players still get attracted to place their companies in Ukraine due to low tax levels. The legal environment overall and intellectual property legislation is still ought to be improved. There are still laws that have significant flaws and place barriers for the tech companies in many tech-related fields. It can be summarized that Ukrainian technology industry is developing in a very good pace. However, a big positive im-

pact could be made if the international sources of venture capital were attracted to Ukrainian technology companies to help them grow further.

Sources overview. Ukraine's venture market has actually emerged into a real functioning market not too long ago. Hence, the topic has been researched since 2012 only. Some organizations and private individuals have started covering the topic. Namely, Jaanika Merilo [4] and experts from the Ukrainian Venture Capital and Private Equity Association [10] examined the venture market players' activities, where the core issues and barriers for the further development are represented, the structure of the current venture investments market of Ukraine is shown, outlining the key players, such as business angels, the accelerators and the incubators, technology companies themselves, private investment companies, venture equity funds and the investment banks. The InVenture venture investment fund's annual overview [3; 11] of the Ukrainian venture market has also given the detailed examination of the current tendencies in investment growth into the IT companies and the IT product startups. The American Chamber of Commerce «Doing Business in Ukraine» [2] research discussed the openness of the Ukrainian economy to the foreign investments and the possible barriers to such investments. The «Handbook of Research on European Business and Entrepreneurship: Towards a Theory of Internationalization» edited by Leo Paul Dana [1] offers the European approach to improve the investment climate by active entering foreign markets. The main concern of the research is the need for fostering a positive image and building up the potential for entering new markets by the national small and medium enterprises, attracting foreign investments. It also inspects possible issues that may stand on the road to internalization due to the political instability, turbulent economic conditions and the worsened image of the economy measured on the international scale. The Dealbook of Ukraine (Sychikova, Y. et al) [8; 9] has executed a thorough research on the emergence of the Ukrainian venture capital ecosystem and the origins of the technology industry. However, the major concern of the recent years is still the unattractive image that country builds for its business by the unstable political decisions. A number of other publications have also been out discussing the actual state of the venture investments in the technology industry (In Venture Investment Portal) [3; 4; 11]. The issues, however, remain unsolved.

The objectives of the research. Given the current issues that Ukrainian technology market is facing, there is an acute need of resolution the following issues: 1) need to improve the state of the technology industry of Ukraine, inspecting possible ways of its further growth, raising the global venture market awareness about the current growth of the Ukrainian technology market, raising the investment attractiveness of the market, as well as the country generally; 2) lack of the effective ways of optimizing the venture investments distribution over the technology market, finding the new ways of investments like the syndicate investments instead of single investor's contribution, gathering the new approaches to investing in the high-risk enterprises at the early stages of development; 3) weak governmental support of the venture market and technology industry, inspecting the examples used by the current hubs of technological breakthroughs and concentration of the venture capital in the world.

Methodology. There are numerous ways of exploring the tendencies of investment flow using the qualitative and quantitative methods to carry out the research. Among the qualitative methods, direct observation has been used. Among the quantitative methods, data collection and documentary analysis have been used. To create a well-researched picture of the Ukrainian venture investment market, the direct observation is necessary to get the real-time picture of the venture deals dynamics on the Ukrainian technology market scene. This history can be also examined through such secondary source as the «Dealbook of Ukraine» [8] and tech market related media sources. The deals examined in the «Dealbook of Ukraine» reflect the majority of venture M&A deals made on the Ukrainian venture market daily. Also, the direct observation of the activities of the most prominent venture capital firms of the Ukrainian origin, such as AVentures Capital, Digital Future and GrowthUP Group, give a substantial overview of the Ukrainian venture market behavior in general. In an effort to find the considerable range of feedback that can fuel the research on the given topic, it is essential to examine statistical information given on the volume of trade Ukraine has with the foreign countries, the consumers of the IT products and services. The examination of the dynamics in consumption of the tech services and products made in Ukraine brings to possibility of concluding on the current trends in global tech services and products consumption.

Results. Despite the growing global trend of doing active research in order to find the most promising high-tech startups, most players of the Ukrainian domestic venture capital investments market have been acting quite cautious, awaiting to invest in the innovative high-tech oriented

small businesses. The main problem is that internal investors act according to the pessimistic scenario. They take too much time to make an investment decision regarding one project or another. Even if they are in fact quite interested in some specific idea for the startup or an established small business, it still takes too much time to evaluate what benefits in terms of positive cash flow it can bring. Hence, while taking these steps too slow, they significantly reduce the possibility of the timely displacement of the similar high-tech projects on the market and winning the competition. At the same time while domestic venture capital funds investors focus on the rapid rotation of the invested capital and seek the quickest payback period, rather than long-term strategic goals, they are provided legislatively guaranteed mild tax regime and limited liability granted to the participants of the funds. These conditions certainly should be used with more effect than they are utilized in Ukraine. However, our venture investment funds continue to invest in more stable and predictable for Ukraine industries, such as agriculture, food production and utilization, energy efficiency.

It should also be noted that now Ukraine must contribute to the change in direction of venture capital investments in non-risky projects through implementation of the experience of the USA, where the level of participation in investing in high-tech startups have even challenged that of the Western Europe.

Finally we got a reason to believe that the orientation of venture capital investments on the high tech sphere is proved to be a promising step. According to the Ukrainian Association of Investment Business, the officially registered number of major collective investment institutions (CII), focused on risky projects in the IT sector during the Q2'16 was 978 in comparison to the Q2'17, when the number increased up to 1028. However, net asset value (NAV) of the venture CII remain almost stable: NAV in Q2'16 was 200 474,9 million UAH, while NAV in Q2'17 was even smaller – 191 590,4 million UAH, despite the increasing CII numbers (Fig. 1).

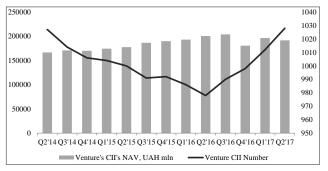


Fig. 1. NAV of Venture CII, Q2 2014 - Q2 2017

Source: developed by the author's, taking into account [5]

The presented data allows concluding that the positive trend in the development of venture capital investments market in Ukraine is a favorable factor for the concentration of capital in the sphere of IT startup venture investments. In terms of the currently weakened economy by the numerous unfavorable political factors, many benefits of in-

vesting in IT projects are hard not to see. Specifically, the main advantage lies in a relatively low investment cost starting \$10,000, with the profitability reaching often 100% or even higher. In contrast, the starting costs of real investments range from \$0.5-1 million and profitability rate is rather difficult to predict in terms of the current political and economic instability in Ukraine (Shved, B. L.) [7]. Development of the IT-sphere slightly depends on the geo-political conditions in the country. It is rather aloof from these processes, and is not so much influenced by negative external factors.

Ten years ago venture capital market was undeveloped in Ukraine. However, it has seen a rapid wave of growth throughout 2012-2013. In 2013 the market volume has reached almost \$100 million. Within a year, the number of venture deals increased. However, the amounts of the deals decreased two times. Provided the political events of the beginning of 2014 do not happen again, such phenomenon is to be temporary. The decrease in the venture investment volume has been drawn and still persists due to the vague political situation on the east of Ukraine. Currently, political situation in Ukraine puts the biggest shade of negative image on the Ukrainian tech industry. It also makes the situation unclear for the foreign investors. Investors from abroad are not sure that Ukraine is a good place for the investments provided the situation in country is unstable.

The year of 2015 saw there naissance of the Ukrainian venture and startup scene. A new decade of development has come with the number of the domestic investors and tech entrepreneurs. There are also angel investors, mostly foreign, however their share in many syndicate venture deals has increased. There was a wave of development of startup incubators, accelerators. In addition to that, many conferences linked together a range of industry associations. Currently, many education initiatives, schools that teach programming are being opened frequently. Judging by all this, it is sure to say that the foundations of the dynamic tech industry ecosystem have been laid. Foreign funds were the ones who fueled the earliest stages of the Ukrainian startup community development. Since 2013 the number of Ukrainian venture investors has significantly grown and in over 70% of venture deals the investors were of Ukrainian origin. Throughout the turbulent 2014, the share of Western and Russian investors became very low and although some deals were closed, most investments came from the Ukrainian investors. Ukraine's venture capital industry consists of many active players: incubators, accelerators, pre-seed, seed, Series A rounds and buyout funds. However, Series B and further growth funds are not active in Ukraine. Only international venture capital players can help to close this gap. For that, however, the legislative conditions for operating tech businesses should be improved by the Ukrainian government. Until 2013 there were no merge and acquisition deals. The first and the biggest ones were the acquisitions by Apax, Google, and Rakuten. The largest Ukrainian tech companies are getting mature enough too, so in the nearest future more nine-digit figures are expected in the deals.

Seed deals in Ukraine prevail in number, but not in the amount of investments among total players. In 2010 the seed deals amounted to 11, which valued 4 million USD, while in 2017 the number increased to 73 and reached 38 million USD (Fig. 2, 3). Such active fast growth is provided by the following processes: many venture clusters emerged, the venture capital funds and private equity investors, angels' number, both Ukrainian and foreign increased.

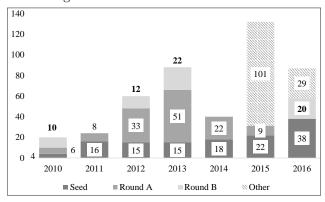


Fig. 2. Total amount of investment, USD million, 2010-2016

Source: developed by the author's, taking into account [10]

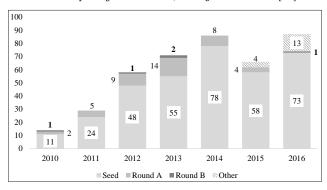


Fig. 3. Total number of deals, 2010-2016

Source: developed by the author's, taking into account [10]

The first Ukraine-based accelerator emerged in 2012. In 2013, many foreign accelerators joined by investing in over 50 projects. The average amount was \$40,000. The developed markets, however, have bigger checks for the seed and Series A deals. The number of Round A deals has tendency to increase, but two last years broke the trend. Gradual development of the investment and startup community during 2011-2013 caused increase of Series A deals from 2 in 2010 to 14 in 2013, but 2015-2016 shows rapid decrease of Round A deals (Fig. 3). There were no C and D series deals because of Ukraine's venture capital industry is still in its early development stage. Only several companies among thousands present on the market rose more than three rounds altogether, including seed, A and B rounds.

Before the events of the winter 2014 the percentage of Russian capital in the total venture capital volume invested in Ukrainian high-tech market was much higher than nowadays. Throughout 2012-2013 foreign investments funds and private investors sent over \$50 million. Russian funds, Naspers and Almaz Capital, were the most active

international funds. The funds from Russia invested over \$20 million in 2012-2013. European and U.S. funds, such as TMT Investments, Runa Capital, Imperious Group have been the most active.

Liquidity of the deals is high, but the number of merger deals is not high. One of the biggest liquidity event for the Ukrainian IT sector was the acquisition of GlobalLogic by Apax Partners for \$420 million. It is important to mention other acquisitions, like the acquisition of Portmone e-payment service by the PE fund Dragon Capital's Europe Virgin Fun. The e-commerce platform Fotomag has been acquired by a private investor. The VET-EK Group acquired UMH Digital. The acquisition of Viewdle for an estimated \$45 million by Google and the acquisition of Looksery for an estimated \$150 million by Snapchat have become the largest early stage startup acquisitions up to date.

Main merger deals took place in 2012 – Kyi-Avia merger with Tickets.ua and United Online Ventures merger with Tochka.net. The initial public offering of the dating service Cupid in 2010 has become the only public offering of a service or product company seen on the Ukrainian tech market so far. Among the outsourcing companies, EPAM and Luxoft went public in 2012 and 2013. These two companies have large R&D centers in Ukraine. The number of engineers they employ exceeds 5,000.

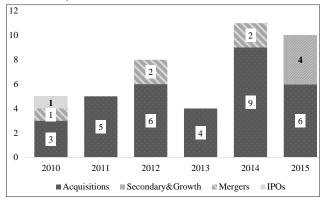


Fig. 4. Total number of liquidity events, 2010-2015

Source: developed by the author's, taking into account [8]

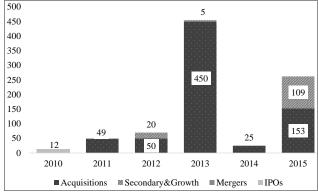


Fig. 5. Total amount of liquidity events, USD million, 2010-2015

Source: [8]

One reason it is hard to determine the real growth numbers of the Ukrainian tech industry is the lack of transparency in many deals, meaning that many deal amounts are kept undisclosed. The transparency of the venture market is still a questionable topic, although Ukrainian tech and venture companies learn to share data, cooperate and exchange information and experience. Much larger number of technology-focused media resources started covering events happening on the technology market in Ukraine. Often the information leak has also contributed to the growth, paradoxically.

According to Ukraine's Dealbook, 70% of the venture deals that were closed in 2012-2015 were disclosed and up to 65% were disclosed in 2010-2011. Industry experts estimated the amount of unreported deals on the level of \$40 million in 2015. The estimation of the volume of unreported deals is shown in the Figure 6.

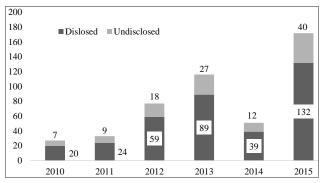


Fig. 6. Estimate of unreported deals, USD million, 2010-2015

Source: [8]

Talking about the reported deals, the field of e-commerce received the biggest share of venture capital among other tech-related companies and it is still one of the most potentially attractive segments of the Ukrainian Internet. International e-commerce players increased their role in Ukraine. However, these global e-retailers still haven't placed their offices in Ukraine, explaining it with the same issue - a weak legislative base for the venture capital and tech businesses. The largest investment deals in the e-commerce sector of Ukraine are those made by Naspers (investment of over \$5 million in ModnaKasta) and TA Venture (investment of over \$5 million in Label.ua). Still, e-commerce is in its very early stage of development, however finally the law start regulating the e-commerce in Ukraine since 2015 and now protects local consumers.

Conclusion and further research opportunities. In order to summarize the above-mentioned points, given the current economic situation in the country, the venture investments in high-tech sphere currently strengthen its position as one of the most attractive, both in the short and in the long-term prospective, for the needed and longed for modernization and restructuring of the domestic investments market. The critical importance is attached to the role of governmental intervention in the activities of the investment institutions, motivating private investors by channeling public funds in the field of IT, following the example the USA and Western Europe, effective usage of the national scientific developments and promotion of the venture capital market infrastructure. The first and the foremost change that would lead to the automatic and immediate advancement of the investment attractiveness of Ukraine is the stabilization of the political situation and the implementation of the successful reforms in terms of deregulation. Due to the events of 2014, the majority of investment flow has been cut tremendously, leaving a huge gap that should have been filled with the Ukrainian or foreign venture capital. However, the image of the country turn apart by war still persists in minds of foreign business owners and investors, hence, it's the duty of Ukrainian government now to help make situation more calm and stable. Although the geopolitical situation is hard, inside the tech industry, the new type of venture investors and tech entrepreneurs are being nurtured on daily basis. The number of new tech-related startups in e-commerce, financial tech, energy consumption tracking, real-time face modification, 3D printing and other unusual for Ukrainian traditional economy spheres are being listed among the world's most talked about startups.

The topic scrutinized in this research can be extended further by looking for the cross industrial links between the current geopolitical situation in the country and the levels of development of other industries in Ukraine. Considering the weakened status of Ukrainian traditional industries, like metallurgical, mining, machine building and many others due to the unstable conditions on the eastern part of the country, where the core companies of the mentioned industries used to operate, Ukraine's IT industry remains the one less likely to be weakened by such conditions. This point, however, needs to be researched more. Provided that the overall regulatory conditions keep on restricting local and foreign entrepreneurs from register-

ing companies in Ukraine due to the inefficient legislative regulations that do not provide safety for the minority investors and other specifications of Ukrainian legislative system, it will be important to concentrate on researching prospects of the development of Ukrainian venture capital market in such complicated conditions.

Discussion. The question of the growth possibilities for the Ukrainian IT industry is quite debatable granted that there might be a shortage of growth level startup funding that in some projects declares the necessity of \$500,000-1,000,000 investment influx. The scope of such funding might be covered through syndicate deals where venture funds or private investors make a group cash influx. However, another end of the issue is in the fact that Ukrainian venture capital funds community is growing too slow to bring the needed amount of funds to the startups that do need it currently. The possibility to attract new foreign investors is what many local venture capital investors are looking for. Another arguable point is the fact that most Ukrainian tech companies have their headquarters abroad, while only their subsidiaries are in Ukraine. This situation pushes forward the obvious question as to how the venture capital should enrich Ukrainian tech industry while the majority of its players are registered as private entities abroad. Hence, the only money Ukrainian subsidiaries get is dispersed via the teams located in Ukraine in the form of salaries only. There is no actual big money influx into the Ukrainian budget, hence, the topic of this research needs to be pushed further into the legislative aspects of the Ukrainian tech industry development.

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# ПЕРЕПОНИ У РОЗВИТКУ ВЕНЧУРНОГО ІНВЕСТУВАННЯ В УКРАЇНІ

#### Анотація

У дослідженні розкрито наявні проблеми розвитку ринку венчурних інвестицій в Україні. Висвітлено поточний стан венчурного інвестування української технологічної галузі, особливості розподілу венчурних інвестицій у технологічному секторі економіки України, а також виявлено перепони, які необхідно усунути, для поліпшення загального стану сектора. В основі дослідження ринку венчурних інвестицій в Україні — моніторинг динаміки та аналіз венчурних угод в реальному часі на українському ринку технологій, серед кількісних методів було використано збір даних і документальний аналіз. Наразі венчурні інвестиції у сферу ІТ суттєво збільшилися, оскільки ця сфера є однією з найпривабливіших як в короткостроковій, так і в довгостроковій перспективі. Охарактеризовано роль державного регулювання діяльності інвестиційних інститутів; стабілізація політичної ситуації і здійснення успішних реформ з точки зору дерегуляції приведуть до підвищення інвестиційної привабливості України. Останні тенденції зростання обсягів і вартості капіталу для членів венчурних інвестиційних фондів посилюють важливість визначення можливих перепон на шляху зростання венчурних інвестицій у технологічному секторі економіки України.

**Ключові слова:** інвестиції, венчурний капітал, інформаційні технології (ІТ), фонд венчурного капіталу, ринок венчурного капіталу.

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## ПРЕПЯТСТВИЯ В РАЗВИТИИ ВЕНЧУРНОГО ИНВЕСТИРОВАНИЯ В УКРАИНЕ

#### Аннотация

В исследовании рассматриваются текущие сложности развития рынка венчурных инвестиций в Украине. Показано текущее состояние притока венчурного капитала в украинскую технологическую отрасль, рассмотрено особенности распределение венчурных инвестиций в технологическом секторе экономики Украины и выявлено барьеры, которые необходимо устранить, для улучшения общего состояния сектора. В основе исследования рынка венчурных инвестиций в Украине — наблюдение за динамикой и анализ венчурных сделок в реальном времени на украинском рынке технологий, среди количественных методов были использованы сбор данных и документальный анализ. В настоящее время венчурные инвестиции в сферу ИТ существенно увеличились, поскольку эта сфера является одной из самых привлекательных как в краткосрочной, так и в долгосрочной перспективе. Охарактеризовано роль государственного регулирования деятельности инвестиционных институтов; стабилизация политической ситуации и осуществление успешных реформ с точки зрения дерегулирования приведут к повышению инвестиционной привлекательности Украины. Последние тенденции роста количества и стоимости капитала для членов венчурных инвестиционных фондов усиливают практическое значение определения возможных барьеров на пути роста венчурных инвестиций в технологическом секторе экономики Украины.

**Ключевые слова:** инвестиции, венчурный капитал, информационные технологии (ИТ), фонд венчурного капитала, рынок венчурного капитала.