

A Comparative Analysis of the Fintech Ecosystems in Romania and Estonia

Florin GROSU¹

Abstract

Romania and Estonia both have young fintech ecosystems that are growing rapidly and closing the gap with the more developed ecosystem in Western Europe. Although Romania is larger both in terms of population and GDP, the Romanian fintech ecosystem is almost 4 times smaller than the Estonian one. In this paper the author examines what are the factors that are contributing to the faster development of the Estonian ecosystem and whether some of these factors can be replicated in other countries, besides Romania.

My results indicate that factors such as a government that is open to innovation and working with startups, a more international mindset of the startups and better collaboration between fintech startups themselves and between the startups and universities can accelerate the development of the ecosystem and help the startups grow faster.

My results both confirm existing studies on the subject and can help the stakeholders in the ecosystem better work together to accelerate the development of the ecosystem and, ultimately, better service their clients. These success factors that have contributed to the faster development of the Estonian ecosystem can most, if not all, be replicated in Romania and other countries in the region to achieve similar, if not better results. The silver line between all this factor is a change in mindset that allows for a better collaboration between the stakeholders in the ecosystem, but also for improved individual business models and more innovative products and services that we can all benefit from.

Keywords: *fintech, ecosystem, regulation, digital innovation, stakeholders*

JEL classification: D22, L25, L26, M13, O38

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1. Introduction

The COVID-19 pandemic has accelerated a trend that started more than a decade ago – the transformation of the financial services industry by the fintech companies. This has been achieved mostly by leveraging technology to create a better customer-oriented approach to financial services (Muresan et al., 2022), ranging from personalization at scale to more interactive experiences. Technologies such as AI or blockchain are no longer just buzzwords, but have the potential to change the sector (Varma et al., 2021).

¹ Florin Grosu, Bucharest Business School, Romania, fgrosu@gmail.com

Some critics say that the fintechs benefitted from a permissive legislation than the incumbent banks (Katalkina et al., 2022), especially when it comes to risk and compliance regulation (e.g. AML/KYC). This trend is now changing and tighter regulatory frameworks also apply to fintech companies. The relationship between fintechs and incumbent players is not always one that is characterized by competition, but in a growing number of cases, the collaboration between fintechs and incumbent players has resulted in increased added value for both and, ultimately, for the customers. The digital transformation of the organizations has accelerated fueled by the COVID-19 pandemic (Gruia et al. 2020) and at least partially this transformation was achieved with the help of fintechs. Researchers agree, however, that the regulatory framework in each country influences the development of the fintech ecosystem significantly (Hung et al. 2020) and a more permissive regulatory framework favors the development of the fintech companies faster. In turn, this puts additional pressure on the incumbent players to invest more in digital innovation and to upgrade their sometimes obsolete infrastructure. (Mejia et al. 2020).

What is the fintech ecosystem and how can we define it. I could not find a clear definition in the literature, but it can be defined as various stakeholders (Siddiqui et al., 2022) - startups, financial institutions, government bodies, academia - working together to provide digital financial services to consumers. Of course, the fintech companies play the central role in the ecosystem as they are the main drivers of innovation in the space. The financial institutions are banks, insurance companies, asset management firms, non-banking financial institutions and their main role can be best described as intermediation (Feyen et al., 2021). The various government bodies play an important role in either accelerating the development of the ecosystem or in slowing it down by imposing tighter regulation on the sector. Fintechs can best innovate in an environment that is not tightly regulated and that allows them to iterate rapidly and freely to alleviate a specific pain or solve a narrow problem the consumers have. Academia typically plays a double role in the ecosystem: to help closing the talent gap and hubs for research & development. Universities have represented a birthplace for many successful startups in Europe and there is a direct correlation between the development of the startup ecosystem in a country and the development of the academic environment.

Various ecosystems in Europe have developed differently and the different velocities cannot be attributed to the size of each country (Vekić et al., 2022) or even the size of its economy. To understand what factors influence the development of a fintech ecosystem, we must look deeper into the national ecosystems and their evolution. For this research, I have chosen two ecosystems, the Romanian one and the Estonian one, that offer an interesting view on how “classical” shortcomings can be mitigated by other “softer” factors. Romania is 14.5 times larger than Estonia in terms of population and 7.6 times larger in terms of GDP. However, the Estonian fintech ecosystem is almost 4 times larger than the Romanian one. To what factors can we attribute the faster growth of the Estonian fintech ecosystem, one that is limited by the size of the country and its economy? Can these factors can also be replicated in other countries? The next sections will try to provide potential answers to these questions.

2. Research method

This research is largely based on the two fintech reports analyzing the state of the fintech ecosystems in Romania and Estonia (Strat et al., 2021), (Laidroo et al., 2021). The two reports are based on the same research methodology, developed by TalTech School of Business and Governance and FinanceEstonia, the NGO that represents the financial sector in Estonia. The Estonian study was first published in 2019 (Tirmaste et al., 2019), while the Romanian study was first published in 2022. I have used the 2021 report for Estonia, as this is the newest report available.

The data for both reports came mainly from a survey that was carried out with the participants in the fintechs ecosystems and the surveys are fairly similar, as the Romanian one was inspired by the Estonian one. The Romanian survey had, additionally, incorporated questions related to the impact of the COVID-19 pandemics on the local fintech companies. In addition to the data collected from the surveys, both teams have also conducted semi-structured interviews with different stakeholders in the local ecosystems.

The number of fintech companies identified in each country is 54 in Romania and 215 in Estonia. Of these companies, only 20 answered the survey questions in Romania and 47 in Estonia. This low response rate in both countries could have affected the consistency of the results. For this reason, the desktop research and the interviews conducted both helped to mitigate that risk.

One factor that could impact the consistency of the findings in this research paper is the fact that, in both countries, identifying all the relevant fintech startups is a difficult process and both teams acknowledge that many fintech companies could have been missing from their analyses. These companies could have an impact on the structure of the ecosystem resulting in different conclusions both in the fintech reports in Romania and Estonia respectively, as well as in my research.

Desktop research was used by both the Romanian team as well as the Estonian team to close some of these gaps and mitigate the risk of inconsistency. After conducting desktop research on my own, I have concluded that both reports are thorough and encompass their respective ecosystems with a good degree of accuracy. The startups that are missing from both reports, if they exist, either operate in stealth mode and do not want any publicity or, most likely, are very early in their journey (idea stage, team formation, prototype building) and are not relevant at this point. Some of these companies will emerge in the near future and will most likely be included in future reports. Others will simply disappear, as Startup Genome (<https://startupgenome.com/>) indicate in their report.

3. Findings

The fintech companies in both countries have been classified and analyzed using similar methodologies, allowing for a relevant comparative analysis between the two ecosystems.

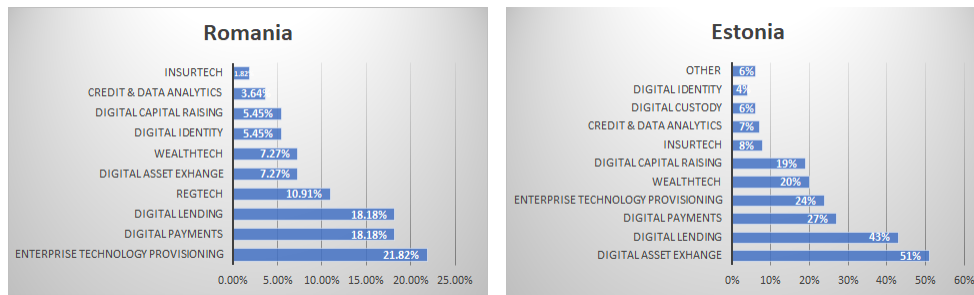


Figure 1. Comparison between fintechs in Romania and Estonia by type of activity.

Source: adapted from Fintech Report Romania 2022 and Fintech Report Estonia 2021

The comparison between the two ecosystems by type of activity of their startups presented in Figure 1 above indicates that the ecosystem in Estonia is more oriented towards new technologies, with a significant portion of their startups being engaged in blockchain and blockchain related technologies. This is interesting as both financial sectors are reluctant to embrace blockchain as a relevant technology for the future of financial services.

However, the public sector in Estonia is far more advanced than the one in Romania in adopting blockchain and has utilised blockchain technologies ever since 2008. The country is recognized as a world leader in eGovernment services and part of their success is attributed to the use of blockchain technologies at scale (Semenzin et al., 2022). In the same time, Romania is still struggling with implementing the public cloud infrastructure and with interconnecting its various legacy software systems.

Given these differences, Romania still has an important group of fintech startups that are active in this niche, some of them being relevant globally.

Maturity of the startups

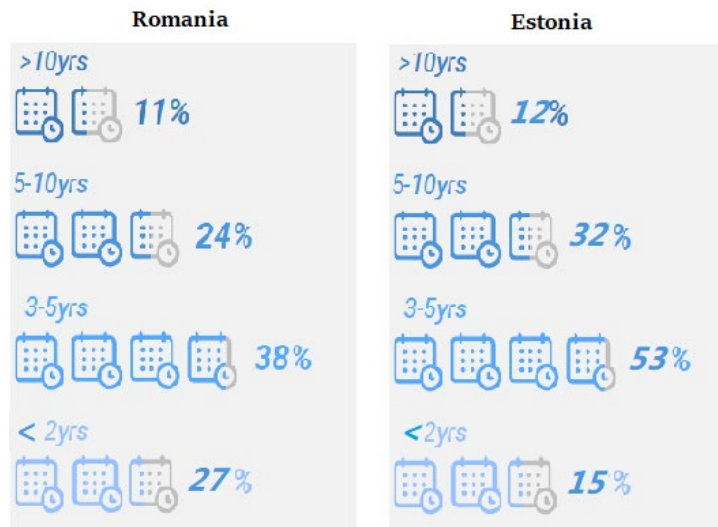


Figure 2. Comparison between fintechs in Romania and Estonia by maturity of the startups

Source: adapted from Fintech Report Romania 2022 and Fintech Report Estonia 2021

The results in Figure 2 above indicate that Romania has almost twice as many startups that are younger than 2 years, this being correlated with the relative maturity of the two ecosystems. Surprisingly enough, the number of mature startups (older than 10 years) in each country is similar, 11% in Romania vs. 12% in Estonia. This indicates that although both Romania and Estonia started at about the same time, the fintech ecosystem in Estonia grew much rapidly and only in recent years the Romanian ecosystem is starting to reduce the development gap.

This results should be correlated with the revenues of the fintech companies, based on their sector. In Romania, a staggering 75% of the entire revenue generated by all the fintech companies is generated by the digital payments sector, whereas in Estonia digital payments only accounts for 16% of the total revenue. The most important revenue generator in Estonia is digital lending, with 43% of the total income. These differences can be attributed, at least partially, to the regulatory environment in each country. The regulatory environment is more permissive in Estonia and the various regulatory bodies are actively supporting the growth of the ecosystem, whereas in Romania, the regulations are much tighter and the regulatory bodies are less supportive of the ecosystem. The regulatory environment emerges as a key factor influencing the development of the fintech ecosystem and the more flexible, less bureaucratic and open to innovation the regulatory framework and the regulatory bodies are, the faster the fintech ecosystem will grow. This growth means that more fintechs will emerge and also

the existing ones will fail faster and, in doing so, discover better solutions to the problems they are trying to solve resulting in achieving product-market fit sooner.

In Estonia, 77% of the participants in the study are active in at least one of the industry associations, whereas in Romania only 37% are active in RoFintech, the only industry association in the country. Given the obvious difficulties of identifying all the fintech companies in both Romania and Estonia, these numbers are most likely smaller in both cases. However, these numbers clearly indicate that the fintechs in the Estonian ecosystems are twice more inclined to collaborate with the other fintechs than the Romanian ones. Further research could determine how much of their growth fintechs attribute to their involvement with the industry associations, as there is little research on this topic.

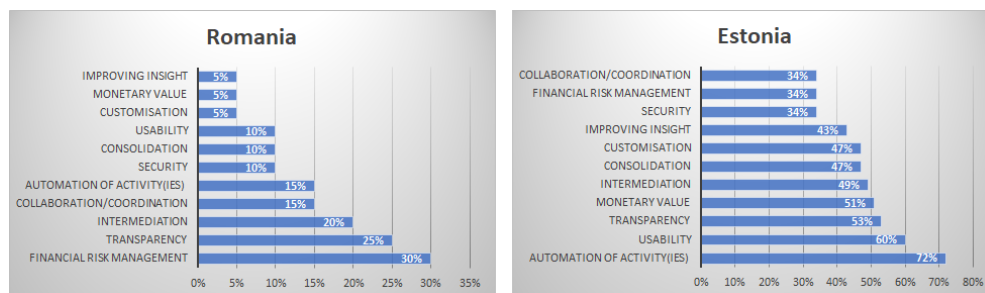


Figure 3. Comparison between fintechs in Romania and Estonia by value proposition
 Source: adapted from Fintech Report Romania 2022 and Fintech Report Estonia 2021

The results in the Figure 3 above indicate that the value propositions of most Romanian fintechs are *financial risk management*, *transparency* and *intermediation*. In Estonia, the dominant value propositions are *automation of activities*, *usability* and *transparency*. Simply by looking at these results we can conclude the Estonian ecosystem is the more advanced one as it proposes value propositions that are more consistent with the value propositions of the largest fintechs in the world. Their results also indicate an increased potential for the collaboration between fintechs and the financial institutions, especially banks. On the other hand, the results in Romania indicate the young age of the ecosystem, as well as some level of overlapping with the value propositions traditionally associated with the incumbent financial institutions (Feyen et al., 2019).

This results also indicate that the Romanian fintech companies are mostly focused on the local market and on creating value directly for the clients in the local market, whereas the Estonian fintech companies have a more global focus. This can be explained by the relatively small size of the Estonian market, forcing their fintech founders to build companies that have a more international focus right from the beginning. The relatively large Romanian market disincentivizes the local founders to consider an international focus from the beginning. The typical journey of the vast majority of the Romanian fintech startups consisted in growing in the local market only and considering international expansion only when the growth has plateaued in Romania.

When looking at the international expansion of startups in both countries (figure 4 below), one can see that the difficulties in penetrating international markets are fairly similar. The one significant difference is poor product fit to foreign markets, a barrier ranked very high by the Romanian founders and low by the Estonian ones. This result confirms the one above and the existing literature on the subject (Zahra et al., 2000), that the Romanian fintech companies (and products) are built with little international focus in mind. When considering international expansion, the Romanian companies have to adapt their products to the international markets, which requires significant investments and time. This could represent important deterrent factors when planning international expansion and a potential explanation for the fact the Romanian fintech companies obtain most of their revenues from the local market (65%), as opposed to 55% in Slovenia. In Romania, most of the companies, obtain between 5 and 30% of their revenues from abroad and only two companies export 90% or more of their products and services. In Estonia, 32% of the fintech companies export 90% or more of their products and services.



Figure 4. Comparison between fintechs in Romania and Estonia by the factors restricting international expansion.

Source: adapted from Fintech Report Romania 2022 and Fintech Report Estonia 2021

Looking at what lies ahead in 2023 and beyond, startups in both countries have been asked to indicate what are some of the measures that could help them grow faster. Interestingly enough, the startups in both countries have indicated improving regulations and better cooperating with regulators as the two most important measures to support the development of the ecosystem. This result is now surprising, as startups in most countries are indicating the regulators as the most important stakeholder that influence their development and a better collaboration with the regulators as a driver for growth. What is interesting is that startups in Romania have indicated cooperation with universities as one of the most important factors impacting their growth. In Estonia, this measure was ranked the lowest. This result could be explained by the fact that Estonian fintech companies already have strong partnerships with the universities and research institutes in the country, as this is the key for easier access to the highly skilled workforce needed in these companies. In Romania, the fintech startups are only now beginning to realize the importance of working closely with the academia for both identifying top talent early, but also for research and development purposes.

4. Conclusions

When looking at the two Fintech Reports, in Romania and Estonia, it becomes obvious that the Estonian fintech ecosystem is the most advanced one, despite Estonia being a smaller country both in population and economy and both countries having a well-developed digital infrastructure. What contributed to the faster growth of the Estonian ecosystem, both in terms of number of companies (the first fintech startups in both countries started around the same time), as well as their average size, both in terms of revenues and profits as well as in the average number of employees. Most importantly, can these success factors be replicated by other emerging economies in the region to accelerate the growth of their ecosystems?

The results of my research indicate that one key factor in the development of the ecosystem is the government. The government plays an important role not just by imposing proper regulations, but by playing an active role in the ecosystem as a buyer of financial technology and, therefore, a reliable partner for the startups. In Estonia, the government uses technologies such as blockchain to offer high quality services to its citizens, which has, in turn, encouraged startups to innovate more in this area. This has resulted in a larger number of startups developing blockchain or blockchain related technologies. The government could and should be a driver of innovation in technology in general and in fintech in particular, as some of the financial technologies developed by companies in this sector, can be deployed not only to improve the customer experience in the financial industry, but have large applications in other industries, such as healthcare or agriculture. Blockchain technology is a good example, as it can be used in a wide range of industries to reduce costs and improve processes.

Another result of my research is that a key factor for a faster growth of the ecosystem is the level of collaboration between the fintech companies. In Estonia, the vast majority of the fintech startups are actively involved in at least one of the leading industry associations, with many of them being involved in two or more. In Romania, the industry association is in its infancy and most of the fintech startups in the country are not involved with it. In my view, both as a researcher and a fintech startup founder, this strong collaboration is another factor that contributes to the faster development of the Estonian ecosystem. It is also one that can be easily replicated not only in Romania, but in all the countries in the region, where the fintech ecosystems are less developed.

The third factor identified is also known as the startup localization paradox (Forbes, 2019), meaning that startups that are built with a local growth trajectory in mind, will find it difficult afterwards to grow internationally and vice versa. The Estonian fintech startups are being built with a more international growth strategy from day one, which makes it easier for them to expand internationally. The vast majority of the startups in both countries launch products locally and expand internationally afterwards. The difference is in their product development strategy. The Estonian ones are building products with a global audience in mind and plan

accordingly from the beginning of the product development cycle. In Romania, the fintech founders are mostly concerned with the specifics of the local market and local audiences and, when building new products, only take into account their needs and wants. This “think globally, act locally” mindset of the Estonian founders is another key success factor in the rapid development of their ecosystem. Further research should be dedicated to studying the business models and the innovation factor in the startups in both countries. In other words, how many of the fintech startups in each country are proposing proprietary/innovative business models and products and how many of them are local/regional copycats of the established global players.

Last but not least, closer cooperation with universities is another success factor that contributes to the faster development of the Estonian ecosystem. Correlated with the result above, this means that by working closer with the universities, startups not only benefit from earlier access to top tech talent, but can also benefit from their research infrastructure (both human and material), that can result in more innovative products. It can also lead to an increased number of spin-offs, fintech startups that emerge as a result of this close collaboration and that contribute to the overall growth of the ecosystem. Similar to collaborating with each other, collaborating with universities can help fintech startups now only grow faster, but also grow in a more sustainable way.

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