ENTREPRENEURSHIP EDUCATION – A HIDDEN CONTRIBUTOR TO THE DECLINE IN ENTREPRENEURSHIP?

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ABSTRACT

The paper presents a perspective on the decline in entrepreneurship in the US and the EU in view of the rapid growth trend in the entrepreneurship education. The basic goal of the entrepreneurship education is to promote entrepreneurship and while the entrepreneurship education has exploded parabolically, yet empirical research on the state of entrepreneurship in the entrepreneurship education pioneering regions shows significant slowdown over last decades. The purpose of this paper is to draw attention to the incompatibility of the macro data and to delineate the framework of possible solutions.

We survey long term longitudinal studies of entrepreneurship as well as country level data supporting decline in entrepreneurship and critically assess the disparity with the shorter-term statistical entrepreneurship measurement data, which may be tainted by policy biases and misrepresentations. The former data is irreconcilable with the rapid growth in entrepreneurship education, and especially with the data showing exceedingly positive entrepreneurship education outcomes. The disparity urges for critical assessment of the ROI of the entrepreneurship education and especially predominant curriculum, yet it has not been empirically researched. We argue that standardized “Omni ability” driven entrepreneurship education shall give way for context adapted cross disciplinary and cross generational entrepreneurship education with the emphasis on psychological hardening and resilience training on how to deal with and overcome personal failure and daily uncertainties. The COVID-19 crisis and ongoing virtual economy revolution present an opportunity for the critical remolding of entrepreneurship education, as well as for development of robust and objective measurement framework for the state of entrepreneurship and entrepreneurship education outcomes.

INTRODUCTION

This paper surveys the link between the state of entrepreneurship in the US and the EU and the major educational effort to influence it. With the premise that education is the ultimate tool of social engineering, it is essential to critically assess whether it is on point and whether the things done over the last decades have really delivered on investment, especially in the wake of ever-increasing public policy interventions attempting to facilitate entrepreneurship.

Revising entrepreneurial education may be especially important for regional development and overall facilitation of entrepreneurship in current turbulent economic conditions. We suggest several directions for the entrepreneurship education, which are currently ignored, but perhaps deserve to be put at the forefront.
Since the public policies enabling the entrepreneurs are ever increasing in the wake of economic slowdown caused by COVID-19 global pandemic and ongoing virtual economy revolution, the novel approach to entrepreneurial education is especially needed along with the deeper and more critical scientific inquiry on the empirically moot mainstream dogmas.

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**DECLINE IN ENTREPRENEURSHIP IS ESTABLISHED, CAUSES ARE NOT**

Entrepreneurship is in decline in the US and most of the Europe. There is no need to look hard for the evidence – it’s everywhere. What is more alarming, this trend is not new. In the US start-up activity has been slowing down (Denning, 2016) since at least the 1990s (Figure 1). Source: The Kauffman Index, 2017.

There are less people owning a business now than three decades ago, the number of new companies created is declining, start-ups are contributing less to the job market. There are more businesses dying than new businesses being born (Harrison, 2015). Generation Z, which is coming to labor market right now, is the epitome of this trend – they want to get rich, but are less keen on being entrepreneurs (Adamy, 2018) than the previous graduates. Slowdown is felt even in the most dynamic sectors, like tech industry (Casselman, 2017). Some argue that high-growth entrepreneurship is on the rise in the US, however, it tends to cluster in just a few well-off regions (The Economist, 2017).

It is noteworthy that longitudinal studies of entrepreneurship spanning decades show much more pessimistic picture than shorter term studies at simplistic synthetic indicators, such as entry density used by the World Bank Doing Business surveys. These assume that entrepreneurship rate is tantamount to the ratio of newly registered limited liability companies per 1,000 working-age people. While such data is readily available (at least for the couple of latter decades) and quantifiable, it is easily distorted with minimal changes in company laws and tax code, and correlates poorly with the targeted longitudinal studies of entrepreneurship undertaken by the Kaufman Foundation and the Brookings Institution.
Europe, on the other hand, has always struggled with entrepreneurship and perennially trying to catch up with the US. It is widely argued, that Europe is still lagging behind the US in the entrepreneurial and innovative activity (Cincera & Veugelers, 2013; Henrekson & Sanandaji, 2017). For example, studies that measure entrepreneurship through high-impact indicators, for example, self-made billionaires per capita or VC investments as a share of GDP, show significant entrepreneurial underperformance in Europe when compared to the US (Henrekson & Sanandaji, 2017).

There are dozens of EU public policies written with the hope to boost entrepreneurship of the Europeans. Yet, the results are not unambiguously positive. In most of the EU less and less people prefer entrepreneurship to being an employee (European Commission, 2013). Self-employed people earn less (Naudé, 2016) than those working for others, venture capital investments into European companies are declining (Henry, 2017), small businesses are not creating enough jobs (Naudé, 2016) and are lagging in productivity, in many European countries the number of businesses created is declining. (Figure 2) Source: Nier, 2016 shows the downward trend of start-ups established each year in Germany, and (Figure 3) Source: Regione Emilia Romagna, 2019 illustrates the decline in active businesses in Italy over a past decade.
Entrepreneurship decline in Europe is obscured by the lack of detailed and centralized data. There is no consensus on the right indicators for European entrepreneurship measurement (Henrekson & Sanandaji, 2017). Centralized publicly available data is either synthetic indicators or data distorted by secondary factors. For example, in young market economies and legal systems, like the new EU countries, which have 30 years or less of history, new company
creation is very unreliable indicator due to instability of the company laws and tax codes. Businesses morph or split corporate structures to adapt to the changes and take advantage of the tax and public support regimes, and the successors of the going businesses may count as new entrepreneurial ventures. This is commonplace in the new EU countries; however such changes are less common in mature economies and legal systems. As a result, the EU wide data presented by EUROSTAT does not present the comparable country data for sufficiently long periods and full picture on the state of entrepreneurship. This is why country level data, as presented above, is more informative.

Save for one off disasters like COVID-19 pandemics, causes for the decline in entrepreneurship remain elusive. There are many noted correlations, of which the most plausible seem to be demographics changes, but there are very few or no established causations. To some extent this is due to the fact that entrepreneurship per se remains rather vaguely understood by social science. Especially quantitative science has not been particularly successful at explaining entrepreneurship itself – there are many correlations but little causal accounts of how entrepreneurship happens. Metaphysical nature of entrepreneurship makes it an uncomfortable research target: empirical measurement of entrepreneurship is a difficult challenge for researchers (Audretsch, 2003). Instead, focus is shifted to various exogenous factors (such as taxation, intellectual property, R&D activities, general business cycles, etc.) or vague and dry firm creation and patent data. As a result, fashionable minutiae (from tax incentives to STE (A) M education) and formal systems (national entrepreneurship system anyone) are promoted as panaceas for entrepreneurship problems.

Quite possibly this poor understanding of entrepreneurship is the poor foundations that we feed into the policies and education systems, creating even bigger distortions rather than useful results. It is already established in research that discrepancies of various policies at macro and micro level lead to suboptimal economic results. Too little attention to micro implementation of macro policies can prevent the desired changes in social and economic development (Weaver, 2010). As we will explain below, the decline in entrepreneurship may well be the product of the increase in misshapen entrepreneurship education and similar interventions.

**DECLINE OF ENTREPRENEURSHIP COINCIDES WITH EXPLOSION OF TEACHING ENTREPRENEURSHIP**

Anecdotally, the decline of entrepreneurship coincides with unprecedented expansion of teaching entrepreneurship. Though it is hard to gather the quantitative historical data of the available entrepreneurship education offerings in the US through the years due to its heterogenous character, available data from different sources confidently illustrate the growth of entrepreneurship education sector. Entrepreneurship education in the US has old roots. In some capacity entrepreneurship has been taught in universities since the 1950s (Wilson, 2008) (Harvard offered the first graduate course in entrepreneurship in 1947 (Katz, 2003)). Entrepreneurship education effectively exploded during the last couple of decades with the number of available courses increasing 20-fold as well as with a visible growth in any other entrepreneurship education metrics: student numbers, school numbers, formal degrees, courses, publications, endowed positions, etc. (Almanza, 2016).
The first entrepreneurship course in Harvard was attended by only 188 of 600 second-year MBA students, but in 1994 more than 120,000 students across the country were enrolled in entrepreneurship or similar courses. (Figure 4) Sources: The National Survey of Entrepreneurship Education, 2014; Morelix, 2015 shows the clear trend of the fast growth of the number of formal university-level entrepreneurship courses in the US starting from 1972. In addition, it is reported, that the number of formal majors, minors, and certificates in entrepreneurship has grown fivefold from 1975 to 2006 – from 100 to 500 of those programs (Morelix, 2015). It is safe to assume, that there are much more informal opportunities to engage in entrepreneurship education through various courses, trainings and lectures.

In Europe entrepreneurship education is more recent, first entering the curriculum around two decades ago (Wilson, 2008), just when the Millennial generation was coming of age. It was pushed through to no small amount by the efforts of the EU policies and the EU and national governments’ funding (Katz, 2003). EU policymakers pondered that entrepreneurship could solve all European problems. Browse through endless European policy papers and you will find speculative statements such as “investing in entrepreneurship education is one of the highest return investments Europe can make “(European Commission, 2013).

Now entrepreneurship education is expanding in many European countries (Lautenschläger & Haase, 2011). For example, in Germany chairs and professorships in Entrepreneurship have grown from 1 in 1998 to 51 in 2004 (Volkmann, 2004). Attempts to measure the exposure of Europeans to entrepreneurship education show that it has reached the US levels (Figure 5) Source: European Commission, 2012. Public opinion survey, commissioned by the EU in 2012, revealed that 23% of the respondents from the EU27 countries had taken part in any kind of entrepreneurship education in school or university (European Commission, 2012). The US results are only 3% higher at 26% in the same survey.

**Percentage of the Respondents, Who Have Ever Taken Part in Any Course or Activity about Entrepreneurship in School or University**
Today entrepreneurship education is a staple in the higher education in many countries (Lackéus, 2015), in some schools there are the whole post-graduate programs fixed on entrepreneurship, yet startlingly all this effort has not led to any measurable increases in real entrepreneurship and quite possibly did nothing to reverse (hopefully it did not contribute) to the decline of entrepreneurship.

This mismatch between the state of entrepreneurship and the effort in teaching it is staggering. Yet it has not been researched. Interestingly, most studies of the outcomes of entrepreneurship classes paint a unmistakably positive picture (cf infra), but the disappointing long term macro data casts a large shadow over the claims made in such studies. It is surprising that so far these gaps have not attracted a serious scientific scrutiny. One possible explanation is the inconvenience or maybe even political incorrectness of the whole premise that the decade’s long and politically driven effort may be a bridge to nowhere?

ENTREPRENEURSHIP CURRICULUM MAY BE OFF MARK

Despite this explosion of government facilitated (or even enforced as is the case in Europe) entrepreneurship education, the evidence for the positive correlations of real entrepreneurship and taught entrepreneurship is really poor. In 2015 the OECD sponsored research (Lackéus, 2015) has acknowledged that – existing assessment strategies do not contribute more than marginally to illuminating the question of how, when and why students develop entrepreneurial competencies, and most of the affirmative quantitative evidence that has been put forward is methodologically flawed due to inherent challenges in the field!

There are countless studies, which claim the positive correlation between entrepreneurship education and entrepreneurial intentions (Walter & Block, 2016). However, entrepreneurial intentions – anonymous, subjective, short-term, and personal and non-comital declarations – are far away from real-life entrepreneurial actions. It is too far stretching to use these studies as a proof of the effectiveness of entrepreneurship education. There are contradicting research
arguing that entrepreneurship education can be even discouraging (Walter & Block, 2016) in certain contexts and can have both positive and negative outcomes (Nabi et al., 2017). Studies, examining long-term, objective socioeconomic impact of entrepreneurship education are scarce and show mixed results (Nabi et al., 2017).

We are not the first to observe that more often than not the perceived benefits of entrepreneurship education are ideologically fueled rather than based on rigorous research (Lautenschläger & Haase, 2011). Many studies lament the poor methodological quality and express concerns about the adequacy of entrepreneurship education research (Rideout & Gray, 2013). Yet such criticism appears to be sidelined by the mainstream.

The modern economic theory assumes that economic opportunities are objective, but the perception of opportunities is subjective. Thus, the ability to identify opportunities determines that opportunities are revealed and exploited. Identification of innovation opportunities is thought to be the specific trait of entrepreneurs.

The problem is that teaching identification of opportunities skills and other uniquely entrepreneurial skills such as dealing with uncertainty and setbacks, taking risks and tolerating ambiguity, is easier said than done. Current entrepreneurship education curricula are rather light on these. Instead, it focuses on the technicalities of execution and perhaps perilously on the core narrative of “Omni ability” to be entrepreneurial – all you have to do is to attend a few classes. It may be fine for the cream of the crop at Harvard, if you made it there, but it makes no sense for the general public. In other words, entrepreneurship may be taught as an entitlement without any serious scientific justification. In reality identification of opportunities and risk taking has more in common with disqualification than entitlement. Disqualifying wrong ideas, wrong solutions and even wrong people are hallmarks of entrepreneurship. And even after multiple rounds of disqualification, more often than not entrepreneurial ventures are disqualified themselves – many simply fail. Thus, entrepreneurship education may be just selling wishful thinking (for example, “I want to be an entrepreneur”) as a surrogate of a real ability. In other words – peddling opportunity chasing for opportunity identification.

Overemphasis on fun, youth and energy is additional fault of the current entrepreneurship curriculum, and it often overshadows the hard work, sacrifice, persistence and experience parts. Not to say that fun has no place in education, but its place is in the process and not in the purpose. Hard failure is the major part of entrepreneurship, and it is never fun. Yet, most of the training focuses on preaching success, instead of learning from failure and how to deal with it. Despite rapidly changing demographics the mature and senior entrepreneurship remain neglected, despite research showing that mature entrepreneurship has much better survival and success rates. Several studies have shown that older entrepreneurs are more successful at establishing high growth start-ups (Azoulay et al., 2020), the effect of hours worked by and investments of older entrepreneurs is significantly bigger on the net profit than the same efforts of younger entrepreneurs (Zolin, 2015). Also neglected is the topic of necessity driven entrepreneurship. No doubt these are much less fun, and extra-long hours, personal sacrifice and work on empty stomach are not very alluring topics for the entrepreneurship classes.

The criticism of entrepreneurial education is not new and is not just our own. It has been argued, that the exceedingly fast growth in the field might have outstripped the available intellectual resources (Katz, 2003). The doubts were cast on the teachability of entrepreneurship
(Lautenschläger & Haase, 2011), especially on the higher education level, which is traditionally more concerned with developing “know-what” than “know-how”. Studies have shown that entrepreneurship education impact depends on the teaching approach (Nabi et al., 2017), where traditional higher education methods produce only short-term and often superficial results. Others argued, that the success of entrepreneurship education depends on the environment – it has positive effects only on the societies, which are not entrepreneurship friendly (Walter & Block, 2016). Yet these studies are few and far between. The problem deserves a broader inquiry and highlights the need for the robust and objective measurement framework for the state of entrepreneurship and entrepreneurship education outcomes, but first it needs to be recognized as a legitimate problem of urgent priority.

Lastly, it is worth mentioning that entrepreneurship education is over relying on subjective, self-serving and self-justifying metrics. Effects are measured by the same people who teach entrepreneurship, or metrics measuring said wishful thinking is used (e.g. surveys after training). In smaller countries justification often is just “me too”, that is – doing what others are doing and because others are doing it. Research is not able to find conclusive evidence in decade’s long data, yet the bureaucrats willingly trumpet success from a small sample surveys. The result is the “Omni ability” narrative – more entrepreneurship education for everyone, which is pushed louder and harder in many countries. Perhaps instead it is time to consciously consider the possibility that entrepreneurship is not for everyone and that we have to revisit the whole approach.

Superficial celebration of entrepreneurship and entrepreneurship education may also obscure bigger distortions of entrepreneurship outcomes. The new-normal extraordinary monetary policies (negative interest rates, quantitative easing, purchases of corporate paper by central banks) may be contributing to the decrease in entrepreneurship, as they prolong survival of those who have access to cheap money supply from the central banks, as opposed to disruption and cutting of life-support for the least effective, which are needed for entrepreneurial economy, at least according to the Austrian school. Due to government policies, failures are simply sustained for longer, displacing potentially innovative and disruptive initiatives in the finite marketplace.

ENTREPRENEURSHIP IS NOT ABOUT FUN

We are not saying that entrepreneurial education is not needed or not possible; however it is time for a hard look whether we are doing the right thing. The COVID-19 crisis and ongoing virtual economy revolution, which both are challenging and reshaping education, present an opportunity for the critical remolding thereof.

The long-term entrepreneurship data and entrepreneurship decline clearly suggest that whatever is being done by the education system and the governments is not delivering on the investment. It is not creating enough growth, jobs or innovation. Moreover, both entrepreneurship education and accompanying entrepreneurship support policies simply fail to inspire the “American Dream” or the European equivalent.

Many policy makers think that their goal is to change culture or mentality of their societies, make them “more entrepreneurial” and convince that entrepreneurial dream is attainable for everyone, but the result may well be the disillusion with entrepreneurship for many, who are
failed by these false promises. Research suggests, that entrepreneurship education has to be at least adapted to the environmental contexts (Walter & Block, 2016) and not blindly copied from the “best practice” (which is usually the US) cases. Quite likely entrepreneurship shall be taught differently to different individuals based on their psychological and educational profile.

It is also time to embrace the demographics. Instead of chasing youth and fun, high-growth and global reach ambitions, more has to be done for mature and boring entrepreneurship with focus on competencies, local strengths and opportunities. This means differential and contextual entrepreneurship teaching. Entrepreneurship curriculum for medical professionals shall be different for aviation or software engineer professionals.

Some needed changes are obvious. Entrepreneurship by no means is a standard discipline, but in most institutions save the elite it follows standardized textbook curriculum and it is squeezed into standard education systems divided by levels, disciplines and generations. Entrepreneurship thrives on intermixing of different people and ideas thus cross disciplinary and cross generational entrepreneurship training shall be given much higher priority. This may very well mean that universities have to remove entrepreneurship education from the standard curriculum and to look for more innovative and open teaching formats. It is noteworthy that this was originally proposed by Birch years ago (Aronsson, 2004), but was never followed through due to impracticalities and regulatory constraints. Universities have to follow standardized curriculums and are under competitive pressure, therefore entrepreneurship curriculums are standardized to one or two semester high level overviews of the diverse subjects falling under the broad concept of entrepreneurship (see e.g. Content of Entrepreneurship Education in Kuratko & Morris, 2018)

The US Census Bureau recently announced that in 2030s older people will outnumber children for the first time (United States Census Bureau, 2018, March), thus entrepreneurship education cannot forget second-time, serial and senior entrepreneurship agendas. Young and old shall train and work together. Such education may help to emphasize hard work, responsibility and how to deal with risk taking and failure. Women’s entrepreneurship is another topic, which desperately needs to be promoted. The number of women owned businesses in growing in the US (United States Census Bureau, 2018, August), however it is still comparatively small: only 20% of employer businesses were owned by women in 2016. Moreover, research suggests that women are less susceptible to the traditional entrepreneurship education strategies (Rideout & Gray, 2013).

Other needed changes may be even less fun. The everyone-can-be-an-entrepreneur mentality needs to be seriously questioned, since it devalues real ability, and may be eroding the responsible relationship between entrepreneurs and would-be employees. If employees think that they can do it as well, because they were taught to think so, then the responsible relationship is much less cherished. Opportunism is taken as being entrepreneurial. Millennial job hopping and low engagement in the workplace may well lend to the entrepreneurial education that the millennials have received (Adkins, 2016). Whether it is easy to accept or not, entrepreneurship is about accepting limitations, perseverance, flaws and failures, honesty and responsibility, not just fun.

Entrepreneurship education needs to center on psychological struggles of entrepreneurship, primarily methods of dealing with and overcoming personal failure and daily uncertainties,
which is the domain of modern psychology science. It also begs the question whether management science tutors are best fit for delivering modern entrepreneurship education.

**CONCLUSION**

The data presented in this paper paints a complex picture on the state of entrepreneurship and role of entrepreneurship education in it. Decline in entrepreneurship and unparalleled growth in teaching it, are difficult to reconcile and may be inconvenient for the policy makers and entrepreneurship educators. So far, this inconsistency is ignored in academic research. Warning indicators of the long-term longitudinal studies are obscured by more favorable short-term metrics, but accruing structural problems in the broader economies (low labor market participation, persistent unemployment, and growth in income inequality, slowing velocity of money) are not indicators of healthy entrepreneurial environment. This also implies that current measurement framework for the state of entrepreneurship and entrepreneurship education outcomes may be subjective and insufficiently robust.

The purpose of this paper was to draw attention to the incompatibility of the macro data. While our hypothesis that the entrepreneurship education is not delivering is not possible to prove yet from available data, but is definitely worthy of further serious investigation. The empirical data presented in the paper supports the arguments by Birch (Aronsson, 2004). Alternatively, it shows the shortcomings of the current measurement framework for the state of entrepreneurship and entrepreneurship education outcomes. A combination of both these factors is also likely. Either way it presents fruitful field for further research. With the COVID-19 pandemic and ongoing virtual economy revolution, presenting new challenges and opportunities for entrepreneurship and education, such research is urgently needed.

In any case, it is fairly obvious that entrepreneurship curriculum needs more critical assessment. Too often it basically remains a high-level synthetic game of running a company or a textbook based overview subject of basic management concepts taught by junior management science tutors. We believe that more focus has to be put on psychological hardening and resilience training on how to deal with and overcome personal failure and daily uncertainties. Furthermore, there is a growing case for the differentiated entrepreneurship tutoring, with focus on competencies, local strengths and opportunities for different age groups, gender and personal traits. Lastly, cross disciplinary and cross generational training shall make inroads into entrepreneurship classes.

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