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Financial and Tax Literacy: A Child's Early Exposure to Financial Concepts during the Educational Process

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ABSTRACT

Aims: The viability of states today is largely based on the collection of tax revenues, which are considered as necessary for them to carry out their specific functions. Thus, the aim of this text is to discuss the development of citizens' tax culture, not as an isolated economic phenomenon but, as a phenomenon directly linked to their general financial literacy. Because it is the writer's belief that simply complying with the mandate to fulfill the tax obligation is not enough for the citizen to understand his contribution to the finances of his country, or, better, to appreciate this contribution in the context of understanding the ways in which the world moves financially.

Methodology: It is a big question on how financially educated the modern man is and to what extent this financial education, his literacy or financial literacy, includes the concept of tax in its content to a sufficient extent to awaken consciences. In this text, the focus is on the exact age / educational stage at which this path to financial and tax literacy can begin, so that it can be integrated in a systematic way into the formal educational process. In order to draw conclusions about the appropriate stage for initiating financial awareness, the trends in the global financial literacy landscape were explored. This analysis aims to determine when it is considered

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appropriate to teach children financial concepts and how financial literacy is linked to making appropriate financial decisions and tax awareness at different age stages. An effort was carried out to evaluate the current financial and tax knowledge and behavior of Greeks. The research was exclusively bibliographic, i.e., a meta-analysis based on previous qualitative and quantitative studies.

Results: Concerning the introduction of systematic financial and tax education for adolescents in schools, the studies accessed suggest that the age range of 12-14 marks a significant milestone for young people to begin delving into the more intricate concepts of the modern economy. Tax awareness among adolescents could arguably be attainable from around age 11 or 12, as they start demonstrating financial comprehension comparable to that of adults.

Discussion: The findings of this research showed that the level of financial literacy in Greece depends on demographics, such as the geographical location and the gender of young people. Other factors are also important, but removing geographical and gender restrictions, combined with the provision of training programs already in the upper grades of Primary School, can improve financial awareness and develop the tax culture of citizens. This development requires the implementation of subjects in the curriculum, the training of the teachers so that they are able to teach children even 11 or 12 years old, the distinction of the concept of ethics from tax ethics and its teaching at an earlier age stage, and the drawing from international educational practices, i.e. leveraging successful financial literacy programs worldwide in order to obtain valuable insights for designing effective youth training initiatives.

Keywords: Tax literacy; financial illiteracy.

1. INTRODUCTION

Financial literacy is a critical skill set that encompasses both knowledge and behavior. It involves understanding said concepts and applying this knowledge to make informed decisions about saving, debt management, and investing [1]. Definitions of financial literacy commonly include these two dimensions, although they may also incorporate additional parameters. Financial knowledge entails the ability to comprehend, analyze, and manage finances, evaluated through metrics, such as understanding interest rates, financial costs, credit, financial management, and investments. Economic behavior, referring to money management habits, is often examined through frameworks like the Theory of Planned Behavior, which analyzes the rational actions underlying economic decisions, influenced by beliefs, motivations, and perceived barriers [2].

Despite the essential role of financial literacy in personal and societal well-being, research reveals notable gaps in this area. Specifically, findings on the financial competence of Greeks are less than optimistic, and the integration of tax concepts and behavior into financial literacy research remains limited. Studies indicate that Greeks' financial knowledge varies significantly by geography and gender, with disparities evident among different regions and socio-economic groups. For example, a nationwide survey by Tzora et al. [3] found that only 31.7% of surveyed adolescents answered at least 70% of financial literacy questions correctly, with notable regional and gender differences. Additionally, research by Philippas and Avdoulas (2019) highlighted low financial literacy levels among Generation Z students.

This article aims to explore the financial literacy landscape in Greece, particularly focusing on tax literacy as an often-overlooked component. By reviewing existing literature and analyzing financial literacy among various age groups, this study seeks to identify effective strategies for integrating financial education into the curriculum, thereby enhancing both financial and tax awareness from a young age. The objective is to assess the current state of financial and tax knowledge in Greece and propose measures for improvement, recognizing that early financial education is crucial for fostering responsible financial behavior and compliance with tax obligations [4,5]. The research approach was based on certain assumptions analyzed in the Methodology section: a) the emergence of training differences due to geographical and gender limitations, and the assumption that socio-economic factors can smooth them out, b) the assumption that it is necessary to financial education to start as early as possible in childhood, even from the Primary school classes, c) on the assumption that young people are obliged to deal with tax issues long before their

18th year of age, and d) on the assumption that the cultivation of a tax culture must be achieved regardless of government actions or citizens' perceptions of the reciprocity of tax administration [6-8].

It is the belief of the author that his research is characterized by originality given the connection of financial awareness with the cultivation of tax culture. As found from the extensive review of the research, the concept of tax culture is not a main concern of most financial literacy studies, perhaps because these mainly examine everyday financial behavior or decision-making related to the individual's later financial prosperity, e.g. in his decisions and provision for the retirement age stage [9,10]. The author of this article does not consider that tax awareness and behavior should be taken as a subset of financial literacy but that they should be two equivalent dimensions of the modern socio-economic phenomenon, given the role taxes have for the state and the realization of its programs. In fact, he argues, as mentioned above, that the development of the tax culture should be independent of efforts of the state or the reciprocity of the tax administration, although they are two very important factors in the development of motivation for the citizen. And it should be independent of the efforts made by the tax administration to achieve its tax objectives in a given period of time.

2. LITERATURE REVIEW

Financial literacy encompasses two key dimensions: knowledge and behavior. It involves not only understanding financial concepts but also entails the application of this understanding in making informed decisions about saving, managing debt, and investing [1]. This application takes several more specific forms, such as the ability to access the various financial services, while it is considered appropriate to be linked to the concept of duration, that is, to the correct decision-making that will lead to a lifetime of financial well-being. The development of the information society and technological progress have also come into play as parameters in recent years, so that the application is not limited to the physical practice of the individual, but includes the ease of access to financial services via the Internet, the increase in digital financial products and services, but also the ability to avoid online fraud, such as phishing, which highlight the importance of a new skill, the so-called digital financial literacy [11]. While various definitions align on these two facets, δηλαδή με τη γνώση και με την practice / application, they may also include additional parameters. For instance, financial knowledge, which refers to the capacity to comprehend, analyze, and manage finances to make prudent decisions and prevent financial pitfalls, can be evaluated through diverse metrics, such as individuals’ grasp of interest rates, financial costs, credit, financial management, and investments. Similarly, economic behavior, pertaining to money management habits, can be examined through theoretical frameworks like the “Theory of Planned Behavior”, which scrutinizes the rational actions constituting individuals' economic decisions, factoring in available information to assess the repercussions of their financial actions. This theory posits economic behavior as stemming from intentions influenced by beliefs, expectations, motivations, and barriers [2].

Despite the pivotal role of financial literacy in individuals' daily lives and societal well-being, a review of pertinent research indicates two notable observations: the first finding is that the level of financial literacy should not be taken for granted, even in countries with well-developed financial markets. In most countries, only half of the population or even less is aware of the basic concepts, to the point of being able to use and apply them. The second finding is that the gender gap in this area is large, with men being in a privileged position over women, indeed gender differences are already visible among young people from the teenage years. There remains a third finding under discussion, that of the correlation of financial ability with education. It is reported that it would be expected that financial literacy should or could be correlated with educational level, since in countries such as the USA financial literacy is particularly low among people who have not gone beyond secondary education. The positive correlation between education and financial literacy is not rejected, however the parameter of general cognitive ability comes into play here, perhaps affecting both. On the other hand, while general cognitive ability and numeracy are positively correlated, much of the heterogeneity in financial literacy remains unexplained [12]. Certainly, the impossibility to draw a definitive conclusion from this point of view contradicts the observed systematization of the literature and practical approaches, which aim to achieve the solution of the problem of the insufficient level of financial literacy among different segments of the population through the promotion of financial of its education, especially its vulnerable groups. Such education would be suggested to include improving financial education and developing practical skills for financial decision-making, with these interventions considered imperative and urgent by those who recognize the demands raised by the rapid growth of financial services (Didenko et al., 2023: 72). There cannot be a basis for a discussion on the subject if there is not at the same time the agreement that if the entire population does not have the same cognitive level, it can be assumed under specific educational conditions and indeed at a specific age stage that there is an appropriate cognitive background which it will allow learning to confirm how essential it is becoming to the development of knowledge and the well-being of society. Creating conditions of quality accounting learning can be perceived as the most important renewal of any behavior, especially how we avoid harmful consumer behavior patterns that individuals often carry out consciously or unconsciously [13].

Recent research has also addressed the question of young people's ability to educate themselves on tax concepts, as it has been found that developed countries have introduced policies that focus on the individual's responsibility to undertake tax obligations. Given this shift in approach to compliance, a greater focus on tax education is needed, particularly among younger people as they prepare to engage with the tax system by dealing with issues beyond paying consumption tax. Therefore, it is also necessary to ascertain this is the most effective way in which young people should be educated about the tax system. Importance is given to socio-demographic influences and various conclusions are drawn about the influencing factors, among others, gender, work experience, etc., which significantly influence tax ethics [14].

When discussing these issues, given the interest in the Greek territory, other parameters of importance cannot be added to the discussion, especially the one that explores financial literacy and especially tax culture in relation to the concept of culture, which refers to national cultural characteristics. Specifically, it is concluded that enforcement efforts cannot fully explain the high degree of tax compliance. Research that focuses not on country differences but on cultural differences within a country, especially when there is cultural diversity, proves useful here. In countries such as Switzerland, Belgium and Spain it has been found that while cultural background does not seem to exert a strong influence on citizens' tax ethics, there are significant indications that there is a strong interaction between cultural idiom and institutions, so that indirectly it also has a strong impact on tax ethics [15]. The reference to institutions becomes particularly important if we consider that research of the last twenty years have shown that high levels of tax evasion occur in countries with higher levels of uncertainty avoidance and power distance and lower levels of individualism and masculinity. Some variations can occur, such as research agreement with uncertainty avoidance and individualism but not with the other two concepts. It is important to note that while such research have highlighted the importance of national culture in tax evasion, they do not focus on the diffusion channels of this tendency, which seems to be explained by the quality of the traditions and institutions according to which it is practiced in a country the power. However, this parameter should not be overestimated, because the agreement in the literature on the correlation between national culture and tax ethics is important, so that the quality of the exercise of power is only considered mediating. It remains, however, indicative of the obligation of policy makers to aim to improve the quality of relevant institutions in order to reduce the undesirable influence of culture on levels of tax evasion. EU countries show a partial mediation effect in older EU countries and a full mediation effect in newer EU countries [16]. Of course, there is considerable academic debate about how national culture affects tax ethics, with different researchers using a variety of methods and geographical approaches. However, a discussion that would not have a stable starting point would be chaotic and could lead to the view that it is almost impossible to implement tax ethics development methods by the state in such a way as to overcome cultural barriers as factors that hinder efforts. And it would not perhaps be possible to choose education, even at a young age, as this study will attempt to show, as a method of overcoming differences, if we did not accept that very specific assumptions should initiate the discussion. One of them, perhaps the most important, is that tax ethics is developed based on the prevailing moral values and goals in a community, as well as from the understanding of the importance of taxation to the state and society. The connection between culture and tax ethics involves deep aspects of human collective consciousness and behavior, with statistics and cold numbers not always able to capture these intangibles (Corona, 2024: 343, 360).

As for Greece a) findings regarding the financial competence of Greeks are not overly sanguine, and b) understanding tax concepts, tax behavior, and effective means of fostering tax awareness are not extensively addressed in financial research as integral components of financial literacy, although they are not entirely disregarded. To delve further:

Concerning Greeks' level of financial knowledge, studies have scrutinized and compared it with that of other Europeans or those residing outside Europe, recognizing geographical and gender disparities within the country. A nationwide survey conducted by Tzora et al. [3] revealed that merely 31.7% of the surveyed adolescent population could correctly answer at least 70% of the posed questions. Adolescents from the Dodecanese and the two most densely populated regions, Athens and Thessaloniki, demonstrated higher proficiency, while regions like Samos, Argolis, and Chania scored lower. Overall, out of 41 regions, 17 fell below the average ranking, with the remaining 24 regions scoring even lower. Regarding gender, girls exhibited comparatively lower financial proficiency, showing a 14.5% deficit in mean scores compared to boys. However, findings may vary; a study by Tsakiridou and Seitanidis [17] did not emphasize gender disparities in financial literacy among high school graduates but underscored the influence of variables like family income. Nevertheless, the notable finding that the average correct response rate did not surpass 40% underscores the significance of addressing Greeks' financial literacy. Similarly, Philippas and Avdoulas' (2019) research targeting Generation Z students revealed alarmingly low levels of financial literacy, with only 19.3% answering five questions correctly, and the average correct response rate hovering around 50%. The Athinea organization's (2021) study focusing on women's financial literacy indicated a heightened lack of financial literacy among older age groups of women, except for the age brackets of 18-24 and 55+. Moreover, socioeconomically disadvantaged groups exhibited lower literacy levels, although gender differences in this regard diminished in such groups.

On the contrary, financial literacy is expanding among the middle and upper socio-economic groups. Additionally, regardless of socio-economic status and educational attainment, women tend to report significantly lower usage of complex financial products, such as insurance and investments. Moreover, in workplace negotiations like salary discussions, financially illiterate women exhibit markedly lower fluency compared to both financially literate women and illiterate men. These findings are in line with those from Standard & Poor's organization in 2014, which indicated that globally, men are more financially literate than women by 5% (35% vs. 30%), and with OECD research from 2016, which found that only 56% of women achieved baseline competency in relevant assessments, compared to 69% of men, representing a 13-percentage point gap. However, Petrakis and Panos's research in 2023 argued that the observed gender disparity in financial knowledge and behavior can be mitigated by various socio-economic factors.

These surveys shed light on the level of financial adequacy among Greeks. As part of the author's PhD thesis, she conducted a comprehensive review of additional research, which is detailed in the relevant study. An important conclusion drawn is that the tax aspect does not receive significant attention from researchers in the realm of financial literacy, a trend not limited to Greece but apparent in international literature as well. Nonetheless, scholars such as Mitrakos et al. [18] emphasize the importance of fostering a culture of tax compliance in Greece. They raise pertinent questions: Who evades taxes and under what circumstances do they do so? Conversely, we may also ask: who complies with tax obligations and under what conditions? They believe that addressing these questions is pivotal in identifying and remedying the root causes of tax evasion in the country. Similarly, Kounadeas et al. [19] highlight the absence of a robust tax culture, acknowledging that challenging economic periods like the recent economic crisis can exacerbate the drivers of tax evasion. However, cultivating tax awareness hinges on the actions of both tax authorities and the state. Simplifying the tax institutional framework, modernizing tax structures, and implementing preventive measures are crucial steps in bolstering voluntary taxpayer compliance.

3. METHODOLOGY

The article presents a segment of the conclusions drawn from the aforementioned doctoral thesis, which employed the research method of meta-analysis. The objective was to assess the global financial literacy landscape, explore the significance of tax literacy within this context, and evaluate the current financial and tax knowledge and behavior of Greeks. To accomplish this, a comprehensive array of studies on financial literacy was reviewed, with age as the primary variable. Specifically, the analysis distinguished between the following age categories: a) childhood up to age 12, b) adolescence to adulthood, c) productive age, and d) retirement. Beyond age, data were scrutinized based on various variables including gender, work experience, educational attainment, as well as racial and geographical characteristics of the target populations. The focus in this article is on the two earliest age categories, aiming to address the optimal starting point for financial education among young individuals to foster responsible financial behavior, encompassing tax awareness and compliance. In order to focus on these two early stages of human age and their relationship with financial literacy and tax awareness in Greece, an overview of additional studies was made which concerned different geographical parts of the country, while also including the variable of gender. One of the goals of this approach was to see if the conclusions for Greek children and adolescents differ from those at an international level or confirm them. In Greece, there are few studies concerned with the early age group, while even fewer exist that focus on the development of the tax culture of young people. This has caused significant difficulties in conducting the research, but it also provided the opportunity to investigate an object that is not particularly studied.

It's worth noting that the study's rationale was built upon the following hypotheses/findings:

A) As outlined in the introduction, findings on the financial literacy of Greeks indicate moderate financial knowledge, with variations observed across geography and gender. However, it's noted that socio-economic factors, particularly educational attainment, can mitigate these differences.
B) Various studies underscore the importance of commencing financial education from a young age. For instance, research by Philippas and Avdoulas (2019) highlights the necessity of early financial education, ideally starting from a child's initial exposure to the school environment. However, challenges arise due to the nature of the Greek education system, which may not provide adequate space for standalone financial education courses, potentially integrating them into existing subjects like mathematics, economics, social sciences, civic education, and history. Additionally, the Entrepreneurship and Social Economy Group's [20] research reveals that 78.7% of young individuals aged 18 to 30 advocate for greater emphasis on financial literacy within the education system, suggesting workshops and diverse media to teach students personal finance management.
C) The writer contends that tax knowledge cannot be dissociated from financial literacy, given the prevalent examples of tax evasion and exemption, which necessitate specialized financial understanding. Moreover, the writer argues for early exposure to tax knowledge, as the institutional framework mandates young individuals to navigate tax obligations even before turning 18. For instance, according to Law 4172/2013, individuals with income, irrespective of age, must understand taxation levels, their dependency status within the family, their relationship with parental income, and circumstances necessitating individual tax filings.
D) The writer emphasizes the imperative of cultivating tax awareness irrespective of state actions or citizens' perceptions regarding tax administration reciprocity. This sentiment is echoed by the OECD [21], which observes that tax administrations make fewer errors when dealing with tax-literate citizens who actively engage in local tax discussions.

Given the above, the primary inquiry revolves around determining the earliest feasible stage for integrating financial education into the standard educational curriculum, directly correlating with tax awareness.

4. RESULTS

Interest in children's financial education has deep roots, dating back to the post-war period. As early as 1950, an article in Kiplinger's magazine titled "Will your child know the value of a dollar?" underscored the importance of equipping children with financial knowledge, recognizing money as both a potential source of confusion and an essential tool for life [22]. Subsequent focus was placed on children's involvement in family consumption habits, with studies suggesting that such involvement begins as early as age 5 [23]. By 1974, there was a burgeoning interest in the economic socialization of young individuals, a process encompassing the acquisition of knowledge, skills, and attitudes pertinent to their roles as consumers in the market. This approach delved into various social, cultural, and psychological dimensions [24].

In 1978, the concept of students carrying an "economic knapsack" of attitudes and direct experiences from economic activities, including work, was introduced. Similarly, in 1984, educators were reminded of the significance of recognizing and leveraging students' out-of-school experiences [25]. The maternal relationship was highlighted in 1987 for its influence on children's product preferences, with observations indicating that children often accompany their mothers to stores from as young as two or three years old, thereby forming early purchasing patterns [23].

In 1986, studies began to converge on the understanding that economic development in children progresses gradually and is shaped by both informational intake, primarily through verbal teaching, and the resolution of personal perceptual contradictions [26]. It was generally agreed that sound financial practices are rooted in childhood experiences, and teaching children good financial habits can mitigate the negative effects of financial mismanagement in later life [27].

By 1990, research delved into the relative contributions of cognitive development and experiential knowledge to children's understanding of economic concepts such as supply and demand, profit, interest, and income differentiation. Interestingly, childhood experiences were found to sometimes impede rather than enhance financial understanding, with eight-year-olds perceiving shop tills as the final step in the financial process [25].

The ongoing discourse regarding the necessity of financial education for children shows no signs of waning; in fact, there's growing consensus that children should acquire such knowledge well before reaching the age of 12. This call has been echoed in numerous countries worldwide. For instance, educators and the general populace in Korea have voiced concerns over the lack of financial literacy among Korean students. There's a pressing need for a thorough assessment of the data concerning these young individuals, whose financial acumen lags behind that of their counterparts in other countries. Consequently, there's a heightened emphasis on evaluating the cognitive aptitude of Korean students in financial matters [28].

This observed deficiency in financial literacy among young children presents a significant challenge, especially in light of findings from a Polish study indicating that children are becoming financially savvy at increasingly younger ages, with some managing their own finances as early as age four. Moreover, until the age of 18, 40% of young people receive regular financial support, such as pocket money. Addressing this situation necessitates the economic socialization of children, a process often linked to cognitive development, as underscored by the influence of Piaget's developmental theories. Additionally, there's no shortage of psychologists advocating Bandura's theory of social learning, which underscores the role of the environment and stimuli derived from it [29].

Discrepancies in financial literacy levels among children from different countries can partly be attributed to the culturally and historically determined nature of economic behavior. Moreover, the delineation between economic and non-economic realms is often blurred, and economic behavior isn't necessarily contingent upon monetary transactions. Many economic systems have historically functioned independently of the conventional concept of money. Furthermore, in the modern era, several economic activities don't require monetary transactions, with household economics serving as a prime example [30].

With each passing era, the importance of children's exposure to financial knowledge seems increasingly indispensable. The evolving dynamics of human interactions with money have reshaped perspectives on saving, with a shift towards fulfilling essential needs rather than accumulating wealth. Money has become more abstract, as evidenced by its security and transactions through credit cards, ATMs, and electronic means. Consequently, parents face the daunting challenge of instilling concepts of self-restraint and financial responsibility in their children, particularly in a society that doesn't heavily invest in cultivating these traits [22]. In this context, the significance of parental role modeling cannot be overstated. Young children observe their parents' financial behaviors daily, absorbing their attitudes towards money and financial planning. Thus, parents who demonstrate prudent spending habits play a vital role in shaping their children's perceptions of money, teaching them valuable lessons about resource management, budgeting, and the importance of saving [31]. Conversely, parents who exhibit imprudent financial behaviors may inadvertently convey messages of unlimited resources and impulsive spending, undermining efforts to impart financial literacy to their children.

Advocates for early financial literacy in children highlight the imperative of dispelling a modern misconception: the belief that everyone has the entitlement to obtain what they desire, even without the means to afford it. It's noted that the consumer loan industry perpetuates this falsehood, particularly targeting children by endeavoring to issue credit cards to them at the earliest feasible age. In the United States, the Card Act of 2009 imposes certain restrictions on individuals under 21, such as requiring a co-signer or proof of sufficient income to repay any debts. However, card providers circumvent these limitations by considering student loan disbursements as regular income, thus enabling borrowing. Additionally, pre-approved credit card offers inundate student mailboxes, enticing them with substantial credit limits [32]. Consequently, the typical American college student, enticed on campus to acquire their first credit card, often ends up obtaining several more, which they utilize for purchases like clothing and school supplies. Subsequently, they resort to student loans to address their burgeoning financial obligations, leading to a cycle of indebtedness, with debts reaching around $20,000 upon graduation, often followed by further loans for purchasing a car [31].

While the period of academic studies may seem distant compared to the elementary school years, education in financial concepts should ideally commence early to maximize its efficacy. A child who has undergone financial training is likely to exhibit more astute money management skills and avoid common pitfalls, such as acquiring high-interest credit cards or overspending on goods and services [33]. Moreover, many managerial skills and habits instilled during childhood can significantly influence later behavioral patterns. However, it's argued that programs tailored for very young children should differ from those designed for teenagers and adults, recognizing the unique relationship young children have with financial institutions and markets [34].

Furthermore, financial education is increasingly recognized as a fundamental right, encompassing a foundational understanding of finance and economics, which serves as an investment for the future. Equipped with financial literacy, children can grasp and navigate basic financial transactions, budgeting, saving, and comprehend the necessity of doing so. Moreover, they gain business acumen to potentially venture into entrepreneurship later in life. Financial literacy also acquaints children with concepts like borrowing, investing, earning, and managing profitability. Children should be regarded as capable individuals capable of understanding the world around them, exploring social, political, and economic environments, and making decisions grounded in their values and beliefs [35]. It's crucial to differentiate the right to financial education from privilege; while the former is a universal concept, the latter is often selective and limited to a few. Financial literacy should be treated as a necessity, essential for functioning within a social context, especially given that it doesn't necessitate specialized education to be effective. Numerous simple methods and tools are available to facilitate adequate financial education [33].

5. DISCUSSION

An intriguing question arises: Can children make accurate financial assessments, such as understanding the true value of objects? Do they comprehend that a gold ring holds greater worth than a bicycle? Furthermore, can children grasp the multifaceted nature of money? Money is observed to possess three dimensions. Firstly, there's the mathematical dimension: even the simplest market transactions entail a series of arithmetic operations. Secondly, there's the economic dimension: in every buying and selling scenario, the value of an object must be objectively assessed, and a fair price determined. Lastly, there's the normative dimension: contractual methods of transactions must be comprehensible to all parties involved. Instruments such as cheques, credit cards, and electronic money require adherence to regularities and procedures for transactions to be conducted properly [36].

Another aspect that hasn't garnered significant attention in past research is children's tax awareness up to the age of 12. Nonetheless, some interest has been expressed in this area as well. For instance, according to Furnham [23], K. Davis and T. Taylor in 1979 explored the concept of taxation from a child's perspective, seeking to assist parents in addressing straightforward, common questions such as "why do we pay taxes?" or "when should I start paying taxes?". They also delved into more complex inquiries, like "why can't the state obtain funds from big businesses?" or "why not tax the wealthy?". Roughly a decade later, in 1988, as cited by Furnham [23] once again, N. Godfrey elucidated the distinction between various types of taxes, such as income and sales taxes, in a book aimed at relevant audiences, while also explaining how tax rates are determined, among other topics. However, there hasn't been extensive exploration into young individuals' understanding of taxation, at least not before the early 1990s.

As mentioned in the Literature review, the issue has also concerned recent works, in connection with the belief that it is necessary to cultivate tax culture and ethics as early as possible in the human age. Of course, it is necessary to resolve simultaneously and related critical issues, such as that of defining the concept of "tax ethics". At the most basic level of discussion it can be related to tax compliance, i.e. paying all tax liabilities in full. By extension, tax non-compliance occurs when tax obligations are not met in full. At a more complex level low tax compliance is an indication of a lack of intrinsic motivation to pay tax, resulting in low tax morale. Following the above, it is found that the measure of tax ethics can be determined according to a single question, or depend on a series of questions, which provide a more powerful analysis and expand, in terms of the instillation of internal motivation, and complex assessments of perceived fairness of tax systems and the perceived legitimacy of governments [14].

It's crucial to ascertain when children can sufficiently grasp tax concepts and, more importantly, adopt a new ethic regarding the value and significance of taxation. This will inherently predispose citizens to fulfill their tax obligations and comprehend that doing so is intricately linked to the provision of goods and social services by the governing state.

For children and teenagers in the later stage of exposure to tax concepts, the threshold can be defined as the point at which they become liable to pay taxes. As long as they have income, irrespective of their age and well before reaching adulthood, young individuals must understand how their income is taxed, their status as dependent family members, their relationship with their parents' income, and when they need to file a separate tax return. Law 4172/2013 addresses these matters with specific provisions, demonstrating that one may become subject to taxation long before turning 18, under certain circumstances.

Certainly, taxation of minors doesn't apply to all teenagers, as many don't yet have incomes warranting tax payments. Nonetheless, adulthood looms closer, and the prospect of being taxed like any other citizen isn't far off, particularly upon entering secondary education. But when should they acquaint themselves with intricate financial concepts, especially those related to taxation? And when can they cultivate the appropriate ethics to prepare for future compliance with the demands of the country's tax system?

The challenge lies in the inconsistent conclusions drawn from various research endeavors, which are rather scant. Furthermore, when conclusions are drawn, they often don't primarily concern taxation. For instance, Moučková and Vítek [37] note that while tax literacy is a specialized branch of financial literacy, there lacks a unified methodology for measuring and evaluating tax literacy. Consequently, programs aimed at improving tax literacy remain limited, and related research is on the fringes of financial literacy studies. According to another study, in Denmark, understanding of tax concepts typically begins around age 14, while in Poland, children may grasp the importance of taxes for the state even before age 11. Early in the 21st century, Furnham [38] suggested that the critical age for comprehending tax concepts is around 14, though he found that even by age 15, many young people weren't sufficiently acquainted with various aspects of taxation. Conversely, arguments have been made that tax concepts can be understood as early as preschool or even earlier, though the complexity of such concepts remains a question.

Cultivating tax consciousness at an early age can be seen to be consistent with the dominant morality premise mentioned in the Literature review (see above). The reason why taxpayer education initiatives in many countries focus on children (and young adults) is precisely because this segment of the population is at a key stage of social development, so that the establishment of tax awareness is embedded by early in the crystallization of citizenship. Therefore, some educational systems target even children already in primary education, and more generally, before the point in time when they will enter the labor market [39]. Of course, it should not be forgotten that here we are talking about two different concepts which in the end are combined. One is that of the ability to assimilate relatively complex economic concepts and the other is that of the general assimilation of prevailing morality at an early age. The perception prevails that it is possible and necessary to teach ethics in primary education, since the cultivation of moral values in students is considered a continuous process and is promoted by the school curriculum, textbooks, teachers' performances, classroom practices, the school culture and school learning. At a very early age students can learn that morality and immorality mean good or bad, legal or illegal practice in our daily lives, as these are broken down into a series of daily actions and completed as learning objects both at home and in the wider social environment. Questions must be answered such as whether ethics should be taught as a separate school subject or spread over a series of lessons, but also whether teachers have the teaching readiness, possibly the empathy, to undertake to convey moral concepts to children [40].

Obviously, the contact of children with the concepts of ethics can be preceded and then, when it is considered that they are at the appropriate age stage, they encounter the concepts and perceptions suitable for the development of tax ethics. In any case, economic and tax knowledge must align with the early integration into the school curriculum and the systematic teaching thereof. Only through this approach can we discern whether the disparities in proposed ages stem from researchers' varying perceptions of children and adolescents' cognitive readiness or from differences in educational programs in which they partake. Perhaps this perspective reveals that the lowering of the age for economic and tax knowledge may be more a consequence of teaching methodologies than exclusively cognitive processes.

6. CONCLUSION

Concerning the introduction of systematic financial and tax education for adolescents in schools, the studies accessed suggest that the age range of 12-14 marks a significant milestone for young people to begin delving into the more intricate concepts of the modern economy. Additionally, according to Nibud [41], youths in this age bracket can understand how to claim a tax refund when employed in official capacities, while concepts related to the labor market become clearer to them around the age of 15 and beyond. Tax awareness among adolescents could arguably be attainable from around age 11 or 12, as they start demonstrating financial comprehension comparable to that of adults. Moreover, from a psychological perspective, this age group may exhibit traits conducive to cultivating a tax-conscious culture, such as displaying an altruistic disposition toward the common good, a factor we deem crucial when addressing issues like tax compliance.

Based on the preceding discussion, several specific proposals for implementing systematic training of citizens on finance and taxation could be:

1. Implementation of Subjects in the Curriculum: This proposal, although not novel, requires careful consideration of the appropriate age for introducing complex financial concepts. Our perspective suggests that children are ready to grasp such concepts from the age of 12 onward, yet this does not preclude earlier exposure to simpler financial ideas. The Directorate of Tax Compliance (2016) advocates for program initiation as early as the 5th grade, proposing pre- and post-program assessments to gauge students' knowledge and behavior. Katopodi (2022) underscores the urgency emphasized by international bodies like the OECD and UNICEF, advocating for financial education from primary school onwards.
2. Ethics as an independent concept to be taught: the appropriate age stage for contact with complex economic concepts can be distinguished from that at which it is possible to develop a more general moral attitude of the citizen. In other words, the child can be introduced to the concepts of the prevailing social morality much earlier than the time point at which he will come into contact with economic concepts, especially tax ones. Perhaps in this way it will be even smoother to integrate the tax aspect of life into his value system, so that when he is introduced to financial and tax concepts a little later, he will be able to relate them to his moral background.
3. Teacher Training: Merely implementing the program is insufficient; its success hinges on teachers' ability to manage its demands, content, and challenges. The Directorate of Tax Compliance (2016) suggests comprehensive teacher training, enabling them not only to teach but also to adapt the program to their classes' needs. Katopodi (2022) also stresses targeted and holistic teacher training, advocating for

specialized materials to facilitate effective instruction and motivation.

4. Drawing from International Educational Practices: Leveraging successful financial literacy programs worldwide offers valuable insights for designing effective youth training initiatives. The Directorate of Tax Compliance (2016) proposes collaboration with EU member states, particularly those on the European Commission's PICS platform, to exchange views and best practices. Katopodi (2016) highlights countries where financial literacy is already integrated into primary education, such as Estonia since 2008 and Spain since 2010. Notably, two teaching approaches prevail: interdisciplinary integration and specialized subject delivery.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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