

Digital Investing: A Quantitative Analysis of Savings Preferences and Strategies Among Generation Z in Poland*

Jakub KREZEL, Alicja KOZACKA and Wiktoria GALECKA

University of Economics, Katowice, Poland

Correspondence should be addressed to: Jakub KREZEL, jakub.krezel@ue.katowice.pl

* Presented at the 46th IBIMA International Conference, 26-27 November 2025, Ronda, Spain

Abstract

The digital transformation of the financial sector and new technologies have greatly expanded how people manage money and invest. Generation Z, raised with mobile apps and instant information access, is notably active in investing. They use traditional instruments like deposit accounts and bonds, alongside modern options such as cryptocurrencies, ETFs and micro-investments via apps. This study aimed to identify Generation Z's investment preferences and the factors affecting their capital allocation. An online survey was conducted between February 24 and March 9, 2025, with 227 respondents aged 18-30 (52% women, 46% men). The findings reveal that Generation Z favors flexible, accessible investing methods, especially mobile apps and cryptocurrencies, but shows limited trust in traditional financial institutions. Risk attitudes vary widely, from conservative to speculative strategies. These insights inform recommendations for financial institutions to better tailor products and communication to young investors' needs. The study emphasizes the critical role of financial education to support Generation Z in a fast-evolving market environment.

Keywords: digital investing, Generation Z, investment behavior, digital transformation

Introduction

Digital transformation fundamentally redefines the landscape of the global economy and financial sector, becoming one of the main drivers of growth and change (Lastauskaite & Krusinskas, 2024; Mammadova, 2020; Peng et al., 2025). The introduction of advanced technologies such as artificial intelligence (AI), cloud computing, Internet of Things (IoT), big data analytics, and blockchain technology opens new perspectives in financial process management, influencing cost reduction and customer service improvements (Nwankpa & Merhout, 2020). The development of digital infrastructure not only transforms corporate investment decisions (Wang et al., 2025), but has also significantly transformed the landscape of individual investing, offering easy access to investment processes through various digital platforms (Mammadova, 2020).

In this dynamically changing environment, a key group whose investment behavior deserves special attention is Generation Z. Born between 1995/1996 and 2012, representatives of this cohort are the first "digital natives," fully shaped in a digital environment, which translates into their natural technological fluency and deep integration with online platforms (Gumasing & Niro, 2023; Tania & Utami Tjhin, 2025; Tolani et al., 2025). Their socialization in a world dominated by technological innovations has also shaped their approach to financial management and investment decision-making (Savithri & Rajakumari, 2025). Characteristic of Generation Z is reliance on internet-based information sources, including social media such as YouTube and TikTok, which have a significant impact on their investment decisions and willingness to take higher financial risks, including in cryptocurrencies and assets subject to online trends (Savithri & Rajakumari, 2025; Smutny et al., 2021).

Cite this Article as: Jakub KREZEL, Alicja KOZACKA and Wiktoria GALECKA, Vol. 2025 (29) "Digital Investing: A Quantitative Analysis of Savings Preferences and Strategies Among Generation Z in Poland " Communications of International Proceedings, Vol. 2025 (29), Article ID 4631325, <https://doi.org/10.5171/2025.4631325>

Despite rich international literature on digital investing and Generation Z behaviors, there is a relative deficit of research focusing specifically on the Polish context of digital investing among Generation Z. Although general research indicates growing interest among young Poles in digital financial solutions, comprehensive analyses of investment preferences and strategies of this specific demographic group in Poland are still lacking. There is a lack of detailed analysis of mechanisms influencing investment decisions, the role of social media, and specific preferences regarding financial instruments and digital platforms in the context of the Polish market (Mammadova, 2020; Savithri & Rajakumari, 2025).

The aim of this study is to fill this gap through a comprehensive analysis of preferences and strategies for digital investing among Polish representatives of Generation Z, considering the specificity of the local financial, regulatory, and cultural market. An empirical hypothesis was analyzed whether Generation Z shows a preference for flexible and easily accessible forms of investing, such as mobile applications and cryptocurrencies, while simultaneously showing a diverse approach to risk, including both conservative and speculative capital allocation.

The structure of the article includes successively the literature review section, which addresses issues such as the evolution of the investment paradigm in the digital economy, characteristics of investing and the specificity of Generation Z as a demographic cohort, as well as challenges and implications of digital investing. Next, the methodology used in the study is presented, describing the data collection process and respondent profile. In the next section, empirical research results on a sample of Generation Z representatives in Poland are presented. The article concludes with a summary and conclusions, including recommendations for financial institutions and further research.

Literature Analysis

Evolution of the investment paradigm in the digital economy

As digital data and content become key resources driving global economic restructuring and changes in the competitive landscape (Lastauskaite & Krusinskas, 2024; Peng et al., 2025), the contemporary economy undergoes intensive digital transformation that fundamentally changes the investment landscape (Lastauskaite & Krusinskas, 2024; Peng et al., 2025).

The digital economy, defined as a set of economic activities based on data as a key element of production, modern information networks as an essential transmission medium, and effective use of information and communication technologies (ICT) as a vital force for increasing efficiency and optimizing economic structure (Xie et al., 2025), becomes a significant driver of economic growth (Lastauskaite & Krusinskas, 2024; Mammadova, 2020; Nwankpa & Merhout, 2020; Peng et al., 2025) and increased business competitiveness (Lastauskaite & Krusinskas, 2024; Nwankpa & Merhout, 2020). The development of digital infrastructure can influence the transformation of decision-making processes regarding corporate investments (Liu et al., 2025).

Traditionally, the main sources of investment financing include company equity, household savings, bank loans, capital market financing, budget funds, as well as foreign direct and portfolio investments (Mammadova, 2020). In the face of digital transformation, these financing mechanisms are evolving, introducing innovative digital tools such as WealthTech, encompassing robo-advisory, digital brokers, and micro-investment, which enhances financial inclusion and capital market efficiency (Lastauskaite & Krusinskas, 2024; Mammadova, 2020; Polanco, 2023; Xie et al., 2025).

Investment: Definitions, Types, and Motivations in Financial Management

Historically, investment theory became part of economics, specifically financial economics, only from the 1960s. Previously, it was perceived as a separate field, and its roots date back to the 13th century (Pistorius, n.d.).

Investing, understood as the process of engaging funds or other resources to achieve future profits (Mammadova, 2020; Wulandari et al., 2023), constitutes an essential element of economic development of entities at various levels (Chobitok et al., 2021; Mammadova, 2020), contributing to the development of productive forces, increasing profits, and social, environmental, and economic effects (Chobitok et al., 2021), as well as to increasing investment efficiency and financial performance of enterprises through digital transformation and innovations (Lastauskaite & Krusinskas, 2024; Nwankpa & Merhout, 2020; Peng et al., 2025; Tolani et al., 2025).

Investing involves risk and uncertainty (Baddeley, 2005; Smutny et al., 2021; Wulandari et al., 2023). There are two main groups of investors: individual investors and institutional investors (e.g., insurance companies, banks,

pension funds, and investment firms) (Stańczak-Strumiłło, 2017; Wulandari et al., 2023).

Approaches to investing can be: teleological (as in Markowitz's portfolio theory and CAPM, where risk accompanies equilibrium value) (Fabozzi et al., 2008; Pistorius, n.d.) or empirical, where regularities are predicted based on historical data (Park & Irwin, n.d.; Pistorius, n.d.).

Investment motives include the pursuit of return (rates of return, historical returns) (Gutsche & Ziegler, 2019; Hellström et al., 2020; Kollenda, 2022), and investment decisions are influenced by factors such as: financial knowledge (Gumasing & Niro, 2023; Gutsche & Ziegler, 2019; Lusardi et al., 2011; Lusardi & Mitchell, 2007), investment experience (Xie et al., 2025), investment horizon and portfolio size (D'Hondt et al., 2022).

Research on cryptocurrencies also indicates the pursuit of return as a key motivation, where investors are willing to take higher risks in exchange for potentially higher profits (Smutny et al., 2021). Concepts such as compound interest are fundamental in investment strategies aimed at maximizing returns over time (Janardana & Ibrahim Wirandi, 2024).

Investing plays a crucial role in financial planning (Avenidaño-Miranda et al., 2024; Inkinen, 2021). Investment motivations are diverse; they include, among others, building savings for the future and achieving financial independence (Avenidaño-Miranda et al., 2024; Inkinen, 2021; Lisowski & Jamróz, 2017; Russel, 2022; Stańczak-Strumiłło, 2017).

The time horizon plays a crucial role in conditioning investment behaviors and making optimal portfolio decisions (Levy, 2024). Empirical studies (Choi et al., 2016) have demonstrated a positive correlation between investment horizon and company performance. Companies characterized by longer investment horizons, expressed among others through depreciation data, exhibit higher operational efficiency and better financial results (Choi et al., 2016).

Poles demonstrate low propensity for investing in general, particularly in long-term forms (Russel, 2022).

The savings rate in Poland is low compared to countries with similar income levels, and it ranks only slightly below the OECD average. In 2011, household savings accounted for just 6% of the economy's total gross savings, with voluntary savings (excluding mandatory pension funds) falling to 5% of total savings (Kolasa & Liberda, 2014). Studies suggest that saving (accumulating reserves) is the preferred strategy for Polish households to protect against future financial shocks (Wołoszyn & Głowicka-Wołoszyn, 2024).

Digital Transformation of the Financial Sector as the Foundation of Contemporary Investing

Digital transformation has become a key driving force for the development of the financial sector, fundamentally changing its structure and functioning (Chowdhury et al., 2023; Liu et al., 2025; Nwankpa & Merhout, 2020). The global digital revolution catalyzes transformational paradigm changes, redefining value creation and operational efficiency in various industries (Peng et al., 2025; Xie et al., 2025). The growing importance of the digital economy has disrupted traditional industry boundaries, introducing transformational changes, especially in information transmission and resource allocation (Peng et al., 2025; Wang et al., 2025). Companies feel increased pressure to make digital investments a strategic priority (Nwankpa & Merhout, 2020). Digital transformation serves as a key pathway for firms to enhance competitiveness and achieve sustainable development, delivering process optimization, performance improvements, and innovation capabilities (Nwankpa & Merhout, 2020).

The academic literature widely examines digital transformation in the context of investment innovation and efficiency. Studies analyze the impact of digitization on firms' investment efficiency (Xue et al., 2024) and the effect of digital finance on firms' inefficient investments (Xue et al., 2024). Research also explores organizing innovation in a digitized world (Yoo et al., 2012).

The digital context encompasses both the financial instruments themselves and the way investors interact with the financial market (Chowdhury et al., 2023; Kang & Lee, 2025; Mammadova, 2020). Blockchain-based classes of digital assets, such as DeFi and NFTs, have generated immense interest as alternative investment platforms (Chowdhury et al., 2023; Savithri & Rajakumari, 2025; Tolani et al., 2025). The development of digital infrastructure enables firms to access market information more conveniently, improving decision-making efficiency (Liu et al., 2025). The transformative role of advanced technologies such as augmented reality (AR), virtual reality (VR), and blockchain in shaping investment decisions highlights their ability to enhance

engagement, security, and monetization opportunities in virtual environments (Smutny et al., 2021; Tolani et al., 2025).

The digital transformation process involves not only the digitization of business processes but also the restructuring of resource systems and the strengthening of competency frameworks (Nwankpa & Merhout, 2020; Wang et al., 2025). This requires the creation of an agile organization capable of identifying necessary changes and rapidly responding with competitive digital solutions (Nwankpa & Merhout, 2020).

Modern technologies such as artificial intelligence (AI), cloud computing, Internet of Things (IoT), big data analytics, and blockchain technology open new possibilities in financial process management (Kang & Lee, 2025; Mammadova, 2020; Nwankpa & Merhout, 2020). For example, robo-advisors, portfolio management software, digital brokers, and micro-investments are WealthTech tools based on AI, machine learning, and big data that help in making investment decisions (Mammadova, 2020; Peng et al., 2025; Tolani et al., 2025; Xie et al., 2025).

Digital Investing as a Strategic Imperative for Contemporary Organizations

Based on the current state of knowledge (Mammadova, 2020; Tolani et al., 2025; Wang et al., 2025) digital investing can be defined as a concept encompassing the use of innovative digital technologies (e.g., AI, IoT, big data, cloud computing, blockchain, etc.) and internet platforms, such as: mobile applications, algorithmic advisory (robo-advisory), social media, and digital assets (cryptocurrencies, NFTs), to facilitate and democratize the investment process, reduce its costs, and change investors' perceptions and experiences. For companies, these initiatives aim, among other objectives, to enhance competitiveness, operational efficiency, and innovativeness, as well as to streamline business processes.

According to Schroeder and Zwick (2021), digital investing is an investment experience that evolved with the emergence of the Internet as the main tool for investing, trading, and researching financial markets (Schroeder & Zwick, 2021).

Based on empirical research Nwankpa, J. K. and Merhout, J. W. (2020) it can be inferred that digital investing is driven by three main determinants (Nwankpa & Merhout, 2020):

- Organizational IT competencies: understood as the ability to effectively utilize IT resources and assets; they enable identification of opportunities created by digital technologies and favor greater investments in this area;
- Competitive pressure: encourages organizations to perceive digital investments as an instrument for strengthening market position and rapid adaptation to the changing business environment;
- Organizational agility: enables companies to quickly recognize and select appropriate digital solutions and effectively respond to digital disruptions.

Digital development has significantly transformed the landscape of individual investing in the last decade (Kogan Dimitris Papanikolaou et al., 2024) and digital platforms offer easy access to investment processes (Itzhak Vici & Nuryasman MN, 2022; Tania & Utami Tjhin, 2025).

Challenges and Implications of Digital Investing

Despite numerous benefits, digital investing involves significant challenges (Chobitok et al., 2021; Nwankpa & Merhout, 2020; Wang et al., 2025) The dynamic pace of technology development forces organizations to quickly adapt to the changing business environment and implement digital innovations (Nwankpa & Merhout, 2020). This is particularly difficult in countries with poorly developed market mechanisms, where problems with efficient functioning of market mechanisms and low efficiency of the financial sector constitute barriers to digital innovations (Mammadova, 2020).

Inequalities in the distribution of digital gains have been observed (Xie et al., 2025) along with the legal complexity of digital assets, which complicates establishing their territorial linkage due to the lack of physical presence (Chowdhury et al., 2023; Polanco, 2023). The legal classification of cryptocurrencies, including blockchain-based assets, remains uncertain, and national authorities diverge in their classifications, underscoring regulatory framework ambiguity (Chowdhury et al., 2023). In financial transactions, funds are sometimes not physically transferred but made available in another location, further complicating the determination of territorial connections (Polanco, 2023).

Security and privacy concerns present additional barriers to the adoption of digital technologies, especially in the

context of the Metaverse (Husain et al., 2025; Liu et al., 2025) and NFT ecosystems (Chowdhury et al., 2023; Kang & Lee, 2025; Liu et al., 2025). They also significantly influence financial attitudes, which in turn affect the intention to use investment applications (Tania & Utami Tjhin, 2025).

The development of digital infrastructure can lead to inefficient or excessive investments, including both overinvestment and underinvestment by corporations (Li et al., 2024; Wang et al., 2025). Financial markets exhibit overinvestment in high-frequency trading technologies, which can trigger an “arms race” and yield socially inefficient outcomes (Biais et al., 2015). Moreover, the digital economy is marked by developmental imbalances, where a small fraction of regions controls a significant share of digital investments - a phenomenon known as the “Matthew effect” or the Pareto principle (Xie et al., 2025). For example, in Fujian Province in 2021, 60% of digital economy investment was concentrated in just 2% of counties, illustrating this trend and posing risks to the long-term sustainability of the digital economy (Xie et al., 2025). This may exacerbate regional and social disparities - “the poor become poorer” - despite increased investment activity by marginalized counties (Lastauskaite & Krusinskas, 2024; Xie et al., 2025).

The rising prominence of younger generations in the investment market fosters the popularization of digital platforms (Kogan Dimitris Papanikolaou et al., 2024; Tania & Utami Tjhin, 2025). Younger cohorts, including Millennials and Generation Z, also exhibit a greater propensity for financial risk-taking than older generations (Kogan Dimitris Papanikolaou et al., 2024).

Generation Z's characteristics as a demographic cohort alongside their distinctive financial behavior

Generation Z, defined in the literature as the demographic cohort born between 1995/1996 and 2012 (Gumasing & Niro, 2023; Smutny et al., 2021; Tania & Utami Tjhin, 2025; Tolani et al., 2025) stands out as the first generation fully shaped in a digital environment (Gumasing & Niro, 2023; Tania & Utami Tjhin, 2025). The academic literature consistently identifies this group as “digital natives” (Tania & Utami Tjhin, 2025; Tolani et al., 2025), characterized by innate technological fluency and deep integration with digital platforms (Gumasing & Niro, 2023; Tolani et al., 2025). Unlike previous generations (Gumasing & Niro, 2023; Savithri & Rajakumari, 2025; Tolani et al., 2025), Generation Z experienced socialization in an environment dominated by technological innovations, which has fundamentally influenced their approach to financial management and decision-making processes (Savithri & Rajakumari, 2025; Tolani et al., 2025).

Sources indicate that Generation Z grew up in an environment dominated by technological innovations, which influenced their approach to financial management and decision-making (Savithri & Rajakumari, 2025; Tolani et al., 2025).

Studies indicate that during the pandemic, Generation Z members were more likely to spend money on things they previously could not have or do, and they also became accustomed to allocating a large portion of their income to online shopping (Russel, 2022).

Generation Z shapes its investment decisions through the availability of information on the Internet (Savithri & Rajakumari, 2025). Sources note that Generation Z relies on technology platforms such as YouTube to make informed investment choices (Savithri & Rajakumari, 2025). The emergence of “TikTok traders” and the influence of hashtags that helped map this phenomenon are also highlighted (Savithri & Rajakumari, 2025). Research focusing on data collected from social media users, including Facebook, Twitter (now X), and YouTube - has demonstrated a link between social media information and investment decisions (Savithri & Rajakumari, 2025). In the context of information dissemination in the digital age, YouTube, Instagram, X (formerly Twitter), and LinkedIn are mentioned as platforms playing a central role in information sharing (Tania & Utami Tjhin, 2025).

The authors suggest (Savithri & Rajakumari, 2025) that Generation Z adopts a bolder stance toward investing and frequently takes advantage of so-called high-risk opportunities, such as cryptocurrencies and capital influenced by social media trends (Savithri & Rajakumari, 2025).

Generation Z representatives are characterized by ease of accessing information, which they freely exchange using applications and other technologies (Tania & Utami Tjhin, 2025) Both Generation Y and Generation Z exhibit a propensity to use fintech services (Tolani et al., 2025).

The FIRE (Financial Independence, Retire Early) movement

The FIRE (Financial Independence, Retire Early) movement has gained popularity in recent decades (Inkinen, 2021). It is an initiative that arouses growing interest in society, although it represents a relatively new area of research for the academic community (Avendaño-Miranda et al., 2024).

The FIRE movement aims to achieve a sufficient, self-generated, sustainable passive income stream to finance desired life choices. Its premise is to provide freedom from paid work and the opportunity to lead a more “meaningful” life (Inkinen, 2021). The concept entails, among other strategies, building a steady income stream, accumulating assets that generate passive income to cover expenses, maximizing the savings rate, and investing in growth-oriented assets, all with the goal of reclaiming time and enjoying freedom, sometimes in the context of early retirement (Raj et al., n.d.). The contemporary FIRE initiative places greater emphasis on financial independence rather than early retirement, noting that early retirement is optional (Avendaño-Miranda et al., 2024).

Research Gap and the Polish Context

Despite a rich body of international literature, there is a relative deficit of research specifically focused on the Polish context of digital investing among Generation Z. Although studies indicate high adoption of fintech solutions in Poland (Mammadova, 2020) and growing interest among young Poles in digital financial services, comprehensive analyses of this demographic group’s investment preferences and strategies are lacking.

The analysis of mechanisms influencing investment decisions, the role of social media, and specific preferences for financial instruments and digital platforms in the Polish context remains an area in need of further empirical research.

This study aims to fill this gap through a comprehensive analysis of digital investing preferences and strategies among Polish Generation Z representatives, considering the specificity of the local financial, regulatory, and cultural market.

Methodology

The study is quantitative in nature and addresses the topic of Generation Z representatives’ investment preferences and strategies in the context of digital savings allocation. The choice of this methodology allowed for the collection of data from a broad group of respondents and their analysis. Such an approach was deemed crucial for identifying general trends and investment barriers among young adults, as it enables obtaining a large representative research sample, which is difficult to achieve using methods based on the observation of actual investment behaviors. Moreover, the use of a survey questionnaire as the research instrument is widely employed in academic literature for studies on investment decision-making (Jagongo & Mutswenje, 2014).

The study was conducted using the Computer-Assisted Web Interviewing (CAWI) technique, which enabled reaching a broad target group across Poland and efficiently gathering opinions and experiences related to digital investing within a short timeframe (Barbu, 2011). The survey questionnaire comprised closed-ended questions, both single-choice and multiple-choice, facilitating the standardization of responses and their subsequent analysis.

The study was conducted over a two-week period, from February 24 to March 9, 2025, making it cross-sectional in nature. Consequently, the methodology allows for the identification of associations but not for establishing causal relationships or tracking changes over time. It is suggested that future research employs a longitudinal approach.

The study population comprised Generation Z, defined as individuals aged 18-30, born between 1995 and 2006. A total of 227 respondents were included. Of these, 52% were women and 46% were men, providing a balanced gender representation in the sample. A non-random sampling method was employed, specifically the snowball technique. The use of a non-random sampling method (snowball sampling) may limit the generalizability of the results to the entire Generation Z population, as the sample is not fully representative and may be subject to selection bias.

The survey questionnaire covered a range of key topics enabling a comprehensive analysis of Generation Z’s digital investment behaviors. It addressed respondents’ knowledge and usage of various financial instruments, attitudes toward innovative technological solutions - particularly the role of artificial intelligence (AI) in financial advice - barriers to initiating investing (such as lack of time, knowledge, funds, trust, or fear of losing savings), financial security in the form of a financial cushion, financial expectations (including target savings by age 30), and financial goals such as property purchase, travel, financial independence, or long-term saving. The final

section focused on plans to achieve so-called financial freedom.

The research hypothesis was formulated on the assumption that Generation Z shows a preference for flexible and easily accessible forms of investing, such as mobile applications and cryptocurrencies, while demonstrating limited trust in traditional financial institutions. Furthermore, a substantial diversity in risk attitudes among young investors was anticipated, encompassing both conservative asset allocation and a propensity for speculative investments. The collected data was intended to verify these assumptions, providing valuable insights for financial institutions and banks aiming to effectively reach this young cohort of investors.

Results

Based on the data collected, three main categories of barriers limiting the initiation of the investment process among respondents were identified (Figure 1). The most frequently reported obstacles were lack of knowledge about investing (46%), lack of time to explore the topic (47%), and fear of losing savings (46%). Less significant barriers included distrust of various forms of investing, stress related to settlement procedures, and distrust of the capitalist system.

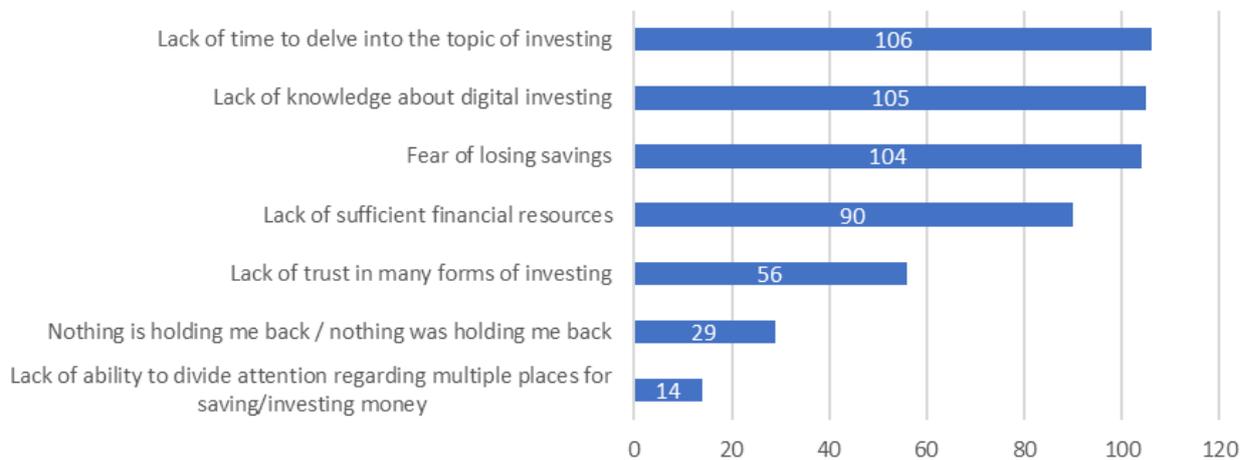


Figure 1. Discouraging factors for investing among Generation Z representatives.

Source: own study.

In terms of long-term financial aspirations, the study revealed that respondents' goals were centered on building financial security for the future (68%) and achieving economic autonomy (65%), as shown in Figure 2. Significant motivations also included funding recreational activities and personal aspirations (58%), as well as purchasing residential real estate (56%). Expectations regarding the amount of funds to be accumulated before turning 30 were highly heterogeneous - ranging from a few thousand to several hundred thousand zloty [PLN] - with a modal value of 100,000 zł (38%) (Figure 3).

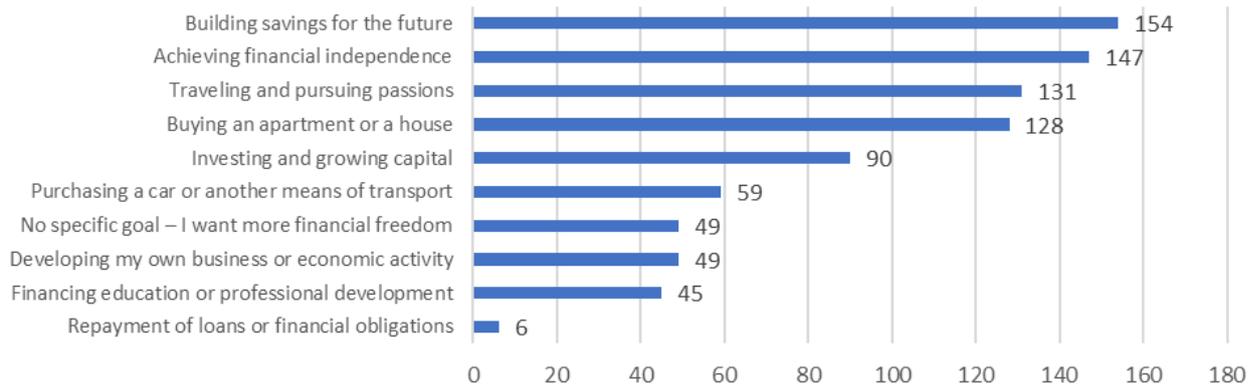


Figure 2. Declared financial goals of Generation Z representatives.

Source: own study.

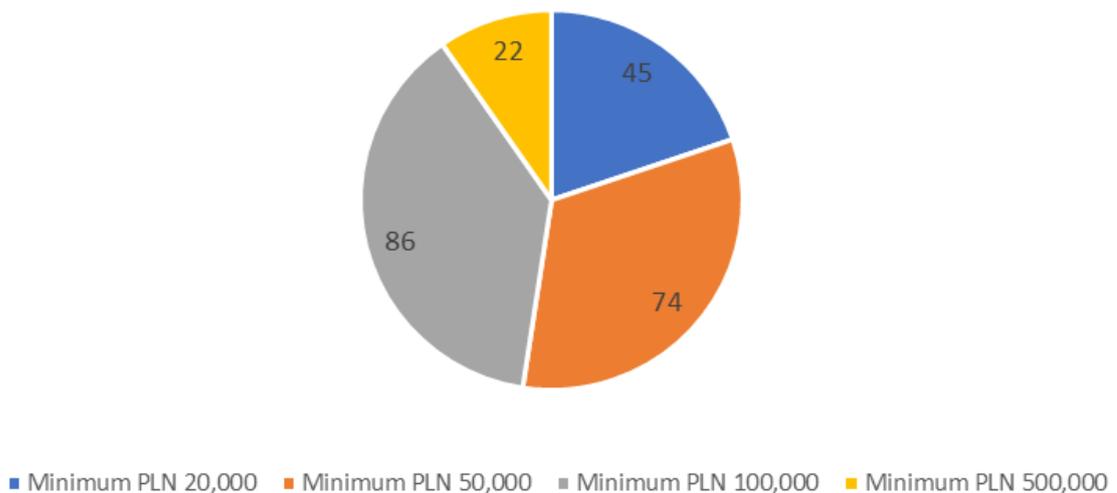


Figure 3. Expected amount of savings to accumulate before age 30.

Source: own study.

The analysis of financial security structures revealed that 33% of participants declared having financial reserves sufficient to cover living expenses for at least six months (the so-called financial cushion), while 26% of respondents were in the initial phase of building such reserves. Additionally, 16% of those surveyed reported having financial security for a period shorter than six months. Only 7.5% of respondents did not plan to create such a cushion (Figure 4).

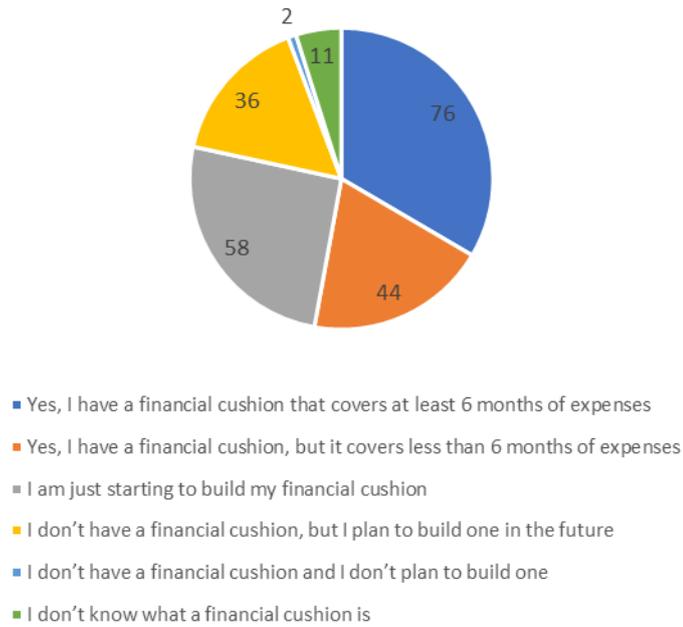


Figure 4. Status of financial cushion ownership among respondents.

Source: own study.

In the context of long-term financial planning, optimistic attitudes prevailed: more than half of respondents (52.4%) declared an intention to achieve financial independence before age 30, while 30.8% aimed to do so before age 40 (Figure 5).

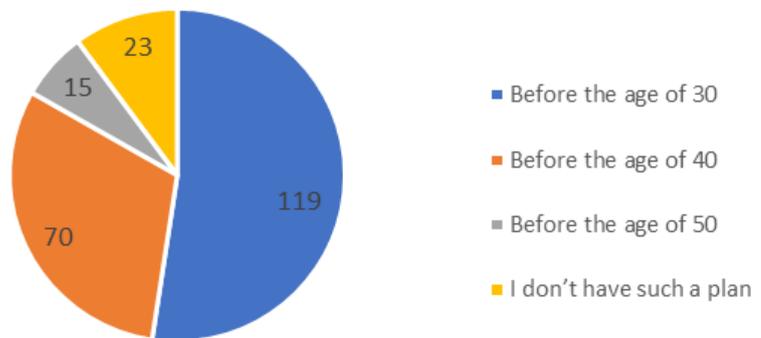


Figure 5. Planned timing for achieving financial freedom by respondents.

Source: own study.

The obtained results confirm the research hypothesis, indicating that Generation Z representatives prefer flexible and mobile forms of capital allocation, combining the use of traditional financial instruments with modern technological solutions. Although a uniformly low level of trust in conventional financial institutions was not identified, young investors express a clear need for financial education and decision-making support in investing. The analysis revealed considerable heterogeneity in risk attitudes - alongside conservative capital accumulation strategies, there is readiness to engage in higher-risk investments such as cryptocurrencies. While respondents showed openness to modern technologies, their trust in artificial intelligence as a financial advisor was limited, with 44% expressing doubts about relying on AI for investment guidance. This indicates that although Generation Z is willing to experiment with innovative tools, scepticism remains regarding the reliability of algorithmic

advisory, demonstrating this cohort's openness to innovative yet cautiously approached solutions in the financial services sector.

Summary and conclusions

The conducted study provides significant findings regarding the digital investing preferences and strategies of Polish Generation Z representatives, which carry important theoretical and practical implications for the financial sector.

The study's findings partially confirm the research hypothesis. Respondents indeed show a preference for flexible and mobile forms of capital allocation, combining the use of traditional financial instruments with modern technological solutions. However, distrust toward traditional financial institutions was not uniformly low; instead, respondents primarily emphasized the need for clearer financial education and accessible guidance to help them navigate both traditional and innovative investment instruments. Notably, there is considerable heterogeneity in risk attitudes - from conservative strategies to a willingness to engage in high-risk investments such as cryptocurrencies. While respondents showed openness to modern technologies, their trust in artificial intelligence as a financial advisor was limited, with 44% expressing doubts about relying on AI for investment guidance. This indicates that skepticism persists regarding the reliability of algorithmic advisory.

The identification of three primary investment barriers - lack of time to explore the topic (47%), lack of knowledge about investing (46%), and fear of losing savings (46%) - highlights key areas requiring educational and product interventions by governmental and financial institutions. At the same time, the strong focus of respondents' financial goals on building long-term financial security (68%) and striving for economic autonomy (65%) represents a positive signal, suggesting a mature approach to financial planning.

The study's findings point to the need for changes in financial institutions' strategies for serving young clients. First, it is crucial to develop intuitive digital platforms and mobile applications that provide easy access to a variety of investment instruments while simultaneously offering an appropriate level of financial education. Second, institutions should consider implementing hybrid advisory models that combine automation (robo-advisory) with access to financial experts, addressing the identified need for decision-making support. Third, product offerings should reflect young investors' preference for low entry thresholds and micro-investing opportunities, which can enhance the financial inclusion of this demographic group. Fourth, marketing communication should leverage the digital channels preferred by Generation Z, emphasizing transparency, education, and trust-building.

From a regulatory perspective, the results can be interpreted in the context of the need to develop legal frameworks that support financial innovation while ensuring adequate protection for young investors. Particularly important appears to be the establishment of standards for financial education and transparency of investment risk information in the context of digital platforms.

The study contributes to the literature on behavioral finance in the context of digitization by providing empirical evidence on the specificity of investment behaviors of "digital natives" within the Polish cultural and economic context. The results expand the understanding of mechanisms influencing young generations' financial decisions and confirm the importance of technological factors in shaping investment preferences.

Limitations and future research

This study has several limitations that should be considered when interpreting the results. First, the use of a non-random sampling method (snowball technique) may affect the representativeness of the findings and their generalization to the entire Polish Generation Z population. The sample may have been biased toward individuals with higher educational attainment or greater digital engagement, potentially overrepresenting the most technologically advanced segment.

Second, the cross-sectional nature of the study allows only for the identification of correlations between variables and does not permit establishing causal relationships. The dynamic nature of investment preferences and the rapid pace of technological change in the financial sector suggest the need for longitudinal research to gain a more complete understanding of the evolution of investment behaviors.

Third, the exclusive use of a survey questionnaire as the research instrument may not capture the full complexity of decision-making processes in real investment situations. Stated preferences may differ from actual behaviors,

especially in the context of high-risk investments.

Additionally, the focus on the Polish context, while a strength of the study, limits the generalizability of the findings to other European or global markets characterized by different cultural, regulatory, and economic conditions.

Future research should adopt a longitudinal approach, enabling the tracking of Generation Z's investment preference evolution over time, particularly in the context of emerging financial technologies and shifting market conditions. Valuable extensions to the existing knowledge base would include experimental or quasi-experimental studies that allow the analysis of actual investment behaviors under controlled conditions, thereby providing deeper insights into the decision-making mechanisms of the youngest client segments. Integrating quantitative methods with qualitative approaches (e.g., in-depth interviews, focus groups) could offer a richer understanding of investment motivations and barriers, as well as the influence of social media on the financial choices of Generation Z representatives.

Despite providing significant insights into digital investing among Polish Generation Z, the identified limitations underscore the need for continued research in this area employing diverse methodological approaches and analytical perspectives.

References

- Avendaño-Miranda, L. L., Rey, U., & Carlos, J. (2024). THE FIVE DIMENSIONS OF FINANCIAL INDEPENDENCE, RETIRE EARLY.
- Baddeley, M. C. (2005). UNPACKING THE BLACK BOX: an econometric analysis of investment strategies in real world firms.
- Barbu, A. (2011). DATA COLLECTION IN ROMANIAN MARKET RESEARCH: A COMPARISON BETWEEN PRICES OF PAPI, CATI AND CAWI. <https://www.researchgate.net/publication/227430482>
- Biais, B., Foucault, T., & Moinas, S. (2015). Equilibrium fast trading. *Journal of Financial Economics*, 116(2), 292–313. <https://doi.org/10.1016/j.jfineco.2015.03.004>
- Chobitok, V., Shevchenko, O., Lomonosova, O., Kochetkov, V., & Bykhovchenko, V. (2021). Application of budget allocation models in the management of investment processes in the context of the digital economy development. *Cuestiones Políticas*, 39(71), 594–608. <https://doi.org/10.46398/cuestpol.3971.35>
- Choi, J., Choi, W., & Lee, E. (2016). Corporate Life Cycle and Earnings Benchmarks. *Australian Accounting Review*, 26(4), 415–428. <https://doi.org/10.1111/auar.12100>
- Chowdhury, M. A. F., Abdullah, M., Alam, M., Abedin, M. Z., & Shi, B. (2023). NFTs, DeFi, and other assets efficiency and volatility dynamics: An asymmetric multifractality analysis. *International Review of Financial Analysis*, 87. <https://doi.org/10.1016/j.irfa.2023.102642>
- D'Hondt, C., Merli, M., & Roger, T. (2022). What drives retail portfolio exposure to ESG factors? *Finance Research Letters*, 46. <https://doi.org/10.1016/j.frl.2021.102470>
- Fabozzi, F. J., Markowitz, H. M., & Gupta, F. (2008). Portfolio Selection. In *Handbook of Finance*. Wiley. <https://doi.org/10.1002/9780470404324.hof002001>
- Gumasing, M. J. J., & Niro, R. H. A. (2023). Antecedents of Real Estate Investment Intention among Filipino Millennials and Gen Z: An Extended Theory of Planned Behavior. *Sustainability (Switzerland)*, 15(18). <https://doi.org/10.3390/su151813714>
- Gutsche, G., & Ziegler, A. (2019). Which private investors are willing to pay for sustainable investments? Empirical evidence from stated choice experiments. *Journal of Banking and Finance*, 102, 193–214. <https://doi.org/10.1016/j.jbankfin.2019.03.007>
- Hellström, J., Lapanan, N., & Olsson, R. (2020). Socially responsible investments among parents and adult children. *European Economic Review*, 121. <https://doi.org/10.1016/j.eurocorev.2019.103328>
- Husain, M. F. H., Razali, M. N., Jamaludin, A. F., Zakaria, S. R. A., Yassin, A. M., Jasimin, T. H., Nazrin, A. H., & Hamid, M. Y. (2025). EMPIRICAL STUDY ON RETAIL INVESTOR MOTIVATIONS IN METAVERSE DIGITAL REAL ESTATE. *Real Estate Management and Valuation*, 33(2), 97–108. <https://doi.org/10.2478/remav-2025-0018>
- Inkinen, S. (2021). Financial Independence, Retire Early: Practicing FIRE and Its Effects on Consumers' Lives.
- Itzhak Vici, & Nuryasman MN. (2022). Investment Readability Through The Digital Platform. *Jurnal Ekonomi*, 27(2), 191–209. <https://doi.org/10.24912/je.v27i2.1058>
- Jagongo, A., & Mutswenje, V. S. (2014). A Survey of the Factors Influencing Investment Decisions: The Case of Individual Investors at the NSE. In *International Journal of Humanities and Social Science (Vol. 4,*

Issue 4).

- Janardana, K., & Ibrahim Wiriandi, D. (2024). The Application of Compound Interest in Investment Portfolios. *International Journal of Quantitative Research and Modeling*, 5(4), 427–431.
- Kang, H. J., & Lee, S. G. (2025). Market Phases and Price Discovery in NFTs: A Deep Learning Approach to Digital Asset Valuation. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(2). <https://doi.org/10.3390/jtaer20020064>
- Kogan Dimitris Papanikolaou, L., W Schmidt Bryan Seegmiller, L. D., Acemoglu, D., Aghion, P., Autor, D., Benmelech, E., Bloom, N., Braxton, C., Caunedo, J., Beraja, M., Frydman, C., Hassan, T., Hemous, D., Humlum, A., Jaimovich, N., Lagakos, D., Martinez, J., Peters, M., Restrepo, P., ... Ben Zhang, M. (2024). Technology and Labor Displacement: Evidence from Linking Patents with Worker-Level Data *.
- Kolasa, A., & Liberda, B. (2014). ALEKSANDRA KOLASA BARBARA LIBERDA Determinants of saving in Poland: Are they different than in other OECD countries? Determinants of saving in Poland: Are they different than in other OECD countries? (Issue 13).
- Kollenda, P. (2022). Financial returns or social impact? What motivates impact investors' lending to firms in low-income countries. *Journal of Banking and Finance*, 136. <https://doi.org/10.1016/j.jbankfin.2021.106224>
- Lastauskaite, A., & Krusinskas, R. (2024). The Impact of Production Digitalization Investments on European Companies' Financial Performance. <https://doi.org/10.3390/economies>
- Levy, H. (2024). Choices under uncertainty and the investment horizon. *Annals of Operations Research*. <https://doi.org/10.1007/s10479-024-06317-6>
- Li, S., Yang, Z., & Tian, Y. (2024). Digital transformation and investment decisions: A corporate performance perspective (pp. 146–153). https://doi.org/10.2991/978-94-6463-260-6_19
- Lisowski, R., & Jamróz, A. (2017). TAX PREFERENCES VS. DEVELOPMENT OF IKZE IN POLAND. *Prace Naukowe Uniwersytetu Ekonomicznego We Wrocławiu*, 488, 88–98. <https://doi.org/10.15611/pn.2017.488.08>
- Liu, Y., Wang, W., & Liu, J. (2025). To NFT or Not: A Strategic Analysis for Fashion Brands Developing Digital Products in the Metaverse. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(3), 155. <https://doi.org/10.3390/jtaer20030155>
- Lusardi, A., Mitchell, O. S., & Washington, G. (2011). NBER WORKING PAPER SERIES FINANCIAL LITERACY AND RETIREMENT PLANNING IN THE UNITED STATES. <http://www.nber.org/papers/w17108>
- Lusardi, A., & Mitchell, O. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), 35–44. <https://doi.org/10.2145/20070104>
- Mammadova, G. M. (2020). Innovative Tools for Investment Management in the Digital Economy: a Guide for Post-Socialist Countries. *Marketing and Management of Innovations*, 4, 181–190. <https://doi.org/10.21272/mmi.2020.4-14>
- Nwankpa, J. K., & Merhout, J. W. (2020). Exploring the effect of digital investment on IT innovation. *Sustainability (Switzerland)*, 12(18). <https://doi.org/10.3390/SU12187374>
- Park, C.-H., & Irwin, S. H. (n.d.). The Profitability of Technical Analysis: A Review.
- Peng, Z., Zhang, H., Zhou, P., Ren, J., & Chen, Y. (2025). Enterprise digital transformation and inefficient investment: from the perspective of diversified operations and environmental uncertainty. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-05591-4>
- Pistorius, T. (n.d.). Heterodox Investment Theory.
- Polanco, R. (2023). The Impact of Digitalization on International Investment Law: Are Investment Treaties Analogue or Digital? *German Law Journal*, 24(3), 574–588. <https://doi.org/10.1017/glj.2023.30>
- Russel, P. (2022). Potencjał instytucjonalnych form dodatkowego oszczędzania w zakresie zwiększenia dochodów emerytów w Polsce. *Studia BAS*, 72(4). <https://doi.org/10.31268/studiabas.2022.28>
- Savithri, M., & Rajakumari, D. (2025). International Journal of Economics and Financial Issues Analysis of Investment Factors and Decisions among Generation Z and Generation X in Indian Capital Market. *International Journal of Economics and Financial Issues* |, 15(1), 2025. <https://doi.org/10.32479/ijefi.17536>
- Schroeder, R., & Zwick, J. (2021). Stock Investing in the Digital Age.
- Smutny, Z., Sulc, Z., & Lansky, J. (2021). Motivations, barriers and risk-taking when investing in cryptocurrencies. *Mathematics*, 9(14). <https://doi.org/10.3390/math9141655>
- Stańczak-Strumiłło, K. (2017). INVESTMENT FUND COMPANIES IN THE DEVELOPMENT OF INDIVIDUAL PENSION ACCOUNTS AND INDIVIDUAL PENSION SECURITY ACCOUNTS IN POLAND. *Zeszyty Naukowe Uniwersytetu Szczecińskiego Finanse Rynki Finansowe Ubezpieczenia*, 89, 191–205. <https://doi.org/10.18276/frfu.2017.89/2-14>
- Tania, J., & Utami Tjhin, V. (2025). THE INFLUENCE OF DIGITAL LITERACY ON INTENTION TO USE INVESTMENT APPLICATIONS IN GENERATION Z: A CASE STUDY ON FINANCIAL PRODUCTS. *Journal of Theoretical and Applied Information Technology*, 15(7). www.jatit.org

- Tolani, K., Shukla, J. V., Mohare, R., & Paralkar, T. A. (2025). Machine learning analysis of financial behavior: A study of Gen Y and Gen Z preferences. *Multidisciplinary Science Journal*, 7(8). <https://doi.org/10.31893/multiscience.2025380>
- Wang, Z., Peng, D., Kong, Q., & Tan, F. (2025). Digital infrastructure and economic growth: Evidence from corporate investment efficiency. *International Review of Economics and Finance*, 98. <https://doi.org/10.1016/j.iref.2025.103854>
- Wołoszyn, A., & Głowicka-Wołoszyn, R. (2024). Savings Rate and Its Determinants in Households in Polandpl; 2 The same as in 1. In *European Research Studies Journal: Vol. XXVII (Issue 3)*.
- Wulandari, L., Asbaruna, B., Gorib, R. I., Akbar, M., & Syifa, A. (2023). Behavioral Finance In Investment Decisions. *International Journal of Ethno-Sciences and Education Research*, 3(3), 95–98.
- Xie, F., Peng, P., Li, D., Xu, Y., & Wu, M. (2025). Uncovering the evolution of digital economy investment networks: a county-level perspective. *Computational Urban Science*, 5(1). <https://doi.org/10.1007/s43762-025-00179-9>
- Xue, L., Dong, J., & Jiang, S. (2024). Digital financial development and inefficient investment: a study based on the dual perspectives of resource and governance effects. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-023-02411-5>
- Yoo, Y., Boland, R. J., Lyytinen, K., & Majchrzak, A. (2012). Organizing for innovation in the digitized world. *Organization Science*, 23(5), 1398–1408. <https://doi.org/10.1287/orsc.1120.0771>