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## THE IMPACT OF DIGITAL TRANSFORMATION ON THE BUSINESS EFFICIENCY OF THE NEW YORK TIMES

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### Abstract

The purpose of this study is to analyse the business performance, i.e. business efficiency of the New York Times in the process of its digital transformation. The main methodology used in this study is the regression analysis. This research focuses on the financial efficiency of the New York Times in combination with the trend of the number of users. On one hand, the financial stability of the business is investigated, and on the other, the transformation and trend of the number of users are analysed. The comparison of the research results is aimed at answering research questions in the context of the impact of digital transformation on the business efficiency of a corporation.

The findings serve as the basis for decision-making in the process of digital transformation of the analysed corporation, and the model can also be used by other players in the media industry (or any other industry) in the process of their digital transformation.

Furthermore, this study argues the benefits from the digital transformation of a business and the impact the COVID-19 pandemic had on the acceleration of the digital transformation processes in organizations across the globe.

Keywords: digital transformation, business efficiency, New York Times, media industry, platform economy.

*JEL Classification:* L14, L81, L82, L86

### INTRODUCTION

The Internet, information technology and digitalization are considered to be a vital factor of business sustainability and efficiency. Even though earlier digitalization in business has been only related to greater efficiency, it is now becoming clear that the effect of the digitalization is much more transformational, since it enables companies to „work faster and smarter and to build new business models to drive up multiple benefits“ (Bala, 2018).

Digitalization „enables innovation practices, improved designs, and new business models, and shapes how organizations create value on the Internet“ (Gudergan and Mugge, 2017).

In the context of the current COVID-19 pandemics, in spite of its devastating impact on the global economy and businesses across the world, it may have been „the impetus for the significant development of digital technology“ (Khodova, 2021).

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Furthermore, it is the development of the Internet and the digitalization of production systems that have hit the media industry hard, and especially the newspaper industry as the oldest part of the media industry. Frankel (2008) published an article entitled "Will the New York Times Be Next" concerned about the fate of the world's most influential newspaper corporation. He cited an article from *The Economist* in 2006 that refers to investor dissatisfaction with a dramatic drop in profit margins in the newspaper industry. Continued decline in daily newspaper circulation in the U.S. began as early as 1985 (Pew Research Center), and the development of digital publications has only accelerated that process. The peak of the crisis was expected to occur in 2016 when the *Independent*, as the most influential independent newspaper, abolishes the physical form of the publication and continues to work only in the digital edition. At the same time, BBC3 completely abolished broadcasting and remained available only in the online model (Rowbottom, 2018). That being said, digital transformation in the media industry is not a trend, but a matter of survival and business sustainability.

Digitization of production systems and convergence of digital content distribution has directly affected managerial development models. The turn of the century was marked by the crisis of the music industry associated with the Napster platform and the copyright of content owners. Napster was eventually shut down in 2002, but the consequences for the music industry were dramatic. Even though the music industry had hoped for a return to revenue as in the period before 1999, that never happened again (Waldfoegel, 2018). The platform model, which connects to Napster, will become the foundation for the development of the media industry in the new model. The New York Times, as the largest and most well-known newspaper corporation, was among the first to enter the process of digital business transformation according to the platform economy model (Parker et.al., 2016; Moazed & Johnson, 2016). In the process of transformation, the classic physical production and distribution was retained, to which a model of subscription to digital content was added. By distributing content from the server, it uses the effects of zero marginal cost (Rifkin, 2015; Lozić, 2019a).

This paper explores the results of the New York Times' business performance by comparing the financial result of the business with the trend in the number of digital subscribers. The financial analysis includes the financial parameters revenue, cost of revenue, operating profit and net profit. The results of the financial parameters survey will be compared with the trend in the number of users as well as the structure of revenues from the corporation's core products. Subscription revenues will be analysed by a multiple regression model, in order to determine the significance of subscription revenues, and especially subscriptions to digital content.

Even though the topic of digital transformation has gained popularity amongst management consultants and economists due to its impact on society, economy and industry, it has not been covered appropriately in academic publications (Gudergan and Mugge, 2017). This study is an effort to fill in this gap.

The remainder of the paper is structured as follows: Section 2 reviews the related literature; Section 3 introduces the methodology, the research questions and the data; Section 4 presents the results and provides a data analysis, whereas Section 5 opens up a discussion of the results and concluding remarks together with guidance for future research.

## 1. RELATED LITERATURE

Recent research has focused on analysing the language form and structure of texts published in the New York Times. Scholars deal with the analysis of texts and their impact on the community in the context of analysing the quality of content that will increase the level of sales and revenue. In the context of researching the impact of digital business transformation on the overall business result, it is necessary to analyse the structure of texts, as a basic product of the New York Times, and define the terms digitalization and digital transformation.

### 1.1. Content analysis research

Krumbein (2017) explores the issue of human rights in the U.S. and which of them are most mentioned in the New York Times. Garber (2019) referring to Foucault (1972, 1978) analyses a crossword puzzle in the New York Times proving that there is a model of discrimination against marginalized groups, women, the LGBT community and the like. Moretti (2019) analyses the discourse of publishing news about South Asia in the New York Times, and research has proven that 60% of news about it has a negative connotation in which news from Pakistan predominates. Palmer (2020) explores the relationship between traditional journalist authority and the need for journalists to engage in user commentary. The results of the research show a relaxation of control over the content of journalistic text in the digital age. Worthington (2020) deals with issues of women's rights and the limits allowed in sexuality, and in the context of the Harvey Weinstein case. The research is focused on the analysis of the commentary of a newspaper text relevant to the #MeToo movement, and in the context of female sexuality in the time of neoliberalism.

Mitnik et al. (2020) analyse the variables that are significant in the publication of news about terrorism, i.e. which cases will be more and which will be less represented in the media. Hatf & Luqiu (2021) explore the connection between portraying the position of women in Afghanistan and justifying military intervention. Wang & Ma (2021) compare the ways China Daily and New York Time report on the protests in Hong Kong. Aliyeva (2021) analyses the behaviour of journalists in the New York Times and Washington Post, during the 2016 elections. The results of the research prove that the visualization of journalism creates pressure on journalists who report on certain topics. Zhang (2021) analyses texts published in New York Time related to the Covid-19 crisis in China and Italy. The research proves the politicization of the texts, i.e. the political connotation of the text overcame the professional and scientific sphere of the crisis. Cressman (2021) analyses the New York Times' attempt to assert itself in the West Coast and the economic losses that resulted from abandoning the project. Clare Recket was one of the first journalists to deal with financial topics in the industry and remained particularly noted in the history of the New York Times (Shemberger, 2018).

### 1.2. Digital transformation analysis

The world has fundamentally changed in the last three to four decades and everyone has witnessed the fundamental changes and the speed digital transformation brings to each life and each business (Bala, 2018).

But before tackling digital transformation, it is crucial to differentiate the terms digitization, digitalization and digital transformation. Fiodorov & Muganda Ochara (2019) cite the phases in the transition to the digital business, which are digitization of analog information; digital information processing and digital transformation of the enterprise as the last phase. On the other hand, Gobble (2018) states that digitization refers to the “conversion of atoms to bits”, i.e. replacing hardcopy documents with electronic files, pictures with JPEG images and music with MP3 while digitalization, on the other hand, is the “process of transformation of all those bits into value”. It is the value to the end-consumers that matters. Furthermore, digital transformation is considered to be a „significant change in the basic pattern of how organizations create value“ (Gudergan & Mugge, 2017). According to Mazzone (2014), digital transformation (DT) could be defined as „deliberate and ongoing digital evolution of a company, business model, idea process, or methodology, both strategically and tactically“. Organizations nowadays are facing inevitable changes and they must rethink the way they operate, interact with stakeholders, how they handle and adapt to new customer behaviours and needs due to the ever increasing pressure from the competitors (Bala, 2018).

Scholars, however, are mostly focused on the semantic structure of New York Times content, and the work is focused on the digital transformation of the production process and the consequences that accompany that process. Digital transformation is always a matter of top management decision (Abolhassan, 2017). Business digitalization is aimed at reducing business costs and increasing efficiency (Patel, 2019), i.e. business optimization. The process from the digitalization of the business process to the digital transformation is called “Digital journey” (Gagre, 2018). The digital transformation of business is aimed at changing the business management model towards the economy of the platform while maintaining the existing quality of texts. The digital transformation is geared towards structural change in the way we do business, and it includes business strategy, technology innovation, customer behaviour and expectation (Gilchrist, 2018). The process of digital transformation involves changing the model and structure of income generation as well as the model of using existing capital (Libert & Back, 2018; Lozić, 2019b). The term digital transformation is used for the „new stage of embracing informational technologies (IT) to get their accelerating impact across business and society“ (Fiodorov & Muganda Ochara, 2019). However, it is vital to highlight the importance of coordination and integration of many sectors of an organization and an interdisciplinary approach when starting to implement a digital transformation, since it is a „significant approach in tackling managerial issues such as human resources, business efficiency, and business process redesign“ (Li et al., 2017). The process of digital transformation brings many economic, societal, and business implications (Bala, 2018).

Gobble (2018) states that the process of digitization in general delivers some savings (through reduced error rates and efficiency gains), but it does not alter the way a business is operating. She further claims that “true digitalization changes everything”. What she meant was, after the digital transformation, a company is “more agile, people-oriented, innovative, customer-centric, streamlined, efficient” and so on. The continuous optimization is the ultimate goal of the digital transformation. In essence, digital transformation represents „a fundamental change in the organization’s underlying mindset, systems, and tools“ that are needed to reposition parts of, or the entire business design (Gudergan & Mugge, 2017).

The COVID-19 pandemic has accelerated the digital transformation of companies and organizations across the world. Digital transformation has been considered as a key ingredient in the quick response to the disruptive business systems and many organizations have strengthened their work towards the sudden changes of scenery in 2020. In addition, 80% of businesses fast-tracked at least some digital transformation programs in 2020 and 79% are reinventing their business model as a result of the disruption caused by the pandemic. Furthermore, 89% of the surveyed 4000 businesses stated that the pandemic highlighted the need for a more agile and scalable IT environment (Digital Transformation Index, 2020).

In the early 2010s, the New York Times was facing well-publicized financial struggles. As a result, The Times has undertaken a variety of „cost-cutting measures—including multiple rounds of newsroom buyouts and layoffs—and efforts to boost revenues, such as the introduction of premium products and its famous metered paywall“ (Petre, 2015). The digital journey of the New York Times started off with several actions to respond to news digitization. Namely, as a first step in their digital transformation process, they migrated some of their content online and additionally, they programmed a NY Times applications in order for their readers to be able to reach them anywhere and anytime. Even though publishing new content on these new digital platforms has been crucial, the NY Times team has gone one step further and focused on making almost all of their old articles available digitally as well. This step has been considered as vital, as it increased the “overall value proposition of their digital offering” (Peters, 2011). As a next step of their digital journey, in 2011, they faced the challenge to monetize their digital products by charging readers for their online subscription if they were a more active reader. In order to reach younger customers and readers, they created a few podcasts that are free for the consumers, but generate revenue from the advertisements. Interestingly, the New York Times had to adapt their organizational culture in order to meet their customers’ changing needs. However, this was not easy to achieve, considering it was a 165-year-old company at that time. The major challenge at hand was to evolve into a culture accepting failure, implementing experiments and allowing new and out-of-the-box ideas to thrive. Additionally, a “shift from the traditional mindset of seeking the best possible investigative story to thinking about how they can provide the type of digestible content that can improve their readers lives in the limited amount of time which readers devote to news each day“ (Johnson, 2016; Mullin, 2016; Van Valkenburg & Sandhaus, 2016; Spayd, 2016). This case study example is in line with the study and findings of Fiodorov & Muganda Ochara (2019), who claim there are many organizational issues to be met in order for the digital transformation process to be successful and with those of Li et al. (2017), stating the importance of other managerial issues in the company during the process of digital transformation (such as human resources, business efficiency, and business process redesign).

## **2. METHODOLOGY, RESEARCH QUESTIONS AND DATA**

Business efficiency research and analysis will be based on an analysis of data from the Annual Report published by the corporation. The analysis includes Annual reports from 2015 to 2020, i.e. the observed period is six consecutive years. Financial parameters include the Profit and Loss report, and revenue, cost of revenue, operating profit and net profit will be analysed. The analysed financial parameters will be compared with the results of the trend analysis of the number of users. The corporation is in the process of

digital transformation, so the focus of customer trend research will be on digital subscribers.

The research is based on two research questions:

*RQ1: What is the financial stability of the corporation in the process of digital business transformation?*

*RQ2: Can the growth of the number of digital subscribers maintain the stability of the business result of the corporation?*

The used methodologies in this study are in-depth financial analysis of the business operations of the New York Times in the period from 2015 to 2020 together with a correlation and a multiple regression analysis, which is one of the “most widely used statistical tools for analyzing multifactor data” (Chatterjee & Hadi, 2006). Among these analyses, ANOVA test has also been conducted.

### 3. RESULTS AND DATA ANALYSIS

The data research process has been divided in two parts. In the first part, the selected financial data will be in-depth analysed. The second part will pinpoint the trend in the number of users or subscribers.

#### 3.1. Financial analysis

For the past six years, the New York Times has been going through a very difficult period. In the analysed period, revenues increased by 12.9% and the cost of revenue by 55.4%. Gross profit fell by 14.4% and from 60.9% in 2015, to 46.2% in 2020. Operating profit and net profit fluctuated, which proves unstable financial operations. The digital transformation of the corporation has significantly affected the financial result. Business results are shown in Table 1.

**Table 1.** Financial parameters New York Times

|                  | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Revenues         | 1.579.215 | 1.555.342 | 1.675.639 | 1.748.598 | 1.812.184 | 1.783.639 |
| Cost of revenue  | 617.812   | 628.104   | 615.406   | 947.884   | 989.029   | 960.222   |
| Gross profit     | 961.403   | 927.238   | 1.060.233 | 800.714   | 823.155   | 823.417   |
| %                | 60,9%     | 59,6%     | 63,3%     | 45,8%     | 45,4%     | 46,2%     |
| Operating profit | 184.320   | 112.678   | 176.591   | 190.167   | 175.582   | 176.256   |
| Net profit       | 63.240    | 29.068    | 4.298     | 125.684   | 139.966   | 100.837   |

Source: New York Times Annual report – own illustration

**Table 2.** Revenue structure

|      | Advertising | Subscription |
|------|-------------|--------------|
| 2015 | 638.709     | 851.790      |
| 2016 | 580.732     | 880.543      |
| 2017 | 558.513     | 1.008.431    |
| 2018 | 558.253     | 1.042.571    |
| 2019 | 530.678     | 1.083.851    |
| 2020 | 392.420     | 1.195.368    |

Source: New York Times Annual report – own illustration

The revenue structure of newspaper publishers consists of advertising revenue and product sales revenue. The share of advertising revenues has been continuously declining, i.e. it has declined by 38.56% in the analysed period. Advertising revenues fell at an average rate of 7.27% per year with a coefficient of determination of  $R^2 = 0.8051$ . In the same period, subscription revenues increased by 40.34%, or less than the decline in advertising revenues. Subscription revenues grew at an average annual rate of 6.67%, with a coefficient of determination of  $R^2 = 0.9641$ . Despite lower growth in subscription revenue than declining advertising revenue, total revenue grew as a result of other corporation revenue. Other revenues were generated as a result of digital transformation, i.e. revenues from the sale of other digital content. The results of the analysis are shown in Table 3.

**Table 3.** Regression analysis

| Equation         | Regression analysis    |                       |       |
|------------------|------------------------|-----------------------|-------|
|                  | $y = -39482x + 641922$ | $y = 67484x + 841715$ |       |
| $R^2$            | 0,8051                 | 0,9641                |       |
| s                | -7,27                  | 6,67                  |       |
|                  | Regression equation    | $R^2$                 | s     |
| Revenue          | $y = 53303x + 2E+06$   | 0,8616                | 3,15  |
| Cost of revenue  | $y = 89352x + 569697$  | 0,7771                | 11,27 |
| Operating profit | $y = 4627,7x + 157697$ | 0,0935                | -     |
| Net profit       | $y = 18345x + 31320$   | 0,4013                | -     |

Regression analysis of selected financial parameters indicates the impact of digital transformation on the business efficiency of a corporation. In the analysed period, revenues grew at an average annual rate of 3.15%. Revenue growth was slightly above the inflation rate. The digital transformation significantly affected the increase in the cost of revenue and they grew at an average rate of 11.27% per year. The increase in cost of revenue above the increase in revenue was reflected in a decrease in gross profit, which stabilized at an average of 45.8%. The impact of digital transformation on business efficiency is most significant in the results of the analysis of operating profit and net profit. Operating profit and net profit oscillated under the influence of changes in the subscriber structure and the total revenue structure. The results of the research are shown in Table 4.

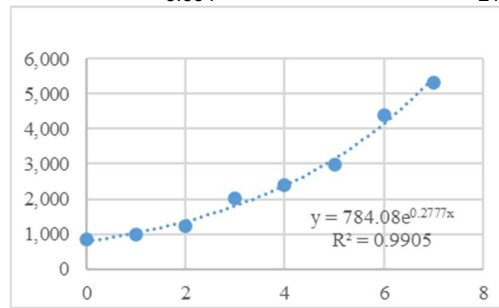
### 3.2. Users analysis

The digital transformation of the news industry is focused on digital subscription revenues. In the period from 2014 to 2021, the number of digital subscribers increased by 541.88%. The number of subscribers grew exponentially at an average rate of 32% with a coefficient of determination  $R^2 = 0.9881$ . For the purposes of the research, data for the second quarter of each year were taken. The results of the research are shown in Table 4. Descriptive analysis of the trend in the number of digital subscribers showed mean = 2525.75 with standard error 579.2 and standard deviation 1638,23. Skewness is positive and amounts to 0.783595, which means that the distribution is slightly asymmetric and smaller values prevail, i.e. only in the last two analysed periods the influence of digital subscribers in the total number of subscribers has significantly

increased. The analysis by the index method showed the largest increase in the number of digital users in 2017, when the growth was 66.7%.

**Table 4.** Digital Subscriptions (only digital news)

|      |       |       |
|------|-------|-------|
| 2014 | 831   |       |
| 2015 | 990   | 19,1% |
| 2016 | 1.216 | 22,8% |
| 2017 | 2.027 | 66,7% |
| 2018 | 2.398 | 18,3% |
| 2019 | 2.988 | 24,6% |
| 2020 | 4.390 | 46,9% |
| 2021 | 5.334 | 21,5% |



Source: New York Times Annual report 2020.

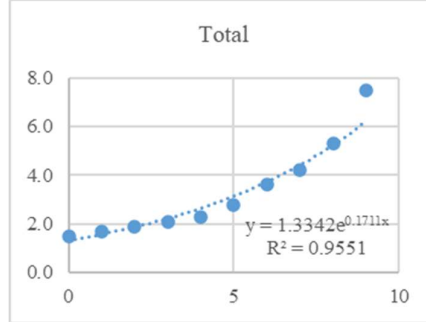
The structure and trend of the total number of subscribers indicates the process of digital transformation of the corporation's business. The number of Print-based bundles subscribers is continuously declining, while the number of Digital-only news and Digital-only other subscribers is continuously growing. The trend of print users and digital users is inversely proportional. In the analysed period, the total number of subscribers increased by 400%, ie the average annual growth was 18.66% with a coefficient of determination of  $R^2 = 0.9626$ . The results of the research are shown in Table 5.

**Table 5.** Total number of subscription (in millions)

|      | Print-based Bundles | Digital-only News | Digital-only Other | Total |
|------|---------------------|-------------------|--------------------|-------|
| 2011 | 1,1                 | 0,4               |                    | 1,5   |
| 2012 | 1,1                 | 0,6               |                    | 1,7   |
| 2013 | 1,1                 | 0,8               |                    | 1,9   |
| 2014 | 1,1                 | 0,9               | 0,1                | 2,1   |
| 2015 | 1,0                 | 1,1               | 0,2                | 2,3   |
| 2016 | 1,0                 | 1,6               | 0,2                | 2,8   |
| 2017 | 1,0                 | 2,2               | 0,4                | 3,6   |
| 2018 | 0,9                 | 2,7               | 0,6                | 4,2   |
|      |                     |                   |                    | 232   |



|      |     |     |     |     |
|------|-----|-----|-----|-----|
| 2019 | 0,9 | 3,4 | 1,0 | 5,3 |
| 2020 | 0,8 | 5,1 | 1,6 | 7,5 |



Source: New York Times Annual report 2020.

### 3.3. Revenue analysis

Print-based bundles reveal the importance of the digital transformation of a corporation’s business. Revenues grew until 2017, when they were the highest, and have been steadily declining since then. In the same year, the corporation had the lowest net profit. Revenue from print editions could not offset distribution costs. As the number of print edition subscribers fell, so did revenue, but so did distribution costs. The growth in the number of digital subscribers and the use of the zero marginal rate effect had a significant impact on net profit growth. The results of the research are shown in Table 6.

**Table 6.** Subscription revenues (\$; millions)

|      | Print-based Bundles | Print Other | Digital-only News | Digital-only Other | Total |
|------|---------------------|-------------|-------------------|--------------------|-------|
| 2011 | 486                 | 173         | 47                |                    | 706   |
| 2012 | 513                 | 168         | 114               |                    | 795   |
| 2013 | 521                 | 152         | 151               |                    | 824   |
| 2014 | 527                 | 141         | 169               | 3                  | 840   |
| 2015 | 526                 | 127         | 193               | 6                  | 852   |
| 2016 | 526                 | 121         | 223               | 9                  | 879   |
| 2017 | 552                 | 116         | 326               | 14                 | 1.008 |
| 2018 | 533                 | 109         | 378               | 22                 | 1.042 |
| 2019 | 525                 | 99          | 426               | 34                 | 1.084 |
| 2020 | 529                 | 68          | 544               | 54                 | 1.195 |

Source: New York Times Annual report 2020.

The digital transformation of the corporation has significantly affected the revenue trend of Print-based bundles. Traditional revenues of Print-based bundles grew until 2017, after which they continuously decline. Revenues from Print-other decreased continuously at an average rate of 8.2% with a coefficient of determination  $R^2 = 0.9620$ . Revenues from Print-only news grew at an average rate of 19.5%, with a coefficient of

determination of  $R^2 = 0.9511$ , but only recently were they higher than traditional Print-based bundles. The highest average growth of 59.3% was achieved by Digital-only other revenues, but they make up only about 10% of total digital subscription revenues. The digital transformation of business has enabled the growth of revenues from the distribution of digital content, but they account for about 50% of total revenues. Traditional revenues from print runs are still significant and it will take a long time to complete the digital transformation. The results of the research are shown in Table 7.

**Table 7.** Regression analysis subscription revenues (2011-2020)

|                     | Regression equation     | R <sup>2</sup> | s    |
|---------------------|-------------------------|----------------|------|
| Print-based bundles | $y = 3,6727x + 507,27$  | 0,4484         | -    |
| Print Other         | $y = -10,448x + 174,42$ | 0,9620         | -8,2 |
| Digital-only News   | $y = 50,261x + 30,927$  | 0,9511         | 19,5 |
| Digital-only Other  | $y = 3,3956e^{0,4655x}$ | 0,9951         | 59,3 |
| Total               | $y = 719,77e^{0,0525x}$ | 0,9542         | 5,4  |

Source: Authors' illustration

The results of the analysis by the ANOVA method (Table 8) indicate a significant impact of at least one variable on total subscription revenues or Significance-F= 0,00000000018061. The P-value of Print-base bundles and Digital-only news is less than 0.01 and significantly affects the trend of subscription revenue. The P-value of Print Other is less than 0.01, but not as large as the previous two items, indicating a change in trend.

**Table 8.** Regression analysis with ANOVA output

| SUMMARY OUTPUT               |                   |                |            |                     |                         |           |             |             |
|------------------------------|-------------------|----------------|------------|---------------------|-------------------------|-----------|-------------|-------------|
| <i>Regression Statistics</i> |                   |                |            |                     |                         |           |             |             |
| Multiple R                   | 0,999898935       |                |            |                     |                         |           |             |             |
| R Square                     | 0,99979788        |                |            |                     |                         |           |             |             |
| Adjusted R Square            | <b>0,99969682</b> |                |            |                     |                         |           |             |             |
| Standard Error               | 2,649768404       |                |            |                     |                         |           |             |             |
| Observations                 | 10                |                |            |                     |                         |           |             |             |
| ANOVA                        |                   |                |            |                     |                         |           |             |             |
|                              | df                | SS             | MS         | F                   | Significance F          |           |             |             |
| Regression                   | 3                 | 208386,3724    | 69462,1241 | 9893,09604          | <b>0,00000000018061</b> |           |             |             |
| Residual                     | 6                 | 42,12763558    | 7,0212726  |                     |                         |           |             |             |
| Total                        | 9                 | 208428,5       |            |                     |                         |           |             |             |
|                              | Coefficients      | Standard Error | t Stat     | P-value             | Lower 95%               | Upper 95% | Lower 99,0% | Upper 99,0% |
| Intercept                    | 195,7931299       | 43,90811915    | 4,45915547 | <b>0,0042868872</b> | 88,35383276             | 303,23243 | 33,006939   | 358,57932   |
| Print-based bundles          | 0,624371484       | 0,068532169    | 9,11063361 | <b>0,0000982601</b> | 0,456679307             | 0,7920637 | 0,3702934   | 0,8784495   |
| Print Other                  | 0,893324455       | 0,110785573    | 8,06354504 | <b>0,0001947202</b> | 0,622241925             | 1,164407  | 0,4825949   | 1,3040539   |
| Digital-only News            | 1,111830227       | 0,022273267    | 49,9176975 | <b>0,0000000043</b> | 1,057329505             | 1,1663309 | 1,0292537   | 1,1944067   |

Source: Authors' illustration

#### 4. DISCUSSION AND CONCLUSION

The results of this research prove the strong impact of the digital transformation on the business efficiency of the New York Times. At the same time, the digital transformation of the business has significantly affected several of the corporation's business processes. The four most important business processes that have emerged as a result of the digital transformation of business are listed below:

- The cannibalization of advertising revenue in the print edition cannot be offset by advertising revenue in the digital edition.
- Advertising revenue fell faster than subscription revenue growth, but the corporation digitally transformed and generated revenue from other digital content on the platform to offset a portion of the loss in print advertising revenue.
- During the Covid-19 or 2020 pandemic, the number of subscribers increased by 46%. The pandemic had a positive effect on the trend in the number of subscribers.
- By 2017, the number of Print subscriptions is growing, and net profit is declining. The cost of distributing print editions is growing faster than revenue growth. After that, the growth in the number of digital subscribers significantly reduces distribution costs, which is proof of the digital transformation of the corporation's business.

In the process of digital transformation, advertising revenue began to fall sharply, which could not be offset by online advertising revenue. The decline in revenue and digital content distribution had a direct effect on the decline in jobs. The growth in the number of digital subscribers has directly affected the cannibalization of print editions, but they are still very significant in the corporation's total revenue. The digital transformation has opened new business opportunities for the corporation in the platform economy model, and revenues have been generated from new forms of monetization of digital content. The digital distribution and development of the platform model enabled the growth of the number of subscribers during the Covid-19 pandemic, but total revenues and net profit fell in 2020 compared to the previous period. Total revenues fell by 1.6%, while net profit fell by 28%.

In the context of the first research question, the research results showed the financial stability of the corporation and the growth of total revenues, except in the last period when the impact of the Covid-19 pandemic was felt. The corporation is going through a process of digital transformation and after 2017 net profit is continuously growing, with the exception of the last analyzed period for the reason already mentioned. The costs of digital transformation had the most significant impact on gross profit, which fell compared to the period before 2017, but has stabilized and growth can be expected in the future periods. With the development of digital transformation and the decline in the number of print subscribers, the effect of zero marginal cost will increasingly act, which will directly affect the growth of gross profit.

In the context of the second research question, the research results proved the exponential growth of digital subscribers for all forms of digital content. In the last analysed period, the total revenues from the digital subscription model were equal to the revenues from the print subscription model. In the coming years, it is safe to expect growth in digital subscriber revenues above print subscriber revenues, which will ensure business stability. The answer to the second research question is affirmative, i.e. digital transformation is being successfully implemented by the New York Times and the growth in the number of digital subscribers can maintain the stability of the corporation's operations.

Even though it seems that digital transformation is the key to better adaptation to the market and customers needs', it does bring a few concerns. Namely, the study of Bala

(2018) suggests that „the data security issues, lack of interoperability with the existing IT systems, and last, but not least, the lack of control are considered to be the greatest risks that prevent a wider adoption of digital transformation across the globe“. Fiodorov & Muganda Ochara (2019) claim that digital transformation and breakthrough technologies „impact new business opportunities and can be considered a prerequisite for progress, but their introduction is not sufficient to increase business efficiency, because technology ensures success only in conjunction with serious changes in the company's activities“. They suggest a complex transformation of business relations in the organization as the most important prerequisite for labor productivity growth and other expected benefits from the digital transformation process.

The results of the research in the paper proved a very significant impact of digital transformation on the overall business performance of the corporation. Revenues from digital subscriptions have reached the level of print subscriptions, and the number of digital users is growing exponentially. The limitations of research belong more to the part of sociological than economic research. The basic limiting factor of the research is the model of behaviour of long-term users of print editions and their readiness to switch to digital subscription. Furthermore, these results should be compared with a similar research in a different industry, which would bring new insights regarding digital transformation across different sectors, which is the authors' plan for future research.

Future research should be directed in two directions. First, research should focus on revenue trends and net profit after the Covid-19 pandemic. And second, increasing use of the platform economy model and zero marginal cost will reduce distribution costs creating the basis for gross profit growth.

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