

Review Paper

A Company's Digital Goodwill: The Concept and Valuation Possibilities

Larysa Tiesheva^{1*} and Ihor Smyrnov²

¹V. N. Karazin Kharkiv National University, 4, Svobody Sq., Kharkiv, Ukraine

²Kyiv National University named after Taras Shevchenko, Volodymyrska Str., Kyiv, Ukraine

*Corresponding author: scientistua@ukr.net (ORCID ID: 0000-0002-6395-7251)

Received: 12-02-2023

Revised: 27-05-2023

Accepted: 06-06-2023

ABSTRACT

The article shows that the development of digital economy provides opportunities for expanding the factors influencing the formation of goodwill. Approaches to understanding and formulating the concept of goodwill, its place and role in the landscape of intangible assets, as well as the features of calculation and reflection in accounting in general and in the conditions of the digital economy are considered. The phenomenon of a sharp increase in the market value of "digital companies" since the beginning of the 21st century, as well as a significant shift in the distribution of value factors towards intangible assets, is described. The need for further improvement of the regulatory and legislative support of accounting for intangible assets in the digital economy, including techniques and methods for evaluating intangible assets and goodwill in particular, is noted, which should ensure the introduction of the most rational of them into the regulatory and legislative framework for intangible assets accounting.

HIGHLIGHTS

- ① The article is devoted to the investigation of the essence of digital goodwill and possibilities of its determination and accounting
- ② The obtained results demonstrated a lack of public comprehension of digital goodwill, despite evident paradigmatic shifts in shaping of companies value in digital economy during the last two decades.
- ③ The practical significance of the research lies in outlining core challenges and implications of emerging phenomenon of digital goodwill and appropriate implications for both accounting and strategic asset management

Keywords: Goodwill, Digital goodwill, Digital economy, Intangible assets, Value assessment

The Western business order was based and is based today (and today even more than ever) on logical, prudent, mercantile dominants. It needs a mathematical calculation and a convincing, technical and economic justification of the possible benefits from cooperation with a specific counterparty. Here, goodwill acts as an additional cost indicator, confirming the correctness or erroneousness of intentions to come in business relations with a particular market entity. Business reputation in the Western way is the predecessor of goodwill, its root, which is why the attention of Western firms to their own image in the eyes of market

environment is so great: business reputation forms a value indicator of the attractiveness and reliability of the company, provides sufficient (convincing) information about the prospects and problem areas of a particular enterprise. Goodwill as a criterion for the economic productivity of value-oriented management appeared, firstly, as the result of a change in competitive paradigms: the idea of resource endowment was replaced by

How to cite this article: Tiesheva, L. and Smyrnov, I. (2023). A Company's Digital Goodwill: The Concept and Valuation Possibilities. *Econ. Aff.*, 68(02): 1279-1290.

Source of Support: None; **Conflict of Interest:** None



the idea of intellectual superiority. In addition, in the globalization of markets, the total competition of everyone with everyone begins and the ability to take own unique place in the global market network is possible only if to attract attention to own business and achieve fame.

According to Moro-Visconti (2022, p. 615), “the economic valuation of goodwill is based on an interdisciplinary approach that synergistically considers its legal, accounting, fiscal, and strategic aspects. The controversial concept of goodwill (if positive, badwill if negative) has always divided lawyers, businesspeople, and economists and is applied in M&A transactions. Digital goodwill is even more slippery, as it refers to the scalable properties of innovative intangibles, whose business models and market comparisons are difficult to figure out”. Thus, comprehensible analysis of the very concept companies’ digital goodwill and ways of its assessment represent relevant task today both for accounting science and practice, and for strategic management.

LITERATURE REVIEW

Under IFRS, goodwill is an asset that represents the future economic benefits arising from other assets acquired in a business combination (merging), that are not individually identified and recognized. Currently, one can talk about the formation of the theory of goodwill. Scientists have already compiled chronicles of the formation and development of the concept of “goodwill” (from the origin, through normative development, standardization, to the present harmonious development; from awareness by lawyers (the first mention of goodwill in a will in 1571) to modern concepts and algorithms of financial evaluation) (Tudor, 2013). The concept of “goodwill” has received various interpretations in different scientific sources, it is widely used in business, but the polyphony of the content of the concept leads to some confusion in the conceptual apparatus and, as a result, in determining the essence, structure, and mechanisms of use.

Traditionally, goodwill means good will, as a rule, a positive attitude towards the organization of consumers, investors, employees, mass media, credit institutions, consultants, analysts, appraisers. Often in business practice, goodwill and business reputation are considered as synonymous words,

but this is not the right case. Most scientists and business practitioners still differentiate these concepts, for example, without reducing business reputation to an assessment of the “image” or brand of the firm, company fame (the above can be considered as components of business reputation) (Zyla and Black, 2018). In particular, it is noted that the concept of “business reputation” is often erroneously replaced by the concept of “goodwill”, but the concept of goodwill is broader, while business reputation can only be considered as an element of goodwill. A number of authors propose the concept of “reputation management”, note online reputation management (ORM), suggest the formation of reputational capital in an organization, assuming that it will include an assessment of business reputation, brand assessment, and image assessment (Haskel and Westlake, 2018). Also, goodwill is characterized not only as a reputation (business ethics, “good will” of consumers), but as a set of organization characteristics (product quality, technological culture, a certain level of production organization, partnerships, market prospects, etc.) (Ferr, Fiorentino, and Garzella, 2018).

If to turn to history, the concept of “goodwill” is interpreted by accounting theorists in different ways. Its concept as a financial category goes back several centuries. Having emerged in the English-language literature, this category has gone through a long path of development and modernization, and has become an important accounting category, although different countries have not yet developed a unified approach to defining the essence of this concept. Today, goodwill is an ambiguous asset, or, better to say, ambiguously interpreted asset (Bertani *et al.* 2019). In the literature and in practice, there are various interpretations of the content of this category. In particular, I. Sher considered goodwill as a “special type of balance veiling” that distorts the position, condition, and size of the enterprise’s property, aims to obscure certain facts of economic life, that is, to transform the balance sheet in form and content. Lawrence Dixie associated goodwill with the benefit derived from the acquired company’s reputation and commercial connections and the likelihood that the firm’s clientele will remain loyal to its new owner (Kimouche and Rouabhi, 2016).

A number of authors define this category as a way to value the assets that arise from the purchase of enterprises (Johansson, Hielstrom, and Hellman, 2016). There is an opinion that goodwill should be considered as business reputation acquired in merging of companies (Bloom, 2013).

R. Brailey and S. Myers include goodwill to intangible asset not reflected in the balance sheet (Brailey and Myers as cited in Lev and Gu, 2016). Its structure is formed by such elements as new technologies, promising products, the share of gains from a merger of companies, etc.

In general, in the scientific literature, goodwill is most often interpreted as the conditional value of the company's business relations, its accumulated intangible assets, such as brand prestige, practical experience, know-how, regular customers, business connections; also, it is seen as a type of industrial property, intangible asset of the enterprise, the result of applying the best managerial qualities, a dominant position in the sales market for products (works, services), new technologies. The use of intangible assets by economic entities of any hierarchical level is a necessary condition for the implementation of the strategy of their innovative development, the formation of investment attractiveness and securing in the capital markets.

Thus, the essence of goodwill is determined by a large number of qualitative and quantitative performance indicators. These indicators may change during the course of the organization's activities, and goodwill will change with them.

In our opinion, goodwill can be defined as an intangible, unidentifiable asset, due to the presence of certain competitive advantages of the organization, bringing it additional income. Intangibility is manifested in the absence of a material object. Non-identifiability is seen in the impossibility of considering the object separately from its carrier (in our case, separately from the organization that owns the goodwill). Competitive advantages are defined as certain benefits of the organization in comparison with competitors operating in this industry. Ancillary revenues are profits that exceed the industry average (Jeny, 2017; Shi, 2018).

The literature notes that in today's highly digitalized business environment, digital goodwill should be considered as an element of digital capital (a new

factor of production) (Zauner, 2014). The theory of digital capital is being developed, the concept has been clarified and its structure has been determined. The proclamation of a new concept requires at least proposals for its evaluation. The problems of evaluating digital goodwill as goodwill are considered: the use of the income approach and the formation of a cash flow forecast, the possibility of evaluating goodwill by accounting methods, the possibility of evaluating goodwill "invisible in accounting". The assessment of digital goodwill should be based on the key characteristics of digitalization, determined when calculating the digitalization index, according to ORM (Online Reputation Management); moreover, a methodology for assessing business reputation based on digital characteristics is proposed in the literature.

MATERIALS AND METHODS

The theoretical and methodological basis of the study was the works of scientists in the field of corporate governance theory, management accounting, digital economy, the resource theory of the functioning of the company, as well as the results of theoretical and applied research in the field of managing individual elements of the organization's goodwill. To solve the tasks set in the study, the following methods were used: abstract-logical, comparative, as well as situational and structural analysis, the method of scientific abstractions, economic and mathematical tools.

RESULTS

The dominant process of modern economic development is digitalization. It is assumed that digitalization, the active and widespread use of digital technologies, rapid work with information arrays in the economy, management, production will lead to a significant increase in labor productivity, cost reduction and a significant increase in efficiency, the manifestation of the so-called "multiplier effect of economic development" (Ullberg, Edvinsson, and Lin, 2021). According to the forecasts of leading experts in the field of digitalization, digital transformation will affect a quarter of the global economy in the next few years (Pereira *et al.* 2022).

Digitalization in modern conditions is considered not only as a convenient, efficient process of information

processing, management and analysis, but also as a new status for any organization. And while in the early years of digital technologies development, the use of the Internet and social networks, for example, was a kind of innovation, today it is a “regular, everyday, mandatory requirement” for the economic viability of an organization. We are also observing the improvement of the digitalization process: “vertical” development (the spread of the use of digital technologies, tools, mechanisms by individuals and large corporations) and “horizontal” development (improvement of digital technologies themselves). In essence, a “digital habitat” is being created and developed with its own principles, rules, and requirements. Questions arise: can all individuals and organizations function and work in the new digital environment; what knowledge, skills and competencies are required?

At the same time, it is generally recognized that digitalization allows transforming business models, helps organizations enter new markets, achieve and maintain competitiveness. It is necessary to strengthen digital assets (create and develop them) and regularly assess the level of digitalization, the level of digital maturity/immaturity (Novikova *et al.* 2021). Digitalization creates its own “digital environment”, product consumers are already getting used to digital standards for communication, receiving and transmitting information, and for a successful business, one must be in this environment, use digital tools and technologies.

Many methods have been developed to assess the success of digitalization. All of them involve an assessment of the digital technologies coverage of enterprises, regions, countries; the focus is made on the availability (affordability) and ability to use the Internet, cloud services, electronic planning systems, participation in electronic commerce, provision with digital equipment and software. In accordance with various studies, the listed areas of digital communication are becoming new standards, which leads to new special requirements for the implementation of any business processes, for the formation of business reputation.

Globalization, the active use of the Internet, total digitalization have led to the fact that a significant share in the value of the organization is the so-called intangible assets, intellectual property, which are difficult, sometimes even impossible to identify,

but which have a significant impact on both the development and viability of firms. The importance is currently given to the formation and maintenance of business reputation (one of the intangible assets). Experts identify the main factors influencing the formation of business reputation: the qualifications of leaders and managers of the organization, the quality of products (or works, services), the level of contractual discipline and the marketing strategy of the organization; goodwill is built as a result of the use of managerial and entrepreneurial abilities (Zyla and Black, 2018).

In addition, experts from the International Council for Valuation Standards have identified a modern megatrend related to ESG (Environmental, Social, and Corporate Governance) and obliging the top management of companies to focus on value creation, long-term value and financial sustainability. To a certain extent, goodwill can create this sought-after value (this opinion is based on a survey of corporate governance professionals, more than 80% of respondents agree) (Diaz and Montalvo, 2022). Moreover, both the designing of sustainable development standards (International Sustainability Standards Board, ISSB) and the creation of ESG standards require the inclusion of goodwill in management assessment (De Franca, 2018). The scientific literature presents many studies on the issues of evaluating the effectiveness / efficiency of digitalization, all methods involve the analysis of various “manifestations” and “achievements” of digitalization, but none of them offer an assessment of the new business reputation of organizations based on digitalization.

In the context of digitalization, organizations, wanting to create a good business reputation, use all digital resources: creating a website, forming a group on a social network or community on a specialized platform, developing a remote service and online sales. A modern consumer and business partners will necessarily evaluate the “digital presence” of an enterprise, its active “digital work” and, accordingly, “digital goodwill”. There is an establishment of a new phenomenon and the formation of a new concept – “digital goodwill”.

Adapting the well-known definition of goodwill, let us suggest that a digital goodwill is a company's good name, which consists of the company's reputation, prestige, customer relations, location,

product range, etc., based on the active use of digital technologies in management, and the one which has a significant impact on its future income. The concept of digital goodwill is new. However, namely in the era of intensive digitalization and digital transformation, a sharp redistribution of the role of tangible and intangible assets (see Fig. 1) took place, which suggests that digital transformation has a significant impact on the value of goodwill (even despite the fact that on this chart, intangible assets are not categorized). Fig. 2 adds more specificity, showing the ratio of the dynamics of the value of goodwill and intangible assets.

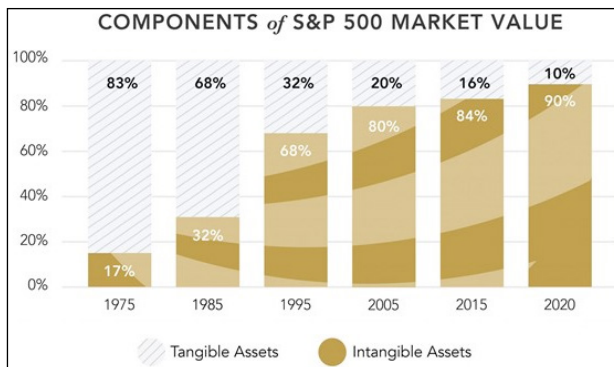


Fig. 1: Raise of intangible assets share in market value of companies, 1975-2020 (*Global intangible assets valuation service market research report, 2022*).

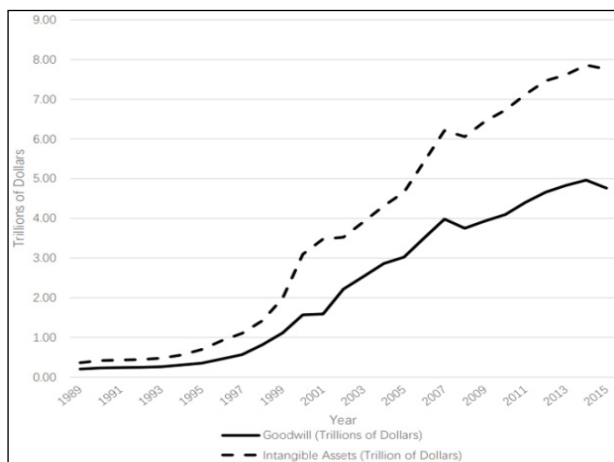


Fig. 2: Time series of aggregate goodwill and aggregate tangible assets (Swedroe, 2021)

Jenna Ross in her research claims, based on statistical data, that “in just 43 years, intangibles have evolved from a supporting asset into a major consideration for investors – today, they make up 84% of all enterprise value on the S&P 500, a massive increase from just 17% in 1975” (Ross, 2020). She also emphasizes that “digital-centric sectors,

such as internet & software and technology & IT, are heavily reliant on intangible assets”. Fig. 3 and Table 1 illustrate this paradigm-changing conclusion.

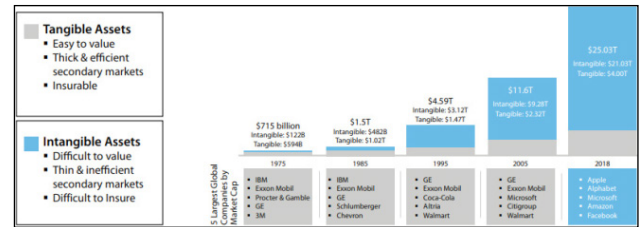


Fig. 3: Values of tangible vs intangible assets for S&P 500 companies, 1975-2018 (Ross, 2020)

Table 1: Annual ranking of companies based on intangible value, 2019. (Ross, 2020)

Rank company	Sector	Total intangible value	Share of enterprise value
1 Microsoft	Internet & Software	\$904B	90%
2 Amazon	Internet & Software	\$839B	93%
3 Apple	Technology & IT	\$675B	77%
4 Alphabet	Internet & Software	\$521B	65%
5 Facebook	Internet & Software	\$409B	79%
6 AT&T	Telecoms	\$371B	84%
7 Tencent	Internet & Software	\$365B	88%
8 Johnson & Johnson	Pharma	\$361B	101%
9 Visa	Banking	\$348B	100%
10 Alibaba	Internet & Software	\$344B	86%

Let us consider the possibility of measuring digital goodwill as just goodwill. Financier Worldwide Magazine experts, discussing the landscape of business reputation valuation, note that the problem of goodwill valuation is in the definition of goodwill itself, since it represents future economic benefits (the result of a business combination, merging, business development), depends on the future aggregate performance of the business and all assets (Zyla and Black, 2018). Here, too, lies the problem: it is necessary to rely on more than just the internal forecast, which inherently includes assumptions that may not coincide with actual expectations, such as an aggressive forecast built to support

management's stimulus goals, or a conservative forecast, used to secure funding. The choice of a forecast is especially important for valuing goodwill using the income approach. In addition, goodwill today is an unidentifiable asset, its presence can only be determined by evaluating all tangible (equipment, real estate) and identifiable intangible (brand, technology) assets (using cost, market, income methods). If their total market value is higher than the actual, accounting, book value, one can talk about the presence of goodwill (as a threshold test). Some scientists argue with such conclusions, stating that the recognition of goodwill as an unidentifiable asset within intangible assets is not so obvious (Leliuc Cosmulese, Grosu, and Hlaciuc, 2017). In accounting, they recognize as capital everything that at certain costs (fixed), can bring income in the future. But the concept of business reputation is more significant for economists, and goodwill is necessary in accounting (if it can be identified and evaluated). So, the assessment of goodwill (most likely, also digital one) can be carried out, but not always and under certain restrictions.

Douglas Hubbard in his rather famous book *"How to Measure Anything: Finding the Value of Intangibles in Business"* tried to convince of the possibility of estimating the "immeasurable" intangible assets based on his proposed approach of "applied information economy" (using the concept of "calibrated valuation", the Monte Carlo method, sample studies, the Internet, peer reviews, prediction markets, as well as valuation of information's cost). It is interesting that by evaluating the inestimable, the work presents an attempt to evaluate digital goodwill (let us pay attention also to the methods and indicators of evaluation). However, some scientists did not take into account the validity of the results of this study and rejected the attempt to evaluate the inestimable, referring to the statement of Albert Einstein ("Not everything that can be counted is counted; and not everything that is counted can be counted") (Bianchi, 2018).

It should be recognized that the problems of evaluating digital goodwill as goodwill are determined by the problems of evaluating goodwill itself: the possibility/impossibility of recognizing it as an unidentifiable intangible asset and the presence of available information for the formation of cash flows generated by goodwill. So, goodwill

(as well as digital one) can be defined as "invisible wealth", which exists, but which is difficult and/or is impossible to be evaluated. Therefore, the problem of measuring and evaluating goodwill (including digital one) is still relevant and has not been resolved. But the search for methods for assessing digital reputation (digital goodwill) has already begun.

Let us suppose that in order to measure and evaluate digital goodwill, key indicators of digitalization will be needed as guidelines for the formation of a digital reputation, the "digital perception" of an organization. The methodology for calculating the digitalization index defines the content of concepts (digitalization, digital transformation, digital economy); digitalization is understood as the level of use in the economic subject of the potential of digital technologies in all aspects of economic activity, business processes, products, services and approaches to decision-making in order to modernize the socio-economic infrastructure of the subject. The concept is general and needs to be clarified, but we highlight the most important: digitalization implies "the level of use of the potential of digital technologies". To calculate the digitalization index, the effectiveness of the implementation of nine end-to-end digital technologies (big data, neurotechnologies and artificial intelligence, distributed registry systems, quantum technologies, new production technologies, industrial Internet, robotics and sensor components, wireless communication technologies, virtual and augmented reality technologies) is used. In addition, the results are evaluated (results of the development of socio-economic infrastructure, economic and social efficiency, competitiveness). Namely these nine digital technologies will determine the key indicators of digital goodwill. It is only necessary to determine the numerical values of the required level of key indicators.

In this context, the interpretation of the results of "digitalization measurement" is interesting five levels are defined (the share of business processes of enterprise operating using modern information and communication technologies is estimated): primary/local (30%), partial (80%), complex (100%) digitalization, smart organization (+50% of digital interaction with counterparties) and digital ecosystem (+60-100% digital interaction with

counterparties). The advantage of this technique is an attempt to assess the levels of digitalization (in the context of digital goodwill the levels of digital maturity). The described methodology, of course, represents a consistent movement in the search for improving the assessment of the effectiveness of digitalization, this should be welcomed, but, like most other methods for assessing digitalization, it may still be of interest as a spot study based on expert assessments (subjective opinion dominates) and on an abundance of diverse indicators collected on the basis of "field work" (most of the indicators for individual enterprises remain outside the scope of official statistics).

It should be noted that the proposals on the possibility of measuring digital goodwill are preliminary and suggest, rather, "zones of digital responsibility" or "zones of digital attention" when determining digital goodwill, while the methodology for assessing digital goodwill is still at the level of awareness of the need and "drawing contours".

DISCUSSION

The emergence of goodwill in the process of entrepreneurial activity is caused by the influence of internal and external factors. These factors are closely intertwined. For example, traditionally (and not without reason) it is believed that the management of the value chain is an internal factor in the success of business units. Meanwhile, value creation management assumes that the firm decides how much of the value of the final good is created within the company itself, and how much is outsourced. Thus, interaction with counterparties (and it, no doubt, refers to the external factors of entrepreneurial activity) is associated with the management of value creation. At the same time, counterparties include not only suppliers and subcontractors, but also dealers, guarantors, financial intermediaries, and consultants in various fields.

Based on these conclusions, it can be argued that goodwill is an indicator that characterizes the activity of any business structure at any time, regardless of whether it is positive or negative (sometimes negative value is called 'badwill'). Therefore, it is extremely important for an enterprise to manage the value of goodwill, since it is already

an asset of the company and allows it to acquire additional competitive advantages and take a better position in the market. From this, one can conclude that goodwill, like business reputation, is an intangible asset of a modern entrepreneurial structure (company, firm, enterprise), which is of strategic importance for it, and, therefore, is one of the strategic assets.

It is advisable to determine whether a company's assets belong to the group of strategic assets, that is, those that provide sustainable competitive advantages, according to four criteria proposed by J. Barney back in 1986, namely (Barney, 1986):

- ♦ Value to the organization;
- ♦ Absence of substitutes;
- ♦ Difficulty or impossibility of copying or reproduction;
- ♦ A rarity among the assets of competitors.

A legitimate question is: Does goodwill meet these criteria?

As shown above, this asset is valuable for business structures. Therefore, reputation may be more important (and even larger by volume) than other components of the company's market value. For some companies, such as Microsoft and Yahoo, this share exceeds 80% of the cost.

Goodwill cannot be copied or replaced: it is a unique characteristic of each company that arises from its intricately repeated activities to create product and value under certain operating conditions. Goodwill for a company is a rare and unique asset that cannot be bought or obtained without some effort. It is acquired in the process of development and is inseparable from the entrepreneurial structure itself.

In today's society, namely knowledge and unique skills distinguish one business structure from another, as they give the company the opportunity for strategic development and shaping competitive advantages. As a result, namely the value of the intellectual capital embodied in the employees of the company or in their teams as a set of knowledge, qualifications, innovation, value system, culture and philosophy of the company cannot be copied or reproduced in another, which allows business owners to obtain its market value, significantly exceeding the actual cost of material resources. This fundamentally distinguishes the modern situation

from the conditions of an industrial society. In the digital economy, this is all the more obvious.

However, goodwill is the intangible asset which is most difficult to identify and value. This is due to the fact that the set of factors on which the amount of goodwill will depend is quite wide, relates to various aspects of the enterprise's activities, and is unique in each specific case. However, some characteristic features of this set can be distinguished. Thus, the assets that form goodwill should be divided into three groups:

- Inseparable from the enterprise (for example, the company's management system, market position, company's reputation in the business environment, etc.);
- Inseparable from the team (for example, competencies, business reputation of the company's employees);
- Separable from the company (for example, brand prestige, customer base, copyrights, licenses, patents, contracts and agreements).

The basis of goodwill is intellectual capital (human, technological, client one), which brings economic benefits to the enterprise in the future. Also, a number of sources interpret intellectual capital as a form of capitalization of the company's intellectual potential accumulated through savings and effective organization of innovative advantages of the company' intellectual potential (Haskel and Westlake, 2018).

One of the quantitative methods for assessing internally generated goodwill, which is often found in research periodicals, is the Edwards-Bell-Ohlson model (EBO model), that is based on economic added value. This technique is also based on the possibility of obtaining excess profits from existing goodwill. At the same time, within the framework of this methodology, the probabilistic nature of excess profits is assumed, therefore, the model contains an adjustment for mathematical probability (Bilal, 2022):

$$P_t = B_t + \sum_{i=1}^T \frac{E_t * [(ROE_{t+i} - r_e) * B_{t+i-1}]}{(1 + r_e)^i} + \frac{E_t * [(ROE_{t+T+1} - r_e) * B_{t+T}]}{r_e * (1 + r_e)^T} \quad \dots(1)$$

where P_t – enterprise value at time t ;

B_t – the book value of the enterprise's net assets at time t ;

T - end of forecast period

i - period of existence of the enterprise;

E_t - expected values of net income;

ROE_{t+i} - return on equity for period $t+i$ (essentially, this is the ratio of profit after taxes to the book value of equity)

r_e - cost of equity (essentially, it is expected by shareholders rate of return on invested capital);

B_{t+i-1} - book value (value of net assets) of the enterprise at the beginning of the period $t+i$;

ROE_{t+T+1} - return on equity of the enterprise by the end of the forecast period;

B_{t+T} - book value of the enterprise at the end of the forecast period.

Thus, the EBO model takes into account the probabilistic nature of the value of goodwill, shows which part of the company's value is due to goodwill, and which part is due to net assets. But the difficulty in applying the cumbersome formula is a significant drawback of this method.

The qualimetric method is also one of the quantitative methods for assessing internally generated goodwill. The essence of this method is that the quality assessment is carried out on the basis of a comparison of the evaluated object with analogues that have the best and worst quality indicators. The coefficient of utility (quality) is calculated according to the following formula (Ji, 2020):

$$K_f = \frac{q_f - q_{\min}}{q_{\max} - q_{\min}} \quad \dots(2)$$

where K_f - enterprise utility factor;

q_f - the actual indicator of the enterprise;

q_{\min} - the worst indicator among similar enterprises;

q_{\max} - the best indicator among similar enterprises.

Since the criterion for the quality of the enterprise' operation is the value of its net income, which may vary from the design one, i.e., the maximum possible value from a technical point of view, to zero, the formula (2) for assessing the enterprise

will take the following form (3):

$$K_f = (NOI_f / NOI_{pr}) \quad \dots(3)$$

where NOI_f - company's net operating income;

NOI_{pr} - the project value of net operating income of the enterprise, which is defined as the deviation of the maximum value of net operating income from its minimum possible level.

An important advantage of this method of calculation is the possibility to compare the company with direct competitors and peers (firms-analogues) in the current market conditions. As a disadvantage, we point out the difficulty in determining the best and worst indicators of the evaluated object's analogues.

In the research literature, another variety of quantitative methods for valuing internally generated goodwill is often found the method of real options. This method is based on the concept of "option", which means for the investor the opportunity to choose when determining the scenario for obtaining income from an investment instrument, taking into account the formation of various cash flow options over time, up to the refusal to use the underlying asset. Using this method, one can calculate the part of the project cost that is created through active management and strategic interaction. It is important to note that the model of real options provides managers with the ability to plan and manage strategic investments and is a synthesis of assessing the market value and making investment decisions under uncertainty.

A clear example of the role of digital goodwill is the market valuation of digital and platform startups.

A few years after the collapse of 2000, the NASDAQ rose above 7 thousand points. The growth in the number of unicorn companies has accelerated. While in 2008 there were 15 such companies, then in 2013 there were 51, in 2018 there were at least 150. According to the US National Bureau of Economic Research, on average, startups whose valuation exceeded \$1 billion are overvalued by about 50%. The listings of Uber and Lyft reminded many of the dot-com days — these two companies also went public with big plans and even bigger losses. Despite this, banks valued them in the tens of billions. (2022 *economy and markets: 4 things to know*, 2022).

According to John Colley, a professor at the University of Warwick Business School, investors are once again believing in the myth. This time around, players are convinced that since there are success stories like Google, Amazon, and Facebook, most tech startups will eventually find a profitable niche over time. Such investors are willing to invest money, not demanding income in a year or two, but counting on it in the long term (Colley as cited in Tepper, 2023).

In addition, the Internet market itself has changed, as banker and investor Carol Roth pointed out. Today's technology companies have a much more developed infrastructure and a consumer prepared for a new product. According to Roth, even companies that went bankrupt in the early 2000s could do well if they entered the market today: "In a sense, they were victims of the times in which they found themselves" (Roth, 2023).

A striking example is also the value migration to new intermediaries in the hospitality industry: in 2018 and 2023 Booking.com and Google Travel, which do not provide any services of a "tangible nature", were at least two times ahead of the Airbnb platform in percentage value and several times of traditional hospitality players such as Hyatt and InterContinental.

Recently, the same thing has happened with "crypto" and "DeFi". Investors flocked to these new technologies.

For most companies, goodwill is the most significant asset that is not inherently identifiable and separate. Goodwill facilitates the manipulation of the company's assets, while neither the company's management nor its accountants can properly evaluate goodwill, since its real value can only be measured at the time of the sale of the company.

Companies that have been involved in major mergers or acquisitions in recent years are now forced to reprice goodwill because the price of such transactions looks too high. Media holding AOL Time Warner has already announced a \$54 billion writedown to reflect a general decline in its market value. This was largely due to an erroneous assessment of the value of goodwill (built on inflated forecast values of income) during the merger of the Internet operator AOL and media holding Time Warner. Other large corporations have said they

are going to do the same: Clear Channel writes off \$15 billion to \$25 billion, Vivendi Universal \$12.3 billion to \$13.2 billion, Qwest \$20 billion to \$30 billion, WorldCom from 15 to 20 billion US dollars. Experts estimate that after the completion of these processes, more than \$100 billion in asset value will simply evaporate. Of course, this will have an adverse effect on the stock market.

Approaches to the assessment of goodwill, its reflection in accounting and disclosure of information about it in financial statements have evolved since the end of the 19th century under the influence of numerous political, social, and economic factors, and at present there is no single methodology for accounting for goodwill in the world. All the more so, there are no methods for accounting for digital goodwill. In different countries (even within the EU) there are various regulations governing the accounting of goodwill, in order to analyze them and identify the main modern government approaches to the reflection of goodwill in the accounting of companies. However, goodwill is generally recognized as an asset and is defined as the excess of the value of the business merging at the acquisition date over the value of the identifiable assets acquired, less any liabilities assumed. Goodwill is not subject to amortization and is tested for impairment at least annually. Impairment of goodwill cannot be reversed in subsequent reporting periods.

Thus, given that goodwill is not an asset in the modern sense, it is a kind of superstructure over assets that can exist only as an intangible element of the totality of assets, one should take into account the differences between goodwill and an asset as such.

It is erroneous, relying on the methods adopted in accounting practice, to directly consider as goodwill only one of the aspects of its manifestation in the real world, the so-called accounting goodwill reflected in the financial statements, which is the result of the functioning of individual business advantages that are inaccessible to other companies and private individuals third parties. The emergence of goodwill is always associated with the emergence of individual advantages, while the result of the operation of these advantages and, accordingly, goodwill is an excess (extraordinary) profit excess profit, and not a markup on the fair value (i.e.,

a value adequate to the prevailing conditions of reality) of adjusted net assets of the company at the time of its actual acquisition. Some authors believe that the goodwill of a company is the totality of all intangible assets, regardless of whether they are reflected in the financial statements or not: "in the interests of business valuation, it is sufficient to evaluate the market value of the totality of the intangible assets of an enterprise, which in business valuation terminology is called goodwill. In order to assess the overall market value of a business, it is unnecessary to assess the market value of various intangible assets of an enterprise separately" (Shi, 2018).

Thus, considering the category of "goodwill", we are faced, on the one hand, with the acquired (accounting) goodwill, which is an asset and arises only when buying and selling enterprises, and on the other hand, with the created (acquired) goodwill characterizing the development opportunities of the company and its future extraordinary earnings. Despite significant differences between them, they act as components of the same phenomenon the presence of individual intangible advantages in a certain company. In the digital economy, goodwill becomes an economic resource.

However, at the same time, "market valuation indicators are subject to volatility, which should be taken into account when calculating the capitalized value of goodwill. Here we should pay attention to another indicator the indicator of net assets of the organization, taken into account when calculating goodwill ... Therefore, it is advisable to talk about the time range of relevance of goodwill. In the context of the digitalization of the economy, this time range should decrease" (Jeny, 2017).

Alphabet' (holding company that manages Google Inc and its subsidiaries, as well as a number of start-ups) goodwill and intangible assets for the quarter ending March 31, 2023 were \$30.962B, a 27.3% increase year-over-year (goodwill and intangible assets are defined as the sum of all intangible asset fields). Data for previous years are the following (Macrotrends, 2023):

- ♦ Alphabet goodwill and intangible assets for 2022 were \$31.044B, a 27.37% increase from 2021.
- ♦ Alphabet goodwill and intangible assets for 2021 were \$24.373B, a 7.75% increase from 2020.

- ♦ Alphabet goodwill and intangible assets for 2020 were \$22.62B, a 0.08% increase from 2019.

For comparison, let us present the dynamics of goodwill in real sector – automotive (General Motors company). Data for previous years are the following (Macrotrends, 2023):

- ♦ General Motors goodwill and intangible assets for the quarter ending March 31, 2023 were \$4.968B, a 1.78% decline year-over-year.
- ♦ General Motors goodwill and intangible assets for 2022 were \$4.945B, a 2.79% decline from 2021.
- ♦ General Motors goodwill and intangible assets for 2021 were \$5.087B, a 2.73% decline from 2020.
- ♦ General Motors goodwill and intangible assets for 2020 were \$5.23B, a 2% decline from 2019.

In today's digital economy, information and organizational systems, knowledge are intangible assets, becoming the main competitive advantage. With the advent of the fourth scientific and technological revolution, a new type of economy appeared the digital one. The basis of the digital economy is the information infrastructure. In this regard, an increasing number of companies are investing in intangible assets, which, accordingly, determines the significantly increased role of goodwill. It is indicative that namely digital companies that do not have any significant tangible assets and do not create products of material production are significantly ahead of companies in the real sector, even those whose strategy includes continuous technical innovation (for example, in the engineering or automotive industry). The value of the goodwill of digital companies is decisive in the preferences of investors (including institutional ones) in comparison with companies having high ESG scores and commitment to sustainable development. At the same time, both accounting practice and audit, as well as management accounting, lag behind reality in terms of conceptualization (definition) of the concept of digital goodwill and, accordingly, its assessment. The nature of new, digital, 'smart' assets creates new challenges in terms of value and potential for obtaining profit. But it is important for entrepreneurs in this industry to understand how to implement intellectual, intangible assets in the

work, as well as how to competently discuss the value of intangible assets, in particular intellectual capital, with their suppliers and potential partners in order to create opportunities and reduce risks.

CONCLUSION

For executives seeking to add value to their companies, the use of goodwill valuation is of strategic importance, especially if the company is adhere to IFRS reporting. It should be understood that the concept of "goodwill" is not a replacement for the words "reputation", "reliability", etc. In no case should one equate value added with goodwill.

Taking into account the above conclusions, it can be argued that goodwill is a strategic asset, and business structures need to form this asset in accordance not only with external, but also with internal business conditions.

Based on the results of the study of the features of accounting for intangible assets, we can draw general conclusions:

- ♦ It is necessary to further improve the regulatory norms and legislative regulation of accounting for intangible assets in the digital economy, including the techniques and methods for assessing intangible assets, which should ensure the introduction of the most rational of them into the regulatory norms and legislative framework for accounting digital goodwill;
- ♦ There is the need of stimulation of demand for digital technologies and products of the digital economy both from business, and from the population and the state;
- ♦ It is necessary to improve the classification of intangible assets (taking into account innovative and digital technologies, products), which will allow them to be taken into account in a timely manner and determine a complete, reliable, uniform assessment of such objects;
- ♦ There is the need to improve not only the national standards of countries, but also international standards for accounting and evaluation of innovations, digitalization products, digital business reputation and digital goodwill, since only a complete, reliable assessment of this asset can significantly affect the financial and investment attractiveness

of companies (organizations, enterprises) in general and their competitiveness, efficiency.

REFERENCES

- Barney, J.B. 1986. Strategic factor markets: Expectations, luck, and business strategy. *Manage. Sci.*, **42**: 1231-1241.
- Bertani, F., Ponta, L., Raberto, M., Teglio, A. and Cincotti, S. 2019. The complexity of the intangible digital economy: an agent-based model. MPRA Paper No. 97071.
- Biacchi, P. 2018. The Economic Importance of Intangible Assets. Routledge.
- Bilal, K. 2022. Intangible Assets, Goodwill and Earnings Management: Evidence from France and the UK. *Folia Oeconomica Stetinensia*, **22**(1): 111-129.
- Bloom, M. 2013. Double Accounting for Goodwill: A Problem Redefined. Routledge.
- De Franca, J. 2018. Valuation of impairment of non-monetary assets in business management: Analytical proposal for IAS 36. *Int. J. Dev. Res.*, **8**: 23794-23800.
- Diaz, R. and Montalvo, R. 2022. Digital Transformation as an Enabler to Become More Efficient in Sustainability: Evidence from Five Leading Companies in the Mexican Market. *Sustainability*, **14**: 15436.
- Ferr, S., Fiorentino, R. and Garzella, S. 2018. Goodwill and value creation: Insights from Italian pioneers. *Int. J. Critical Accounting*, **9**: 329.
- Global intangible assets valuation service market research report, 2022. Markables. <https://www.markables.net/global-intangible-assets-valuation-service-market-research-report-2022>
- Haskel, J. and Westlake, S. 2018. Capitalism without Capital: The Rise of the Intangible Economy. Princeton University Press.
- Hubbard, D. 2014. How to Measure Anything: Finding the Value of Intangibles in Business. Wiley.
- Jeny, A. 2017. What impact will the digital economy have on accounting? The challenge of intangible assets' recognition. Essec Business School. Policy Paper.
- Ji, H. 2020. Financial Analyses and Corporate Evaluation on Sustainable Ability to Generate Excess Profit. *Sustainability*, **12**(11): 4647.
- Johansson, S., Hielstrom, T. and Hellman, N. 2016. Accounting for goodwill under IFRS: A critical analysis. *J. Int. Accounting, Auditing and Taxation*, **27**: 13-25.
- Kimouche, B. and Rouabhi, A. 2016. The impact of intangibles on the value relevance of accounting information: Evidence from French companies. *Omnia Sci.*, **12**(2): 506-529.
- Leliuc Cosmulese, C., Grosu, V. and Hlaciuc, E. 2017. Definitions attributed to goodwill in the economic literature and conceptual delimitations regarding the way of valuation and exposure of this patrimonial component in the balance sheet. *Ecoforum*, **6**(3): 1-6.
- Lev, B. and Gu, F. 2016. The End of Accounting and the Path Forward for Investors and Managers. John Wiley & Sons.
- Macrotrends. 2023. <https://www.macrotrends.net/stocks/charts>
- Moro-Visconti, R. 2022. "Digital Goodwill Valuation" In: The Valuation of Digital Intangibles, edition 2, pp. 615-639. Springer.
- Novikova, O., Pankova, O., Chaliuk, Y. and Kasperovich, O. 2021. The Potential of Digitalisation and Social Dialogue in Ensuring Post-Pandemic Labour Market Sustainability: Priorities for Ukraine. *Studies of Transition States and Societies*, **13**(2): 70-85.
- Pereira, C., Durao, N., Moreira, F. and Veloso, B. 2022. The Importance of Digital Transformation in International Business. *Sustainability*, **14**: 834.
- Ross, J. 2020. Intangible Assets: A Hidden but Crucial Driver of Company Value. Visual Capitalist, February 11. <https://www.visualcapitalist.com/intangible-assets-driver-company-value/>
- Roth, C. 2023. Small business marketing tips in a bad economy. <https://www.carolroth.com/community/small-business-marketing-tips-in-a-bad-economy/>
- Shi, H. 2018. Goodwill asset, ultimate ownership, management power and cost of equity capital: A theoretical review. Paper presented at International Conference on Geo-Spatial Knowledge and Intelligence 2017.
- Swedroe, L. 2021. The Impact of Goodwill on Stock Returns. *Alpha Architect*. <https://alphaarchitect.com/2021/08/the-impact-of-goodwill-on-stock-returns/>
- Tepper, S. 2023. How to find great companies. Payback Time. February 7. <https://paybacktimepodcast.com/payback-time-podcast/john-colley-how-do-experienced-investors-find-great-companies/>
- Tudor, A. 2013. The Theoretical Foundation of Goodwill - A Chronological Overview. *Procedia - Social and Behavioral Sciences*, **92**(92): 784-788.
- Ullberg, E., Edvinsson, L. and Lin, C. 2021. Intangible Asset Gap in Global Competitiveness: Mapping and Responding to the New Economy. Springer.
- Zauner, B. 2014. The impact of goodwill accounting on financial performance metrics: An analysis in the Internet Economy. AV Akademikerverlag.
- Zyla, M. and Black, E. 2018. Accounting for Goodwill and Other Intangible Assets. Wiley.
- 2022, Economy and markets: 4 things to know. Vanguard. <https://www.vanguardsouthamerica.com/content/dam/intl/americas/documents/mexico/en/2021/12/mx-sa-economy-and-markets-4-things-to-know-2022.pdf>