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Chair of Advanced Corporate Finance

M&A operations as sustainable value creation drivers: Evidence from the Media and Entertainment industry

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Abstract

This research aims at studying the impact of sustainable drivers in the value creation process through M&A operations in the Media and Entertainment industry. It contributes to the literature by regressing the variation in the stock price of the acquiring firm against the ESG combined score and a series of financial control variables. The sample is made of 30 target firms operating in the Media and Entertainment industry listed on the NYSE of a certain big size, obtained by gathering the necessary data from the Refinitiv LSE Analytics database. The results illustrate how there is not enough significance to demonstrate the relationship between these two variables, thus declaring null the hypothesis above mentioned. The reason might be in the discrepancy in the time range of the initial and final date considered to gather the data regarding the stock price variation and the ESG combined score variation. The only identified significance found is between the stock price variation and the ROA of the acquiring firm at the moment of the acquisition. Lastly, the quantitative results do not reflect the trends in mergers and acquisitions practices which are effectively increasing the consideration of the sustainable issues. The analysis is introduced after providing an outlook of the legislative context ensuring the frameworks for the energetic transition, the sustainable value creation and business model.

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Introduction

Over the last 40 years, international and national entities have begun to cooperate all together to build the basis needed to face the climate change. International entities have been providing the ground basis for the legislative framework with the Non-Financial Reporting Directive (Directive 2014/95/EU, "NFRD") and the Corporate Sustainability Reporting Directive (Directive n.2022/2464). They require firms to provide a set of information regarding activities involving the triple bottom line. The latter foresees three main areas, the environmental, social and governance, entailing activities that a firm carry out to improve its effort in these fields, assessing the internal and external impact that they have. The requirements were initially set up as mandatory only for firms having certain dimension criteria, of a bigger size. In 2021, the G7, increased the reach of this directive including even firms of smaller size. Moreover, with the latest version of the CSRD firms will gradually be all involved in the provision of this type of information to the public.

Hence, those documents represent a powerful, transparent statement of the firms' value chain and supply chain composition in terms of actors and drivers, influencing the image perceived by the stakeholders and the market. The overall set of activities carried out needs to be considered sustainable in terms of the impact that a firm could possibly have on the environmental, social and governance dimensions.

Lately, different tools and frameworks have been developed to guide firms' fulfillment of the two main directives (NFRD and CSRD), among them in this research the ones that have been analyzed are the Global Reporting Initiative (GRI), the Sustainable Financial Disclosure Regulation (Regulation 2019/2088 SFRD), SASB reporting standards, European Sustainability Reporting Standards, and lastly ISO 26000 an International recognized set of standards. They provide all useful guidelines to help firms understand what are the elements required for the completion of non-financial documents.

Consequently, multiple rating agencies began to evaluate, through different methodologies that are going to be analyzed singularly, the activities of firms in ESG fields, reflecting in their overall combined scores. Thus, this activity, having an influence in the image perception of firms in the

market, have acquired relevance as a public non-financial KPI. It created multiple opportunities since firms are now interested in being perceived sustainable, due to the achievement of the status of resilient and healthy corporations. Hence, it is discussed how dynamics related to sustainable business models and sustainable value creation needs to be defined, at what stage they are already, and what are their potential evolutions in the upcoming future.

Due to the importance of these themes both in terms of ethical sensibility, financial operations, and legislative frameworks, this research aims at analyzing the impact of sustainable topics in the value creation process occurring through mergers and acquisitions practices of firms on the market with a focus on the Media and Entertainment industry. After analyzing both the overall global ESG M&A trends and providing an outlook of the Media and Entertainment industry more in detail, it has been analyzed how industries have been affected by environmental issues concerns. It emerges the increasing consideration of ESG issues, manifested by executives, starting from the strategic selection of the target until the due diligence phases. The introduction on 24th March 2024 of the Corporate Sustainability Due Diligence Directive (CSDDD) increased the relevance attributed to sustainable issues in this stage of M&A activities, requiring firms to make considerations over sustainable topics. In the Media and Entertainment industry firms are following the trend of US and Chinese mega-platforms, to integrate within a single firm's business model, multiple business lines under one single umbrella from video and film production to social platforms, music and magazines. The goal of this research is to assess the impact of the firms' ESG combined score variation on the stock price variation of the acquiring firm, as a measure of the value created by the environmental, social and governance impact in the operation. In this research, 30 mergers and acquisitions operations, involving firms listed in the NYSE, have been analyzed together with different controlling variables in a multiple regression, to observe if the ESG combined score variation of the acquiring firm has an impact over its stock price, representing the perceived value of the firm from the public. The results reveal that this influence is not enough significant, expressing how the cultural change in the markets, entailing the definition of the sustainable value creation and the sustainable business models, has still to gain a certain degree of importance in the scale of the priorities and interests of the industries before acquiring a certain weight. In the second and third chapters, different hypotheses are going to be made to explain how these topics are going to increase their significance, both technically and therefore statistically, over the course of the next one or two decades. It is necessary to analyze what are the

possible paths to be taken to drive the market's interest and businesses over these fast growing environmental issues.

1. ESG requirements

ESG requirements are a series of minimum thresholds that have been established by the agenda of the United Nations for 2030 as Sustainable Development Goals. These goals, stemming from the acronym ESG, which means environmental social governance, are oriented to improve worldwide ethical and environmental conditions both within and outside the firms. The requirements above mentioned, are investments that firms must foresee as part of their core financial activity.
It is important to distinguish ESG from sustainability in general. As a matter of fact, sustainability entails the relationship of a firm with the environment, while ESG integrate social responsibility ad governance within this relationship.

ESG in general is a picture of a metrics, an external evaluation representing the effort of a firm in the fields above mentioned. It helps firms to communicate their initiatives, investors in the evaluation of a performance and the risk carried by a firm. On the other hand, sustainability is seen as an internal picture guiding capital investment of the firm itself. In other words, sustainability is the rationale behind and ESG is the reported result.

Since ESG is a reporting framework, it is more relevant for listed companies that try to attract and inform investors or for some other firm which is trying to attract some type of funding.
The last clarification that has to be made is in the definition of the difference between ESG and Corporate Social Responsibility (CSR). The latter is a business model which lead to improve the surrounding environment, context and industry. An example could be Patagonia, which invests a lot of resources into offering services to customers with the goal of promoting longevity of the products sold instead of fast fashion, a measure which is totally different in terms of monetization and materials' consumption.

Up to this moment, the European Union has drafted the more detailed regulations regarding this topic. They have been developed to help the funneling of sustainable investments and the promotion of green deals, the promise of fighting the climate change and the environmental decadency.

Three are the main goals and objective that have been set up the elimination of net emissions of greenhouse gases within 2050; decouple the economic growth from the use of resources; do not leave behind any country.
The strategy put in place to reach these three goals has been based on two main pillars:

1. Revision of incentives for financial markets and the corporate governance. These two are mainly covered by the Sustainable Finance Agenda and from the Sustainable Corporate Governance Initiatives
2. Transparency on the ESG impacts, good or bad, of the activities of an organization an its sustainable initiative

The latter entails the direct involvement of ESG reporting which has been taken the form of a regulation through a series of regulations and normative that have been published throughout the years for the European Union and internationally.

First let's introduce the EU Taxonomy which is going to be fully analyzed in its framework composition further on this research. It can be said that it is a ranking system of the economic activities considered environmentally sustainable. The regulation aims at providing firms, investors, and politics with the definitions of standards for what could be considered environmentally sustainable. This would avoid firms from "greenwashing" of their products or activities, providing incentives for sustainable activities, funneling investments towards more sustainable corporations.
The regulation on the disclosure of sustainable finance, known as SFDR, defines mandatory reporting that organizations have to follow to demonstrate how they consider sustainable risk in their decision-making process. They have to report how their strategy is fueled by goals and the impacts of ESG standards on investors. This regulation came into effect during March 2021.
Within SFDR, participants to financial markets (FMP) must report about 18 mandatory indexes and minimum two others from 46 optional indexes. These indexes are based on the Principal Adverse Sustainability Impacts Statement (PAIS) and they require firms a great amount of data analysis.
Lastly the New directive on the corporate sustainable accounting (CSRD) is the reviewed version of the EU regulation, the Non-Financial Reporting Directive (NFRD), a standard that has established

disclosure rules of non-financial information and on diversity from big firms. CSRD, is the stricter and review version of NFRD.
NFRD rules require all the biggest firms and listed companies some minimum information starting from a brief description regarding the business model of the firm, to then require an analysis of the result of the politics. It is required to study the main risks related to firm's operations: among them commercial relationships, products or services that may cause negative impacts in these areas and how the firm deal with that type of risk through a setup of non-financial performance indexes.

1.1 ESG Reporting and Score

ESG is the acronym of "Environmental, Social, Governance", three key drivers of these type of investments. It has been observed a switch in the entrepreneurial and financial paradigm, since the attention is not anymore focused only on profit but even on the impact on the environmental, social and governance sphere.
Thus, as a consequence, ESG reporting is the divulgation of environmental, social and corporate governance data of a firm. As all the documents of this type, it has a precise scope. In this occasion, the scope is mainly to highlight sustainable activities that have been taken by a firm, in terms of environmental, social and corporate governance activities, improving transparency of the firm itself towards shareholders and stakeholders and inspiring other corporations to do the same. Reporting is even an efficient tool to demonstrate that the firm is reaching its goals and completing projects in a sustainable way, thus resulting more authentic.
Furthermore, since reports sum up qualitative and quantitative benefits of the activities of a firm, investors can evaluate investments, align them together with their values and avoiding firms with high environmental risk, wrong social steps or corruption.
The meaning of ESG have had different evolutions throughout time and nowadays it acquired an evaluative character, a measure of all the activities related to sustainable investments.
They belong to a range of possible investments among the ones which have, in addition to profit, even an effect on real economy.[1]
It is a weighted choice, keeping in mind the trade-off between expected profits and positive externalities generated, with dedication to nullify the negative ones.
New studies made by Morningstar demonstrated the absence of tradeoff between profits generated and expected ones and they proved activities with an higher ESG score to have an higher expected

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[1] OECD (2021), The OECD DAC Blended Finance Guidance, OECD Publishing

profit. This new methodology promoted the financial activities that allow worldwide society problems to be limited together with the promise of resolving them.
Any financial activity or investment activity in general belonging to the range of "Social Impact Finance" has to take into account three factors: Assessment, Voluntariness and Additionality.

- Assessment: it is meant as quantitative evaluation prior to the social, environmental and governance impact that the activity will generate. As much as an investment can cause a financial payback, the amount expected from social contexts has to be assessed and evaluable.
- Voluntariness: the positive spillover generated from investments has to be volunteer and evaluated before it happens, through estimations and evaluations ex ante.
- Additionality: it is the property of an activity to enhance benefits that would have not been there in the absence of an investment. It is thus intended, with that word, an additional capitalization in underdeveloped markets that increase the local working possibilities or the achievement, for instance, of environmental and corporate transparence that otherwise there would not have been.

The 7th of June 2021, ministers of finance of G7 have announced their effort in making mandatory climate reporting, in line with the recommendations of the task force on Climate-related Financial Disclosures (TCFD). Although it does not still exist a universal reporting or evaluating standard, ESG reporting already exists under a framework made of regional reporting, voluntary standards and national legislations, which vary considerably. Often firms include in their annual reporting their ESG score, to demonstrate how sustainable is their business.
Their relevance is marked not only by the capability of offering a clear perspective on how the contribute to the economy, but even on how they influence the planet and the firm itself. Investors use these rating to identify firms which are both profitable and responsible under profiles such as the environment, the community care and awareness and the government.
Firms having an high ESG rating are often considered more resilient, less risky and more prepared for future challenges.

What do these reports include?
Reports include qualitative and quantitative information related to three key topics. Now the three areas will be explained in detail considering some of their core elements.

Environmental:

- How a firm is fighting climate change
- What are the actions that the firm is taking to reduce carbon print emissions
- How the firm is protecting biodiversity, improving air and water quality, fighting deforestation, and managing responsibly its waste
- How the firm is responsibly using its resources and its supply chain

Some of the elements that are taken into account for this evaluation are carbon print emission, waste management and sustainable resource management.

Social:

- How a firm is creating the better conditions for human resources to grow, and the workspace to improve
- Gender initiatives, BIPOC and LGBTQ+ for the inclusivity
- Involvement of employees in the firm's activities and decisions
- Data protection and privacy
- Involvement of the community
- Human rights and working standards

Practices of equality, diversity and inclusion together with relationships with local communities are the main elements of this category.

Governance:

- Internal controls in a firm
- Politics, principles and procedures that are governing the leadership, the composition of the counsel, executives' retribution, controlling committee framework, shareholders' rights, corruption, lobbying, political contributions

Here, transparency of the firm, ethical management and the leadership's structure are some of the drivers of this index.

What is a ESG score?

Since ESG has become a priority both for investors and firms, its scoring aims at ranking organizations based on the efforts observed in this context. The ESG score obtained in the reports highlights a certain present or missing capability of a firm to respect its efforts, show off its performance and the risk exposure. It can be interpreted as the quantitative extension of corporate social responsibility strategies (Gillan et al., 2021)[2], with the CSRs being richer compared to ESG scores to represent the business value captured while trying to reach missions and strategies planned. They are considered not always a perfect representation of the Corporate Social Responsibilities since just some of their activities can be assessed through a metric due to the nature both qualitative and quantitative of CSR activities (Drempetic et al., 2019[3]; Friede et al., 2015; Gillan et al., 2021; Saadaoui and Soobaroyen, 2018). Thus, in general firms should be cautious when using ESG score as a substitute for Corporate social responsibilities since they are more a metrics representative of the activities carried out for the CSR policies of a firm. Those activities entail all the social, environmental and governance initiatives of the firm to improve the effort of a firm in these fields. This effort reflects the awareness of the importance of taking care not only of activities related to the economic or financial performance but also regarding the health of the social dynamics within a firm taking care of the employees, government policies protecting the overall corporate environment and the external environment too, and environmental effort towards the reduction of carbon print emissions and the use of sustainable resources, which could eventually be extended to surrounding communities of the firms.

Assigned by third parties, scorings are measured based on a series of metrics. They generally use around 100-400 indicators and variables to calculate what is then the overall score of the single areas or the combined ESG score.

There are different methodologies used to calculate these ratings by different agencies. The most common one foresees the analysis of the sustainability reports published by firms to be then evaluated by the agencies for their performances and politics. They provide useful information for the calculation of the indicators. Some agencies provide surveys to firms to gather information on their strategies and activities, on the respect of standards and their care towards sustainable practices. Third parties' data might be another tool at the disposal of these firms, coming from

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[2] S.L. Gillan, A. Koch, L.T. Starks Firms and social responsibility: a review of ESG and CSR research in corporate finance J. Corp. Financ., 66 (2021), Article 10188

[3] Drempetic S., Klein C., Zwergel B., 2019, The influence of firm size on the ESG score: corporate sustainability ratings under review

government institutions or non-profit organizations and other types of institutions. Meeting with the executives is another solution to get insights from the top management and provide direct analysis for the discussion of sustainable practices. Benchmarking entails gathering information from the market related to the performances of firms through comparisons among different actors of the same industry. It helps out to understand strengths and weaknesses to follow up the dynamics of every single sector.

Let's now introduce some of the most important organizations responsible for the evaluations[4] with the relative methodology used.

Bloomberg ESG Data Services

The Bloomberg terminal[5] offers detailed information on the ESG performances of corporations and funds. It gathers data from different sources, from corporate reporting, market data to provide detailed analysis and ratings. The weights are based on the Sustainability Accounting Standard Board Standards (SASB), the International Sustainability Standard Board (ISSB), integrated with the supervision of the Global Reporting Initiative (GRI), CDP and the Task Force for Climate-Related Financial Disclosure.

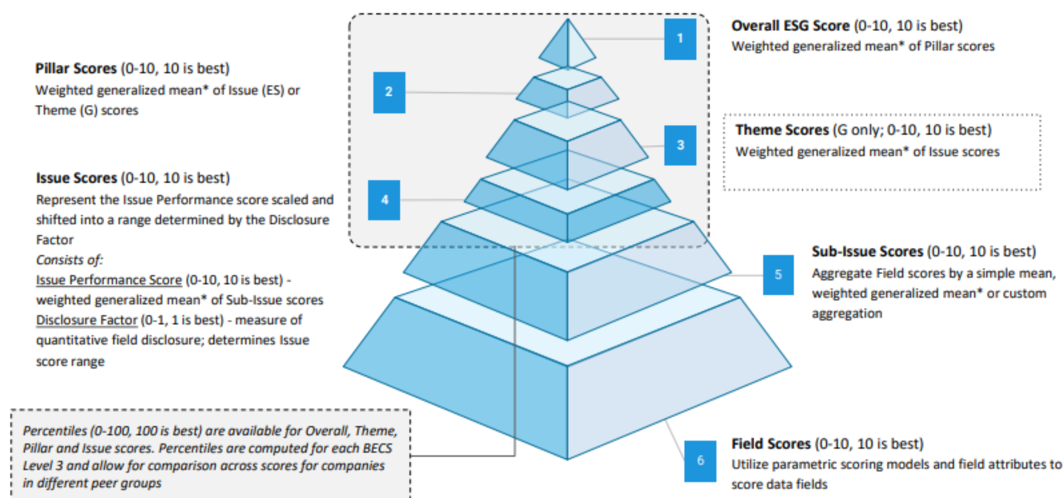

Fig.1 Source Bloomberg ESG scores

The figure above shows the overall structure of the Bloomberg evaluation framework, with the figure below explaining in detail how these elements are related among each other.

[4] https://www.ipebs.it/wp-content/uploads/2021/07/IWP_n_20_Pricing_risk_adjusted_il_ruolo_dei_parametri_ESG_SACE-1.pdf

[5] https://hr.bloombergadria.com/data/files/Pitanja%20i%20odgovori%20o%20Bloomberg%20ESG%20Scoreu.pdf

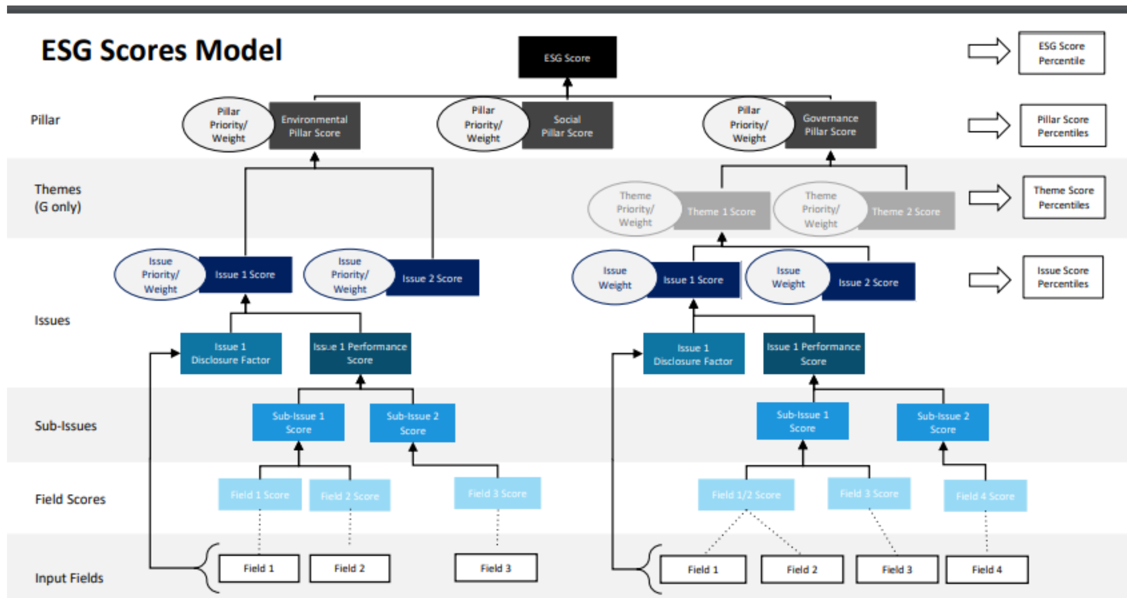

Fig.2 Source Bloomberg ESG scores

The pillars are identified by the intelligence research, ranked on a scale from 1-5, which then multiplies them for the single practices and activities carried out for the firm's operational areas to obtain an overall score. Weights are even based on a priority list based on the importance of the single factors and the probability of encountering possible controversies.

Sustainalytics ESG Risk Ratings

The Sustainalytics risk score[6] gathers together more than 250 indexes based on 20 categories of ESG issues. It uses both the artificial intelligence and a team of analysts to validate the research. A high score means an high risks, contrary to other ESG rating agencies. It represents the residual risk related to the managerial practices of a firm on a scale going from 1 to 40 "the lower the better".

The score is calculated on two dimensions the exposure and the management[7].
Let's start with the exposure, which could be defined as the totality of the ESG factors that could create potential controversies for the firm. They are defined as a subindustry level which could be commonly shared by firms belonging to it.
The calculation of the subindustry level is made through the use of a beta, calculated as the variation from an average of the subindustry to which the beta is then multiplied. The beta is then multiplied to the exposure assessment and the identified material ESG issues calculated following the structure in the figure below.

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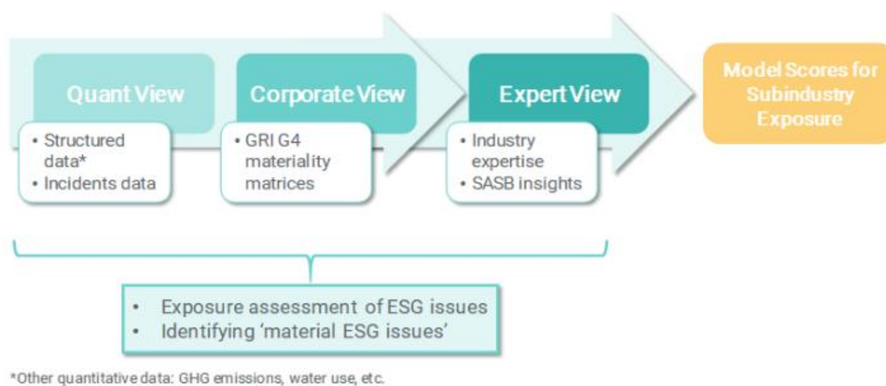
[6] https://connect.sustainalytics.com/hubfs/SFS/Sustainalytics%20ESG%20Risk%20Ratings_Issuer%20Backgrounder.pdf
[7]https://connect.sustainalytics.com/hubfs/INV/Methodology/Sustainalytics_ESG%20Ratings_Methodology%20Abstract.pdf

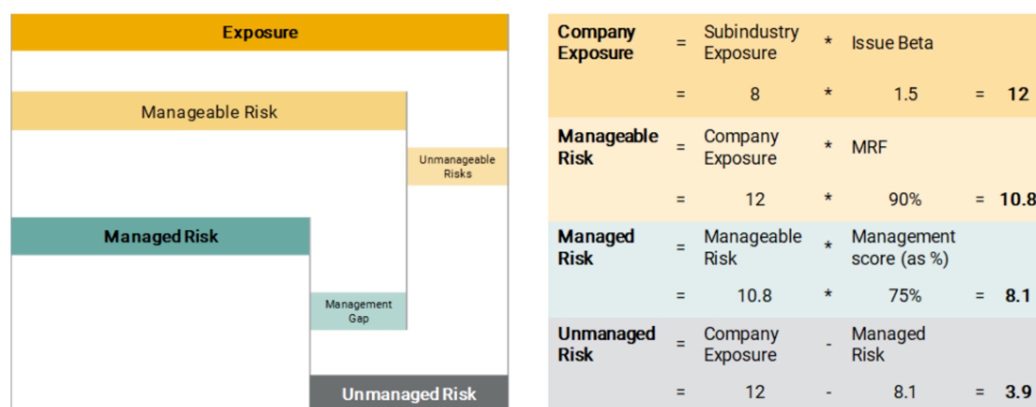


Source: Sustainalytics

Fig.3

Then within the exposure assessment there is even the consideration of manageable risk factors, which is the evaluation of a firm capability to face specific challenges, ranging from 30% -100% such as: the capability of ensuring compliance with to its employees, the impact of external actors on the capability of a firm to face issues, the overall complexity of the issue, and limitation over innovating and technology.

The second dimension is the management defined as the initiatives and practices carried out by the firm to assess the capability of managing the risk to which a firm is exposed. There are a set of management indicators from which the overall management indicators it is calculated, they entail quantitative analysis or as an evaluation of the potential controversies in which a firm might be involved. This below represents an example of the overall rating structure and calculation.



Company Exposure	=	Subindustry Exposure	*	Issue Beta		
	=	8	*	1.5	=	**12**
Manageable Risk	=	Company Exposure	*	MRF		
	=	12	*	90%	=	**10.8**
Managed Risk	=	Manageable Risk	*	Management score (as %)		
	=	10.8	*	75%	=	**8.1**
Unmanaged Risk	=	Company Exposure	-	Managed Risk		
	=	12	-	8.1	=	**3.9**

Source: Sustainalytics

Fig.4

It takes the name of unmanaged risk, measured on a scale usually going from 0 to a maximum of 50 and then each firm is assigned to a specific category (negligible, low, medium, high, severe). The overall management score is calculated as the sum of the weighted score of each MEI management score, representing the exposure (the calculation of idiosyncratic risks of a firm due to controversies, and the industry material ESG calculation (MEI)). Exposure is calculated in a range

between 0-20 with 20 being the highest exposure. Each of these ranges represents a portion of the overall score exposure ranging from 0 to 100.
Unmanaged risk is calculated as the unmanageable risk summed to the unmanaged manageable risk score. The managed risk score is the multiplication of the sum of the MEI risk scores and the manageable risk, for instance if the manageable risk of a corporation is 8 for a single case and the management score is 70, the managed risk it's going to be 8 * 70% =5,6.
Each of these elements partially contribute to the overall final score.

ISS (Institutional Shareholder Services)[8]

This agency offers multiple ESG ratings services, focusing on the corporate governance, environmental and social factors that could possibly have an impact on the financial results of a firm. The ESG team cooperates with the product and research team and the public affairs and additional stakeholders' team to the formulation and implementation of the methodologies used for the calculation of the ratings. It is foreseen the review of a Methodology review board to ensure the quality and efficiency of the calculation.
The data regarding firms' sustainable activities that is analyzed by this agency entails the public reporting disclosure from firms of their non-financial performances, the policy and strategy adopted by the firm which is possibly available from public declarations of the company, and lastly the disclosure made by firms towards both the national revision authorities and the recognized initiatives. Of course, all the data available online such as press releases, social medias and information provided by non-governmental organizations or non-profit organizations are all considered and evaluated as complementary to the already analyzed data.

The referring frameworks of the ISS agency are the United Nation Global Compact Principles, the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, UN Guiding Principles on Business and Human Rights, and lastly the UN Sustainable Development Goals (SDGs). Furthermore, the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), now part of the IFRS Foundation, the Task Force on Climate-Related Financial Disclosure (TCFD) and the CPD. In this analysis the whole supply chain and the operations are evaluated and considered due to the relation existing between financial performances and the material impact affecting the firm in the short, medium, and long-term.

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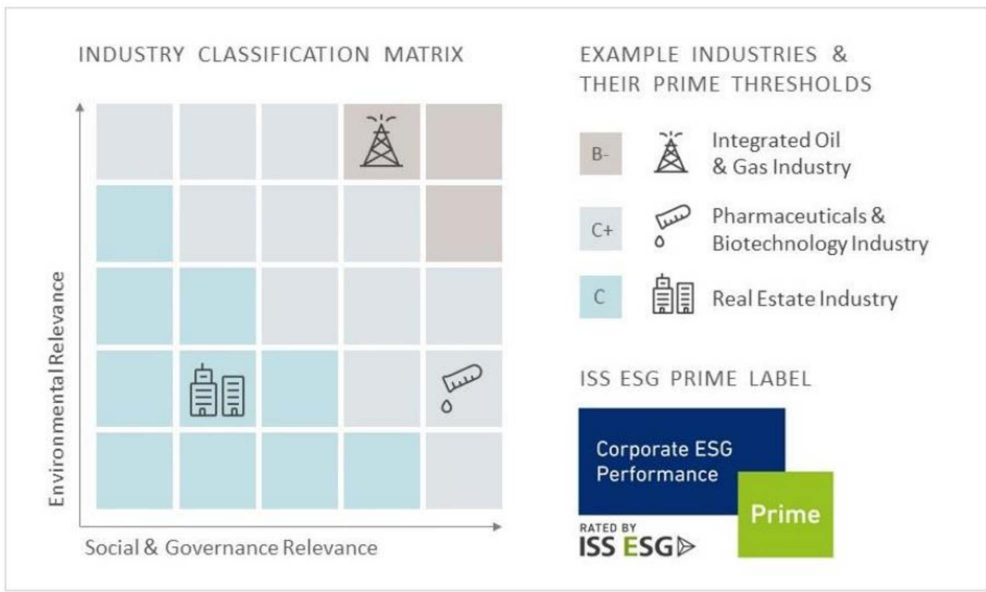
[8] https://www.issgovernance.com/esg/methodology-information/#1614783853365-ef5ab71f-5943



Source ISS ESG

Fig.5

ISS ESG has its own matrix for the evaluation of firms' ratings over sustainable practices and overall status. It is calculated as a result of the activities carried out along two variables, the environmental relevance and the social & governance relevance. The positioning of a firm over the matrix is made through the consideration of the totality of the risk exposure, perception and impact of the stakeholders and footprint along the value created. For the firms that have the best positioning, thus having a score higher than C+, its provided the Prime Status.
The absolute rating generally goes from D-, associated to a score <1.25, to A+, associated to a score of 4.00. The score is calculated for 25% based on a quantitative analysis and for the 75% on a qualitative analysis. This below is an example of the weight distribution in the Bio-Pharm industry.

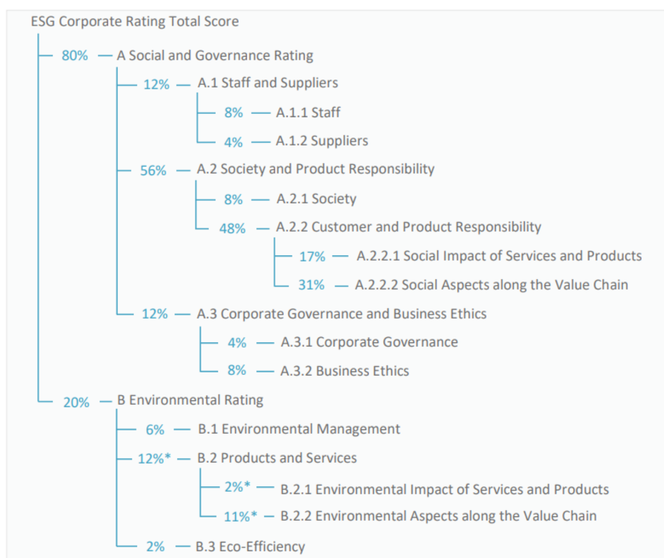


Fig.6 Source ISS ESG

While for the qualitative analysis factors such as the policy and standard of any single firm, how the firm is managed, the application of the strategy through the initiatives taken and the positioning of the firm related to its goals and how they are trying to achieve them.

RepRisk

It is specialized in the identification and evaluation of ESG risks and reputation. Covering more than 100,000 public sources and stakeholders in 23 languages, it combines artificial intelligence with human analysis to provide insights on how firms manage ESG risks. The range of the RRI, RepRisk Index, is a score going from 0-100 the higher the value the higher the risk. On the other hand, the RepRisk Rating, RRR, allows an easier to comprehend benchmarking for specific industries or sectors, evaluating risk in a wider concept more than just sustainable practices initiatives, thus it includes the sector and country affiliations. Lastly, the UNGC violator flag highlights supply chain (s) or operations (s) high risks for the riskier identified firms. Its research is composed of 28 ESG Issues (Fig. 1)[9] that include a wide range of topics over the different sets of sustainable practices.

Fig.7 Source: RepRisk news and research

The RepRisk's most used frameworks are the sustainable development goals (SDGs), Australian Modern Slavery Act, California Transparency in Supply Chain Act, the SASB Materiality Map, the Sustainable Finance Disclosure Regulation (SFDR), the ten principles of the UN Global Compact, UK Modern Slavery Act and the German Supply Chain Act.

[9] https://www.reprisk.com/news-research/resources/methodology

Refinitiv database

This rating agency uses around 400 indicators[10], and it is articulated over different steps. The two main phases entail the analysis of reporting and behaviors of the firm, then after the score has been identified all the negative activities, indicators and practices, work as subtractors for that score. This rating agency covers around 12 thousand companies both private and public companies, providing rates up to back to 2002 grading from D- to A+ associated to a ranking from 0-100.

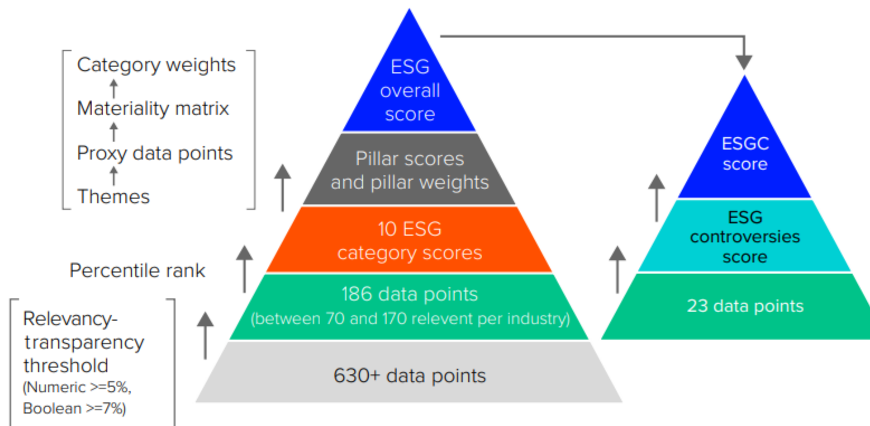


Fig.8 Source Refinitiv, Environmental, Social and Governance scores from Refinitiv

As stated at the bottom of the pyramid there are more than 630 ESG metrics elaborated by over 700 analysts all over the worlds. Each one of them gathers different kind of information, starting from annual reports, company websites, non-governmental organizations, CSR reports and news sources and all this information is then controlled and verified through a standardized review process.

After the first phase, category scores are calculated through both a Boolean data treatment, which entails the recognition of the sign of certain variables just by stating yes, which is then associated to number 1 and 0 for the contrary for the positive and negative influence of the variable. On the other hand, there is even a numeric data calculation, obtained by firms' reports which is associated to the sign calculated in the previous step.

Each category score is then calculated through this formula:

$$score = \frac{\text{no. of companies with a worse value} + \frac{\text{no. of companies with the same value included in the current one}}{2}}{\text{no. of companies with a value}}$$

Fig.9 Source Refinitiv, Environmental, Social and Governance scores from Refinitiv

[10] https://www.lseg.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf

Then the weights of every category, belonging to the materiality matrix which states the elements belonging to the three different categories (Environmental, social, governance), are calculated for the magnitude matrix. The latter is obtained calculating the industry median and transparency weights. The first one measure the weight of the median of a firm on the industry's median. While the transparency weight the relative transparency of a firm over the industry's transparency weight.

The final step foresees the calculation of the overall ESG score and of the pillar scores.

	Environmental			Social				Governance			
Industry group	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy	ESG scores
Water and related utilities	0.15	0.13	0.15	0.05	0.04	0.13	0.09	0.17	0.05	0.03	
ABC	0.66	0.00	0.44	0.05	0.58	0.89	0.34	0.99	0.84	0.56	0.571146184
CBD	0.71	0.96	0.38	0.00	0.69	0.66	0.70	0.37	0.01	0.56	0.547913483
DEF	0.03	0.00	0.00	0.00	0.00	0.57	0.11	0.21	0.14	0.54	0.150536652
EFG	0.00	0.31	0.03	0.00	0.00	0.25	0.59	0.89	0.94	0.00	0.327824384
EMJ	0.87	0.31	0.68	0.20	0.86	0.84	0.98	0.33	0.87	0.68	0.639400132
EMQ	0.00	0.00	0.00	0.00	0.00	0.30	0.02	0.88	0.08	0.01	0.194782046
ENR	0.92	0.81	0.85	0.75	0.97	0.93	0.66	0.40	0.49	0.86	0.756319427
GPQ	0.24	0.31	0.00	0.00	0.17	0.02	0.16	0.56	0.56	0.00	0.223443757
HIJ	0.61	0.31	0.50	0.65	0.42	0.80	0.80	0.48	0.27	0.37	0.54145808
IBD	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.51	0.49	0.00	0.145398367
JKL	0.50	0.73	0.74	0.00	0.78	0.43	0.93	0.62	0.89	0.26	0.611504799
LMN	0.76	0.31	0.56	0.00	0.47	0.48	0.48	0.17	0.24	0.26	0.415151441
MNO	0.82	0.31	0.91	0.40	0.58	0.61	0.07	0.33	0.52	0.63	0.539888776
MSE	0.55	0.00	0.62	0.85	0.17	0.75	0.84	0.77	0.35	0.91	0.581805891
OPQ	0.29	0.00	0.32	0.00	0.17	0.16	0.48	0.15	0.42	0.08	0.212906948
PQR	0.45	0.65	0.79	0.55	0.78	0.52	0.75	0.76	0.76	0.16	0.640379494
PSF	0.97	0.88	0.97	0.95	0.92	0.98	0.89	0.15	0.73	0.34	0.776142465
RST	0.08	0.31	0.00	0.00	0.17	0.20	0.59	0.42	0.42	0.00	0.228111754
UVW	0.34	0.00	0.26	0.20	0.58	0.70	0.39	0.26	0.16	0.31	0.316400123
VPF	0.16	0.31	0.15	0.00	0.17	0.11	0.25	0.88	0.90	0.00	0.325828115
XYZ	0.39	0.00	0.21	0.40	0.17	0.39	0.48	0.95	0.73	0.51	0.429105164
YQM	0.16	0.00	0.09	0.00	0.36	0.34	0.20	0.69	0.34	0.00	0.25005416

Fig. 10 e 11

Pillar	Category	Category scores*	Category weights	Sum of category weights	Formula: sum of category weights	New category weights*	Formula: new category weights	Pillar scores	Formula: pillar scores
Environmental	Emissions	0.98	0.15			0.35	(0.15/0.44)		
Environmental	Resource use	0.97	0.15	0.44	(0.15+0.15+0.13)	0.35	(0.15/0.44)	0.94	(0.98*0.35)+ (0.97*0.35)+ (0.85*0.29)
Environmental	Innovation	0.85	0.13			0.29	(0.13/0.44)		
Social	Community	0.89	0.09			0.28	(0.09/0.31)		
Social	Human rights	0.95	0.05		(0.09+0.05+0.04+0.13)	0.17	(0.05/0.31)	094	(0.89*0.28)+ (0.95*0.17)+ (0.92*0.13)+ (0.98*0.43)
Social	Product responsibility	0.92	0.04	0.31		0.13	(0.04/0.31)		
Social	Workforce	0.98	0.13			0.43	(0.13/0.31)		
Corporate governance	Shareholders	0.73	0.05			0.20	(0.05/0.26)		
Corporate governance	CSR strategy	0.34	0.03	0.26	(0.05+0.03+0.17)	0.13	(0.03/0.26)	0.32	(0.73*0.20)+ (0.34* 0.13)+ (0.19*0.67)
Corporate governance	Management	0.19	0.17			0.67	(0.17/0.26)		

The Refinitiv score has been used further on in this research to provide data for the quantitative analysis.

It has been observed that these ratings have a low correlation between each other while they should be assessing the same concept (Huges et al., 2021[11]). The problem at the bottom of this low correlation is the absolute absence of a coherency among the various scores provided by the companies above mentioned. In fact, the same score might be including different variables, methodologies, and structure. The same score might be including different variable related to the carbon print emissions while for another firm it might indicate a whole other thing related to philanthropic topics for instance. This situation might reflect into a biased evaluation when trying to assess through a benchmark the activities led by a specific firm over sustainable topics, and on the other hand it might be identified as an issue of non-representativity when comparing multiple corporations.

The reason why these ratings are different among themselves is for the different categories and types of indexes that they use for the classification. There are mainly three categories and types of indexes: exclusion indexes operating through an exclusion principle of the firms involved in activities not satisfying ethical or sustainable criteria.

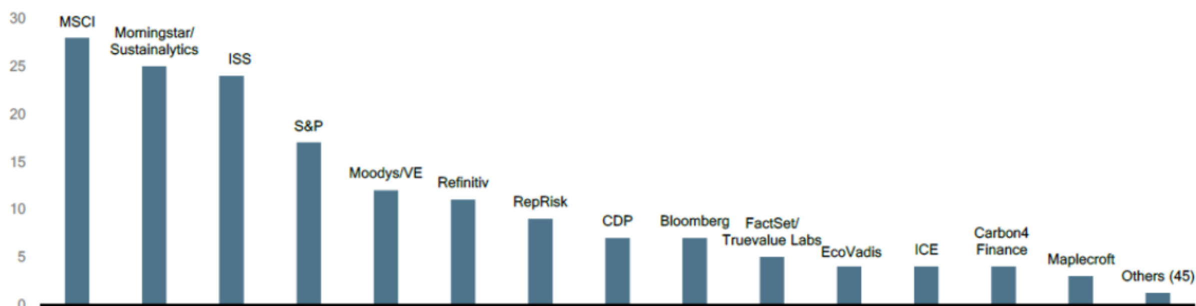


Fig.12 Source. Outcome of ESMA Call for Evidence on Market Characteristics of ESG Rating and Data Providers in the EU

Indexes based on ESG ratings, evaluating based on the sustainable practices and performances. They are used for firms having an active impact on the environment through ESG practices. Lastly, impact indexes where the only activities measured are the ones having a sustainable impact and not all the activities to then express an overall score, for instance the sustainable specific objectives of the United Nations.

Methodology of calculation varies among the different rating agencies, but there are some elements commonly used in their approach. These data could entail sustainability reports, financial reports,

[11] Huges et al., 2021; Alternative ESG Ratings: How Technological Innovation Is Reshaping Sustainable Investment Sustainability 2021, 13(6), 3551

stakeholder’s assessments, and other resources. There are different indexes used to evaluate firm’s performances for various ESG areas. Every index is based on its relative importance, and it is applied a specific methodology.

In the figure 1 are shown all the rating agencies in order of their relative use experienced throughout the years. Overall, in the EU there are 59 actually active providers but as said before there is not a standardization of the metrics’ methodologies and consequently results are not comparable, since every provider considers heterogenous data, combined through different procedures. The correlation between though is particularly low as it has been analyzed in a MIT Institute of Technology study which is equal to 0,55. Here is a graphical representation of the differences in the ratings’ relevance of the KPI’s attribution.

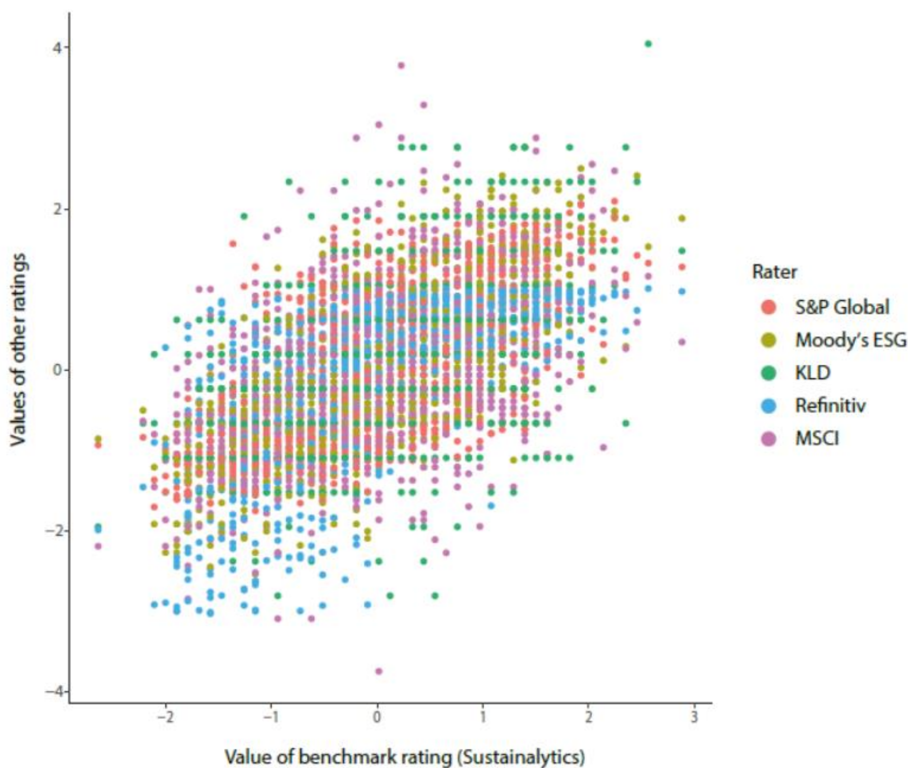


Fig.13 MIT, Aggregate Confusion: The Divergence of ESG Ratings (2022)

As a matter of fact, different rating agencies attribute different weights in terms of relevance to different KPIs. This leads to different overall evaluations in particular for social and governance KPIs, while they remain more or less homogeneous for the environmental ones.

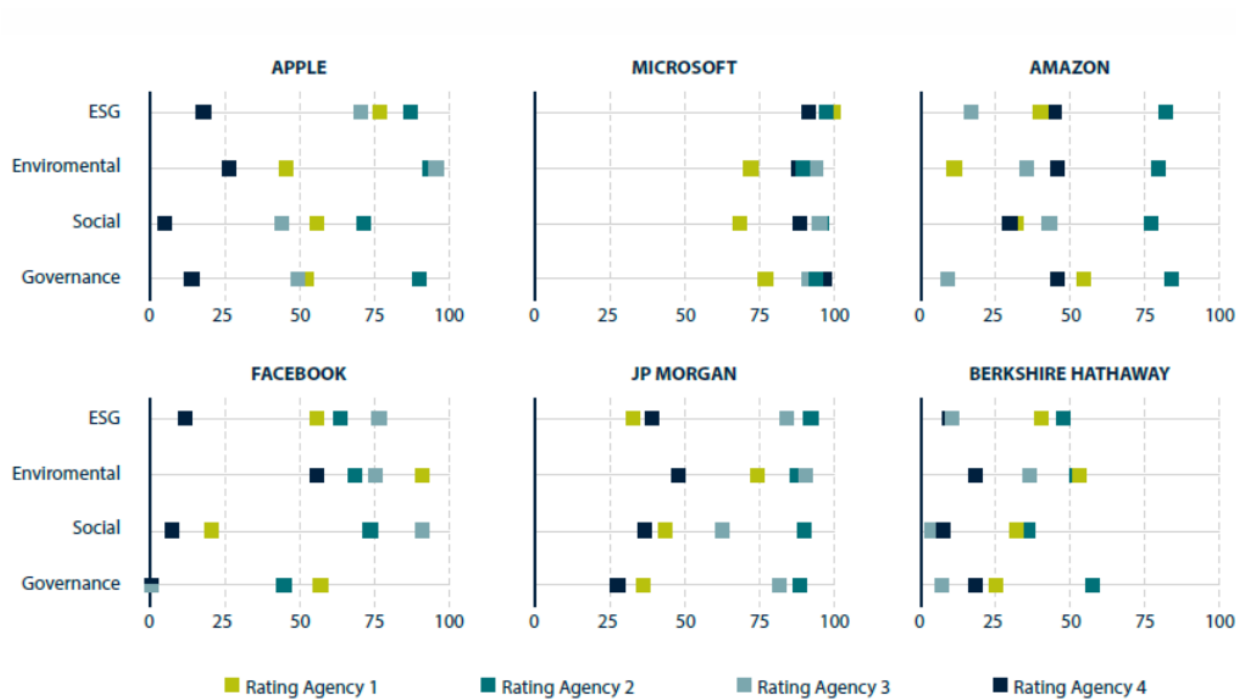


Fig.14 Kairos elaboration on public data

1.2 Historical excursus

In order to retrace the historical evolution of ESG, it is necessary to understand what were the origins of “Social Responsible Investment” practices, founded on philosophies of a religious matrix. Responsible investments principles can be already allocated back in past times of the man’s history. Their roots[12] are found during Biblical times, when some religions banned some investment activities which were considered non ethical from the Clergy, or against some religious principles. For instance, in monotheist religions, starting from the Jewish religion, with ethical criteria established within the Torah (Meir, 2012[13]), until getting to the prohibition of usury on loans set up by the Catholic Church (Renneboog et al., 2008[14]) and lastly with the further strict ban of interests on capitals assets with the third Lateran Council of 1179.

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[12] https://www.empoweryourlifethinktank.com/newsletter/evoluzione-nel-tempo-degli- investimenti-responsabili/#:~:text=L'approccio%20ESG%20nasce%20proprio,cominciano%20a%20essere%20integrati%20a

[13] Meir, A. (2012), “Principles of Ethical and Communal Investment in Judaism: A Jewish Law Approach”, in Levine, A. (Ed.), The Oxford Handbook of Judaism and Economics, Oxford University Press, Oxford, pp. 1–27

[14] Renneboog, L., Ter Horst, J. and Zhang, C. (2008), “Socially responsible investments: Institutional aspects, performance, and investor behavior”, Journal of Banking and Finance, Vol. 32 No. 9, pp. 1723–1742.

Still, nowadays in the Islamic world, it is banned to obtain an interest from capital assets investments. For this reason and for Koranic principles adopted in the selection of investments, Islamic finance arouse a certain interest (Hellsten et al., 2006[15]).

In less distant times, in the prerevolutionary America, even Methodist Christians banned investments in the so-called sinful corporations, including tobacco, gambling, alcohol and slavery. They preferred to give up higher profits to obtain a positive reflection in terms of ethical and social effort. The resulting effect was powerful, leading to mass disinvestment in countries such as South Africa during the XX century, thus leading to a strong social change.
In any case, those movements were always marginal within the financial context, at least until half of the twenty-first century (Martini, 2021[16]).
During the second half of the twentieth century, movements against Vietnam's war constituted a first catalyst of SRI (Schueth, 2003[17]), leading to the boycott of firms that used to participate to the military campaign in terms of war suppliers, such as Dow Chemical, producing napalm (Biller, 2007).

As shown in this first historical context, weighted investments with a social input find their origins way back in the time; on the other hand, governance and environmental ones are more recent. During the Seventies, major oil crisis brought attention on environmental risks and sustainable commercial habits as well as they are known to us today. The neoclassic position, of whom the first advocate was Friedman[18], believed that private corporations had as only goal profit maximization, refraining from representing rules of ethics unless derived from legal impositions. Ecologist and environmental activist, pushed by accidents that have marked the history such as Chernobyl, led the topic to the center of public opinion.

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[15] Hellsten, S., Mallin, C. and Maliin, C. (2006), "Are 'Ethical' or 'Socially Responsible' Investments Socially Responsible?", Journal of Business Ethics, Vol. 66 No. 4, pp. 393– 406.

[16] Martini, A. (2021). Socially responsible investing: from the ethical origins to the sustainable development framework ofthe European Union. Environment, development and sustainability, 23(11), 16874-16890

[17] Schueth, S. (2003). Socially responsible investing in the United States. Journal of business ethics, 43(3), 189-194.

[18] 42. Friedman, M.A. Friedman doctrine: The social responsibility of business is to increase its profits. N. Y. Times Mag. 1970, 13, 32–33.

Furthermore, two funds in the United States were established, the First Spectrum Fund and Dreyfus Third Century Fund, characterized by a strong vocation for SRI themes. Both were born with the promise of dedicating particular attention to firms' performances in terms of environment, civil rights, consumer protection and quality of life (Martini, 2021).

Until this moment though, the concept of SRI was limited to the exclusion of firms not considered ethical for religious or political reason. This typology of selection was denominated negative screening.

The very first document treating SRI themes, not only in exclusion terms, but giving first principles to follow for a socially responsible investment, was the code of conduct drafted in 1977 from Reverend Leon Howard Sullivan. He was a Baptist shepherd and member of the board of directors of General Motors. That document, known as Sullivan Principles, was born to rule investments and activities of the United States corporations operating in South Africa during the Apartheid period. They include six principles, such as the desegregation of the workplace, equal practice of employment for all the employee, equal retribution for equal contribution, professional training, advancement of blacks and increase of blacks in the leadership composition, lastly increase of the quality of life outside the workplace[19].

During the Eighties, interests towards SRI grew up incredibly, in particular in the United Stated and the United Kingdom. Unfortunately, to observe a keen attention towards these types of investments we had to wait until the Nineties, decade when even the individual investors began to acquire a specific affection to this theme (Renneboog et al., 2008).

Hand in hand with the financial theme, regulators in the whole world committed themselves to the reduction of greenhouse gases emissions with the stipulation in 1992, in Rio de Janeiro, of the United Nations Framework Convention on Climate Change: UNFCCC. The latter, foresees the possibility of adopting specific acts toward reduction and restraint of emissions. The designated occasion for the discussion of these measures is the Conference of the Parties (COP).

The third conference of the parties became the first milestone of the adopted measures. With the Protocol of Kyoto in 1997, reduction obligations of greenhouse gases emissions were introduced,

[19] Mangaliso, M. P. (1997). South Africa: corporate social responsibility and the Sullivan principles. Journal of Black Studies, 28(2), 219-238.

foreseeing a certain flexibility to the implementation of emissions payables, a tool that allows adherents countries to realize projects dedicated to the reduction of the emission generating payables to the promoting country.

The protocol of Tokyo was never ratified by the United States, one of the major contributors in terms of worldwide emissions.

An important initiative of global reach was carried out by the United Nations: the then-Secretary General Kofi Annan, invited a group of important institutional investors to the subscription of six principles for responsible investments. Thus, the Principles for Responsible Investments (PRI) were born. Initially signed by 20 people coming from different financial institutions of 12 countries and supported by 70 experts in the investments sector.

The net of the signatories of PRI shares six principles:

- First principle: integrate ESG issues into the analysis of investments and within decisional processes.
- Second principle: be active owners, integration ESG issues within the politics and practices related to property.
- Third principle: research of an appropriate disclosure of ESG themes from the financed entities.
- Fourth principle: promoting the acceptance and implementation of principles within the investment sector.
- Fifth principle: work together to improve the efficiency of signatories in the application and implementation of the principles.
- Sixth principle: every signatory should report regarding his/her activities and the progresses reached with the implementation of the principles.

From 2005 to today, the growth of the signatories' net has incredibly grown. In 2021, PRI have been signed by almost 4000 institutional subscribers, that with their investments cover almost one fourth of the worldwide Asset Under Management (AUM).

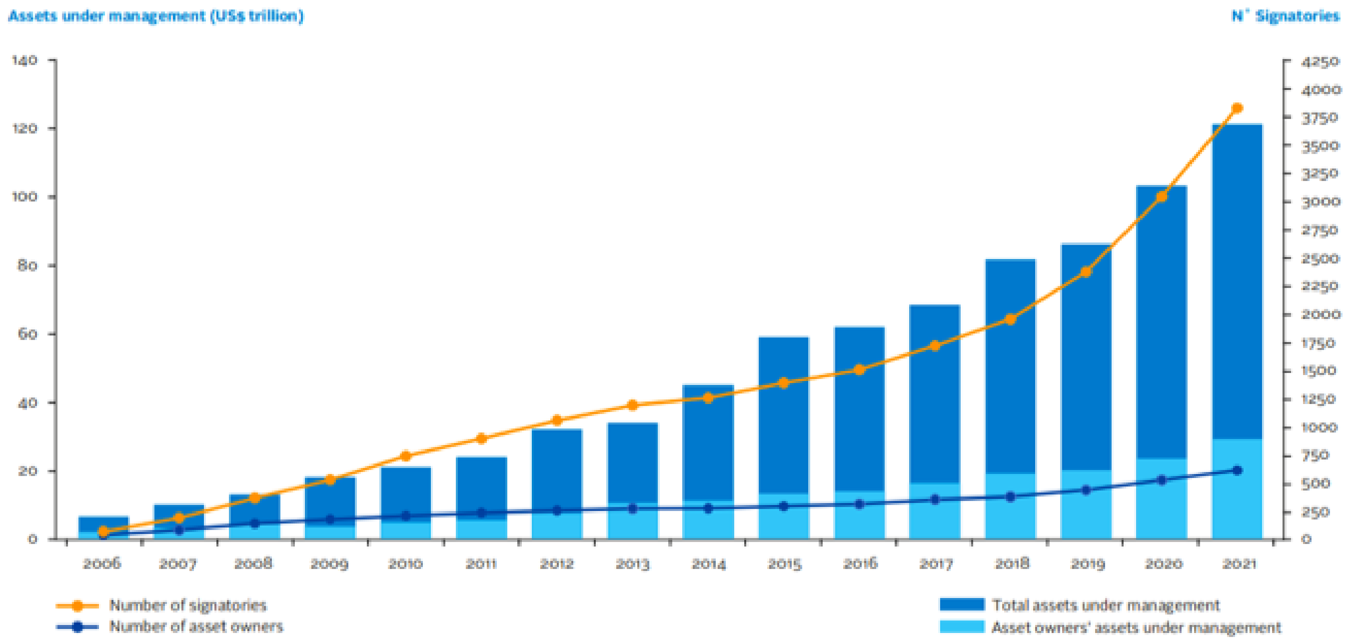

Fig.15 Number of signatories and owners, AUM related. Source: PRI.

The causes at the bottom of this considerable increase of SRI, more than the sensibility of single investors to these types of themes, must be sought in two macro factors. The first lies in the increased awareness, sprung following the financial crisis of 2007 and 2008, of the negative effects that can be generated by a scarce attention dedicated to governance and risk management themes. The second one resides in the environmental theme: the higher climatic risk perception and progressive exhaustion of primary energetic resources generated a strong increase in the demand of investments and SRI products (Martini, 2021).

1.3 From Treaty of Paris to the action plan: the political framework

Standing as a global issue, climate changes require worldwide countries to work and collaborate to find solutions to this problem. In 2015[20], leaders all over the world set up some ambitious goals to fight for this cause. The Treaty of Paris came into effect the 4th November of 2016, by fulfilling the condition of ratification from at least 55 countries, representing at least the 55% of global emission of greenhouse gases. All the EU countries have signed the treaty. (European Union Counsel, 2022) "On climate change there is an imperative that looms over the political class: to tell the truth. Investments are essential elements in the fight against climate change". That is how the President of the French Republic, Emmanuel Macron, has opened his speech in front of the summits of

[20] https://unfccc.int/process-and-meetings/the-paris-agreement

European institutions. They were gathered in Bruxelles, for the event of the presentation of the Action Plan on sustainable finance of the European Commission.

The document published, transposes most of the recommendations given by the High-Level Expert Group on Sustainable Finance HLEG. They are a group of experts founded in December of 2016 by the European Commission, with the role of elaborating guidelines for the development of sustainable finance in Europe. Coming back to the document, it illustrates the timetable of Bruxelles, to reinforce the role of finance in the transition towards a sustainable economy, in line with the Treaty of Paris on climate.
The actions proposed by the Commission plan to: Orientate capital flows towards sustainable investments and manage efficiently financial risks coming from climate change, from resources consumption to the environmental degradation and social inequalities. Furthermore, the goal is to improve transparency and encourage a long-term approach in the economical-financial activities.

To sum up, these are ten measures have been taken to achieve the goals proposed by the EU Commission:

1. Introduction of a “Taxonomy” for EU’s sustainable finance, namely a shared system of definitions and classification of products and services considered sustainable;
2. Create standards and quality certifications for EU’s green bonds, with the goal of support the market’s credibility and investors’ trust;
3. Increase investments towards sustainable infrastructures within Member States and partners;
4. Require asset managers and insurance companies to take into account clients’ sustainability preferences in their advisory services;
5. Make the methodologies used to construct the unsustainability indices more transparent by providing for a specific initiative to harmonize low-carbon indices;
6. Encourage the integration of ESG criteria from rating and market research companies;
7. Advance a legislative proposal to include sustainability criteria in the definition of fiduciary duty, which binds institutional investors to act in the best interests of beneficiaries;
8. Analyze the possibility of introducing reductions of minimum capital requirements for banks on sustainable investments, the so called “*green supporting factor*”, when risk profiles are indeed lower;

9. Improve quality and transparency of nonfinancial corporate reporting by aligning current climate risk guidelines with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures;
10. Encourage the integration of ESG criteria and the adoption of a long-term approach in the decision-making processes of boards of directors. (Invest responsibly, 2018).

Let's now introduce some of the initiatives that represented the path of these metrics' integration throughout the last years.

"A sense of purpose[21]" of January 12th of 2018 where he represents the paradox of the contemporary growth of yields, especially from shares, and conditions of growing unease for some sections of the population. These conditions originated from the fact that for some of the individuals the shares generated great profits, while on the other hand others had to face low interest rates, reductions in the salary growth rate, uncertainties with the pension system, and reductions in the education level and occupational safety.

Governments haven't been able to face by themselves social challenges of the future and thus the community has been asking to public and private corporations to pursue a social purpose. Larry Fink underlines the fundamental role of the asset management company, that through long-term engagement strategies, have to contribute to the welfare of the community. This goal has to be reached not only through the short-term yields for shareholders, and thus the distributions of profits, but even creating long-term value helping the population to fulfill their social needs.

"Profit & Purpose" of January 17th of 2019[22], where Larry Fink represents an increasingly fragile global scenario exposed to short-term choices of corporations and governments. The are different key elements for the 2019 letter starting from the description of a troubled economic global scenario: "The uncertainty pervades markets; the trust has been cracking and lots have been seeing risks of a cyclical slowdown. Everywhere in the world, the frustration, after years of stagnant salaries, the effects of technology on work and the uncertainties for the future have hyped up popular anger, the nationalism, the xenophobia", "Destabilized from some economics changes considered to be fundamental and the incapability of governments to provide long-term solution, society is continuously relying on corporations, to face pressing social and economic issues. As a matter of fact, starting from caring of the environment to pensions, as far as genre and racist disputes".

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[21] https://corpgov.law.harvard.edu/2018/01/17/a-sense-of-purpose/
[22] https://www.blackrock.com/it/investitori-privati/approfondimenti/larry-fink-ceo-letter

Moreover, the eternal link between Goal and Profits: "The goal is not only the research of the profit, but it's the effort and propulsive force to reach it. Profits and goals are not opposed among each other, they are rather related. Profits are essential considering they have to satisfy efficiently the interests not only of shareholders but even employees, clients and the whole community as holders of interests".

Lastly, a call to the finance world: "The world needs your leadership", "Societies have to demonstrate their effort towards nations, regions and communities where they are located, especially for the reasons from which depend on the prosperity of the world in the future. The entrepreneurial world can't solve every public social problem, but there are lots, from pensions to infrastructures and the education for the jobs of the future that needs help from the world leadership".

"A fundamental reshaping of Finance", of January 14th 2020[23], where Larry Fink underlines the fundamental role of finance, and especially of *assets manager,* to build the new market paradigm. Even here there were different main analyzed points. The description of the role of assets manager: "The money that we manage is not ours, but it belongs to people that in dozens of different countries, to finance long-term projects, make great sacrifices such as investing their pensions". "We feel a strong responsibility towards institutions and individuals – if they are shareholders of their own firm or hundreds of different other people- to promote the creation of value in the long-term".

The introduction of risk of climate change as one of the higher investment risks: "Climate change has become for societies a determinant factor to keep in mind when structuring long-term strategies". "A significant and resilient impact that this phenomenon will have on the growth and quality of the economic conditions, it's a risk that markets have been slow to understand. Anyways, there is still the perception that the world is changing fast, and finance has to keep up".

The introduction of the idea of a responsible and transparent capitalism for which firms, investors and governments have to be ready for a massive reallocation of capital".

1.4 European Green Deal

[23] https://www.blackrock.com/it/investitori-privati/larry-fink-ceo-letter

The Green Deal EU[24], appears to be the most wide and ambitious program integrated of reforms, investments and research ever undertaken by the European Union.

The name is a direct reference to the *New Deal,* the program of public operations, economic and social reforms introduced between 1933 and 1939 from the US president Franklin Roosvelt.

In the case of Europe, to push the action and the conception of the Green Deal is not a depression or a crisis but a present and future challenge to face: the global warming caused by human activities. Europe wants to not only contribute to the fight of climate change, but even guiding it and transforming it into economic growth and a new geopolitic centrality.

With this goals it has developed a plan of action organized over thirty years aiming at energetic transition, circular economy, protection of biodiversity and stop to pollution.

The goal of the European Union

Before the Green Deal, EU climate plans were ambitious, but substantially in line with the international community, foreseeing within 2050 the reduction of emission of 60% compared to 1990 levels.

The goal, thanks to the new influences brought by the Green Deal, was then changed aiming at reaching within the same due date the Net Zero emissions: European Union economy will not have to add any additional ton of carbon print into the atmosphere, thus, compensating every emission with an analogue sustainable one.

Treaty of Paris, together with the scientific studies, have pointed out how this is the only way to retain global warming within, on average, 1,5 degrees more than pre-industrial values, which is fundamental to avoid any irreversible consequence on ecosystems.

If that is the final goal, there is an intermediate one related to 2030, date within which the EU would like to reduce emissions of 55%[25] compared to 1990s levels. The legislative package Fit for 55 defines the action needed to reach the goal of 2030.

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[24] https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

[25] https://www.consilium.europa.eu/it/infographics/fit-for-55-social-climate-fund/

Investment plans

The first analysis of the Commission, in 2019, was estimating as necessary, in terms of new yearly investments, 260 billion of euros, almost 1.8% of the 2018 European GDP.

In the upcoming years, the estimation has been reviewed to an increase, especially after the COVID-19 pandemic and the Ukraine conflict changed the social, political and economic context.

To facilitate the investments, in January 2020, the European Commission have introduced the Green Deal Investment plan, its financial framework foreseeing at leas 1.000 billion euros for the sustainable investments of the upcoming years. Part of this budget came from the ordinary EU budget, together with other tools such as InvestEU and coming from other private investors.

The program foresees even another fund called Just Transition Mechanisms, having a value around 100 billion euros, to support European regions having an higher impact in this energetic transition. For instance, areas where they used to have carbon extraction and processing, such as Germany or Poland.

Advantages of the European Green Deal

Although the main goal of the Green Deal is the achievement of climatic goals and the stop to global warming, its application promises multiple advantages to the European territory, its economy and its citizens. It promises cleaner air, water and ground thanks to the reduced environmental pollution and higher food safety, both to a quality extent and to a sufficient availability for everyone. More livable cities, thanks to the development of public transportation and forms of mobility non-polluting and end of the dependence from fossil fuel and consequent geopolitical tensions. Lastly, economic growth, jobs availability growth, and better perspective for the new generation, if Europe will be able to be avant-garde in green technologies.

Strategy and involved areas

To get to the NetZero goal, the Green Deal foresees a series of parallel and complementary action lines: clean energy, circular economy, buildings' efficiency, agriculture, biodiversity protection, fight against pollution and social justice.

Any of these areas is disclosed in the 2019 document, and all of them are destined to be translated in more detailed plans.

It is now the moment of translation of these plans into legislative mandatory choices.

Energy

The first chapter of course entails clean energy, since production and use of energy in every sector are at the origin of 75% of the carbon print emissions in all Europe.

The cardinal principles of the Green Deal are regarding: the rapid and progressive stop of carbon use, the massive development of renewable resources, energetic efficiency promotion and the interconnection and digitalization of the European energetic market, to make sure the equal energy access.

In particular, Fit For 55 package, has set the goal of producing 40% of the European energy from renewable sources within 2030.

Sustainable industrialization

The second pillar of the plan is the sustainable industrialization, and specifically promotion of a circular economy.

The goal in this case is to reduce the use of energy for the extraction and processing of resources, the extension of the useful life of products to facilitate their reparation, promotion of sharing platforms allowing more users to use the same products, recycling and re-utilization of materials, components, and products at the end of their life, to reduce pollution. Particular attention is devoted to difficult industries to decarbonize, such as iron and steel, textile, electronic, chemical, and cementitious.

More details on the industrial strategy are available on the Green Deal Industrial Plan, made public for the firs time during February 2023 from the Commission, where there are some actions introduced to create a more favorable context to the increase of productive capabilities of the EU for technologies and products with net zero emissions, to guarantee in a sustainable way the access to the market of feedstock essential in this energetic transition,

This will be possible solving a controversial debate that has been going on since 2019, proposing the reduction of limits to the States' support, allowing member countries to support directly the

technologies' industries, responsible for the production of sustainable energy such as, stockage batteries, solar panels, wind turbines, heat pumps, green hydrogen and biofuels.

Public and residential housing

The housing sector have a massive use of non-renewable resources, thus, having wide margins in terms of improvement of energetic efficiency. European buildings consume 40% of the total energy of the continent and the Commission estimates that from 2018 values, renewed buildings should rise from 0,4 yearly, up to at least 1,2%. The recent measure Energy Performance of Buildings Directive (EPBD) on the buildings' efficiency, foresees the transition of residential buildings to an E energetic class within 2030, and D within 2023.

Agriculture

Here it has been introduced the From Farm to Fork strategy, to combine sustainability and economic support to productors, and fishers in all Europe. The program includes goals such as the achievement of 25% of biologic agriculture within 2030, the reduction in the use of pesticides of 50%, and the use of fertilizers of 20% within the same date. Plus, the introduction of labels suggesting the level of sustainability for specific products.

Sustainable mobility

The green Deal has as one of the main goals the limitation of the emissions coming from the transportation's sector contributing with one fourth of the European emissions, and still growing. The strategy adopted foreseen the use of rails, and water for the switch of means of transportation composed of the 75% of overall means using rubber tires. For private transportation, it has been taken a strong decision supporting zero emission vehicles, such as the electric, with an increase in recharge points and light and shared forms of mobility. Already in 2019, the plan assured a clear path from 2025 and on towards zero emission mobility.

Environmental protection

Lastly, it is part of the Green Deal, even the Zero Pollution Action Plan, which aims to eliminate all the air, water and ground pollution sources within 2050, and the Biodiversity Strategy for 2030, with the goal of protecting at least 30% of seas and mainland, protecting pollinating insects, repristinating the free flow of 25 thousand kilometers of rivers,

The green Deal have presented even a new theory for the forests' protection, based on which it is forecasted the plantation of 3 billion of new trees in Europe within 2030, and the introduction of forests managing systems, helping to the adaptation of climate change. Forests represents a fundamental resource, not only as biodiversity tanks, but even for the absorption of CO2 contributing in a decisive wat to the net zero emission goal.

Roadmap

The 2019 document fixed by the Commission, is the first step providing a political picture with macro-goals for the upcoming actions. To go further on, it is needed a roadmap with intermediate goals and the adoption of decisive legislative measures, some of them already approved definitively, other still at a proposal status from the Commission, waiting for the EU Counsel and Parliament final formal approval.

Other supporting strategies to the Green Deal

After its presentation, the Green Deal path has intertwined with other European action plans, in particular those intervened to answer to crisis caused by both the pandemic and the Russian invasion of Ukraine.

In 2020, the European Commission, European Parliament and the EU leaders, have agreed on a recovery plan to relaunch the economy on the short-term: Next Generation EU, a financial instrument of 806.9 billion euros to spend within 2025 to stimulate a sustainable recovery, uniform, inclusive and equal. In that program, an important part of the investment will be going to sustainable and clean energy, industrial sustainability, new mobility, building requalification.
Next Generation funds have been to numerous countries a system to allow the start of the Green Deal, and the program designated from the European Commission to avoid the risk that the economic crisis will cause a shift of environmental goals.

In 2022, the European Union answers to the crisis of the energetic market caused by Ukraine's war, with the REPowerEU plan, which partially recalibrate the Green Deal. EU is both trying to find alternative supplies of gas, petroleum, and carbon and on the other hand goals on the renewable energies are re-set at a higher level. REPower on which the Parliament and Counsel have reached a political agreement in 2022, set the amount of energy that will have to be generated from renewable resources in 2030 at 45%, and not anymore at 40% as it was foreseen by Fit for 55.

The path towards 2050 is still long, and probably it will see still complex negotiations and settlements. Anyways, the Green Deal is active, with bounding goals put black on white, still being the most ambitious and detailed plan of action towards a sustainable economy ever adopted by an advanced economy.

1.5 ESG Frameworks

ESG reporting schemes[26] are used by firms, to publicly report detailed parameters regarding environmental, social and governance aspects of their business. These schemes are created by different organizations like NGO, stock exchanges, business groups, nonprofit organizations, idea reservoirs and governments.

Even though hundreds of these schemes have been created, just almost twelve of them can be considered important. Every scheme usually establishes parameters and qualitative elements that a firm has to communicate to the public, plus the layout and a dozen of important schemes taken into consideration. Some of them are voluntary, others are publicly managed.
The most important entities and the most referenced ones as relevant ESG frameworks' provider are:

- NFRD
- GRI
- Regulation 2088
- SASB
- ISO 26000
- ESRS
- CSRD

Now starting from the main inclusive element all these frameworks are going to be analyzed and explained their contribution in the constitution of the legislation related to the disclosure of corporate sustainability reporting directive activities, measures taken and strategy.

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[26] Che cosa sono i framework ESG? | IBM Reporting ESG: cos'è e quali sono le normative | Wolters Kluwer

1.5.1 NFRD

All the schemes are tools used to report ESG activities from a firm to external stakeholders and possible investors in this corporate sustainable reporting. They are included in the Non-Financial Report, which is a document within which all these information are communicated and gathered to disclose these type of information to the public.
Starting from explaining what this document is and what the relative directive regulates, all the other tools will be introduced and explained. They are all together part of the reference framework used by rating agencies for the evaluation of the firms and by single firms for the reporting of their environmental, social and governance performances.

Non-Financial Reporting Directive[27], it is a document that goes beyond economic data. It was introduced to give further guidelines to the Accounting (Directive 2013/34/EU)[28], Non-Financial Reporting Directive (Directive 2014/95/EU, "NFRD")[29], introducing requirements, for some bigger dimension corporations, to include in their reports on the management a non-financial disclosure.

In particular, corporations considered by the text of this directive, are the big dimensions one, constituting public interest and that, at the date of the reduction of the balance sheet, usually present an average number of occupied employees during the fiscal year of 500.

The object of the report for the directive is restricted, at the moment it entails four principal themes:

- Environmental impacts;
- Social issues regarding employees;
- Human rights respect;
- Corruption and laundering.

It reports action, strategies and results, regarding the effort demonstrated by an organization towards the improvement of environmental sustainability, inclusion and social equity.
Since ESG criteria are gaining more and more importance on the value perception of a firm and on the results of its business, the non-financial directive pictures the strategy of firms of an efficient, inclusive and circular management of social and ethical issues. As a matter of fact, its scope, is to

[27] https://eur-lex.europa.eu/eli/dir/2014/95/oj
[28] https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX:32013L0034
[29] https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/654213/EPRS_BRI(2021)654213_EN.pdf

explain in detail the politics adopted on safety and health on the job, the environment, respect of human rights, and anti-money laundering fight.

It is though needed to say that this is not mandatory. As a matter of fact, the directive provide guidelines regarding what is felt to be needed for the "comprehension of the firm's behavior, of its results, situations and impacts on its activity". Firms will thus be free to conform to any standard they will retain adequate to their activity (the other tools and frameworks that will be explained below).

Let's now analyze more into details.

What is the NFRD?
NFRD is a document that firms have to draft, to report over issues regarding social, environmental, with a focus on corporate sustainable politics and practices.

In this sense, this document pictures what can be called the Corporate Social Responsibility, the totality of the actions realized to face practically issues having a social and ethical impact.

It is a document that finds its normative basis in the legislative decree n. 254 of the 30 December 2016, with whom it has been introduced, exactly article number 2. It set the obligations of publishing a report that can be individual or consolidated, of non-financial character in the Interests of Relevant Public Entities, thus, Italian securities issues corporations which are listed on the regulated market in Italy or the European Union. To be more specific, this obligation is regarding banks, assurances firms having these characteristics: a number of employees higher than 500, balance sheet with a value higher than 20.000.000 million of euros or a net margin higher than 40.000.000 million of euros.

The legislative decree n.254 of 30 December 2016, at art. 7, foresees that even other firms or organizations with different characteristics from Public Interest Relevant Entities, can publish a Non-Financial Report on voluntary base. In this case qualifying the report as a Non-Financial Report, in the case in which the information disclosed are in line with the one required formally by the directive.

The mandatory reporting as said before, entails mainly public interest entities, such as banks or insurance companies, regardless of the dimensions, and listed companies, with at least 500 employees and a consolidated balance sheet registering an active balance sheet, or net revenues higher than the above-mentioned numbers.

DNF and PMI

Small and medium enterprises (PMI) not listed, and micro-firms are not considered by the directive as the entities that mandatorily have to report the non-financial information. Anyways, they can still provide this type of disclosure, to improve transparency of their activities towards clients and stakeholders. Even smaller firms have understood how important the sustainability and its leverage for their business is and are always more and more dedicated to this activity, even though they are not obliged to.

Non-Financial Disclosure: key elements

Directive 95/2014 of the EU, the so-called NFRD that has modified the 34/2013, has extended the reporting obligations even on social and environmental themes. Following the regulation, the report can be integrated into the balance sheet or published separately: firms that don't adopt specific politics in one or different fields cited in the Directive will have to point out the motivations for that choice.

What are the risks that a firm has while not reporting even though it is obliged to?
The absence of the reporting exposes a firm to heavy sanctions:

- Omission of the draft of the report: from 20 thousand to 100 thousand euros
- Omission of the deposition of the report: from 20 thousand to 100 thousand euros
- Absence of the conformity of the disclosure to the decree 254/20016: from 20 thousand to 100 thousand euros
- Falsehood: from 50 thousand to 150 thousand euros

From the Non-Financial Report to the CSRD: Corporate Sustainability Reporting Directive

In December 2022, it has been published in the official gazette of the European Union the Corporate Sustainability Reporting Directive – CSRD or Directive n.2022/2464 regarding the firm's sustainability reporting, modifying the directive 2013/34/EU, concerning the obligation of non-financial information for firms of a big size.

The regulation foresees the following calendar:

- From 1st January 2024 for big firms of public interest having more than 500 employees;
- From 1st January 2025 for all the other big firms, those surpassing at the closing date of the fiscal year two of these three criteria: € 20 million of total active, € 40 million of net revenues, 250 annual average employees);
- From 1st January 2026 for listed PMI excluding micro-firms;
- From 1st January 2028 for non-EU firms that realize an annual net margin over € 150 million in the EU, having a subsidiary in the EU, qualifying as a big size firm or listed PMI having a net margin in the previous exercise over € 40 million

The new sustainability reporting model, will be an integral part of the report on the management of the firm and it will have to include a series of descriptions of the model, starting from the firm strategy with other elements such as sustainable practices of the firm to understand the direction of the path taken towards the sustainability of the firm and its overall community. Hence, it will be the manifestation of the plans of the firm to guarantee the compatibility of the model and of the strategy with the transition towards a sustainable economy taking into consideration all the logics of control of stakeholders' interests. Within this context it is important to evaluate all the main negative impacts, related to the firm's activity and its value chain in order to monitor these practices to potentially invert the continuation of those activities which could damage the image of the firm.
Of course, under a financial management of the resources and planning of the initiatives undertaken, risks management and opportunities related to sustainability, to control and eventually improve the portfolio of investments and activities brought up by firms.
Risk management and sustainability issues is partially included in the management of financial resources and investment, but not totally since sustainable practices are just supervised by the control division but not managed directly.
Due diligence procedures have to be updated to the new CSDDD directive which is going to be explained further on more in detail, requiring the inclusion of sustainable aspects when evaluating the target firm in a merger or acquisition process and all the related studies of the possible consequences coming from such a deal. Implementation modalities and consequent description of ESG goals are useful to understand the strategy of corporate sustainability, and to have a more clear bigger picture to understand the actors standing behind them role of the governing bodies, management and control disclosure in relation to the ESG topics. Lastly, incentive systems

connected to sustainability issues and indexes and KPI's are tools that could be used both to control and manage their implementation.

CSRD is aim at the concept of "double materiality" or to a certain extent "double relevance", inviting firms to provide data and information on the impact of its activities impacting the environment and the social dimension, together with sustainability themes impacting the business model of a firm. An important aspect is then related to the typology of information that needs to be produced and reported. CSRD mention "information on the sustainability" and aims at the integration of the logics regarding environmental, social and governance aspects and the financial-economic management.

The importance of the double materiality in a inside-out and outside in key: DNF, CSRD Corporate Sustainability Reporting Directive invites firms to consider all the logics related to materiality, with information allowing operators, markets and investors to clearly understand how the sustainable factors can have an impact on the firms' development, on their performance, operations and the commercial activities in an "Inside-out" perspective. At the same time, firms have to make disposable, even information and data, necessary to evaluate in the "Outside-In" perspective, the impact of the environment and of the social dimension on the firm's activities.

1.5.2 GRI (Global Reporting Initiative)

The global reporting initiative[30] is one of the most referenced frameworks overall in different sectors. It is focused on communication of ESG impacts and on how firms manage these aspects. Basically, they are a system of accounting criteria, representing one of the main referring points for firms all around the world in the process of sustainability performance reporting. The international entity that elaborated them, is a non-profit organization, founded in Boston in 1997, exactly with the aim of defining these standards.
They are divided into universal standards, appliable to all organizations, sectors' standards, destined to specific sectors, and thematic standards, which provide a list of pertinent information over a particular theme. The use of this criteria to determine material relevant themes, it is useful to firms not only in terms of reporting, but also as a stimulus to reach a sustainable development goal.

[30] https://www.globalreporting.org/standards/

Although GRI Standards are not mandatory, they are one of the most used main reporting instruments in Europe and other countries. This is why it is important to follow its development and updates.

What is the function of GRI Standard?

GRI Standards are used by firms to report, in the most uniform and transparent possible way, sustainable reports, where concrete and measurable data regarding actions and investments undertaken in the environmental, social and governance scope. Main themes regarding these topics are the environmental impact, workers rights, the protection of human rights in general, social responsibility and supply chain management. They can be used by any firm regardless of the dimensions, sectors and geographical location.

Firms that use them can get numerous advantages. First of all, they can use them to reinforce sustainable performances, identifying their strengths and weaknesses. Second of all, throughout these standards, firms can improve transparency and communication towards stakeholders, demonstrating the effort towards sustainability and results obtained. Additionally, the increase in transparency makes it way easier for investors to make investments reasonable decision and pick societies that demonstrate to have a better profile, while being totally trustworthy. Lastly, organizations can improve their reputation and image, improve risk management and the capability in making resonated and informed decisions over sustainability.

What has changed from 2023?

The 5th of October of 2021, the Global Sustainability Standards Board (GSSB)[31], an operative independent entity, that reports to the Global Reporting Initiative (GRI), has decided to carry out a revision of GRI standards.

The new standards, which became active from January 2023, have updated and integrated concepts of impact, materiality, due diligence, stakeholder engagement, to answer to the need of higher transparency and responsibility carried on by the CSRD and the IFRS frameworks[32] published at the end of June 2023. The four main concepts haven't been modified or revolutionized, but simply revised to respect the normative update. Shortly are going to be introduced the new definitions and small differences compared to the 2018's edition of the standards.

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[31] https://www.globalreporting.org/standards/global-sustainability-standards-board/

[32] https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework/

The new definition of impact of GRI is "the effect of an organization on the economy, the environment and people, included their human rights, that can indicate its contribution, negative or positive, to the sustainable development". Compared to the 2018 definition, rather than underline the importance of the impact on human rights which used to be absent, the new concept of impact is focused on the effect of corporation's activity on the external world and not anymore on the impacts referred directly to the firm itself, as it was for previous standards.

The due diligence, instead, is defined from GRI 2021 standards, as "a process through which an organization identifies, prevents and mitigates and reports how it addresses its effective negative impacts and potential effects on the economy, on the environment and people, included impacts on their human rights". The due diligence process is taking inspiration from the Guidelines of OCSE[33] on the due diligence for a more responsible corporation conduct. These guidelines are destined to multinational corporations, regarding international and transnational investments worldwide made by big corporations. In this process, GRI underlines that organizations should face potential impacts throughout prevention and mitigation, while effective impacts through the "repair of those cases where the society recognize a damage or the contribution to other damages' impact". Even in this occasion, the concept hasn't been transformed, it has easily got more resonance to the importance of the due diligence process in order to identify the most significant external impacts of the firm.

Let's now focus on the other two concept's definitions that have seen a modification through this update.

It has indeed been changed the definition of stakeholder, which is now "an individual or a group, having interest on what are the activities of the firm that could have an impact on them". In the 2018 edition, instead, the definition was extended even to "actions, of an individual or a group of individuals, that could reasonably affect the organization's capability of carrying on successfully its strategy and to reach its goals". Hence, now the focus is more on the impacts of corporations' activities on stakeholders than the opposite, as it was before the update. In the latter, GRI insists on the fact that "most major impacts that the organization can have on people, are those affecting negatively on their human rights". Furthermore, stakeholders, as underlined by GRI, are the heart of the due diligence processes, "which is focus on the identification of stakeholders' interests that can

[33] https://www.oecd.org/daf/inv/mne/MNEguidelinesITALIANO.pdf

or could be influenced negatively by the organization's activities". To manage their impacts on interested parties, GRI suggests firms to adopt the stakeholder engagement approach.

Even the concept of materiality has undergone some changes. As a matter of fact, the new materiality is built through an analysis of the impact of society on economy, environment and people, including the impacts on their human rights, and not based on the relevance of the impact on stakeholders, as it was happening before. Moreover, the materiality analysis with the new standards, it is done through the due diligence process foreseen by the GRI, which focus on the concepts of positive or negative impact, effective or potential outside the firm.
In what the GRI calls "materiality analysis", the international initiative foresees that the firm identifies, based on the GRI 3 standards: Material Topics 2021, the so-called "material themes", thus, those themes which represents the most significant impact of a firm on the economy, environment, and people, and of course on human rights. For these material themes, or "Topic Standards), GRI series 200-300-400, there haven't been introduced particular changes, it is just a matter of adaptation to the new universal standards (GRI 1,2,3) and the sector ones.

The review doesn't revolutionize the framework at the bottom of the standards, and it introduces a limited number of new elements. As a matter of fact, apart from the introduction of some aspects that were totally absent before, the update entails mainly essentially a reorganization of previous existing elements.

Speaking of less invasive changes, it needs to be underlined the amendment of the GRI 101-102-103 that became GRI 1-2-3. Together with the newly introduced standard of 2023, it has been introduced the GRI 1: Foundation (it substitutes the previous one of 2016). GRI 1 shows the goal and the reporting system and framework of GRI, through the definition of key concepts, requisites and principles that firms have to respect in order to adequately report these Standards. GRI 2: General Disclosure, substituting GRI 102:2016, instead, rather than updating some existing informative as the reporting practices, jobs' politics, governance, strategies and corporations' policies, stakeholders' involvement, it introduces a new informative on the effort for a responsible corporate code of conduct, including human rights and due diligence. Lastly, GRI 3: Material themes, substituting GRI 103:2016, provides a base for the identification of material themes showing how to use sector's standards.

Let's now introduce the most significant news. The introduction of sectors' standards is among them. Sectors taken into account are "Oil and Gas" (GRI 11), "Coal Sector" (GRI 12) and "Agriculture, Water culture and Fishing Sectors" (GRI 13). Mining sector, financial services sector, textile and apparel, renewable energy, forestry, and metalworking are still under development.

Another relevant news is that it is not allowed anymore for firms to report either the "Core" informative, those included in the previous existing GRI 102 Standards, neither the "Comprehensive", thus those on all the foreseen informative. With the new Standards, it has been foreseen the possibility of reporting on everything, and firms are free to report "in accordance with GRI Standards", when the firm is able to satisfy the mandatory requirements entailed by the GRI reporting, or "with reference to", whenever the firm decides to report only specific information.

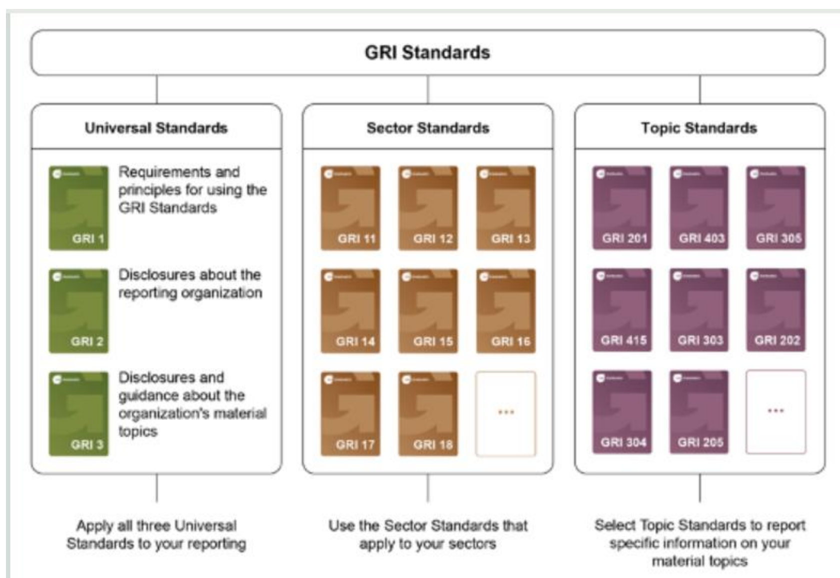

Fig. 16

Source: GRI

Why have they been reviewed?

The review of the universal standards, approved in July 2021 from the Due Process Oversight Committee GSSB (Global Sustainability Standards Board), has been launched from the recommendation of the technical Committee on the divulgation of human rights. The project availed even of the feedback received by GSSB during the transition from the G4 guidelines[34] to the GRI standards, of the comments received from reporting organizations and other stakeholders, and information gathered from the exam of sustainability reports done using the GRI Standards. Overall, the review aims at including mandatory information on human rights for all the reporting corporations, integrating the reporting on due diligence of the GRI Standards, provide and guarantee their alignment with recent developments in terms of corporate responsible code of

[34] https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso-gri-26000_2014-01-28.pdf

conduct, promotion of a more coherent application, encouragement of a more complete and pertinent reporting and improvement of the fruition of GRI Standards.

Reviews have been developed based on a Due Process Protocol that provides a series of mandatory requirements for the development of a standard. This process is supervised by Due Process Oversight Committee[35], and it guarantees that updates should be developed following a transparent and multi-stakeholder process.

What is the difference between thematic standards of the previous series and those updated?
Because of the interconnection that characterizes them, all thematic GRI standards have been adapted to guarantee the coherency with the universal reviewed standards. Adaptations comprehend:

- Update on the introduction, glossary, and bibliography to align to the modifications brought to these sections of universal Standards;
- Update of the reviewed terminology;
- Elimination of references to concepts not anymore existing;
- Update on the universal standards references;
- Update on the new model of GRI standards.

How do these sector Standards need to be used?
When there is a sector standard applicable, a reporting firm in conformity to these standards is required to use them. The firm uses its sector standards first of all to determine its material arguments. To this extent, GRI 3: Material Arguments 2021, provides a guide step by step on how to determine these arguments.

Furthermore, sector standards indicate what information must be considered in the thematic standards. As a statement, a sector standard can include even additional information non included in a thematic standard, for instance when the information required are not satisfactory enough to describe impacts on the organization. If a firm feels that the required information are not relevant, it is supposed to list them in the GRI content index and explain why.

In relation to human rights, what reviews have been made to universal standards?

[35] https://www.ifrs.org/groups/due-process-oversight-committee/

Universal standards have been reviewed to be aligned to the Guiding Principles of the United Nations[36] on firms and human rights, to the OCSE Guidelines for firms and multinational firms and to the due diligence guidelines of OCSE on responsible corporate code of conduct.

Even GRI 2: General Disclosures 2021 and GRI 3: Material Topics 2021 have been reviewed to be aligned with these instruments and allow corporations to report on their impact on human rights. In particular, the inclusion of the definition of human rights on these themes, have the role of helping out firms to understand how to report information concerning these topics. United Nations Organization, in general, says that these rights have to be, regardless of anything, respected by firms.

Specific topics over this matter are foreseen by the updated standards, aligned with the previous structure, considering more than thirty topics starting from non-discriminatory freedom of association, forced labor, and privacy rights. Firms have the responsibility to decide what are the human rights themes more relevant for them.

How can a firm measure its impact?

Starting from what is explained in the GRI 3 document: Material topics 2021, to identify a firm's impact, an organization can use information coming from:

- Own evaluation or from a third party, on the economy, environment, people.
- Legal review, managing systems on the anticorruption conformity, financial audit, health and safety on the job inspections and shareholders' documents.
- Whistleblowing systems.
- External sources, such as press or civil organizations.

1.5.3 Regulation 2019/2088 SFDR

Approved in 2019, this regulation[37] aims to regulating reports on sustainability in financial sectors. It is definitely active since 2021. It defines harmonious norms on transparency over integration of

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36 https://www.cnr.it/sites/default/files/public/media/attivita/editoria/Fasciglione_Principi_Guida_ONU_imprese_diritti_umani.pdf

sustainability risks and consideration of negative effects on sustainability in decisional processes regarding consultancy over investments and portfolio management.

First of all it provides a definition of sustainable investments:

"Investments in an economic activity that contributes to an environmental goal, assessed, for instance, through indicators of key efficiency of resources regarding the use of energy, renewable energies, use of feedstock and hydric resources and the use of the ground, production of waste, carbon print emissions and the impact on the biodiversity and circular economy or an investment in an economic activity contributing to a social purpose. In particular, an investment contributing to the battle against social inequalities, or promoting the social cohesion, the social integration and industrial relations, or an investment in human capital, or in disadvantaged communities economically or socially at the condition that those investments won't be of a significant damage to none of those goals and the firms benefitting from those investments follow good governance conducts."

Moreover, the regulation provides two definitions of "sustainable financial products":

The first one says: Products promoting environmental and/or social characteristics, (products art. 8), such as products constituted taken in consideration at least a sustainable criterion.
The second one: Products having as a sustainable investment goal, one of the above-mentioned ones (products art. 9).

The goal of the regulation is to widen up and standardize the information provided to investors, in relation to financial product having environmental and/or social characteristics or a sustainable goal. This standardized informative will allow to improve comparability of financial products and to investors to better understand the level of sustainability of investment products.

Financial products part of the SFDR regulation are:

- Individual management portfolios;
- Mutual funds (UCITS[38] and FIA[39]);

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[37] https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX%3A32019R2088
[38] https://www.borsaitaliana.it/borsa/glossario/oicvm-organismo-di-investimento-collettivo-in-valori-mobiliari.html

- Insurance investment products;
- Retirement products;
- Retirement schemes;
- Pan-European pension products.

Operators wanting to classify their products in one or the other category, are asked to clarify how their products satisfy sustainable characteristics or reach sustainable investment goals.

Market practice have then defined a third typology of products, not identified in the normative: they are "art.8 plus" products, thus products officially classified as "art.8" but containing inside a minimum quantity of "sustainable investments" as defined in the SFDR regulation.

Products "art.8 plus" and "art.9" are the only ones considered to be able to satisfy sustainable preferences of clients declaring to prefer financial product having a minimum portion of sustainable investment due to the regulation 2019/2088.

Finally, let's now introduce and define the articles that are included in the regulation.
First of all the integration of sustainable risks where articles 3 and 6 oblige "participants" and "consultants" to insert on the website and on the pre-contractual documentation, the consideration of sustainable risks, thus, risks of the probability of an event to happen in the ESG field might cause a damage on the subject, and the negative impacts, or potential impacts on the value of the investment following a comply or explain approach.
Products of "article 8"of the SFDR regulation is applied if a financial product promote, among the other characteristics, environmental or social, or a combination among them, to a condition that firms where investments are made, respect a good governance code. The definition is quite wide, and it has been required to ESAs a clarification to the European Commission. To this article, as much as to the 9th, there will be applied RTS, that will provide a common standard for the informative related to the characteristics of the products.

Lastly, products of "article 9" applied to financial product having as a goal sustainable investment and an explanation of how the goal has been achieved, both if a relative benchmark index has been designated or even if it has not been set up any kind of indexes to use.

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[39] https://www.borsaitaliana.it/borsa/glossario/fondo-di-investimento-alternativo-fia.html

The informative related to articles 8 and 9 of the SFDR has to be published on the firm's website and on the pre-contractual documentation.

Remuneration politics

Article 5 of the regulation requires to market's participants and financial consultants to keep count of the corporation's remuneration policies the integration of ESG risks.

Issues still to cover

With the adoption of the SFDR, funds will be classified from operators in one of the two categories: article 8, the so-called light green, or article 9, the so-called dark green. These two categories will have different disclosure modalities. "There is still a certain level of uncertainty in the application of the regulation's requirements, that have been illustrated from the ESAs in a letter from the European Commission during 2021".

1.5.4 SASB

It is a set of standards that help firms to gather and share ESG data influencing firms' decisions and it explains the financial impact of sustainability. It is worth it to notice that GRI and SASB[40] have gathered in 2020 and since then they published a guide on how firms can use the two standards together. GRI is known for its high-level reach, while SASB provides to firms specific guidelines tailored to the industry.

These guidelines are provided by the non-profit organization having the same name of the set of standards: SASB. They identify environmental, social and governance issues relevant to financial performances in 77 sectors. Investors in the whole world recognize this models as a fundamental component of the disclosure process of a firm.

In the modern economy, sustainable issues are problems regarding all the businesses worldwide, affecting their financial performances, operative performances and the corporate value of firms. Data security is a social issue, it is important for firms in the software industry. Management of water, an environmental issue, is essential for a soft drink productor for instance. Management of conflicts of interest might be a key issue for an investment bank. It is most probable that an efficient

[40] https://sasb.ifrs.org/standards/download/

management of these issues in the long-term will lead to better corporate performances, resilience to risks and potential competitive advantage in the long-term.

They were born thanks to a no-profit organization in 2011, to help out firms and investors developing a common language on financial impacts of sustainability. Over the years, the information disclosure over corporate sustainability has become more complex. Lots of firms and investors globally have required more transparency and clarity in this context. As an answer, in 2020 the International Integrated Reporting Council (IIRC) and SASB have announced the intention of merging into Value Reporting Foundation, which has been officially constituted in 2021. Integrating two entities focusing on corporate value creation has generated multiple progress in terms of simplification.

The Value Reporting Foundation has offered a complete suite of resources, among them the Integrated Thinking Principles, Integrated Reporting Framework and SASB Standards, designed to help firms and investors to develop a mutual comprehension of the corporate value. The board of directors of the Value Reporting Foundation have supervised the strategy, finances, operations of the whole organizations and has named the members of SASB Standards Board. The latter was an independent counsel responsible for the right process, of results and the ratification of SASB Standards.

In November 2021, the IFRS Foundation has announced its will of instituting the International Sustainability Standards Board (ISSB) to develop a global base line complete in terms of disclosure of high quality sustainability standards to satisfy needs of information of investors. The Foundation has even announced its intention of consolidating together with the Value Reporting Foundation and the Carbon Disclosure Standards Board (CDSB).

Starting from 2022, the Value Reporting Foundation has been consolidated into the IFRS Foundation. SASB standards are now under the supervision of ISSB, which is making an effort into encouraging the investors to use SASB standards until IFRS Sustainability Disclosure Standards won't substitute them.

SASB standards are adopted from more than 1.000 firms worldwide, identifying the subset of the environmental, social and governance issues, more relevant to the sustainable extent, having a

reasonable probability of having an impact on the operational and financial performances of a firm and its risk profile.

An approach that might be more practical rather than the GRI standard, referring European methodology, focusing on the positive and negative contributions to the sustainable development. SASB approach identifies five dimensions: environment, social capital, human capital, business model & innovation, leadership & governance. Those dimensions are declined in a scale based on relevance for 77 subsectors based on 26 variables. Hence, as integration of GRI criteria, SASB materiality map helps out in the entrance in different micro-sectors.

Fig. 17

The Map is structured to give specific principles for every sectors, to identify material elements in the sustainable field and apply to them adequate metrics for the sector taken into consideration. The macro-categories analyzed are 11: consumption goods, mineral processing, finance, food, health, infrastructure, renewable energy, resource transformation, services, technology and communications, transportation. Any of these categories is then again divided into specific activities that can be put in place.

1.5.5 ISO 26000

It is an international recognized standard. It's not a mineral certification, but rather a model: guidelines, suggestions and indications. It provides with guidelines on Corporate Social Responsibility, which acquires a relevant importance into the definition of firms' development strategies in the sustainable development context. Operative and concrete instrument for all those

firms which want to face the issue of social responsibility, this document goes through themes of involvement of different functions within the organization, risk analysis, sensibilization and personnel formation. It focuses on seven main themes:

- Governance
- Human rights
- Working conditions
- Environment
- Customer relations
- Internal involvement
- Community development

The ISO 26000[41] guideline it is not a management system and it is not destined certifications extent, neither to regulation or contractual aims. There are though certification schemes and of responsible labelling, that take these guidelines as a reference these requirements for the evaluation of a management system for the social responsibility. The final aim is to assess the risks of a possible impact when not accounting measure of social accountability.

The goal is to help organizations to contribute to the sustainable development, encourage them to go over the simple respect of the laws and push into promoting a mutual comprehension in terms of social responsibility and integration of other instruments and initiatives.

The relevance of ISO 26000 at a European level has been given by the European Strategy for the social responsibility of corporations and from its presence in the lists of useful tools supporting big size's firms to undergo the obligations of the directive 2014/95/EU, for the communication on non-financial information. In conclusion, it is a useful instrument for the fulfillment of the UNO sustainability objectives: starting from mandatory principles such as the respect of human rights, the responsibility of reporting , transparency and ethical behavior, the respect of stakeholders interests, the legality principle and all the international regulations of conduct, hence satisfying all the Sustainable Development Goals.

1.5.6 ESRS

[41] ISO 26000: Sistema di Gestione Responsabilità Sociale (gcerti.it)

It is a set of rules[42] developed to standardize the way European firm report their environmental, social and governance impact. They are integrated into the CSRD (Corporate Sustainability Reporting Directive), which is conceived to reinforce and standardize sustainability reporting in the EU. CSRD expand the reach of sustainable reporting, asking to a higher number of firms to report their ESG impact. They provide the frame of reference and specific standards that these firms must follow in their reporting, ensuring coherent, comparable, and trustworthy information for investors and stakeholders.
They are important because they improve transparency and comparability of sustainable information, helping investors, consumer and stakeholders to take informed decisions.

Going deeper into details, they are a set of norms developed to standardize the way in which European firm disclose about their environmental, social and governance impact.
They are important since they improve the transparency and comparability of information on sustainability helping stakeholders to make conscious choices. They support the goals of the EU Green Deals, promoting sustainable commercial practices and the transition towards a low carbon print emissions economy.

They are structured in 12 documents covering different areas:

- General aspects:
  a) ESRS 1 General requirements
  b) ESRS 2 General contents
- Environment:
  a) ESRS E1 Climate change
  b) ESRS E2 Pollution
  c) ESRS E3 Water and marine resources
  d) ESRS E4 Biodiversity and ecosystems
  e) ESRS E5 Resource use and circular economy
- Social:
  a) ESRS S1 Internal workforce
  b) ESRS S2 Workers along the supply chain
  c) ESRS S3 Interested communities
  d) ESRS S4 Consumers and users

[42] https://finance.ec.europa.eu/news/commission-adopts-european-sustainability-reporting-standards-2023-07-31_en

- Governance:
  a) ESRS G1 Corporations's conduct

Moreover, it has been foreseen the publishing of specific ESRS regarding 40 different sectors. Firms that need to follow these standards are the same included in the CSRD regulation. ESRS, GRI and SASB are all providing firms with a regulatory referral picture in terms of sustainable reporting. They are conceived to help out organizations to communicate their sustainability performances. Anyway, there are fundamental differences in they're approach and application. As a matter of fact, ESRS are projected mainly to satisfy EU norms and regulations requirements following CSRD directive, thus they both have a double materiality approach, meaning that firms have to report both the reflection of their actions on the sustainability and the impact of sustainability issues, which usually are meant to be external in this second instance, including listed PMI within the EU.

1.5.7 CSRD

CSRD Directive[43] on the sustainability report is one of the main pillars of the European Green Deal and it represents a significant step forward rather than actual requirements and limited by the sustainability reporting.
This new law of EU, establishes reporting requirements on sustainability reports and, even though its specific for the EU, it is foreseeable that that it will have wider implications in the whole world, with direct and indirect repercussions on multiple firms. In this article, principal aspects related to the directive regarding firms will be covered.
First of all, this is a direct amendment of the of the NFRD on the non-financial regulation disclosure. The latter has the goal of increasing the transparency and comparability of information on environmental, social, governance performance of firms. Thus, it helps investors and stakeholders to take the best decisions.
It became effective the 5th of January 2023, and the first relation publishing has been expected to occur in 2024, divided in different phases depending on the firms size and activity:

- 1st January 2024 for firms having more than 500 employees, already subject to the directive on the NFRD, which should present their report in 2025.

[43] https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32022L2464

- 1st January 2025 for big firms that have not been already subject to the directive on the non-financial reporting, having more than 250 employees and 40 million of euros in net margin, and/or 20 million of euros of total assets, that will have to present their report in 2026.
- 1st January 2026 for small and not complex credit institutions, insurances and listed PMI. For the latest it is foreseen and *op-out* clause until 2028.

To whom does the CSRD apply?
Multiple firms have been asking if they are obliged to present their report. As a statement, the Directive involves more than 49.000 European firms and specifically to all the firms listed on the regulated markets (excluding micro firms). Big European firms or subsidiaries of corporations not belonging to the EU territory. The regulation establishes that in order to be considered of a big size, at least one of the two requirements should be satisfied: a net margin higher than 40 million of euros or a balance sheet of a total of 20 million euros or more than 250 employees during the financial year. The regulation will be applied even to insurance companies and credit institutions, independently from their juridic form. Not all the firms will be kept in observance of the regulation. Subsidiaries have the chance to be excluded if they are included in the holding firm.
Moreover, listed micro firms and PMI not listed, will not be included in application of this Directive, but they could voluntarily decide to join.

Why is it so important for firms?
This Directive holds a great importance for firms, since it establishes more severe requirements for the sustainability reports.

This guarantees an higher level of transparency and a standard allowing comparability of the information regarding environmental, social and governance performances (ESG), allowing investors and other stakeholders to take more aware and sustainable decisions.
Furthermore, CSRD represents an opportunity for firms to improve their ESG performances, the involvement of stakeholders and the creation of long-term value. Not only it is a legal obligation, but even an opportunity for firms to guide the transition towards a more sustainable and responsible economy from the environmental and social point of view.

Let’s now introduce the advantages that the implementation of the directive might bring to the table for firms:

- Access to new investment opportunities, thanks to the capability of attracting investors interested in sustainability.
- Improve the identification of activities and projects that contribute to the transition towards sustainability.
- Reduction of costs and an increase in terms of efficiency.
- Reputation and firm's image improvement, demonstrating the effort toward sustainability and social responsibility.
- Helping in the identification and management of ESG risks, with the consequent reduction of associated costs.
- These are some of the opportunities that firms can exploit to obtain a competitive advantage compared to competitors.

Speaking of contents, firms should provide information related to sustainability, including:

- Description of the business model and strategy of the firm.
- Sustainable goals established by the firm with a due date.
- Board of Directors, management and supervising in terms of sustainability.
- Sustainable politics of the firm.
- Incentives systems offered to boards of directors, management and supervision related to sustainable themes.
- Due diligence procedures on sustainability.
- List of main risks related to sustainability.

To satisfy CSRD requirements, reports have to be verified by an auditor or an independent accredited certifier. Moreover, information has to be published in a specific section of the relationship of the society's management.
Lastly, EFRAG[44] will have the role of defining accountability European standards integrating the Directive through ESRS standards (European Sustainability Reporting Standards).

CSRD and European taxonomy
The relationship between CSRD and EU's taxonomy is relevant to the disclosure of sustainable information. Firms that present their reports following CSRD's guidance, will be obliged to refer to their alignment with EU taxonomy ensuring an higher coherence and comparison of the reports.

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[44] https://www.efrag.org/?AspxAutoDetectCookieSupport=1

CSRD take into account even other frameworks, such as TCFD, GRI and SASB, guaranteeing a global approach to the disclosure of sustainable information.
Moreover, indexes of the SFDR regulation will be aligned to the CSRD reports, thus allowing to financial market's operators to dispose of solid and trustworthy information on investing firm's sustainability. The SFRD regulation already defines modalities with which operators of the financial markets should disclose information regarding sustainability, while CSRD guarantees the communication of the necessary information from firms, to satisfy the requirements of SFDR disclosure.

Differences and correlations between CSRD EFRS

CSRD and ESRS work jointly to define a new corporate sustainable reporting framework. While CSRD outline the juridic picture and widen up the number of firms expected to report, ESRS provide technical instruments to realize it. These standards foresee detailed reports related to environmental, social and governance themes, finalized to improve transparency and ease up the comparability between firms.
The joint action that they carry on, constitute a significant step towards an higher and stronger corporate responsibility towards a better decision-making process oriented to sustainability.

Differences between NFRD and CSRD

Principal difference between Non-Financial Reporting Directive and CSRD are mainly regarding the level of deepness and the scope.
NFRD is applied to big firms of public interest, and it is focused on the non-financial reporting. CSRD, on the other hand, widen up the number of the applications to an higher number of firms, including all the big listed companies, and it require a more detailed and rigorous reporting on sustainable themes. Furthermore, CSRD introduces the necessity of sustainable balance sheets audit.

How does CSRD affect the supply chain?

It has an impact on the supply chain because of the imposition to firms of the sustainable aspects management of their supply chain. This includes the evaluation of environmental and related social impacts on suppliers, and the ways those impacts are managed. The Directive aim at promoting transparency and the responsibility along the totality of the supply chain, through incentives regarding sustainable and ethical practices in all the phases of the productive and commercial process.

CSRD foresees double materiality as a result of the consideration of both the impact on the firms' sustainability and the factors of sustainability on the firm. There are different requirements set up by the directive, foreseeing firms subject to that theory should make their report go under an external supervision. The latter verifies the information reported in terms of trustworthiness and responding to CSRD standards. The introduction of external controls increases the level of trust of stakeholders in relation to this type of disclosures.

Why is ESG reporting important?

The rhythm with which ESG parameters are reported is incredible. When speaking of sustainability and ESG practices, organizations have made a lot of progresses, getting to integrate the concept of sustainability in their commercial practices, in their processes and in the development of products and the integration of these elements in firm's strategies. Mostly answering to the growing interest of investors and of the community, and ever higher number of organizations aim at the improvement of sustainable performances, setting out the ESG goals and reporting their performances.

Therefore, ESG has gone from marginality to mainstream interest and now more than ever organizations are expected to report their respective performances. The missing consideration towards ESG risks might have multiples negative impacts for organizations, from the action of shareholders in general assemblies to the disinvestment coming from asset managers.

For this reason, multiple firms began to reorganize their business models, spending time and resources to integrate this type of strategy in their corporations, even by sometimes totally restructuring them. As a result of this investment, some of the actors and players in the market, began to look at these elements not only as a must that should be followed, but even as an opportunity to attract shareholders and stakeholders and even external partners, due to the influence that these kinds of practices have on the image of the firm. Loys of different firms want their image to be attractive, respectable, and ethical, but of course at the same time they want to be different from competitors, attract possible investors and have a competitive advantage.

The growing importance of ESG criteria is now pushing firms to signaling their ESG impact with a series of more diversified schemes.

Selection of frameworks of ESG reporting

The ESG reporting landscape is characterized by a great amount and variety of reporting schemes. The application of different objectives to evaluate and rank different frameworks, can help to understand the options and select the appropriate ESG reporting schemes for a single firm.

There are different **objectives** that has to be taken into account while deciding which reporting framework to adopt:

i) **Potential impact**: in order to evaluate which reporting standard to adopt, it is necessary to consider where the firm wants to make the biggest impact based on the single evaluations.
It is now time to introduce the concept of *materiality in the ESG context***.** This concept push organizations to focus on the problems related to their activities and the ones which might have a bigger measurable impact on their business.
Thus, it is fundamental to assess priorities for ESG risks and consequently take care of the ones which might affect the most, negatively, the organization.
On the other hand, the *double materiality* invites organizations to evaluate materiality from two different point of view: financial materiality and materiality for the market, the environment and people. It recognizes that an organization is responsible for the management of your own financial risks on the inside. It examines even the most extreme impacts of its decisions and operations on people and environment. Applying the concept of double materiality, organizations can identify financial impacts and non-financial ones of their operations to create a more holistic strategy.

Impact and influence
Organizations that are evaluating their approach to the ESG reporting can find useful to evaluate environmental and social factors that can impact more directly and rapidly. Using an action guided by reflection of the impact of the effort, organizations can decide where to address their initial effort and use these insights to determine what ESG framework can help to realize goals handy.

ii) **Stakeholders' expectations**: when exploring the frameworks, specific expectations of stakeholders based on preferred reporting frameworks have to be taken into account and even how the different stakeholders use information included into divulgations.

What do external stakeholders look for?
Organizations can evaluate what stakeholders are looking for and what ESG frameworks these stakeholders are expecting to use. For example, the investors, board of directors, insurances and lenders could prefer the organization's report to the TCFD (Task Force on Climate-related Financial Disclosures) or to the SASB (Sustainability Accounting Standards Board). Employees and consumers can expect disclosures based on the SDG (Sustainable Development Goals of the United Nations). On the contrary, governments or regulatory authorities might prefer the SECR (Streamlined Energy and Carbon Reporting) or the NGER (National Greenhouse and Energy Reporting) depending on the location.

How will internal stakeholders use the new information?
Stakeholders use ESG disclosures for different reasons, of whom organizations should be taking account of in the development of their ESG reporting strategies. Teams that deal with risk, compliance and human resources will be working with data, to take strategic decisions in equity and inclusion themes. Teams which will be working in energy and public utilities services should examine closely consumption and organizational expenses. Alternatively, supply teams should use gathered data to evaluate supply chain operations and profile risks of suppliers.

iii) **Geography**: some ESG reporting frameworks are related just to certain specific geographical areas. In some cases, it happens because the notice is mandatory by law. In other cases, it might be because the framework is specific for some specific local conditions.

Some examples are the EU CSRD (The European Union Corporate Sustainability Reporting Directive) ENERGY STAR for Northern America and other countries, SECR (United Kingdom) and NGER.

iv) **Industry preference**: Organizations belonging to particular industries will find a natural alignment between their industry and some ESG reporting frameworks, such as GRESB (Global Real Estate Sustainability Benchmark). It is used to evaluate sustainability performance of infrastructural and real estate portfolio.

Organizations interested in evaluating what framework their colleagues use, can find these kinds of information examining websites and accounting web frameworks, that often include an industrial filter and a list of managers. Using these information, they can verify the relevance of the ESG picture for their sector. At the same time, organizations can consult websites to verify how published sustainability reports and annual reports have been accounted compared to relevant ones.

v) **Framework coverage**: every main ESG accounting framework is focused on a different measure on the main principal metrics of ESG performances, among them environment, social, governance, carbon, energy, waste and water.
Understanding what framework is focused on which KPI can help to select one framework and giving directions on where the organization could report against different frameworks using existing data.

1.6 Impact of sustainability on stakeholders

Generally speaking, stakeholders' orientation in a firm has an influence on its performance and acquisitions. We know this for granted, due to years of studies on M&A activities and performances, which are characterized by a wide heterogeneity.
As it emerges from the literature, the interests that are taken as a priority in these types of situations are those of shareholders over other stakeholders (Jensen &Ruback[45], 1983; Seth, 1990; Singh & Montgomery, 1987). This heterogeneity is quite visible while analyzing variance in M&A performances. This phenomenon has the name of *heterogeneity in stakeholder orientation* (Har-Rison, Bosse, & Phillips, 2010; Tantalo & Priem,2014).
This point is fundamental in understanding the process of selection of M&A targets, which is based on priorities and stakeholders' categories. As a matter of fact, due to the requirements above mentioned, stakeholders and consequently firms, had to begin to prioritize this type of interests. Thus, firms begun to take into consideration[46] as priorities social topics and issues and making an effort to improve their performances in that direction to influence their image perception to

[45] Jensen & Ruback, 1983; The Market for Corporate Control: The Scientific Evidence Journal of Financial Economics, Vol. 11, pp. 5-50, 1983
[46] Abbasi M, Nilsson F (2016) Developing environmentally sustainable logistics: Exploring themes and challenges from a logistics service providers' perspective. Transpo Res Part D 46: 273–283.

shareholders, stakeholders and new potential stakeholders (Abbasi and Nilsson, 2016). It is convenient both for the firm and its stakeholders to have a positive image perception (Freeman, 1984). It would lead to both having satisfied shareholders or stakeholders and customers' loyalty, with a powerful attraction for customers who are sensible to these themes.

As a matter of fact, a firm that invest its resources into Corporate Social Responsible activities will have an influence on its own image and as a consequence it will lead to different consequences. Especially nowadays, that ESG matters have gained more relevance due to the 2030 EU agenda, firms have begun to reflect more on these types of issues.

Moreover, a corporation that has a good reputation will attract capital investments (Cheng et al., 2014) and talents of a great level, improving in any sort of direction the firm's resources, capital and human resources (Fombrun et al., 2000; Branco and Rodrigues, 2006).

Furthermore, ESG scoring, it is demonstrated to lead to an increase into a firm's value and having positive spillover effects on managerial entrenchment (Ferrel et. Al, 2016).

All these positive influences, caused by the possession of a nice ESG score, representing the corporate social responsible activities taken, might in turn have a positive effect on financial results of a firm.

Hence, those that already invested in the past in ESG assets or activities, found themselves in a comfortable and favorable position. It is indeed quite expensive for a firm that never went toward this path to start now in order to realign itself to the ESG standards and requirements. For this exact reason, some of them are in a sort of way obliged to resort to different and not traditional measures.

The climate change has become a fundamental factor for long-term perspective of corporations. Starting from the significant impact that it will have on the economic growth and prosperity, it has been a risk that markets slowly had to reflect on. It is now possible to say that the awareness has been changing rapidly and that we are on the hedge of a fundamental reshape in finance (BlackRock Global Executive committee; NY (2020); Larry Fink).

Evidence on climate change risk has been pushing investors to re-evaluate fundamental hypothesis on modern finance. The research of a wide range of organization, among them the [47]Intergovernmental Panel on Climate Change of United Nations, The BlackRock Investment Institute and lots more, included new studies of McKinsey on socioeconomic implications of the risk of physical climate change, has been analyzing how this risk will impact physically and economically our world.

[47] https://www.blackrock.com/corporate/investor-relations/2020-larry-fink-ceo-letter

Cities for example, are they going to be able to satisfy their infrastructural needs while the climate change influences the market of municipal bonds? What is going to happen to 30 years mortgage, a key financial element, if credit institutions will not be able to estimate the impact of the risk of climate change on a time horizon that long and if it doesn't exist a clinical insurance deal for specific catastrophic situations and damaged areas? What will happen to inflation and consequently interest rates, if the cost of food will change due to droughts and floods? How can we shape economic growth if emerging markets foresee a reduction in their productivity caused by climate impacts?

Investors are increasingly dealing with these questions and recognizing that climate change is an investment risk. As a matter of fact, climate change is almost always the problem that investor face while dealing with the management of their portfolios. From Europe, to Australia, from South America to China, investors ask how to modify their portfolios. They are trying to comprehend physical risks and risks associated to how climate politics will have an impact on prices, costs and demand in the whole economic system.

These questions are leading to a deep re-evaluation of risks and the value of assets. Since capital markets anticipate future risk, we will foresee changes in the capital allocation more rapidly than changes in the climate itself. In the next coming future there will be a significant reallocation of capital.

Climate risk is and investment risk.

Portfolios integrated in terms of climate and sustainability can provide investors with higher yields, related to that type of risk (BlackRock Global Executive committee; NY (2020); Larry Fink[48]. Together with the increase of the sustainability's impact on investments yields, sustainable investments have the most solid structure for the clients' portfolios in the future.

In the next coming years, one of the most important issues will be to face the reach of the action of governments involving climate change. In general, it would define the pace with whom we will switch to a more sustainable low carbon print-emission economy. This challenge can't be solved. without a coordinated international answer from governments, in line with the milestones of the

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[48] https://www.blackrock.com/corporate/investor-relations/2020-larry-fink-ceo-letter

Treaty of Paris.

Anyway, the energetic transition will still require decades. Despite the rapid progresses, it still doesn't exist a technology able to substitute economically, in a cost-effective way, many of essential fruition of hydrocarbons. We must be aware of economic realities, scientifical, social and political of the energetic transition. Governments and the private sector have to work together to obtain a fair transition: it's not possible to leave behind parts of the society, or developing countries fully, while pursuing a low carbon-emission world.

Although the government should open up the path towards this transition, even firms and investors have a significant role to unfold. In the short-term, part of the work dedicated to the mitigation of climate risk could create some economic activity. Nonetheless, we find ourselves facing the issue of the final long-term problem. We don't know which forecasts will be more accurate, nor what effects we haven't considered, but it cannot denied the path we are going through, every government, corporation and shareholder has to face the climate change.

Improvement of the informative towards shareholders

Investors, regulators, insurances and the public in general need a clearer picture of how firms deliver sustainable issues. These data should be extended even over climate change in questions regarding how each firm servs the totality of its stakeholders such as the workforce diversity, the supply chain sustainability or how well it protects data regarding its clients. Growth perspective of every firm are inextricable from its capability of operating in a sustainable way and serving the totality of its stakeholders.

The importance of serving stakeholders and pursuing a goal has become a key topic in the way corporations understand their role in the society. As a general statement a firm can't obtain long-term profits without embracing a final goal or a final vision and considering the needs of a wide range of stakeholders. Over the course of time, firms and countries that won't answer to the interested actors and won't face sustainable risks, are going to face a growing skepticism from the markets and consequently, a higher cost of capital. Firms and countries that support and demonstrate transparency and their reactivity towards shareholders, on the contrary, will attract more easily investments efficiently, including a higher quality and more patient capital (Larry Fink).

While we are getting closer to a period of significant capital reallocation, firms have the responsibility of providing shareholders with a clear picture. The goal is not only reaching only transparency. The process of sharing information should be a mean to reach a more sustainable and inclusive capital. Firms should be determined to pursue mutual goals for the community and for their shareholders. In this sense they will experience an higher prosperity in the long term, and it will positively affect the society in its totality.

1.7 How does it create value?

Witold et al. (2019) introduces, five different ways through which ESG can create value:

I. Allowing the increase of revenues
II. Cost reduction
III. Minimization of regulatory and legal intervention
IV. Increase in employees' productivity
V. Optimization of investments and capital expenditures

As David & Lescott (2019) explain in their studies, "gathering information on the ESG issues, together with financial research, offers richer data and, thus, a more informed perspective". For instance, it has been studied how an ESG injection integrates the value of a firm, and it gives more clarifications regarding the concept of value creation (FTI Consulting, 2019).
This analysis has been taken in 2018 and it involved 130 global institutional investors. Among the results, the 87% of investors think that ESG is value creating, and generally a firm that has high ESG score can have a firm value of 22% higher than other firms that do not have the same effort in this field.

Signori et. al (2021) have worked on analyzing if there's a robust and solid correlation between ESG performances and value added. They have used ESG scorings provided by Refinitiv and a dataset of 1932 firms in Europe in 2018, to verify the value added.

The value added has used the following approximation:
VA = Net Revenues – Suppliers (acquisition of goods and services).

From this equation emerged considerable ambiguous numbers. It appears that there is a positive relation between ESG and Value Added, but at the same time, considering them in relation to the dimension of the firms they were quite not significant. It could be taken as a lesson from these results that it is necessary to take in consideration multiple factors when making analysis regarding ESG topics.

2. M&A ESG trends

Firms in the financial services sector, have still to face a high pressure, or even growing pressure, coming from regulatory authorities and stakeholders to make them reflect on their corporate decisions.
Regulatory authorities expect ESG criteria to have a central role in the definition of strategies[49], business plans and risk propension of societies under their supervision. Even other stakeholders, such as employees, clients and partners in the value chain, non-governmental organizations and media, consider ESG criteria as the most important for the development of financial services corporations. Hence, even investors are further focused on these criteria when taking investment decisions and determining organizational strategies.

In order to find hidden risks and modalities to carry on their environmental, social and governance programs, acquirers have to evaluate target corporations.

Let's now introduce some key points that have been observed as M&A trends[50] related to ESG practices:

- Among executives, just 11% of them says that, during M&A operations, environmental, social and governance criteria are deeply evaluated and analyzed during the conclusion of the agreements. On the other hand, 65% of their firms is expecting an increase in the care for ESG issues.

[49] The ESG Imperative in M&A | Bain & Company
[50] Media M&A | Bain & Company

- Some firms are advantaged in this transformation process and its related development curve. By incorporating these criteria in the merger and acquisition process, they gained an advantage in the persecution of value creating opportunities and reaching the milestones of ESG imperatives.
- By making sustainability an integrant part of the decision-making process and utilizing firm's priorities as a reference point to evaluate every potential agreement, the best firms find assets that will promote the ESG existing initiatives and will create economic value.

ESG, Environmental Social Governance, has quickly become a priority for regulatory authorities, investors, clients and employees and it is becoming always more important even for corporations' agendas. Now that they are becoming more important, they are slowly becoming a quality mark for corporations. A lot of people consider it a positive indicator for the increase of long-term revenues.

In a quick global survey conducted on 281 M&A executives, the 65% foresees an increasing attention to ESG requirements in the next three upcoming years in their firms. This vision is extended to mergers and acquisitions. More than half of the interviewed believe that ESG leadership will justify higher evaluations of the operations or expect it to happen in the future, thus, pointing out the need of evaluation and valorization of the goals for ESG performances from potential acquirers.

The question that can be asked in this context is: today, do acquirers take into considerations ESG requirements when evaluating mergers and acquisition processes?

The answer is certainly not yet, or at least just in a small percentage of people. As a matter of fact, just the 11% of the interviewed affirm of evaluating regularly ESG criteria during the conclusion of agreement process of operations like these. Actually, of the ten elements of the firms' M&A, ESG factors are the less emphasized dimension. A lot have difficulties in determining how to integrate the process of evaluation of ESG implications of an acquisition in their M&A strategy.

Some firms are advantaged on this curve. Incorporating ESG criteria in their process of mergers and acquisition, they have been better positioning in terms of following and pursuing opportunities of value creation and satisfaction of ESG requirements.

For example, when an industrial firm, which is considered to be a leader in terms of sustainability in its sector, decides to find a supplier in infrastructure technologies, energetic implications have been an important consideration. The advantage of sustainability is an important point of differentiation for real estate clients in the industrial firm who have assets, starting from commercial buildings to data center. These clients use to require always more environmental solutions, both for managing energetic costs and to satisfy ESG commitments. The technologic firm for infrastructure is an interesting objective. It supplied products for a segment of business considered to be at high energetic rate and constantly growing. Furthermore, it had another differentiating point of being efficient as much as the alternatives while being way more sustainable. This type of investment is central in the strategy of the industrial firm, which emphasizes the offer of more ecological solutions, more positive for the environment, for its clients and the business.

At the same time, an alimentary European producer, known for its healthy and environmentally friendly products, has used the diligence process to understand the performance of a potential northern American acquisition target on a series of ESG factors. The analysis has established that the target, and ingredients society, had an environmental positive profile, that used to overcome competitors and a strong positioning on consumers health that could give an advantage to the acquirer. The same research has brought to light some risks in the diversity profile, equity, and inclusion of the target (DEI). This diligence has allowed the acquirer to clearly observe how the points of strength of the alimentary ingredient's producer, especially in the sustainable packaging, could have used to attract clients and have underlined it into the creation value plan. Moreover, it revealed specific actions that the acquirer should have followed to begin to face DEI problems of the target since the beginning of the agreement process.

Having set ESG requirements as a priority for mergers and acquisitions, these firms position themselves in front of the majority of the firms that still have to evolve their mergers and acquisition model to keep in mind the growing satisfaction of ESG factors. They understood that the traditional approach of "check-the-box" to the environmental issues is not enough. In the evaluation of the objectives, issues are addressed starting from greenhouse gas emissions to DEI and from corporations' ethics to the supply chain.

The success in this field begins by linking the corporations' ESG global strategy, to the M&A strategy. It means to make sustainability part of the thesis of every agreement. It means to use firm's

priorities as a benchmark to evaluate every potential agreement and to find assets that will promote already existing ESG initiatives and create economic value.

This value can come from different sources. For instance, in the consumer market industry, 68% of the executives interviewed can recognize the value of ESG factors on helping them earning share, improving the image of their brand to attract the changing preferences of consumers. Meanwhile, leaders in the energetic industry quote more commonly ESG initiatives to help them satisfy requisites or investors and lenders expectations to reduce the cost of the capital.
In every industry, ESG measures can even add value by helping through cost reduction or attracting and retaining best talents, a critical objective in the modern work environment characterized for being competitive.

Clearly, not every asset can carry on an ESG underling objective, and other reasons will often justify the persecution of a determined asses, independently from an ESG footprint. Even in those situations, the in-depth analysis of ESG data is fundamental to sign up the operation.
There might be real financial costs that the acquirer should face to integrate and improve target's ESG capabilities until they meet the acquirer's standards.

The maturity and urgency of the ESG imperative vary depending on the industry, the firm and the specific operation. Therefore, is important that firms distinguish mergers operations from acquisitions moved by ESG criteria, and from operations sensible in general to these criteria.

Agreements moved by ESG criteria are pursued explicitly to carry on the ESG agenda of the acquirer. Perhaps the most visible examples are found in the high carbon intensity industries. Mergers and acquisitions represent a driving force in the energetic sector transition towards renewable resources. As we explore in "M&A in the energy and natural resources industry: agreements to realize the energetic transition", the historical operators use mergers and acquisitions to reposition their portfolios around sustainable energetic solutions faster than they could be built organically. In the meantime, in the consumer market, the transition from animal's protein to plant proteins has provoked a peak of mergers, acquisitions and partnerships. For instance, to carry on the mission to become global leader for the plant-based food, Upfield, operating in the Netherlands, acquired Arivia, leader producer of plant-based cheese. At the same time, other consumer goods' firms have been using mergers and acquisitions to face important issues for the social pillar in their

ESG strategy. For instance, we can consider the acquisition of the healthy food brand Lily's from Hershey or the acquisition of Kind from Mars or still the acquisition of Eat Natural from Ferrero.

In the meantime, mergers and acquisitions careful to ESG criteria, have been incorporating and ESG perspective along the whole value chain of the operation, even if the underlying thesis of the agreement is not correlated to ESG factors. *Companies seeking transparent and socially conscious supply chains will pay special attention to the supplier base of a potential acquisition*.
For example, acquirers can perform the due diligence to determine if the carbon print of a target is aligned to the sustainable goals of the acquirer, not related to the logic of the agreement.
Firms which will look for transparent and socially aware supply chains, will pay particular attention to the suppliers' base of a potential acquisition. This approach, careful to ESG factors, has been gaining popularity in every industry. Obviously, different industries will pay the accent on different ESG themes.

From a survey conducted among Bain & Companies' executives has emerged a mix of different types of agreements, coming from different industries. For instance, while executives of the energetic sector say that the plurality of agreements within their sector are motivated by ESG factors, the majority of other industries considers mergers and acquisitions, attentive to the ESG criteria, way more relevant for their actual composition of agreements.

Energy and natural resources companies are more focused on environmental, social, and corporate governance arrangements.

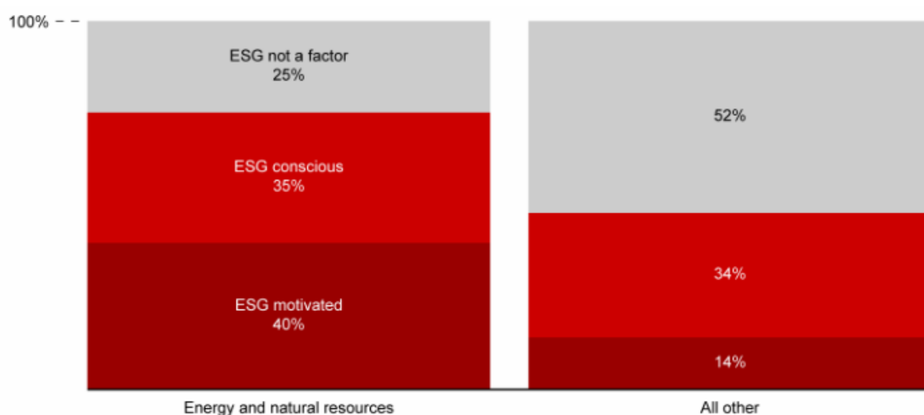

Fig. 18

Source: Bain M&A Practitioners' Survey, 2022 (N=281)

To strengthen their ESG efforts in mergers and acquisition, it is suggested acquirers to ask themselves different key questions that will lead the integration of ESGs in the process of conclusion of agreements and operations in general.

- **Strategy**: what are the implications of our corporation's ESG agenda on the M&A strategy? How will the counsel evaluate the ESG consideration when evaluating operations?
- **Diligence**: what are the relevant ESG issues for this agreement and how is the target behaving in those areas? What are the potential risks and improvements for our ESG overall positioning and for our competitivity? How can we improve our due diligence manual to answer to these questions? How ESG considerations influence the value creation plan for this asset?
- **Integration**: how ESG factors influence the integration thesis? What governance and resources are necessary to the fulfillment of ESG objectives and initiatives of value creation (to improve ESG performances of the target or exploit its strengths to improve our ESG performances)? What are the specific initiatives to unlock value creation opportunities of ESG value creation?

It might be hard to answer to these questions, but by asking them promptly, firms prepare to face the ESG imperative to the benefit of all, while carrying out M&A operations that will improve their performances.

2.1 ESG in the articles of incorporation

The Interregional Committee of Notary Councils has published Corporations' orientation of 2023 regarding ESG factors.

For the first time, the Interregional Committee has declined ESG factors in sustainability clauses present in the article of incorporation of capital companies, ranging from the corporate purpose to the balancing of shareholders' interests, such as stakeholders', to the sustainable management business models, liking clauses for the participation in the firm, until the monitoring of the administrators' remuneration and stakeholder engagement.

Scrolling through the Six Guidelines[51] – included in the A.B section – it emerges a set-up from partially from the soft law practices (recommendations in a key of Code of Corporate Governance applicable from the listed companies, on voluntary base, and stakeholders engagement practices) and for the other part coming from hard law principles included in the Law of Benefit's corporations (for instance, common benefits in the corporate object, balancing of interests between shareholders and stakeholders), in the Shareholders Rights Directive – SRD II, in the EU Regulation n.2019/2088 and in the consolidated text of finance (Testo Unico della Finanza) for instance remuneration policies of administrators with ESG KPIs.
It is a great step forward, clearing customs for ESG factors over the perimeter established by Benefit Corporations and listed corporations, but deserving deeper studies for the complexity of the themes taken into consideration, among them the impact of a ESG purpose on the administration management.

Orientation A.B.1 highlights as a starting point of the integration of ESG factors in the firm's activities the non-existence of any positive disposition in our enforcement, or principle, imposing to administrators of lucrative corporations to implement the corporate purpose having regard just to the shareholder's interest of the profit maximization. On the contrary, article 41, comma 2, Cost. dispose that the exercise of any economic activity, thus the research of a profit, cannot be carried out in contrast with the social utility or in a way that might cause a damage to the health, environment, safety, freedom, or human dignity.

The constitutional principle of article 41 becomes the pivot justifying the prevision in the article of incorporation of "specific ethical and/or sustainable rules that have to be maximized in the corporations' management, even against the principle of profit maximization and production efficiency", without losing the purpose of profit which always has to be sought from the administrators' management.
Sustainable clauses are defined as all the statutory clauses that represent the expression of mutual ideals, social values, and ethical principles, such as the environment protection, the promotion of labor, care and health of employees and of the community, and more in general denote an effort towards the preservation of the different non-economic interests involved in the economic activity of the firm.
In general, they can have an influence not only on outlining the activities of a firm that are the key elements of the social object with the analysis of the interests involved in the profit function,

[51] https://ntplusdiritto.ilsole24ore.com/art/esg-statuti-societa-debuttano-clausole-sostenibilita-AFTiIlNB

without compromising it, but also on the plan of modalities through which this social objective can be achieved, defining the guidelines of the code of conduct of administrators, both as imposition of strategies or categories of operations, and precluding activities not allowed.

The reasoning behind the Orientation Committee A.B.1 highlights as, from a certain extent, a social object with sustainable characteristics is bounding the governing body to its fulfillment, on another extent, the autonomy of the managing body towards third parties has to be kept intact following the article 2384, subsection 2 of the civil code. Clauses establishing the modalities through which fulfilling the social objective may consist in the enunciation of social-ethical principles that should inform the administrative body operations. Hence, these clauses should define the guidelines for the code of conduct, both for a mandatory and preclusive modality rather than the adoption of particular strategies or categories of operations, in the last case making statutory exclusion lists that could limit the managing activities of administrators.

On the other hand, Orientation A.B.2, confirms the legitimacy of clauses regarding partial hetero destination of profits for the care of interest related to the core activity of the firm. The only condition is that the lucrative scope will not be prejudicated and the destination and relative amount shouldn't be predetermined, being the managing function not sensible to the reduction as a simple execution of a project punctually determined. Even in this case, the administrative body set the effective destination of profits and the relative amount, that will be determined based on the profits resulting from the last fiscal year, within a maximum limit that could be established ex ante in the articles of incorporation or previous authorization of the ordinary meeting where foreseen by the same statutory clause.

The news brought by Orientation A.B.3 and A.B.4 is in the importance given to the balance of the stakeholders' interests together with the shareholders' interests into the alignment of the sustainable policies and its concrete application. The respect of this principle is fundamental to the protection and satisfaction of profits interests together with non-financial interests. Due to its relevance, it is an actual regulation for Benefit Corporations, where the final goal of the mutual benefit is pursued through a management aiming at balancing the interests of shareholders with the interests of stakeholders and everyone having an interest in the possible impact of social activities (L. n. 208/2015).

An even more innovative reach emerges from Orientation A.B.4 legitimating statutory clauses attributing voice powers to specific stakeholders through the identification of systematic consultation places. Going further on, due to the increasing importance of the position of interests of stakeholders, it might be identified a sort of external entity made of stakeholders having interests in the social activities of a firm, allowing the consultation, especially during the preliminary inquiry phase before the decision taken by the governing body, and in general allowing the governing body to take decisions involving a particular part of stakeholders just after the consultation of this entity considered to be representative of stakeholders. This Orientation, representative of the stakeholder capitalism, meet and experience some challenges due to the structure of corporate governance and civil regulations responsible for the judgment of the administrative body decision making.

Highlighting the central role of the administrative body in the fulfilment of the ESG goals, Orientation A.B.5 focuses on a hot topic in the periodical evaluation of goals through the use of clauses attributing to a group of independent experts, not only the evaluation of the environmental and social performance of a firm, but even the determination of the relative bounding indexes and KPIs which could allow the assessment of the administrative and governing body performance in these fields.

The assessment of these goals and of remuneration policies in terms of ESG performance are so important and debated because these instruments might be useful to organize the strategies of a firm, both financially and administratively, to incentivize the integration of sustainability within the corporation decisional processes, not only for listed companies. The efficiency of this system though is strictly related to the need of effective and standardized KPIs to follow and easy to assess for firms in general.

Lastly, Orientation A.B.6 recognizes approval clauses introducing requirements of ethical character for the assumption of social participation though having non-generical variables. These clauses should be useful if integrated in the Benefit Society's parameters and within M&A operation to regulate the introduction of ESG purpose-oriented goals and a plan explaining the milestones taken into consideration for the fulfillment of these sustainability goals of a firm.

2.2 Sustainable value creation

Historically, the availability of clients to pay for specific products and services of firms, with which they are having any business relationship, have always determined the value of a firm in terms of potential advantages and gains coming for the acquiring actors (Bowman & Ambrosini, 2000; Garcia-Castro & Aguilera, 2015). This traditional concept of value creation as benefits for the consumers, obtained through an exchange process of money for products or services, limits the value creation to a commercial practice.

The field of the sustainable business model literature and studies is trying to amplify these definitions and update them to the new economic practices surrounding these topics and the upcoming business models (Dentchev et al., 2018[52]; Lüdeke-Freund & Dembek, 2017). The researchers suggest including within these business models sustainable practices and requirements, indexes, measuring the performance of firms in this field and creating a standardization, and even processes defending interests and needs of at least the majority of stakeholders (Breuer, Fichter, Lüdeke-Freund and Tiemann, 2018; Schaltegger, Lüdeke-Freund and Hansen, 2012, 2016).
It got to be taken into account even the difference among the various roles that stakeholders can have in this value creation process, as part of the process itself having an active role, or as end passive recipients of the results of the value creation.

A result coming from these legislative requests of sustainable business modeling it is the extension of the financial bottom line of a corporation towards the ecological and social bottom lines. There are already some authors wondering about the structure of these models and the relative creation of value coming from them, but the results are still quite limited (den Ouden, 2012[53]; Evans, Vladimirova, Holgado, van Fossen, Yang, Silva & Barlow, 2017[54]).

A general definition refers to “promises of economic, environmental, and social advantages coming from a firm”, as creation of value. Of a certain importance in this field is the definition of the triple bottom line, considering the planet, people and profit as one of the mutual main fundamentals of the

[52] Dentchev, N., Rauter, R., Jóhannsdóttir, L., Snihur, Y., Rosano, M., Baumgartner, R., Nyberg, T., Tang, X., van Hoof, B. and Jonker, J. (2018), “Embracing the variety of sustainable business models: A prolific field of research and a future research agenda”, Journal of Cleaner Production, Vol. 194, pp. 695–703.
[53] den Ouden, E. (2012), Innovation design: Creating value for people, organizations and society, Springer, London.
[54] Evans, S., Vladimirova, D., Holgado, M., van Fossen, K., Yang, M., Silva, E.A. and Barlow, C.Y. (2017), “Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models”, Business Strategy and the Environment, Vol. 26 No. 5, pp. 597–608.

actual elements taken into account when talking about sustainable value creation [55]and sustainable business models. By the way, the value creation definition in general is still not commonly agreed both for the sustainable business model and the sustainable value creation related to different business models. They are difficult to define mainly because all these requirements and frameworks are for definition regulations and norms, thus not economic, social practices or activities but mainly elements entailing values, subjectivities more than actual strict interactions (Hahn, Figge, Pinkse & Preuss, 2015[56]; Santos, 2012). Hence, it is important to be aware of which one of these elements provided by the legislation over these topics is relevant in terms of value creation and sustainable business models and the concepts and theories having an influence, even if indirectly.

Then multiple questions can arise from the realization of these concepts, for instance how can these elements be acknowledged in terms of value creation and how do they differ from economic value creation of the traditional definitions? Which one among them, is going to acquire more relevance, thus power, in the future and consequently generating more value? Do they need to be kept separated or are they going to be merged in the upcoming future due to the actual necessities?

When including the concept of nature as a potential stakeholder, then multiple consequences and complexities can arise. What is the value that mostly can be favorable to this kind of stakeholders, of course in terms of activities providing beneficial effects? How can they be measured, through what standards and indexes? How are standards going to be created when the geographical necessities are different? How are animals and actual nature going to be distinguished in terms of actual value that activities related to them are going to be put in action? (Montemari, Chiucchi and Nielsen, 2019[57]; Nielsen, Lund, Schaper, Montemari, Thomsen, Sort, Roslender, Brøndum, Byrge, Delmar, Simoni, Paolone, Massaro and Dumay, 2018[58]). The issue of the distinction between ideal and practical problems still persists.

Who, What and How of Sustainable Value Creation

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[55] mhl,+v8n3+pp+62-90.pdf

[56] Hahn, T., Pinkse, J., Preuss, L. and Figge, F. (2015), "Tensions in Corporate Sustainability: Towards an Integrative Framework", Journal of Business Ethics, Vol. 127 No. 2, pp. 297–316.

[57] Montemari, M., Chiucchi, M.S. and Nielsen, C. (2019), "Designing Performance Measurement Systems Using Business Models", Journal of Business Models, Vol. 7 No. 5, pp. 48–69.

[58] Nielsen, C., Montemari, M., Paolone, F., Massaro, M., Dumay, J. and Lund, M. (2019). Business Models: A Research Overview. London, Routledge.

It needs to be admitted that it is hard and complex to get to a definition of sustainable value creation due to substantial differences in the nature of the practices and economic practices put in place to achieve particular goals globally recognized by a theoretical and legislative framework, which is still not standardized and equally foreseen. It is facing the Munchhausen trilemma, where different definitions are made circularly on respective arguments requiring another definition based on other arguments to the infinite (Albert, 1985[59]). This process ends with the acquisition of a definition commonly accepted by the collectivity.
Hence, there is a thin difference between accepting how things should be done as a statement and constructively accept the construction of social requirements in a normative and systematic way.

In the first place to reach this goal information regarding concepts, theories and cases should be examined to understand how to possibly define sustainable value creation (cfr. Freeman, 2010; Freudenreich et al., 2020), starting with analyzing the various definitions of value already provided in different fields (for example, social, cultural, relational and then of course economic and ecological) together with the actors potentially exploiting them and all the elements responsible of their composition. Lastly, it would be necessary to directly create a connection between the value creation, related business models and the innovation that should be led in order to achieve certain standards, through the connection of causes and consequences between identified practices and procedures to follow (Buser & Carlsson, 2020[60]; Foss & Carlsson, 2020).

Generally speaking, the research in this field is brand new and as said before cannot be based on definitions and sets that still have to be identified and shared to the mutuality of the actors having interests in this affair. The legislative framework provides outlines as a starting point and guidelines to follow for giving birth to practices and activities that may bring an initial direction and path. From the latter it will then be easier to identify, after a period of time that is going to be useful to establish a certain experience, the milestones over topics bounding together theoretical and economical practices. There are other different questions that might be useful to underline which are the points that need to be addressed:

- What is value and what are its sources?
- For whom it is created this value?

[59] Albert, H. (1985), Treatise on critical reason, Princeton University Press, Princet
[60] Buser M. and Carlsson, V. (2020), “Developing New Sustainable Strategy: The Struggle of Small and Medium Swedish Contractors Companies to Experiment with Business Models”, Journal of Business Models, Vol. 8 No. 2, pp. 101–114.

- How does it take place?
- Who is benefitting from it?

To start addressing these questions it is important to begin from a solid base, let's go through the traditional definition of value creation.

Traditional consideration regarding value creation

The creation of value is always defined starting from the value perceived by customers related to specific products and services provided by a firm, to the portion that the producer retains from that value through the price subtracted to the costs that they went through during the production process and all the phases leading to the customer in this path (Bowman & Ambrosini, 2000[61]; Freudenreich et al, 2020; Garcia-Castro & Aguilera, 2015[62]). This value of course might be even distributed to the various actors involved along the supply chain that led to the final contact with the customer, in portions weighted to the contribution of any single one of them.

It has always been a question of how firms can obtain a competitive advantage, increase customer's satisfaction and abnormal returns in businesses in continuous evolutions and growth. Another topic central in the research is how to possibly increase and improve their capabilities of creating and retaining value, from the old business models and activities to the new ones, which as said before are difficult to understand and structure and they require a deep investigation.

Forms and sources of value

Value is typically attributed to the benefits that clients obtain from a firm contribution, and on the other side, it might be considered as the contribution obtained by human resources, through wages, capital lenders, other investors and all the stakeholders involved in the firm's activity. Anyone of those subjects have an interest in participating to the firm's activity coming from the value they observed when deciding if investing or not their resources and energies in that type of business. There are in general different sources of the value depending on the capabilities and the

[61] Bowman, C. and Ambrosini, V. (2000), "Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy", British Journal of Management, Vol. 11 No. 1, pp. 1–15
[62] Garcia-Castro, R. and Aguilera, R.V. (2015), "Incremental value creation and appropriation in a world with multiple stakeholders", Strategic Management Journal, Vol. 36 No. 1, pp. 137–147

contributions that any of these subjects above mentioned provide to a firm (Bowman & Ambrosini, 2000).

Generally speaking, resources and capabilities are recognized as potential sources of value (Teece, 2018) whenever used efficiently and exploited for the totality of their potentialities. Any source of value could potentially be a VRIO: a valuable, rare, inimitable, and organized resource. It requires a correct application and to be put in right conditions to explode all its potential. When a firm has in its portfolio of assets a set of VRIO resources, it is found in the right conditions of exploiting its potential for the value creation of customers under a right strategic management, business model and business idea.
Value as said before is subjective, thus the goal of a firm is the assessment and the ability to identify the needs and interests of a wide community which is then going to convince other potential customers of the value that a certain product or service is going to provide them with. Value as a perception and feeling of any potential customer or stakeholder, can be translated into monetary value through the proposition of a price considered to be equal and representative of that entity.
The difference between these two values, the price and the monetary value take the name of surplus, it could be both for the consumer and the supplier. Consumer's surplus takes the name of value for money while on the other hand for the firm it takes the name of money for value, and these are the general definitions conceived by studies on the structure of businesses (Garcia-Castro & Aguilera, 2015).

How is this value created?

Value creation can be identified into the creation of a new fruition of use for the recipients of a specific offer. Anyways, this value is perceived only at the moment of the use of a certain product or the fruition of a certain service. In that instance, the consumer establishes if the monetary value that has been invested into the above-mentioned product or service respect the expectations of the perceived value before the fruition of the item taken into consideration. If the value of use is perceived as accurate, then it might obtain the meaning of value added if it is different compared to some other product or service offering something similar in terms of use function or benefits experienced (Bowman e Ambrosini, 2000; Mazzucato, 2018). This process of course stems from the fact that a value can be perceived as added just after it has been tested and the promise of a different contribution is actually felt by the recipients.

It is the same for firms, which generally get a financial profit if the price is set to a level allowing the overcoming of other costs, including the opportunity one.

Who captures value?

Hence, the capability of capturing the value produced by the firm is usually determined by questions of power among the actors involved in the creation of the value through production of items to be sold or services' offering. Because as said before, the value is distributed in percentages of the price, weighted on the power held by the different actors, basically depending on the contribution they provided. Who is going to have the responsibility of deciding the price? The resources providers? Or the producer? There have been even multiple cases where the customers, characterized by the dimension of the set of great levels, had a strong power influencing the decision of the price assessment.
Even human resources provide a certain contribution to the achievement of an overall value for the consumers which is retributed through the wages and the salary. In the case where they feel like not being properly retributed there are board of auditors representing collective bargaining power of human resources.

In the end, this overview on the general definition of value and all the actors and elements that need to be taken in consideration, was provided to allow the understanding of the clarity and strict organization of these topics for the traditional concept of value creation and distribution among all the stakeholders involved in the corporation activity.
As a consequence, it is now possible to identify the gaps above mentioned present in the sustainable field and the need of clarity and procedures that need to be set up to better create a structured and standardized business environment around the upcoming new trend of sustainable practices and business.

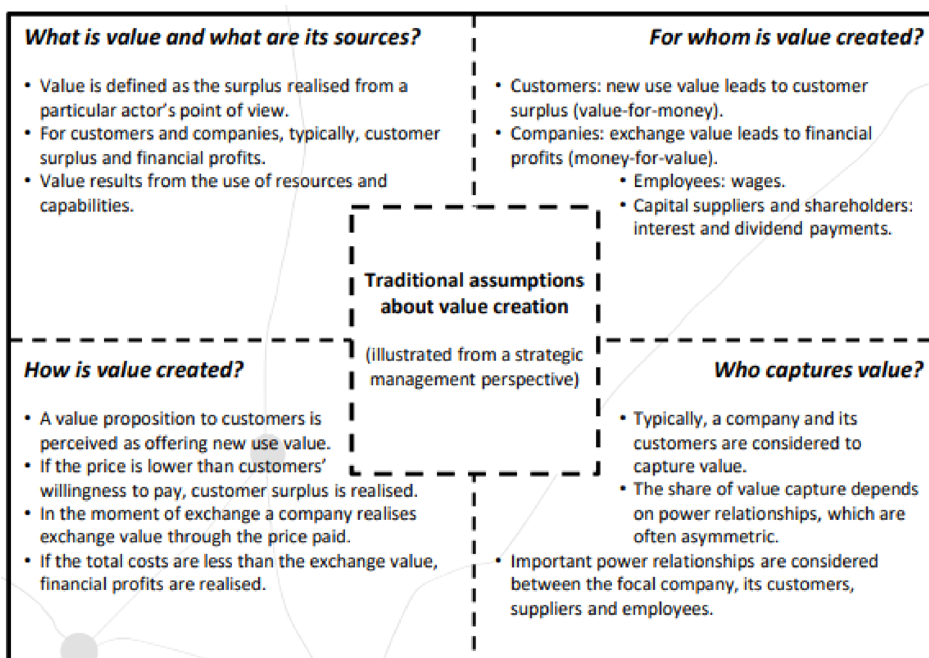

Fig. 19 Traditional assumption over value creation.

Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and

The triple bottom line, stakeholder theory perspectives and the extended considerations regarding the value creation

Even though in the literature, anytime it is analyzed the topic of the value creation it is referred as the value generated for stakeholders, this definition is mostly considering the value created for clients, firms and stakeholders of any type such as commercial partnership relationships or shareholders (Zott e Amit, 2010[63]).
The already above-mentioned distinctions in the various value creation instances, for stakeholders rather than with stakeholders or the various actors bounded to pre-determined dynamics of attribution of value contributions, limit particularly the innovation over business models and consequently the structuring and creation of business models for corporations pressing for sustainable necessities pushed by the already existing legislative framework.

The step forward has been made by researchers while trying to create the right context were to picture the innovation and creation of sustainable business models that needed a separation and integration of new concepts compared to the traditional business models bounded to previous economic and industrial dynamics.
Among them we have already mentioned the extended version of the definition of value creation, thus including new drivers that were not considered before since not relevant to the previous existing levers; extended definition of the concept of successful and efficient business model in terms of value creation; extended definition of the value captured, speaking of procedures and allocation of weighted percentages as it is usually done for traditional businesses; lastly an extended consideration over only customers as actors to take into account when thinking about value allocation and distribution, thus considering a wider system constituting a community sharing mutual interests and needs.

The triple bottom line new insights' approaches in the literature have foreseen the consideration of the three elements separately as responsible for the sustainable value creation and then bounded all together as the future of the interests that must be taken into account. As a matter of fact it is going

[63] Zott, C. and Amit, R. (2010), "Business model design: an activity system perspective", Long Range Planning, Vol. 43 No. 2/3, pp. 216–226.

to be a key factor, the cooperation for the satisfaction of the interests of the entire community starting from the stakeholders both when part of the creation process or as the one to which the value should be addressed, to then include social, and environmental topics and in conclusion merging all together as a new way of addressing businesses and satisfying parallelly multiple interests.

Thus, it is important to give an adequate resonance to the sustainable value creation and the differences observed, compared to the traditional one and the relatively traditional business models, having both different characteristics considering the integrality and the holistic features of the new one.
As a matter of fact, in this context shareholders, stakeholders, employees and topics related to the triple bottom line within the community of the operating organization under scrutiny (Bocken, Rana e Short, 2015[64]; Breuer e Lüdeke-Freund, 2017[65]; Pedersen, Gwozdz e Hvass, 2018).

It has been identified (Schwartz and Carrol; 2008) how the main concept is the value, as already explained in the previous paragraphs, together with an efficient accounting division, responsible for tying different fields between corporation and business such as responsibility, ethics and values, sustainable practices and managing interests of all the existing stakeholders of a firm.
It is seen how helpful could be listing all the possible actors to consider when starting a sustainable value creating business and prioritizing them based on the sensitivity to the notion of sustainable practices and activities to avoid negative reflections or externalities to go against the new born image of a corporation working for the interest of the whole community and not just for substantially profit reasons (Upward and Jones, 2016[66]).

TBL is based on the awareness of the existence of multiple values standing behind different business models which vary depending on the interests taken into account (Elkington, 1997). At the bottom of the sustainable development there is the sustainability and its development (WCED, 1987). It has been extended over the years accountability to sustainable practices and non-financial reporting, as introduced for the framework mentioned in chapter 1.

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[64] Bocken, N.M.P., Rana, P. and Short, S.W. (2015), "Value mapping for sustainable business thinking", .Journal of Industrial and Production Engineering, Vol. 32 No. 1, pp. 67–81.
[65] Breuer, H. and Lüdeke-Freund, F. (2017), "Values-based Network and Business Model Innovation", International Journal of Innovation Management, Vol. 21 No. 3, Article 1750028 (35 pages).
[66] Upward, A. and Jones, P. (2016), "An Ontology for Strongly Sustainable Business Models: Defining an Enterprise Framework Compatible With Natural and Social Science", Organization & Environment, Vol. 29 No. 1, pp. 97–123.

Even though a standardized and organic structure of the regulatory framework still does not exist, for the triple bottom line, usually topics such as the social responsibility of a firm or strategic approaches related to sustainable resources, just to make some examples, are included in the consideration of the sustainable value creation. To these topics, are associated opportunities of business and lots of topics that can improve social performance and financial operations of a firm considered to be "opportunities at the bottom of the pyramid" (Prahalad, 2005[67]).

There are authors such as Stubbs and Cocklin (2008), which are highlighting how alternative paradigms at the bottom of the sustainable value creation, and the sustainable business models, are the underlings for potential business opportunities born by the merge of one or more favorable arguments, as it is shown in the figures below.

Generally speaking, it can be said that stakeholder's theory and three bottom lines are complementary among each other while still having different goals. As a matter of fact, stakeholder theory analyses the "Who" since it provides information related to the actors involved and expecting value back from their contributions. The "What" is answered through the three bottom lines theory, which is adding to financial accounting dimensions explaining the performances of the corporation, which from a certain extent answers even to the "How", referring to methodologies of value creation. Hence, the future of sustainable value creation might be the integration of these two theories together with additional elements helping out the definition of the components of this theory, which entail the involvement of multiple actors and elements. They should create the sense of community, both in terms of social and responsible actions and practices, and at the same time the evaluation of these processes in a well-structured and clear business model achieving the structured framework of strategic business models (Upward and Jones, 2016).
It has to be underlined how both the traditional and the sustainable vision are founded on a legislative framework (Agle e Caldwell, 1999[68]; Breuer e Lüdeke-Freund, 2017[69]). The most important difference between these perspectives stands on the reach and contents of the regulations' contents and normative. While the vision and goal of the sustainable business model and value creation is based on normative and regulations, the stakeholder's vision and goal is always profit centered in the end, even though it is still regulated by legislative frameworks.

[67] Prahalad, C.K. (2005), The fortune at the bottom of the pyramid, Wharton School Pub., Upper Saddle River, NJ
[68] Agle, B.R. and Caldwell, C.B. (1999), "Understanding Research on Values in Business", Business & Society, Vol. 38 No. 3, pp. 326–387.
[69] Breuer, H. and Lüdeke-Freund, F. (2017), "Values-based Network and Business Model Innovation", International Journal of Innovation Management, Vol. 21 No. 3, Article 1750028 (35 pages).

The study entailing the strategic business models and sustainable value creation it is useful for the comprehension and transparency of these regulatory characteristics of these commercial activities.

The figures shown below, illustrate different examples of cases entailing the definition of sustainable business models. They vary on the scope, the streams and elements leading to the need behind their origins and for the theoretical foundation fueling the value creation responsible for the rationales behind the business models themselves.

They are taken from the literature over these topics, and they have been taken into consideration for the definition provided in this paragraph. They represent evidences useful for picturing a possible definition of sustainable value creation, meant as integrating ecological, social and economic value for the firm's investors or everyone having direct interests in its performances.
Additionally, they introduce the various controversies of the mix between already existing business models (traditional ones), together with sustainable economies and activities led to protect interests within the ESG category. Lastly, we can confirm the necessity to evaluate these activities as useful for the whole community external to the firm, but still influenced by the consequences of the actions taken by its government.

Sources (alphabetically)	Definitions, main assumptions and references to sustainable value creation (SVC)	Literature streams/origins	Theoretical foundation/scope of value creation
Bocken *et al.*, 2013	The scope of value creation results from the relationships, exchanges and interactions that take place among stakeholders (Allee, 2011), which are represented by value flows within networks of stakeholders (den Ouden, 2012). Developing sustainable value propositions includes considering the value that is destroyed (negative outcomes), the value that is missed (currently non-captured value) and new value creation opportunities.	Sustainable business model innovation	*Primarily stakeholder-based; the scope of value creation includes the value that is proposed, the value that is destroyed and missed and new value opportunities*
Brennan and Tennant, 2018, p. 622	'Sustainable value is created when tangible factors of production (structural resources), including processes, business models, products, services and infrastructure, are brought into particular combinations with *ideas* of sustainability impact and sustainability *values* (cultural resources). Sustainability cultural resources include important concepts such as net positive benefits and the creation of "common good" value (Dyllick and Muff, 2016) and sustainability values, which have recently been recognized as pivotal to sustainable business model innovation (BMI) (Breuer and Lüdeke-Freund, 2017)' (orig. emphasis).	Network-centric business model innovation	*Structural and cultural resources as origins of value; negotiating the strengths of different stakeholders and situational logics results in (un-) sustainable value*
Dembek, York and Singh, 2018	Implicitly, SVC is defined as value creation for multiple stakeholders and the natural environment, considering non-financial forms of value as well as the value that is destroyed and uncaptured (Bocken *et al.* 2013; Yang, Evans, Vladimirova and Rana, 2017).	Business models at the base of the pyramid	*TBL and stakeholder-based; the scope of value creation includes the value that is destroyed and uncaptured*

Table 1. Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and Christian Nielsen

Sources (alphabetically)	Definitions, main assumptions and references to sustainable value creation (SVC)	Literature streams/origins	Theoretical foundation/scope of value creation
Evans et al., 2017, p. 600	Similar to Bocken *et al.* (2013), Evans *et al.* (2017) propose that the scope of value creation results from relationships, exchanges and interactions that take place among stakeholders (Allee, 2015), which are represented by value flows within networks of stakeholders (den Ouden, 2012). This leads to 'a holistic view of sustainable value integrating economic, environmental and social value forms' (see also Figure 1, p. 600).	Sustainable business model innovation	*TBL and stakeholder-based; the scope of value creation results from value flows within stakeholder networks*
Lüdeke-Freund, 2020, pp. 668-669	Business cases for sustainability are co-constructed by diverse stakeholders, and thus they can take different forms (Schaltegger, Hörisch and Freeman, 2019). This implies that value portfolios can consist of different kinds of value (e.g. dividends, customer solutions, employment, reduced environmental harm). Additionally, 'business cases for sustainability leading to value creation with and for stakeholders should be synonymous with *sustainable value creation*' (orig. emphasis).	Sustainable entrepreneurship business models	*Primarily stakeholder-based; the scope of value creation results from different types of business cases for sustainability*
Upward and Jones, 2016, pp. 105-106	Upward and Jones (2016) propose that value can be defined as 'the perception by a human (or non-human) actor of a "fundamental need" (Max-Neef, Elizalde and Hopenhayn, 1991, p. 8) being met measured in aesthetic, psychological, physiological, utilitarian, and/or monetary terms' (p. 105). SVC should be measured as a 'single tri-profit metric [that] would be calculated as the conceptual net *sum* of the costs (harms) and revenues (benefits) arising as a result of a firm's activities in each of the environmental, social, and economic contexts in a given time period measured in units appropriate to each. A tri-profitable firm creates sufficient financial rewards, social benefits, and environmental regeneration, with sufficiency defined by stakeholders with the governance rights (power) to do so' (p. 106).	Sustainable business model innovation	*TBL and stakeholder-based; the scope of value creation results from stakeholders' fundamental needs and all harms and benefits of business activity*

Table 1. Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and Christian Nielsen

Sustainable value creation through business models: the who, the what, and the how

The models presented in the figures above, represent possible solutions for including within dynamic and commercial businesses theories foreseeing the integration of elements willing to have a more holistic vision of the economic activities through the value proposition (Vladimirova, 2019).

The goal of firms willing to follow these types of sustainable businesses is to invest in technologies that can allow the elimination of previous used practices considered obsolete, that do not aim at being sustainable and going towards the circular economy and the reduction of waste (Guldmann, Bocken e Brezet, 2019[70]).

There has been in the research a step forward towards the awareness of exploiting potential opportunities coming from this newborn structure of the business and a clear example is the construction of a backbone useful for newborn activities willing to step in this sustainable economy. The framework has been structured by Doroteya Vladimirova[71] (2019) and it facilitates the creation of workshop, the Sustainable Value Proposition Builder, created to improve the communication of the value proposition to multiple actors involved in a certain activity,

It is a tool comprised of all the three sustainable fields, able to elaborate the perception of actors holding interests in the firm's activity both positive and negative. It allows the integration and consideration of multiple interests and needs of the various stakeholders.

Another perspective that has been provided by the literature, identifies in the development of new activities or the strategic management of previous ones, the capability of using sociology theories to understand how through communication and empathy it is possible to understand the ideal social practices needed to set up such a business (F. Boons & O. Laasch, 2019[72]).

This perspective aims to the explanation of the social dynamics standing behind traditional business models and understand them in a way that might turn out to be useful for the switch towards the new sustainable interests and need and opportunities. Moreover, it has been observed how practices characterizing business models have constantly been included in the next ones through an enrollment process in a sort of natural selection where the most successful one are integrated into other businesses. They compete among each other in a constructive or parasitic approach leading to the survival of the most valid ones on the market.

To these types of dynamics are related adaptions coming from the novelties of a specific environment, being new technologies leading to new needs for customers or regulations and normative changes which could influence the approach to a particular environment. There are studies explaining how business models based on sustainable practices could adapt to these changes (Jessica Lagerstedt Wadin & Kajsa Ahlgren Ode, 2019).

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[70] Guldmann, E., Bocken, N. and Brezet, H. (2019), "A Design Thinking Framework for Circular Business Model Innovation", Journal of Business Models, Vol. 7 No. 1, pp. 39–70.

[71] Evans, S., Vladimirova, D., Holgado, M., van Fossen, K., Yang, M., Silva, E.A. and Barlow, C.Y. (2017), "Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models", Business Strategy and the Environment, Vol. 26 No. 5, pp. 597–608.

[72] Boons, F. and Laasch, O. (2019), "Business Models for Sustainable Development: A Process Perspective", Journal of Business Models, Vol. 7 No. 1, pp. 9–12.

It is a challenge then for corporations to introduce new technologies needing to adapt to the surroundings and to the context where they operate, influencing ways of leading business activities for the market and driving the change for business models.

It is introduced (Table 2) how the design thinking and other tools of the circular business models might foster innovation within already existing companies and the main phases are identified by Eva Guldmann, Nancy Bocken & Han Brezet (2019). They are fundamental in the process of transitioning towards new business models entailing circular economy to leave behind traditional standards of the business as usual and to contribute to the growth of sustainable value creation.
As it has been already introduced, one of the main topics and key elements generating value and future possible opportunities still needing to be exploited and studied is the importance of networks and relationships among different actors having an interest in the efficient activity in terms of performances of the corporations. It leaves definitely some space to further research and insights.

Table 2				
Topics addressed in the call for paper	Vladimirova (2019): Building Sustainable Value Propositions for Multiple Stakeholders: A Practical Tool (short paper)	Boons and Laasch (2019): Business Models for Sustainable Development: A Process Perspective (short paper)	Wadin and Ode (2019): Business Models for Sustainability: Change in Dynamic Environments (full paper)	Guldmann, Bocken, and Brezet (2019): A Design Thinking Framework for Circular Business Model Innovation (full paper)
What is sustainable value and how is it created?	X	n.a.	n.a.	n.a.
Which instruments can support sustainable value creation?	X	n.a.	(X)	X
How can sustainable value be created in relationships?	X	X	X	X
How can sustainable value creation be studied with novel approaches?	Theoretical considerations of value creation applied in *tool development* and *practitioner workshops*	*Theories of practice* used to develop a *process perspective* on business models for sustainable development	*Contingency theory* applied to *case studies* of business model change in dynamic environments	*Design thinking* framework for circular business model innovation derived from *case studies*

Table 2. Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and Christian Nielsen

Cornerstones of the sustainable value creation theorization

Based on the insights and information provided by the literature above mentioned and discussed it is worth it trying to provide the theoretical integrated basis of the sustainable value creation, which does not aim to provide a one-way universal definition, but on the other hand to suggest elements useful to picture and outline such a model.

It has been recognized that one of the main problems in the identification of a possible definition of the sustainable value creation is in the double nature of this category being both the process and the content of the definition of value creation (Lepak et al. 2007). Moreover, the presence of multiple targets and sources create confusion not allowing a clear identification of what can be exploited and what cannot.

There are some landing points from where to start such as the stakeholders' theory and the necessity of creating communities over the triple bottom line switching the interest on these activities through economic and social interests. Furthermore, it needs to be understood the provided theoretical and legislative framework in order to exploit potential opportunities, together with the values and key subjectivities possibly making a difference in this context and environment. For instance, all the subjectivities and interests of investors and stakeholders in this new sustainable value creation context, through the exploitation possibly of already existing assets.

Thus, it is through this process that it will be possible to set up the basics for the sustainable value creation in terms of practices that will then lead to its definition, rather than the opposite logical process, starting from a theoretical and more idealistic definition that would need to be landed through the practices.

Sustainable value creation it is meant as the integration of multiple drivers guiding this process, starting from the pluralism, subjectivity and relationships (Upward & Jones, 2016[73]). Its meaning is included within guiding principles such as the sustainable justice, local monism, social and ecologic auspicial practices (Baghramian, 2004[74]) that could be found mainly in negotiations techniques and evidences. Hence, the presented discussion can only be an introduction for theoretical processes and techniques of the sustainable value creation, compared to what is usually put in practice or the sentiment coming from the involved actors.

[73] Upward, A. and Jones, P. (2016), "An Ontology for Strongly Sustainable Business Models: Defining an Enterprise Framework Compatible With Natural and Social Science", Organization & Environment, Vol. 29 No. 1, pp. 97–123.

[74] Baghramian, M. (2004), Relativism, Problems of philosophy, Routledge, London

Upward and Jones are then responsible for the introduction of a model which is strictly sustainable, where the value is foreseen not only as a form o personal and individual profit measured by a monetary unit. On the other hand, it is driven by a sociologic concept standing on human values and principles mutually shared by the integrated community.
As a matter of fact, both the interests should be considered, monetary and psychological, meaning satisfaction of physiological business relationships interests and aesthetics related to products that respects, in terms of features and actual look, the prerogatives and expectations of the consumers. These prerogatives are based on the needs which could be associated with the Maslow's pyramid, starting from physiological needs, safety and security, love and belonging, self-esteem to then reach the self-actualization. They vary from customer to customer and from stakeholder to stakeholder, but the goal for the sustainable value creation and the relative business models is to achieve the satisfaction of needs of wider categories, both using a financial leverage, in terms of switching financial and economic interests on this field to proceed in the creation of business opportunities for a wide range of potential investors. The concept of value can in this sense associated with, but not substituted, the net benefits occurring for a consumer, which are not only economic or financial but also experiences and joys coming from activities in which they are involved. Lastly, giving consumers reasons or opportunities to make a change and contributions for the surrounding environment might be a boost psychologically for pursuing certain types of activities.

For whom is the value created?

The value creation in this business models have been attributed even to internal and external stakeholders being still related to a local firm's interests providing a more restrictive concept compared to the wider consideration of potential stakeholders as the totality of the subjects constituting the community around the single firm (Hart and Milstein, 2003[75]). This concept as it has been explained is now more advanced, updated and dynamic, since the categories of people possibly interested in this type of business models is more inclusive and enlarged than the traditional frameworks. As a matter of fact, a strategic management of a firm entails the creation of a network that goes beyond the boundaries of the firm, which entails the creation of the context where the value creation might be more dynamic and proactive where for example potential investors are stimulated and willing to have an interest in a particular activity.

[75] Hart, S.L. and Milstein, M.B. (2003), "Creating sustainable value", Academy of Management Executive, Vol. 17 No. 2, pp. 56–69.

Hence, these context needs to be studied starting from the possible stakeholders that might have underlying or potential interests related to the development of such a new more holistic approach. There are multiple of them, starting from stakeholder groups, or consumers, or dependent workers or shareholders. Furthermore, it is necessary to go beyond the traditional concept of stakeholders and starting to think horizontally more than vertically in a hierarchy scale where at the top of the pyramid there is the subject holding more economic power (table 3).
Moreover, it is needed even the identification of measurements and indexes going over the traditional measurement systems able to recognize the satisfaction of multiple factors related to different individuals in a future value proposition for the community.
In conclusion, it could be said that it is still in process the definition of to whom this value creation aims. Because of its intertemporal nature, coming from the fact that it is distributed over time and not placed in specific moments or milestones in a timeline and spatially harder to define since it does not have anymore boundaries, in terms of physical space or destination, this type of value creation is multi-attribute, constituted to favor different and multiple subjects. They are all essential stakeholders, everyone holding a particular interest in this value chain in different measure, all relevant to the system in terms of contributions (Tantalo & Priem, 2016[76]).
This situation leave a lot of room for research and studies to analyze how to create a system able to incentivize different parties being in this way more involved into the value creation process and creating a sort of magnet attracting possible investors, new fields of study and research, economic opportunities, technology, progress and possibly even other standards of prioritization of the interests of people and in this kind of business models, stakeholders.
Lastly it could be the cause of value destruction, through a disruptive force coming from new business models from the bottom, mixed already existing business models merging together to satisfy new markets needs, or simply aging of traditional business models not any more attractive to investors.

[76] Tantalo, C. and Priem, R.L. (2016), “Value creation through stakeholder synergy”, Strategic Management Journal, Vol. 37 No. 2, pp. 314–329.

Table 3. Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and Christian Nielsen

Table 3

Publication (alphabetically)	Stakeholder groups explicitly considered	Value created for stakeholder group
Bocken, Short, Rana and Evans, 2014	Customers	Use value
	Network actors	Transaction value
	Society	Societal benefits and impacts
	Environment	Environmental benefits and impacts
Boons and Lüdeke-Freund, 2013	Customers/users/con-sumers	Value proposition – measurable ecological and/or social value in concert with economic value; balanced fulfilment of customer needs
	Suppliers	n.a.
	Regulators	n.a.
	Competitors	n.a.
	Actors involved in the business model	(Distribution of) economic costs and benefits
	NGO	n.a.
	Society	n.a.
Evans *et al.*, 2017	Key stakeholder segments (including society, natural environment, customer, supplier, shareholders)	Forms of environmental value forms (renewable resources, low emissions, low waste, biodiversity, pollution preven-tion), social value (equality and diversity, community devel-opment, secure livelihoods, labour standards, health and safety) and economic value (profit, return on investments, financial resilience, long-term viability, business stability)
	Policy makers	n.a.

Table 3. Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and Christian Nielsen

Publication (alphabetically)	Stakeholder groups explicitly considered	Value created for stakeholder group
Joyce and Paquin, 2016	Customer segments	n.a.
	Partners	n.a.
	Clients	Functional value
	Employees	Working conditions and personal growth initiatives
	Local communities	n.a.
	Suppliers	n.a.
	Society as a whole	Promoting positive values
	End users	Value proposition
Stubbs and Cocklin, 2008	Board, management, staff, shareholders and customers	Resources (people, profit, time or natural resources)
	Shareholders	Economic, social, environmental outcomes
	CEOs	n.a.
	Nature	n.a.
	Future generations	n.a.
Upward and Jones, 2016	Actors for whom the organisation exists	n.a.
	Actors affected	Value created or value destroyed
	Actors involved	n.a.
Yang *et al.*, 2017	Multiple stakeholders (such as customers, end users, suppliers, shareholders, governments and partners)	Monetary value as well as wider value for the environment and society

In these systems it has to be considered that potential problems might arise from the attempt in the coordination of multiple interests, starting with actual conflicts of interest. Sometimes, usually at the beginning of a business activity is more promoted the economic and financial focus against social or environmental activities and goals. It has to be once again underlined that at the bottom of

all the interests there is usually a value creation necessity and this is the reason why it is important for the future research to understand how to build business models able to gather multiple interests having different roots (Hahn, Pinkse, Preuss and Figge, 2015; Han et al., 2010,2018[77]).
Organizations, when establishing what business model to pursue, have to think about what are the interests they want to satisfy and how. They have to think about the actors they need to involve to achieve that satisfaction, who are the partners, the external subject to interact with and all the actors to involve in the value creation process starting from the supply to the offer of their services or products. It is part even of the corporate sustainable relationships and the creation of its overall network at the bottom of the production process.
Lastly, all the potential conflicting interests and tradeoffs have to taken care of and analyzed through a scale of prioritization that have to be aligned to the mission, vision and scope of the firms in order to be coherent and prevent any possible damage going against the image of the brand standing behind the corporation.

To make final considerations, it has been mentioned by the literature over value creation how it is already a complicated calculation just when considering value as the difference between potential price needed to be paid for the consumption and opportunity costs coming from the possibility of making different choices. It would be even more complicated to make the aforementioned considerations related to calculations of the value generated for the overall potential stakeholders. This complexity though, has to be accepted and a possible solution to better organize this system is to understand possible clusters of stakeholders or actors involved in the value creation, assess any single path that could be chosen and decide among them which one is the more convenient for the business model in terms of sustainable value creation for the community in its totality. The inclusion of the triple bottom line is something that leads calculations of value production over the economic analysis in the traditional strategic management decision making, updating and upgrading the reach of such a system. To include circular economy and the triple bottom line operational areas within a business model requires the acceptance of facing multiple challenges, requiring an holistic view, and the necessity of studying all the powers involved in the potential paths responsible for actors' inclusion and subsequent eventual value creation emersion.

[77] Hahn, T., Figge, F., Pinkse, J. and Preuss, L. (2018), "A Paradox Perspective on Corporate Sustainability: Descriptive, Instrumental, and Normative Aspects", Journal of Business Ethics, Vol. 148 No. 2, pp. 235–248.

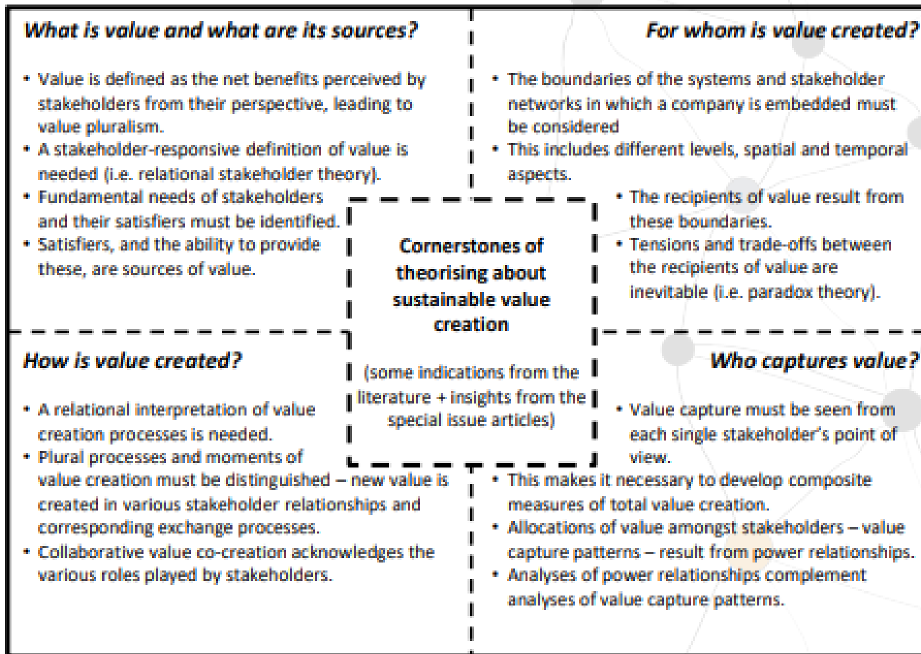

Fig. 20. Source Journal of Business Models (2020), Vol. 8, No. 3, pp. 62-90 Florian Lüdeke-Freund, Romana Rauter, Esben Rahbek Gjerdrum Pedersen, and Christian Nielsen

2.3 Incorporation of ESG through M&A processes

Between 2003 and 2009, which was called “the sixth great merger wave”, the terminology and reference for environmental, social and governance practices as ESG had never been heard before, and especially among the sectorial specific terms. It will then be introduced in what has obtained the name of the “seventh great merger wave” (2012-2022). During this period, these practices globally and specifically even in the European Union, as it has been mentioned in the previous chapter, will gain importance, and become a relevant theme in the evaluation of those type of transactions.

Hence, various elements have been introduced in the Due Diligence[78] documents needed for acquisitions’ operations. As a matter of fact, starting from evaluations of potential targeted firms’ management policies, analysis of the assets that should be acquired, and then the incorporation of Environmental, Social and Governance measurements within the evaluation frameworks and due diligence’s checklists, to the inclusions of these assessments into the sale and purchase agreements (SPA). This is a consequence of the realization of the increase in the value of the deals caused by the aggregation of these new elements.

[78] https://www.emerald.com/insight/content/doi/10.1108/SL-12-2023-0121/full/html

ESG's assessments and studies lately have been fundamental in the determination of potential targets and consequently it has become a trend in these practices. Of course, it is a direct consequence of the changes apported to the legislative framework, which has become thicker to directly support the 2050 Agenda for the NetZero emissions goal.
There have been done a lot of studies around this topic. It emerges that on 509 operations, analyzed in a single study, ESG due diligence has been carried on 33% of the cases, together with the attachment of specific directives regarding this field present in 45% of them (Walace, L. and Bruhns; 2023[79]). Another study has found that over 225 corporations and 75 private equity firms, 81% of the executives operating with these types of practices declared that it has been experienced an increase in the mention of these topics and in terms of time spent over them. Lastly, it has been found a positive correlation between performances over best sustainable practices and the respective value assessment (Mergermarket; 2023[80]). Generally speaking, transactions experiencing higher sustainable scores had parallelly even higher multiples, with ESG scores increasing of 10 pp reflecting into a 1.8x increase for the EV/EBITDA multiple (Toomey, J. 2023[81]).

How can ESG be defined in this social context?
It is a term that has been facing numerous interpretations, probably because the different frameworks circulating might have created a bit of confusion and misinterpretation. It is a wide categorization of activities classified as sustainable lacking clarity due to the presence of multiple classifications and prioritizations. Different trends have been emerging, the attention is not only centered on the activities leading to the production of a firm, but even to how these activities are carried on. For instance, in the operations responsible for the spreading of water supplies has been under way stricter controls due to the need of efficiency and reduction of waste. An example might be Coca-Cola which experienced an efficiency 10% higher than before the dedication towards these themes and topics between 2007 and 2010 (The Coca-Cola company 2023).

Environmental	*Social*	*Governance*
Biodiversity	Equal opportunities	Business ethics
Water efficiency	Health and safety	Compliance
Energy efficiency	Human rights	Board independence
Carbon intensity	Customer and products responsibility	Executive compensation
Land use	Child labor	Shareholder democracy
Use of materials		

Fig. 21. Source Timothy Galpin and Maja de Vibe

[79] Walace, L. and Bruhns, M. (2023), "CMS European M&A Study 2023
[80] Mergermarket (2023), "M&A Dealmakers Sentiment Report".
[81] Toomey, J. (2023), "An ever-increasing focus on ESG is impacting M&A valuations and processes".

Second trend stands on the prioritization of these practices in business decisions of executives. As a matter of fact, a survey proved how 80% of firm's clients, having a sample of 7,500 of them, considering 750 big size firms, declare to make ESG sensible purchasing decisions, and this might be a reason why firms are starting to address these topics in their strategies (Capgemini, 2023[82]). The third trend of course entails what have been already mentioned in the previous chapter, the mandatory status of some regulations that were not before and that are forcing firms to adopt adequate measures.
Among them the most important CSRD, corporate sustainability reporting disclosure is the one having a complete set of frameworks and tools that can be adopted and applied.

Incorporation of ESG across the entire M&A set of processes

It has been recognized by the literature and the research in general, that having standardized procedures for operations of merger and acquisition could be more efficient and less costly and time consuming (Galpin, T.J. 2020[83]). Unfortunately, these procedures and standardizations do not still exist, and it has been declared by 60% of the executives operating in this type of business (Galpin, T.J. 2018[84]). The "Deal flow model" is a powerful tool for professional executives and actors in this business to interdisciplinary analyze these types of deals. Merger and acquisition has a transversal vision of the process enrolling in multiple stages (around 10) and phases (around 3), show in the figure below.

First Phase: pre-deal

The goal in the fists one is the identification of the structure of a strategy aiming at increasing the ESG practices and activities that will have to be carried out. It is then time to, through a pipeline, identify the ways to reach the goals set in the first step. Lastly, it is necessary to study the acquiree and its profile in terms of environmental, social and governance rating and performances, to then evaluate the risks that the potential acquisition will lead to.

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[82] Capgemini (2023), "How sustainability is fundamentally changing consumer preferences Capgemini (2023), "How sustainability is fundamentally changing consumer preferences
[83] Galpin, T.J. (2020), Winning at the Acquisition Game: Tools, Templates, and Best Practices Across the M&A Process, Oxford University Press, Oxford, UK.
[84] Galpin, T.J. (2018), "Reap exceptional value from M&A: manage it as a core competence," Strategy & Leadership, Vol. 46 No. 5, pp. 17-25.

	Stage	Key Objective	Core ESG Activities
Pre-deal	Formulate	Clear M&A strategy	• Determine strategic ESG areas that can be strengthened through acquisition.
	Locate	Targets that fit the M&A strategy	• Identify potential targets (assets or entire firms) that fit the desired ESG strategic profile.
	Investigate	No surprises after deal close	• Assess ESG aspects during due diligence to identify environmental, social, and/or governance upside and risk.
Deal	Valuate	Realistic bidding range	• Determine potential increase or decrease of target valuation due to strong or weak ESG.
	Negotiate	Agreed deal terms	• Negotiate for valuable ESG assets to be included in the purchase.
	Consummate	Transaction close	• Clearly identify ESG provisions in the SPA (sales and purchase agreement).
Post-deal	Integrate	Synergy capture	• Prioritize the integration and "cross-pollination" of ESG assets and practices.
	Motivate	Maximum workforce productivity	• Communicate the focus on and achievement of integrating ESG assets and practices.
	Innovate	Additional revenue growth	• Transfer knowledge and practices between the firms that address customer ESG preferences.
	Evaluate	Measured and reported deal success	• Track and report ESG integration activities and milestones.

Fig. 22.
Source Timothy Galpin and Maja de Vibe

Second Phase: deal

Strong or light performances of the target firm, influence the evaluation of value of the target firm, which can be modelled depending on the value attributed to any single asset involved the ESG area and field. This evaluation might be subjective, but it is part of the negotiation process as much as the inclusion of particular assets relevant in this perspective that the acquiring firm must declare as part of its priority.
Moreover, it has been found as a key element the presence of warranties and insurances guarantying the authenticity of the value of these ESG assets and their relevance has to be specified in the due diligence documents, thus, they are bounding for both the interested parties.

Third Phase: post deal

In the third phase, as much as for any other rationale or reasoning behind acquisitions, it is important to take care of the integration among the two firms involved. As a matter of fact, both in

terms of cultural engagement and alignment between the two firms and in terms of actual practices and functions that have to be organized in order to work well together. It is fundamental to allow spillovers among the parties, it is known to be a key driver in the creation and construction of a new environment that have to perform better due to the synergies among the actors involved. To further stress the point, it is thus relevant to create the right context and guidelines for ESG practices and strategies spillover from the target firm to the acquirer when the first one has a driving role in this direction. Not only it is important to internally improve this context and environment, but to be sure that the value is perceived by the public, communication has to be well organized and disposed in a way that the image perceive both by stakeholders and shareholders, but even potential investors, is rooting for a merger or acquisition driven by ESG reasons and consequent improvements in these terms. An important tool for this activity is definitely the press release.

Benefits of incorporating ESG in M&A

Strategic benefits

There are effectively numerous and different advantages, in terms of strategy moves, coming from the incorporation of ESG reasoning into the merger or acquisition process. It is in fact a powerful tool to be used to accelerate the process or the need of creating a strong ESG division within the firm. It might happen especially for firms coming in late in the development of a strategy regarding these activities and practices, for reasons of belonging to an industry which is still far from being updated in this sense or just for individual delaying cases. Thus, a solution like an M&A can be a fast solution to be used for ESG and non ESG reasons parallelly, hence having a double advantage.

There are different reasons that could be stimulating the use of such a practice:

- Widen-up the offer of services related to consultancy;
- Improving the branding of the firm through the increase of the ESG scoring;
- Reduction of greenhouse gas emissions;
- Improvement of the assets of a portfolio;
- Acquisition of actors that might be a positive influence for the sustainability of the supply chain.

Performance benefits

The advantages of incorporating ESG elements into mergers and acquisitions practices, and more properly into the due diligence of such a type of deal, are definitely not only strategic, but can have different effects.

The examples might include:

- Operative efficiency: starting from the reduction of expenses and transportation costs;
- Reduction in the consumption of resources and of expenses: consider costs related to energy and water;
- Engagement of employees increase and reduction of their relative turnover and consequently of costs coming from their substitution;
- Increase in the consumer engagement with a following increase in sales and power into the determination of prices on the relative market (depending on the share of the market).

There has been wide research around ESG performances and the advantages that they bring in the M&A processes. In particular, it has been registered by an analysis on 796 deals made between 2011 and 2018, revealing that acquirers having a high ESG rating score (higher than the Refinitiv's median), have experienced a post-deal operation increase in terms of performances, while it has not been observed for low ESG scoring acquirers (Teti, E. and Spiga, L. 2023[85]).
At the same time, it has been carried on research that revealed how deals completed by acquirers having an higher target score, generally required less time in order to be completed, improving post deal operation performances and long-term yields of those shares, compared to those made by firms having a low scoring. The sample was made of United Stated of America firms, between 1992 and 2007, including around 1.600 mergers operations (Deng X.; Kang J., Low B.S. 2013[86]).

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[85] Teti, E. and Spiga, L. (2023), "The effect of environmental, social and governance score on operating performance after mergers and acquisitions," Business Strategy and the Environment, Vol. 32 No. 6, pp. 3165-3177.
[86] Deng, X., Kang, J. and Low, B.S. (2013), "Corporate social responsibility and stakeholder value maximization: evidence from mergers," Journal of Financial Economics, Vol. 110 No. 1, pp. 87-109.

Legal risks

Even though it is possible to obtain substantial benefits, there are many significant legal risks standing for whenever it is not respected the ESG approach, or it is misinterpreted in terms of its application. For instance, after an acquisition of Monsanto from Bayer for around 60 billion, two legal causes have been carried on because of a correlation found between cancer causes and the glyphosate contained in the herbicide used by Monsanto in its production process. This event gave birth to more than eleven thousand legal causes. As a consequence, shares value and price have diminished drastically to a third of its original value losing more than 28 billion dollars in market value (Buck, T. 2019).

Another similar case has been experienced by Vendanta Resources, which after acquiring Konkola Copper Mines (KCM) was declared negligent and responsible by the Supreme Court of the United Kingdom towards a group of Zambian villagers. As a matter of fact, this group made a claim against the firm for the release of toxic waste in the water sources used by them for drinking and eating. Thus, they were then expected to compensate them for the damages caused (Horne, L. and Roberts, L. 2019).

These two examples clearly highlight how decisions of acquisitions or mergers operation need a particular analysis and study behind them. First of all, due to the size of these transaction in terms of economic and financial weight, but even in terms of number of operations, consumption of time and resources and relative costs they are quite intensive in terms of expenses. Hence, it is necessary a deep study over any possible inconvenience and the possible advantages that it would bring.
On the other hand, in terms of ESG consequences, it is necessary to make research regarding the overall profile of the target firm. Starting from environmental, social and governance practices, relations both external (partnerships of any type, transversal transparency, communications with stakeholders and shareholders) and internal (supply chain and sustainable processes and activities, of course including the ones entailing human resources and the governance applied within the firm). If those analysis are correctly led, they would ensure that the operation will have a positive reflection on the acquirer, while if those analysis would be not complete, then it is possible to expect inconveniences such as the ones of the two examples provided above.

Climate related risks

Generally speaking, in this field there are even environmental risks which might be causing consequences post-deal on the acquiring firm or on the target firm too.
As a statement, it is important that both these actors realize the importance of these practices and impact that they will have on the firm's performances and image today, but even in the upcoming future, due to relevance and power they are acquiring day by day.
Anyways, starting from the fact that it does not exist a general rule for the evaluation of these risks, it is necessary to firms to adapt the due diligence to the specific transaction taken into consideration, and especially start to prioritize these types of transactions and elements as possible future growth opportunities in terms of value and power on the market. The single transactions will require specific adaptations depending on the sector and the industry where they take place, thus, to specific elements that do not have the same weight over different businesses area except for a few cases.

Let's now go through some of these elements that must be looked at when foreseeing this kind of operations, under and a climate perspective (Connolly, A. and Goslin, T. 2024[87]):

- Agricultural industry: risks related to the scarcity of water, consequent drought, and general consequences due to the global climate changes.
- Tourism industry: seasonal businesses are now suffering because of the unpredictability caused by the climate change, shifting favorable periods for specific locations over the calendar and having definitely an impact on this industry. Moreover, the effective physical change of the territory is damaging ecosystems making some incredible areas change their look and aesthetic.
- Insurance industry: this industry has been highly damaged, both for the difficulties in assessing potential probabilities of the verification of specific events on which people or firms pay their insurance and expect to be covered on, and for actual potential expenses that these firms will have to go through because of the numerous changes caused by climatic changes.

Anyways, it has been declared and confirmed by studies and researches the impact of climate risks on decisions regarding acquisitions or mergers by firms.

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[87] Connolly, A. and Goslin, T. (2024), "Climate change considerations in M&A transactions

For instance, it has been found that, among firms based in the USA and listed between 2010 and 2020, the ones having higher environmental risks have lower chances of going through mergers or acquisitions operations. Furthermore, yields coming from the prices of shares at the moment of the announcement of these types of operations were incredibly lower for the deals including high climate risks acquirers rather than lower climate change risks (Lodh, S[88]., Deshmukh, N. and Rohani, A. 2024).

Evidence from a single case in the renewable energy sector: Statkraft

Statkraft, a firm belonging to the Norwegian government based in Norway, it is known to be the biggest producer of renewable energy in Europe. Since the beginning of its activity, around 130 years ago it has been focusing on creating its own fleet of hydroelectric power plants in Norway. Over the last decades it has become an international corporation. Nowadays it is responsible for the management and development of hydroelectric, wind, solar power plants in more than twenty countries over three continents. Moreover, it is working for the creation of a wide network of commercial activities, exploration of new opportunities in terms of green solutions and providing a great trading expertise.
Additionally, speaking of energy generated, it has been produced an amount of energy equivalent to 60TWh in 2022, which, to give a reference, could be compared to 22% of the overall amount of energy consumed in the UK during the same year. This production, led to an EBIT of almost 55 billion Norwegian crowns and a net margin of almost 29 billion of Norwegian crowns (NOK) (Statkraft, 2023[89]).

Committing to high ESG standards

Statkraft is working towards the inclusion of ESG practices and indexes to measure their performances in this direction, especially because it is expected to constantly increase them from the owner of this firm, the Norwegian government. All these elements are included in the last White Book published by the government. In order to guarantee those standards that have been set, it has been persecuted a specialization selection process, entailing the integration of resources highly

[88] Lodh, S., Deshmukh, N. and Rohani, A. (2024), "Stemming the tide: does climate risk affect M&A performance?," Business Strategy & the Environment, Vol. 33 No. 2, pp. 858-881
[89] Statkraft (2023), "Towards 2030: creating value by enabling a net-zero future"

skilled in these maneuvers and activities, to both directly improve the performances and indirectly influence the already existing resources through spillover process within the firm itself.

In addition to the hiring processes, it has been created a central division expert in the field, to increase the efficiency in terms of organizational processes and reporting dynamics vertically and horizontally within the firm. As a matter of fact, there is a team strictly focused on these topics to better integrate these processes and create a common and mutually shared culture.

Ambitious growth strategies facilitated by M&A operations

Within 2030, the Norwegian firm plans to ambitiously reach some goals that have been set up, starting from a growth rate of 4GW annually, research over new solutions in terms of energy production and capabilities, specifically for the new energetic challenge of the future: the development of hydrogen energy production of around 2GW.

As well known, to the achievement of particular corporate goals, solutions such as acquiring or merging with another company, has always been a possible support and catalysator in the process of reaching certain levels to be in the condition of solve some issues. It is and it will always be a great tool, especially for firms of a certain size and for this specific single case.
Hence, due to the consolidation of procedures, practices and negotiation techniques, Statkraft has a great relationship with this type of solutions and tools. As a matter of fact, there is a specific unit covering specific topics in a well-organized and structured organization. There is a team covering different processes, created through standards originated specifically in this merger and acquisitions context, multifunctional, responsible for reporting studies involving different topics which of course are of key importance. Amon these fundamental topics there are the legal ones, technical, financial, fiscal and ESG.

It is not the first time for this firm to include these types of topics into the mergers and acquisitions processes, but still it has been updated throughout the evolution of the legislation. As a matter of fact, these changes have been reflecting the upgrades of the legislative frameworks and set of standards, but even due to the experiences that have been collected over time together with numerous expositions to different cases, have allowed the firm to create an own personal baggage of knowledge to use to its favor. Anyways in this field the relevance is not only measured in terms

of indexes and performances measure, but also, especially for a firm having such a huge impact both for the economy of its country and for the production of resources, but even in general for the community where it operates. Hence, it is a great responsibility for them to make an effort in trying to improve the future of the community in terms of quality of life under all the sustainable aspects and profiles.

"We always invest considerable time in assessing ESG topics as part of the due diligence we conduct and have repeatedly seen how important this is in order to be certain that the deal is right for us and that it is structured and valued correctly." (Andrew Smith, Head of Corporate Transactions, Statkraft)

ESG during the pre-deal phase

Throughout the whole merger and acquisition process Statkraft works on sustainable topics having a projected vision towards the realization of the due diligence during the negotiation phase and even before that, considering which firm might be a potential target. Generally speaking, the documents entailing due diligence are drafted through the support of external entities, usually consultants helping out in this process' phase, together with internal resources which are strictly involved in the deal taken into account. Since the Norwegian firm is a huge international firm, operating in multiple contents markets, it is possible that its potential targets might be in a different country, hence goes under different legislative systems and regulations. Thus, it is strongly influenced by the numerous norms and regulations, and it is important to be aware of the different systems, requiring a strong legal division or team to support the coordination and cooperation over these themes locally and globally.
If there are some doubts over some of these potential issues, this first phase is the place where they should be attached to the structure and organization of the operation looking forward to discussing it with the respective appropriate actors.

There are in the history of the Norwegian firm some examples of lacking care for some of the potential issues above mentioned, specifically in the human and job rights. Over the payment of normal wages and all the activities it might require such an activity, they were required to pay for the living wage, in this particular case, for all the activities involved. Hence, such a situation

required the need of an adjustment in terms of salary and management for the human resources UN (Global Compact, 2023).

Another potential issue might be the access to information of the identified target. Starting from external relationships and links with other actors in the market, such as eventual partnership still active, and even internal information regarding the supply chain of the acquiree, are complicated to evaluate, especially when there are missing pieces that could eventually damage image of the acquiree because of the damage perceived by the targeted firm. It is then a key driver for acquirees to get access to any type of potential useful information for the evaluation of the value and the risks occurring when acquiring the identified firm.

ESG during the deal phase

Incorporation of ESG scoring and performances, that have been found during the due diligence phase, into the evaluation models of the target firm is a challenge for the structuring of the operation itself. As said before, there are a lot of uncertainties over the identification of possible gaps to fill and costs to face for firms to cover those gaps, or generally issues that have not been covered before, and lastly potential benefits coming from those expenses. As a matter of fact, it is quite uncertain and difficult to measure compared to other accounting indexes which are more direct and easier to measure. ESG performances can be then defined as more qualitative compared to accounting indexes and standards, they require experts and specialists in order to make weighted and accurate choices, to avoid mistakes, especially when considering possible deals or operation which are known for their huge transaction costs.

Hence, it is important in the due diligence and evaluation phase, to take the right precautions to avoid that during the deal phase it might occur some sort of controversy, or negative behavior, towards actions that the acquiree might want to make, but cannot due to oppositions coming from the local side (the targeted firm) leading to an internal crisis within the just new born firm.

ESG during the post-deal phase

During the post-deal phase it is ensured that all the gaps identified in the previous phases are looked over and immediately filled thanks to the new synergies generated, or the resources belonging to the

acquired firm which can now be invested into those activities. Those activities, to ensure the perception of the expected improvements in terms of sustainable performances, have to be immediately put in place and action, in the case it is considered a whole new process, and rightly communicated to the public, to make sure the image is positively influenced.

There are other means and tools to make sure that these synergies are exploited, even by leveraging on the network or the supply chain of the target firm and carrying on external partnerships or collaborations in the industry under examine.

Lastly, it is essential the cultural integration of the two firms that don't have to collide among each other causing malfunctioning, but on the other hand they have to be melted together in order to become a single unit and generating as much efficiencies as possible. Coming back to the evidence brought by the example of Statkraft, they state: "While a focus on ESG during due diligence is important for us, ensuring a strong follow up post deal is just as important. We spend considerable time and resources making sure that we have full alignment across our operations on ESG standards following an acquisition."

How to build ESG into the M&A process

The figure below provides a list summarizing the steps that have to be followed into the M&A process to improve the ESG performances of the acquiring firm.

Component	Key Activities
1. M&A ESG performance assessment	■ Identify recent M&A transactions. ■ Identify what went well and what could have been done better regarding how ESG was addressed during each stage of the Deal Flow Model). ■ Catalog key learnings to apply to future M&As during each M&A stage.
2. M&A ESG internal talent inventory	■ Identify key talent across functions with ESG knowledge and skills essential to the firm's M&A process.
3. M&A ESG external talent inventory	■ Identify key service providers used in prior M&As (e.g., legal, financial, environmental, etc.) with ESG knowledge and skills essential to the firm's M&A process. ■ Identify potential other service providers with ESG knowledge and skills essential to the firm's M&A process, and determine how each could provide support during future M&As.
4. M&A ESG tools and templates inventory	■ Conduct an M&A ESG tools and templates inventory across functions and M&A stages (e.g., ESG due diligence checklists, valuation templates, communications planning, cultural analysis and integration, etc.). ■ Identify M&A ESG tools overlaps and gaps. ■ Catalog M&A ESG tools and templates.
5. M&A ESG training	■ Identify M&A ESG training needs/objectives, based on the recent M&A ESG performance and key M&A ESG talent capabilities assessments identified above. ■ Develop ESG training content for each stage of the Deal Flow Model, designed to achieve each training objective identified. ■ Identify training participants based on the M&A ESG talent inventory above. ■ Schedule and conduct cross-functional M&A ESG training.
6. M&A ESG knowledge repository	■ Establish an M&A ESG knowledge repository, housed on the firm's intranet, for each stage of the Deal Flow Model. ■ Populate the repository with M&A ESG tools and templates across each of the ten M&A stages.
7. M&A ESG competence maintenance	■ Conduct regular reviews of the firm's M&A ESG tools, templates and talent. ■ Update tools, templates and talent in the M&A ESG repository as needed.

Fig. 23. Source Timothy Galpin and Maja de Vibe

To sum up, firms that do not adequately evaluate ESG elements during the merger or acquisition process, can lose multiple opportunities in terms both of the potential increase in the evaluation of their firm leveraging on key elements such as sustainable practices and risks of not considering potential costs caused by the underestimation of these topics.

2.4 Media and entertainment industry market overview and perspectives

Corporations in the entertainment and media industry[90], went through a turning point that characterized the whole sector in 2022. Revenues of the E&M industry have raised of 5,4%, reaching 2.32 trillion of dollars. It is a strong reduction in the growth rate that in 2021 was of 10,6%, when economies and industries globally were recovering from the devastating upheavals caused by the pandemic. In any of the upcoming five years, the growth rate will be reduced

[90] Insights: Global Entertainment and Media Outlook 2023–2027 | PwC

sequentially, thus, in 2027 the growth rate of the revenues compared to 2026 will be around 2,8%. It is a lower growth rate, compared to the one foreseen by the Monetary International Fund for that year, of 3,1% for the whole economy globally.
The reduction in the rate, has been caused primarily by the consumption, it is indeed pushing the consumption to redefine their expectations, and focusing on the means to internally give new breed to the growth. They are assuming this behavior to exploit numerous geographical and sectorial hotspots that offer opportunities and to exploit the new emerging technologies. In particular, AI is the most attractive mean, especially the generative AI as a productive engine useful in terms of creative process.

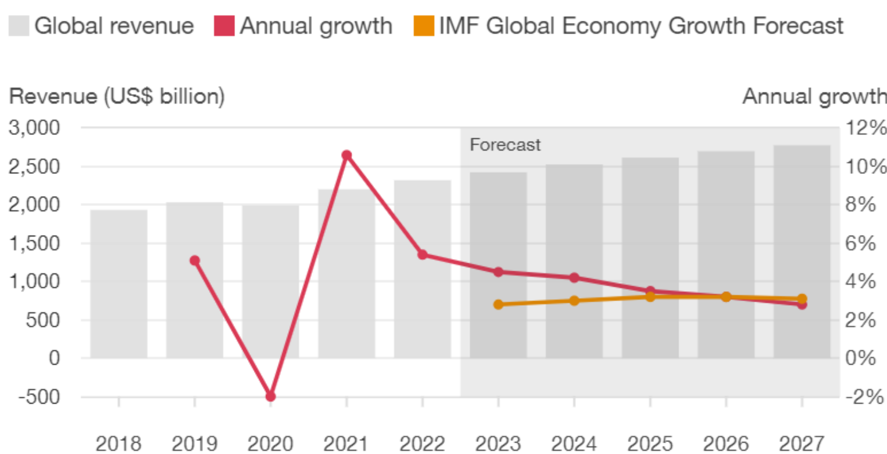

Fig. 24 PwC's Global Entertainment & Media Outlook 2023-2027, Omdia IMF

Slowdown's causes are multiples. For some key sectors, the increase in revenues and the attention registered at the beginning of the pandemic have stopped. Podcast's creation, which has been one of the major successes in this industry during pandemic, have decreased of almost 80% from 2020 to 2022.

The most relevant challenge, in 2022 and even further on, is principally represented by consumers' expenses. Taxed by inflation, tired for the resilient effect of the pandemic on the economy and while dealing with uncertainties caused by the war around different geographical areas in the word and the political instabilities, consumers are making steps back. Expenses for consumption has been historically the highest. The consumption and expenses, for the entertainment and media sector, will grow carried by a CAGR of 2,4% between 2022 and 2027, for 903,2 billion (in dollars) totally.

Considering e-commerce growth and the time spent on digital platforms, firms all around the world will spend way more in trying to reach the consumers in selling points and points where they must make a decision. In 2025, advertising will overcome the expenses for consumption as the most important category, the advertising expenses on the Internet, grown of 8,1% in 2022, is a powerful catalyzer of growth. Between 2022 and 2027, advertising revenues globally will go from 763,7 billion to 952,6 billion of dollars, with a CAGR of 4,5%. This trend allocate advertising on the path to become the first of three principal categories entertainment and media to reach 1.000 billion of dollars of profit. The number of accesses to the Internet, will overcome the expenses of consumers in 2026.

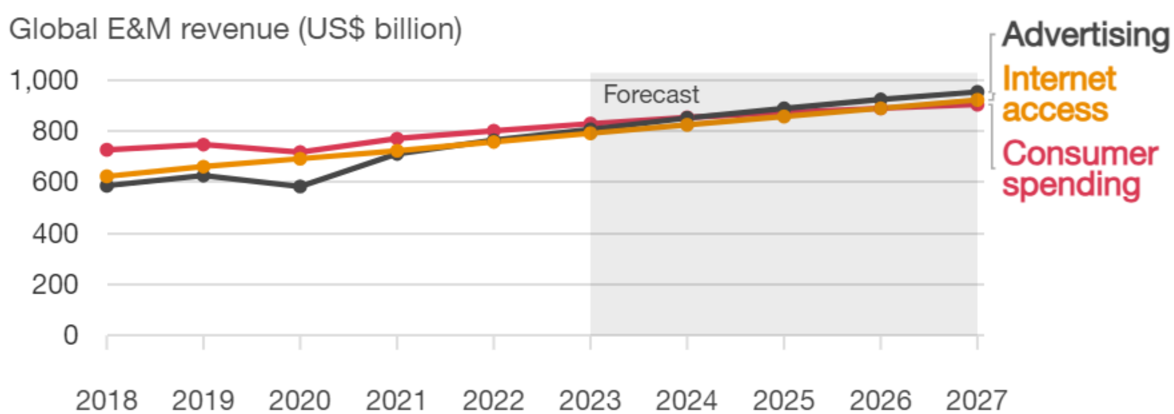

Fig. 25. Source: PwC's Global Entertainment & Media Outlook 2023-2027, Omdia

Resetting expectations leads to retrenchment

The reduction in consumers' expenses for entertainment and media products and services and the increase of advertising's influence, are main powers that are changing imperatives for the industry's

leaders which push towards a wide re-evaluation and re-invention. 40% of the CEOs of this industry have declared that their actual business model will not be sustainable anymore in ten years. Thus, it is justified the sense of urgency that historical operators feel.

In 2022, the double impact caused by the increase in the interest rates and the critical reduction in the stock market, has pushed investors, and executives who deal with the pressure emerging from the markets, to ask themselves questions related to business models applied during this socio-economic period. The competition coming from the need of attracting consumer's attention, and the flows coming from this activity, has been intensifying, even thanks to the continuous flows of new actors and operators. Platforms considered dominant in the long-cut videos streaming in China, iQIYI, Tencent Video and Youku, are facing a growing challenge caused by the huge popularity of short-cut video contents offered on mobile devices, which is deviating the traffic towards video suppliers such as Douyin, property of the Tik Tok's owner and Kuaishou.

In the whole world, even though dollars in the digital advertising business are growing, they have been distributed in a thinner way, since a continuously growing range of actors, among them e-commerce websites, videogames and streaming platforms, are gaining more shares of the market. In 2022, the share estimated for digital advertising revenues worldwide, obtained by the duopoly of Meta and Alphabet, is reduced for the fifth consecutive year, reaching for the first time results under 50%.

In the last years, lots of leaders of digital firms grown rapidly during the pandemic, have pursued way more aggressive growing strategies. Fueled by money at a nice price, they have been focusing on the potential inside totally addressable markets, assuming wills and acquiring always more and more clients and contents. Now, in a more wider re-dimensioning context of expectations and attention towards yields, leaders are becoming more aggressive.

Meta has defined 2023 the "efficiency year". With this process of shedding jobs, the laying offs in the technological industry have reached almost 170.000 units in the first four months of 2023. Netflix has become stricter in terms of the chance of sharing the account's passwords for subscribers. After a radical increase of 45% between 2021 and 2022 to reach 23,2 billion dollars, the aggregated expense for contents created by global streamers, Netflix, Apple TV+, Amazon Prime, Paramount+, Disney+ and Max, should reach the 26,5 billion of dollars in 2023, with an increase of only 14%. Warner Bros, one of the main leaders in this industry, has made a lot of

changes starting from the cancelation of movies such as Batgirl and closing CNN+ a few weeks before its launch.

Recharging for growth

Even if they look internally to rationalize, firms should look at the horizon in order to grow. Every year, during the forecasting period of the Outlook, it is foreseen an increase in revenues. As always, the increase will be distributed not homogeneously, with some industries which will be stagnating, while others will increase drastically. The outlook provides with a map of hotspots where growth opportunities are considered to be interesting. Some of them will be analyzed below:

Advertising is rising day by day. As said before, advertising is on the right road to become the first category to almost reach 1.000 billion of dollars. In the USA, especially in the biggest traditional television market, it will soon be reached a point of fracture where the advertising expenses will overcome the revenues coming from television and others subscription. In Australia and in the UK, these two lines have already crossed each other.

A more keen and careful sight, reveal which are the components that are growing more rapidly. In the next five years, revenues from on demand video, supported by advertising, are destined to double. Hence, the streaming industry, has gone from being the one promising to free the paying subscribers from the advertising interruptions, to being the one relying on advertising as the principal source of revenues. Consumers are the ones accepting more often to have advertising within their streaming service.

Free television streaming services and ad-supported (FAST), are digital curated networks of channels that are completely addressable and thus perfectly suitable for targeted advertising. Pluto TV, which is now property of Paramount, has been one of the first movers. Producers of devices such as Roku, Samsung and LG are using and exploiting streaming channels and the growing market of smart televisions as a new source of revenue and profit together with their core activity.

Netflix itself, which tried to avoid advertising, after its first 25 years, in 2022, has launched its ad-supported offer to a discounted price in some areas, even increasing the price of the free version. In May 2023, it has declared that its service ad-tier, already had almost 5 million of subscribers.

Digital dollars

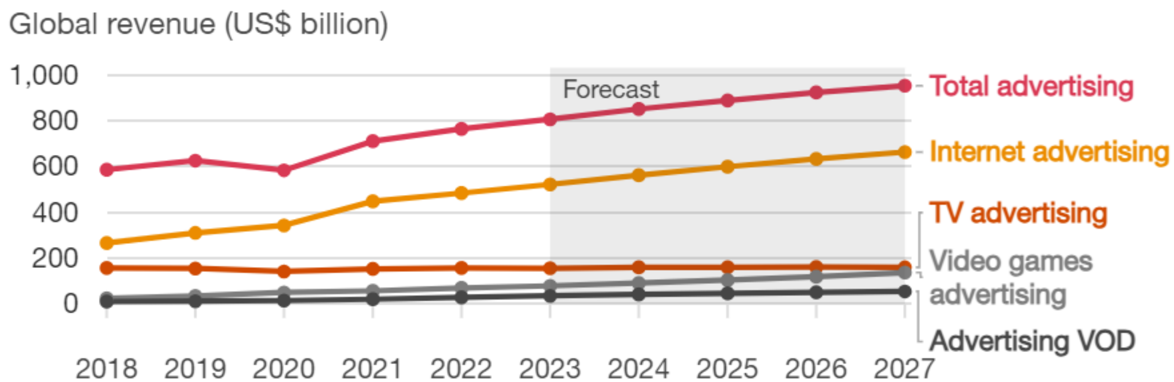

Fig. 26. Source: PwC's Global Entertainment & Media Outlook 2023-2027, Omdia

Growth hotspot: Asia

The so-called over the top streaming (OTT), one of the principal growth engines, has been expanding more rapidly in the emerging markets, where combos of wider rural populations historically under-supplied, the diffusion of a broad band phone and the strong demand for local and sport contents offer great opportunities. In 2022, when Indonesia turned off its analogic terrestrial broadcasted signal, it has been forecasted that the country had the highest consumption rate of OTT videos in Asiatic Sout-east, with which one Asiatic on three that used streaming services and the number of hours of consumption was growing at a annual rate of 40%.

Huge global entities, such as Netflix, Amazon Prime, Disney + Hotstar, and HBO go, compete in the Indonesian streaming market with a growing community of local operators and regional operators such as WeTV, GoPlay, Mola TV and Vidio. Thus, long-range growth rates are suggesting to invest in a favorable business of broad band cables under the sea and the ocean to provide the connection to the whole geographical area.

As the graph below shows, Indonesia, is one of the three Asiatic countries, together with China and India, that offer an hopefully highest combination in terms of dimensions and scale existing and the rapid growth forecasted of consumer expenses and advertising expenses. The biggest market for the whole forecasted period, will of course be the US one, where revenues will go from 609 billion

dollars in 2022 to 692 billion of dollars in 2027. Anyways, that growth represents a CAGR of almost 2,6%. In China on the other hand, the second entertainment and media marked, is forecasted a growth of the overall flows of revenue going from 226 to 305 billion of dollars in the forecasted period, with an increase of 6,1% in terms of CAGR, more than the double compared to the US. China's growth will be fueled by a considerable CAGR of 9,1% for the advertising revenues on the internet. Lastly, with 13 billion of dollars of incoming revenues, Indonesia is the 15th biggest market now. The other competitors are Brazil, Mexico, and Spain. It is thus forecasted an increase of total revenues with a CAGR of 7,7% until 2027.

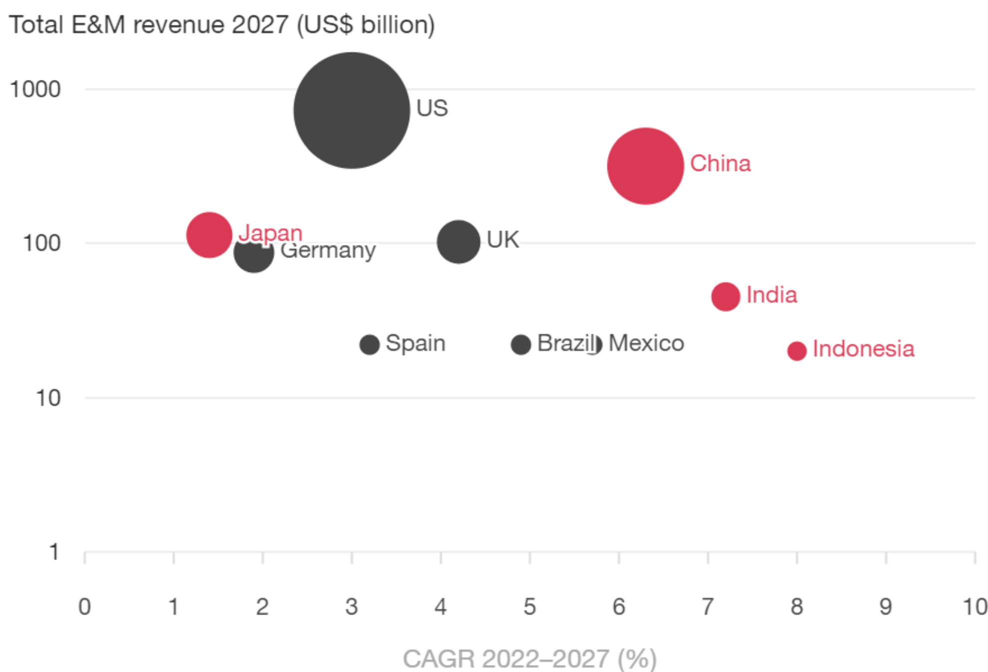

Fig. 27. Source: PwC's Global Entertainment & Media Outlook 2023-2027, Omdia

Growth hotspot: games

The gaming industry is one of the main in the macro global area of entertainment and media. This sector is in a continuous expansion and continuously attracting the attention of different demographic bands, but especially young kids. Games are confirming themselves as a mean for creativity and the expenses of consumers and advertising are a consequence of this process.

It is forecasted that in 2023, the total revenues of the gaming industry will go from 227 billion of dollars to 312 billion of dollars in 2027, with a CAGR of 7,9%. With an increasing trust in this sector, advertising cash flows should double from 2022 and 2027 and reach 100 billion dollars in 2025.

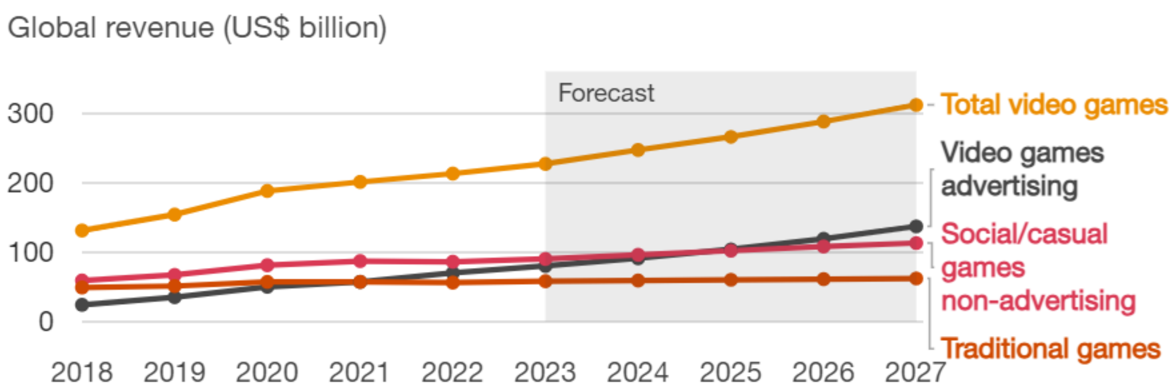

Fig. 28 Source PwC's Global Entertainment and Media Outlook 2023-2027, Omdia

As a demonstrating consequence of the growing centrality of entertainment and media experiences, videogames became material of a fundamental importance and a starting point and inspiration for some of the most popular films. Those based on intellectual properties (IP), have registered records in terms of revenues in the Northern America geographical area. For instance, Sonic the Hedgehog 2 of Paramount and Uncharted of Sony's property. In 2023 Mario Bros movie has been the first film based on an videogaming IP property to make revenues of more than a billion dollars worldwide, becoming one of the 20 films with most revenues ever of all time. Netflix, in this sense, has at least five films with a gaming IP in work in progress or production. Parallelly, The Last of us which is an HBO series that became famous and gain a lot of prestige and acclamation from the critics, have confirmed the power of videogaming films and video games in general as assets.

Growth hotspot: all things live

After a period, which lasted for a long time, where the chances of living the entertainment and media was strongly limited, live sectors finally started to grow again, and they are ready to overcome entertainment and media sector in its totality.

Taking into consideration all the sectors operating vertically below the wider category of live events in the consumer's space, pre-pandemic levels will be reached in 2024, when revenues will be almost 69 billion of dollars, compared to almost 67 billion of dollars in 2019. Until 2027, revenues of live experiences, will grow at a CAGR of 9,6%, which is the CAGR foreseen for the total revenues of consumers, 2,4%, multiplied four times.

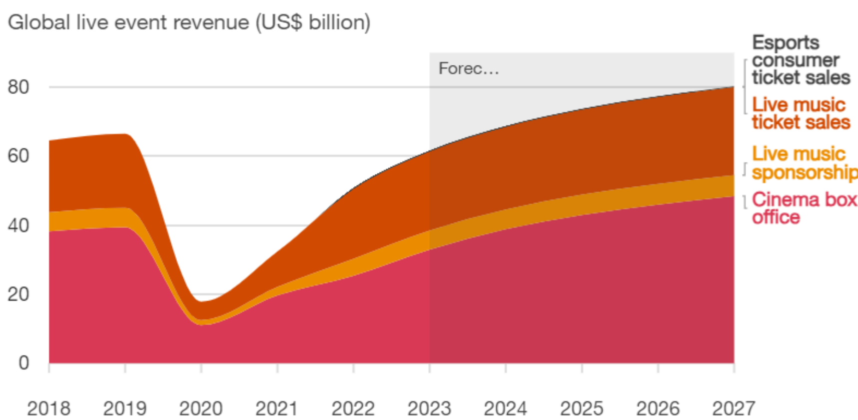

Fig. 29. Source: PwC's Global Entertainment & Media Outlook 2023-2027, Omdia

Revenues coming from the cinema industry, will reach pre-pandemic levels within 2025, when around 43 billion dollars will be reached, rather than almost 39,5 billion of 2019, even thanks to the growth of attendances around the world every year. For instance, the elimination of restrictions which were imposed during the pandemic, in China, provoked an incredible peak of attendances at the cinema's selling points because of a special occasion: the Chinese New's Year at the end of January. The greatest winner in this context have been the colossal that became immediately historical by becoming the more prolific film of the entire season in the country, Full River Red of Zhang Yimou.

Tickets for sports events generated revenues at the same levels of the pre-pandemic period, after being doubled in 2021 and growing at a rate of 147,8% in 2022. The championship called The International of Dota 2, which is going to be held in October 2022 in two different spots with a reach of over ten thousand seats in Singapore, has experienced an immediate sold out of the tickets. Among ten of the sectors in particular industries growing rapidly, revenues coming from selling sports tickets to consumers are definitely worth to be mentioned in the entertainment and media industry. The upcoming five years' CAGR registers a growth rate of 13,8%.

Revenues of live music events and cultural events are going to overcome the pre-pandemic revenues in 2019. For instance, just during the month of April 2023, there have been taken place concerts of a considerable reach, Bob Dylan's, Eric Clapton's, and finally one of the main local punk bands, the Starbems. Nita Mukesh Ambani Cultural Centre of Mumbai has taken place in India, during the same period, for the first time. It is a new type of location offering integrated experiences coming from multiple disciplines. During the inaugural event, some of the most important Indians' VIPs, but even international ones, fashion superstars and famous artists, have participated actively.

In the end, the capability of reaching this incredible numbers of attending people at live events, and especially sport events, it is a key source that has to be considered in growing rates. As a matter of fact, as said before, in markets which are particularly dynamic such as the Indonesian market of OTT, there are some actors who are competing with global great entities offering high quality contents. This is the case of Vidio, that in Indonesian OTT market offers services and contents like the Premier League coming from the UK. Vidio, in 2022 had 60 million of active users, thus becoming the streaming service having the higher growth rate of the country.
There are other cases of actors streaming shows or events which are played live in other countries. This is the case of SportTV, a Brazilian channel requiring a subscription in order to be seen, that through an agreement of license with Budweiser became the most viewed sport show in the whole country. Their strategy entailed the integration of the Brazilian NBA games together with other shows and services that they were already offering.

The new growth engine: Technology

The E&M industry is based on being fueled both by the man and supporting technologies that make it work. Over the years, the main discussed topic regarding technology in this industry has seen a focus on the switch from the analogical to digital and from fixed to wireless assets. There has been some settlement for some of the upcoming introductions in the market. This settlement is explained as a tendency to become flat, that has been entailed for the Internet. As a consequence, the introduction of the Metaverse which at the beginning was considered the future as a technology providing different and integrated services all together, once passed its hype phase, it is now experiencing its affirmation not as new social network but, as said before, it has become a more integrated gaming, entertainment and commerce reality.

The future is concentrated into the potentiality of AI, and which is going to revolutionize our reality rapidly quite soon. It is known to everybody the use of Netflix and Spotify of this strong tool used for addressing a more targeted service to consumers and a more targeted advertising distribution. But the generative AI is way further in this sense, the definition of the future.

Since the power of this resource is well known to the most important firms and corporations of this industry, everyone of them is investing towards that direction. After the first new wave of the use of generative AI introduced by OpenAI, ChatGPT, actors like Google with Bard, Bing for Microsoft and other firms like Meta, Nvidia, and Baidu have invested incredible resources toward its development, thus contributing to an incredible potential growth of this tool. Starting from the first user base, already more than one hundred million users have already began to work with this tool, using it for generating movie scripts, memos, limerick and even network of neural links.

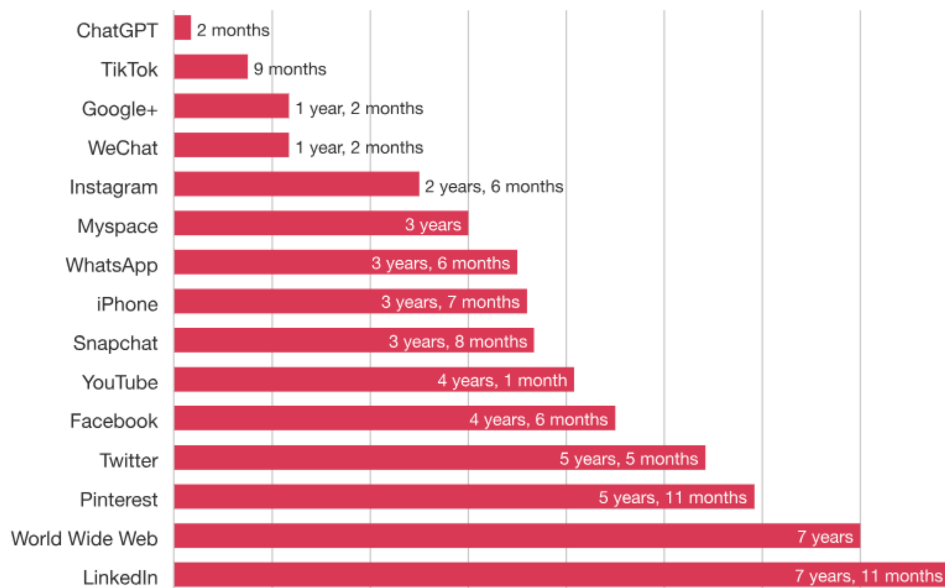

Fig. 30. Source: PwC analysis

Generative artificial intelligence has apparently been tailored made for the entertainment and media industry, which is always more digital. In particular its use is able to increase productivity, through the automation of activities and workflows. The rationale behind its use at the moment foresees the continuous substitution of mansions that are considered easy going, thus, giving the chance and opportunity to workers to focus on more important activities in terms of value creation. This process, as the previous industrial revolutions, will bring with itself cons and pros, starting from the

elimination of job positions but the consequent creation of new ones. Use cases of this tool foresees for instance the creation of different types of contents, the use of chatbox services functioning as old firms, operating through cable, supporting corporation through a service, or even virtual production having as a support cloud service still provided by the integrated offer coming from the generative AI.

Hence, this instrument is giving the chance to firms and people to think horizontally and not vertically, to think differently while putting effort in the production of contents. The experience is demonstrating that generative artificial intelligence can drastically increase the production of various and diversified elements charactering this industry. For example, it is useful to use it for the realization of movie or theatre scripts, sounds and voices, images and entirely gaming worlds at a minimum fraction compared to the costs and efforts that were usually entailed for these types of activities. This incredible production power forced Spotify to intervene in this direction to protect itself from the creation of songs and scripts.

Following the trend just exposed, corporations are always more trying to exploit the possibilities coming from the use of this powerful technology. There are different examples representative of what has just been said, starting from Nike using it for its campaign celebrating the 50th anniversary of “Never Done Evolving”, that saw Serena Williams, as the main protagonist, playing against herself during her career. Of course, even in India it has been cleverly used in order to allow brands to communicate and distribute their products in different geographical areas of the region, which are characterized by the use of different dialects and actual languages within still the same country.

Entertainment and media will be in first line when the use and sophistication of the use of the artificial intelligence will grow throughout the upcoming years. Because of the speed with whom it has been evolving and developing, its use has already stimulated the risen of questions regarding privacy of its users, intellectual property, environmental damages and ethical issues. Of course, it has even made firms, corporation and other actors, ask themselves if the adopted business model will last over time.
The role of writers and traditional artists is in danger with the extreme potentialities of this incredible tool.

Deals activity dips

These last years have been relatively calm in terms of merger and acquisition operations in the entertainment and media industry globally. In 2021 and 2022, different special acquisition purpose corporations, which gather liquid resources throughout initial public offers and use money to acquire private companies, have led operators into this sector such as BuzzFeed e Anghami in public markets. This bubble has exploded, and venture capital risk activity has reduced because of the deflation of public markets, that tanked private markets' evaluations. Moreover, the increase in interest rates has reduced firms' capabilities of finalizing transactions through a financial lever. There is a transaction highlighting this dynamic: Vice, multimedia start-up which had a high growth rate and was supported by venture capital firms, filed for bankruptcy and has been sold for a price of 225 million dollars in May 2023.

To the last case presented, it can be opposed the one that could be called one of the biggest deals of 2023: the subsequent investment of Microsoft for the development of ChatGPT Open Ai in January. The operation, having a value of 10 billion of dollars, is an extension of the partnership among two firms and it underlines the importance of AI as the engine of the future.

The necessity of building efficiency and scale it is still a source of great motivation standing behind mergers and acquisitions. For instance, 43 billion dollars operation among Warner Bros. and Discovery, completed in April 2022, has been followed by continuous efforts to restructure, reposition and reorientate the growth. The combined society has then renamed its core streaming offer with the name Max. In May 2023, Warner Bros. Discovery has announced that its first streaming service will reach yields an year before what was expected.

Hence, these kinds of transactions are still a great mean to obtain scale. In February 2023, the Commission for Competition in India, has approved with a reserve, the fusion of 10 million dollars among Zee Entertainment and Sony Pictures Entertainment, opening the road towards the creation of one of the biggest Indian conglomerates. The latter is comprehensive of television channels, digital platforms and contents production. In Japan, the biggest operation in the entertainment and media sector has been the merger among video streaming platform U-Next and Premium Platform Japan, operator of the OTT Paravi platform. Announced in February 2023, the operation created a firm with more than 3,7 million paying subscriber, that are going to represent a solid base to compete with OTT global giants.

There's a mega acquisition that is still pending, it highlights the growth vector represented by games. Acquisition proposal of Activision Blizzard from Microsoft, for almost 69 billion dollars, announced in January 2022, would unite a software's firms and a gaming one and it would represent Microsoft attempt in creating a metaverse using the capabilities of Activision Blizzard. Authorities of competition regulations in the EU have authorized the transaction, while UK and USA have blocked it. The major worry is represented by implications in the market for cloud gaming, while USA is worried about consoles.

Reconciling personalization and privacy, regulation and geopolitics

While governments around the world are dealing with implications coming from the development of new and powerful technologies, of whom the impact is still not certain and evolving continuously, there have been multiple attempts to limit and ban the sale of new products and services. Efforts made to regulate and autoregulate firms and digital algorithms are acquiring always more importance, since the entertainment and media sector is always going more and more to rely on these types of products and services.
The tracking service of Apple has been changed since 2021. These changes gave users the chance to renounce to the data gathering made from the applications, having an impact on the advertising revenues of important operators such as Facebook. The so-waited death of cookies has still been delayed, with Google announcing in July 2022, that its browser Chrome will continue to support third parties' cookies until 2024.

Digital dominance

Virtually all the growth in E&M revenue will come from digital products and services.

Digital Non-digital

Global E&M revenue (US$ billion)

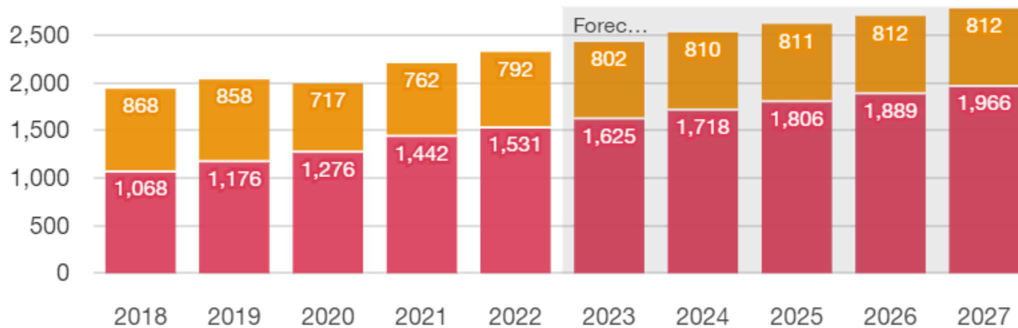

Fig. 31. Source: PwC's Global Entertainment & Media Outlook 2023-2027, Omdia

In this world with a more difficult tracking process, the key is going to be reaching people at the decision point rather than the purchase point. Thus, it is now on going a race towards finding a solution to offer consumers the related and compatible advertising, messages and personalized contents, allowing them to still remain anonymous. The majority of the activities has been focused on the creation of white chambers: safe spots for the data-gathering and data analysis, where information of personal identification of users are effectively made anonymous. The result is a way of personalizing advertising without the use of cookies, respecting the requirements of the general data regulation and protection (GDPR) of the European Union, according to this regulation, consumers data cannot be shared without their consensus.

There are even other techniques to make anonymous users, especially from firms D2C (direct-to-consumers), since they have access to a wide range of first-class data. These techniques comprehend the possibility of creating a mask over data, by make some of them hidden or editing some elements of the data making them not codifiable.

Regulatory escalation

With the GDPR which is still influencing privacy regimes in the whole world, the European Union has updated its rules on digital services, with the new law on digital markets. Both the acts became

applicable during the last part of 2022, with the goal of enhancing digital supremacy of EU and assuring safe digital services, open to everyone and equal. On the other hand, the USA is still trying to complete its version of GDPR, the American Data Privacy and Protection Act. If it is going to be made active, it will be the first complete federal law completed by the USA on data privacy, which will ensure a higher control and commercial use of personal data of citizens and users. In Australia, the government has been proposing a remodeling of laws on the privacy of the country, updating it in order to entail the right to not receive advertising targeting announcements, and to react to violation of that privacy and canceling personal data from where it has been released.

Artificial intelligence, considered to be the new regulatory frontier which has emerged rapidly. The Italian authority for the protection of data has set up a temporary ban on the use of ChatGPT in April 2023. The European Parliament has been working significantly to set up some milestones for the regulation of this powerful tool as already said before.

Even geopolitics is having an influence over these themes. For instance, in the USA and other west territories, some restrictions have been proposed towards TikTok, motivated by worries of the Chinese government having access to users' data. In May 2023, the Montana was the first American country to announce an absolute ban of the use of TikTok.

During the last year, the regulatory context, which was relatively restrictive for China, has experienced an evolution in the opposite direction for different aspects. For instance, during March 2023, the ban for the exhibition standing for Corean artists has been removed by the government. Under this allowance were included even K-pop artists, declaring that it was going to accept exhibitions of commercial foreign countries. The government released more than 200 approvals for licenses of gaming developers in December 2022 and January 2023, after having banned some of them between July 2021 and April 2022. Among the ones released, even some of the license's property of the market leader Tencent. Always in 2023, it has been abolished a ban that was effectively preventing the possibility of watching any type of Marvel movies. Hence, it was agreed the possibility to watch the movie Black Panther: Wakanda Forever which was launched at the beginning of February.

Conclusion: The creative imperative

By looking at the future, it is important to keep an eye on the bigger picture. Over the upcoming years there will be many other inflections point, over the continuous arise of advertising and digital growth. Another point that could be considered a turning one, will be reached in 2025 when the global penetration of the 5G will overcome the 4G's.

During a period of moderated growth, corporations must keep re-evaluating and re-orientating their activities if they want to avoid another restructuring. Although actors of this market have always had to be agile and resilient to changes, now it is way riskier and more necessary to keep doing that. As in perspective, the evolution of consumer's behavior, the constantly changing regulatory environment and the instability caused by new technologies, will generate issues in terms of assurances that have been taken for granted up to now. These instabilities as usually happens in the markets, will create room for new opportunities.
Hence, there are some issues that have to be addressed for corporations and questions that have to be asked. Will efforts in data protection be enough to limit the use of artificial intelligence in addressing targeted advertising to consumers? Do new virtual reality developments will give birth to the basics for a new rapid growth in the sector? Are smart stadium going to be able to provide a new platforms to combine the potential of events in real life and digital services?

Whichever is going to be the path to be taken, the imperative is to address and use as a lever an innovative thinking process. E&M industry has always been characterized by being a creative one. But now this creativity has to be addressed transversally as a thinking process in different dimensions to then be exploited for a specific reason. Over the next-coming years, leaders will need to be creative in generating new business models able to overcome the existing one, considering the investments that have to be made, the timing and the growth that will have to be fueled.

2.5 ESG in the Media and Entertainment industry

The most relevant risk for the media industry is the social[91], because of the exposure of broadcasters and the growing dependency from the involvement of clients, from data security to social cultural movements.

Most common risk, that are most systemic entails regulation of contents, social activism and risk of the key man. Governance risks have emerged for specific corporations, for instance CBS Corp and Twenty-First Century Fox Inc, but overall, they are neutral in this industry.

Social exposure

As said above, the most relevant ESG category for corporations of the media industry is the social risk. Environmental issues are important too, but they are considered case by case, depending on the nature of the operative environment and from the organizational behavior of every firm.

Social risks in the media industry are pronounced and systemic, Common risks include clients' privacy, data security and regulations over contents and social activism. The risk for data privacy and safety is substantial for the majority of the media industry societies and for the protection of intellectual property. For instance, advertising targeting models gather data of customers that have to be kept safe, in terms of privacy, and different firm develop and trust private intellectual properties that have exclusive rights to use. Any kind of stolen data or intellectual property of customers could have negative impacts on the reputation, on the competitive advantage and profitability of these firms. Moreover, now that content firms look for a more emotional and not traditional entertainment, they could endure kickbacks or negative feedback from clients. Furthermore, regulating authorities could enforce monetary fines, or in more extreme cases, revoke television licenses (mostly in the United States, where private societies can hold broad tv stations). Socia media, in particular micro-blogging has proliferated. Societies of medium-high profile, or high-peak actors of the media industry take the risk of possibly finding their image damaged and reduce growth perspectives and cashflows.
Finally, firms that produce contents are most likely bound to their key people, thus creative talents and charismatic leaders. Without them, it is uncertain if those organization would be able to keep key sales relationships and comparative advantages related to the creative contents.

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[91] Report Card del settore ESG: Media e intrattenimento | S&P Global (spglobal.com)

Environmental exposure

The total absence of environmental risks in the industry, is related to the low and indirect use of feedstocks and a relatively minimum waste production for the majority of the broadcasters.
For instance, firms such as cinematographic studies, advertising agencies, broadcasting televisions and radiophonic produce minimum waste thanks to their attention to the creation of contents with their intellectual property and their distribution through consolidated networks.
Although this industry has suppliers of media based on the press, such as journals, magazine editor's and printers, that release liquid and solid waste in their production processes, generally speaking there's a reduction in environmental risk for these firms.

Governance

Governance is kept under a special eye, in terms of risks, especially taking into account the number of corporations in the media industry with controlling shareholders. Even while considering governance risks neutral for the sector, every corporation goes under control.

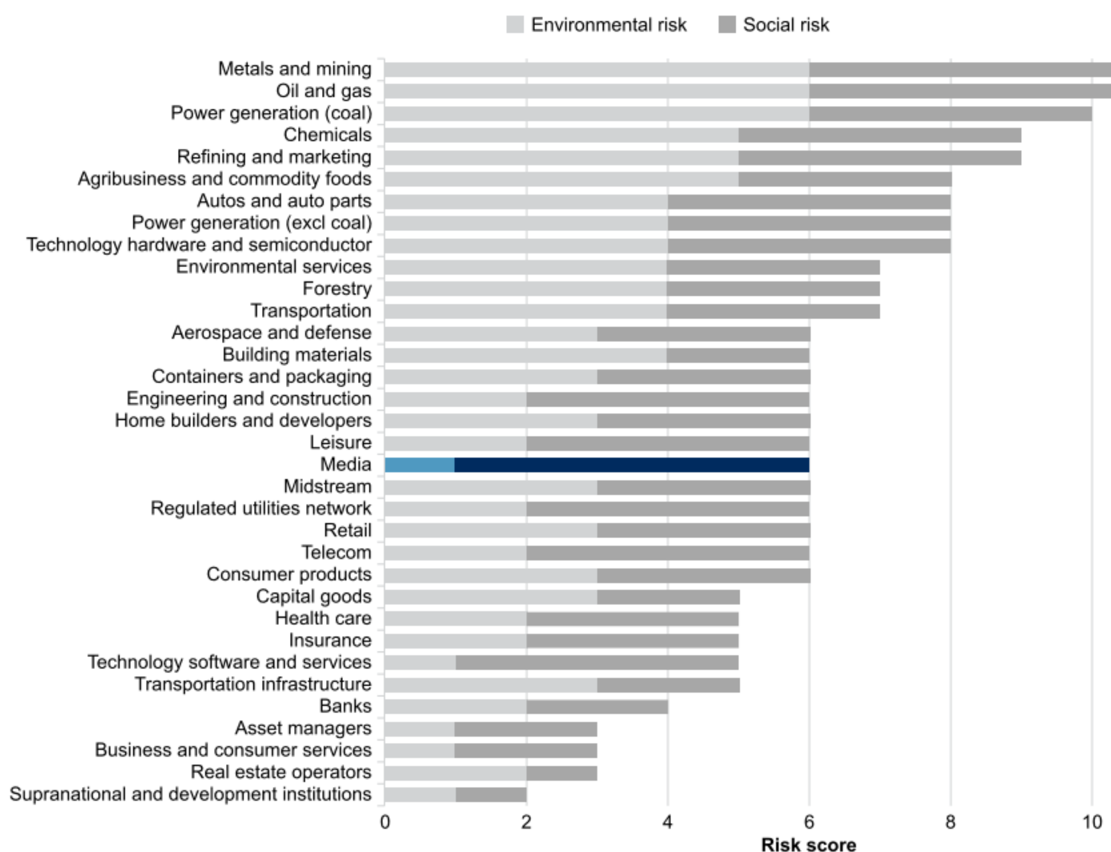

Fig. 32. Source: S&P Global ratings

2.6 M&A in the Media industry

- Due to the evolution of this industry, in terms of growth rate and upcoming technologies, to retain customers firms are acquiring companies that allow them to go further the simple production of audio and video contents.
- The cross-sectorial growth will be different depending on the geographical market. For instance, WeChat, one of the most famous platforms in China, it's way ahead on the growth curve of this process. It blends all together, games, retailing experiences and social media.
- Firms in this industry, which reach different consumer's sectors through a global network for the production and consumption of contents will be best positioned to capture, hold and monetize the high-rate consumption of consumers.

The trend in the last five years (D. Hong, L. Colombani, N. Magoon; Media M&A Deepening Customer Engagement through adjacencies; 2022[92]) have been characterized by scale mergers and acquisitions in the media sector. The necessity for any firm, due to the incredible appeal that it has been acquiring due to the digital transformation, is to experience the transition to the direct-to-consumer (D2C) and to the streaming. Now, economic sustainability will depend on the capability of retaining Direct to Consumer clients and to improve the engagement with them, extending the media boundaries way over just audio and video, in industries such as videogaming, fitness, betting and entertainment based on the location.

Some of the major platforms in this industry are growing exponentially and making their entrance into other businesses[93]. An example is Netflix's entrance in the gaming industry, which is just the beginning and the reflection of the next wave of mergers and acquisitions.

In this hectic run towards the addition of new mediatic offers, way of involvement of consumers and geographical areas, some firms are in a better position to expand organically to great users bases and to dive into other sectors. This might be the case of a successful intersectoral expansion with a strong technological orientation. On the other hand, others need to grow selectively through partnerships, especially if some of the most interesting bonds with intellectual property go beyond their core offer. This is why it is growing even the interest in mergers and acquisitions operations.

[92] D. Hong, L. Colombani, N. Magoon, Media M&A: Deepening Customer Engagement through Adjacencies, 2022
[93] Media M&A | Bain & Company

It is forecasted that this movement of change will be translated into an increase in activities such as mergers and acquisitions in the media and entertainment industry, especially for lower entity operations. Anyways, when firms pursue scale operations or partnerships to join new activities, they learn that the rules for these deals are different from acquisitions aiming at building a scale in a similar activity.

Giving consumers and integrated experience

This trend comes from the awareness that consumers are always more multitasking through media, and they perceive value in mixed and unified experiences, and the fact that mega-media platforms will have different look in different parts of the world. In the United States for example, they will These platforms will take the form of links to social media with popular tv shows or gaming experiences related to people's favorites artists. While in China, where the mega-platform trend emerged and where it actually was born in the first place, there's a universe in completely integrated apps, such as social media merger, gaming and retailing experiences of WeChat in a single platform.

To the inter-industry growth, it is possible to add the inter-regional activity. Consumers connected to an online global community, have now an additional exposition to a diversified base of contents. It is possible, as a reference, to think about the establishment of K-pop music in the American music charts or to the popularity of Turkish dramas in Spanish language televisions. In this new era, media firms that are easily reaching consumer sectors with a global network for the creation of content, will be best positioned in order to capture the value perceived by consumers in these types of activities.

The regional view

Even though, globally a great number of firms are moving towards that direction, there are specific countries and corporations that are way ahead of this shift.

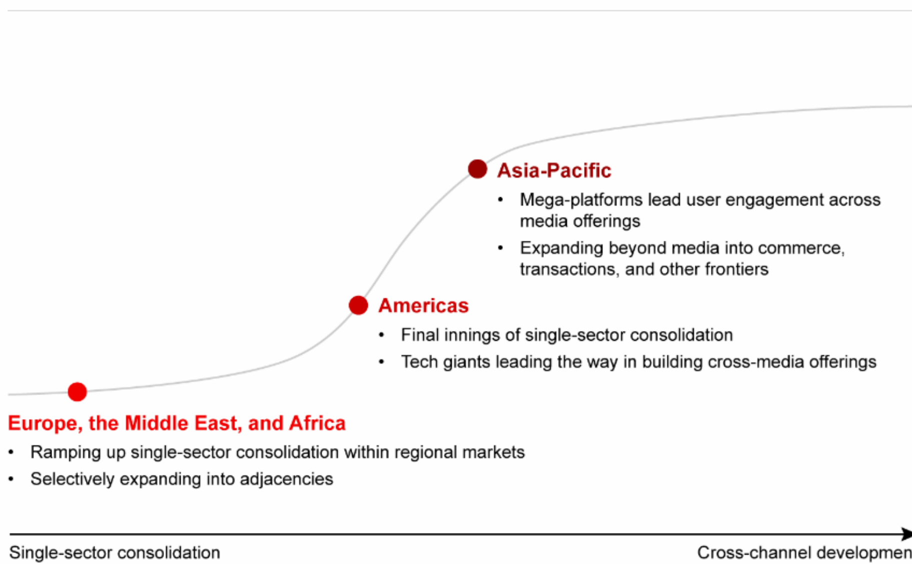

Fig. 33. Source: Bain & Company

Asia is where the concept of mega-platforms was born. Even in this case, the ecosystem of WeChat offers social media functionalities, gaming and other services belonging to industries outside the media's, such as retailing selling. WeChat have changed the market's power sources, creating realities strongly unified that have a great influence on the market.

The trend is not only to think at an inter-sectorial level, but even to a global one, trying to get the best assets and it is extended even to other more specialized firms. For example, the music South-Corean firm HYBE, that already produces recordings, live entertainment, publishing and other, have acquired Ithaca Holdings of Scooter Braun, to grow and expand its global reach even further to the United States.

Even if they are not as developed as some of the Asian conglomerates, some of the biggest American firms in the media and entertainment industry, are recognizing the necessity of creating new platforms and new technologies in order to make the boundaries of this sector fade away. The tail of the mono-sectorial consolidation goes on, with operations such as the announced acquisition of Activision from Microsoft, the Warner Media-Discovery and Televisa-Univision merger. Media and entertainment firms that will be more resilient know that to hold a competitive advantage in relation to consumers' satisfaction of their needs is necessary to think in a broader way and to look far.

The majority of social media corporations are heavily investing in augmented/virtual reality, into the Metaverse and social commerce, for instance the recent rebranding of Facebook in Meta is a huge step towards this direction. Taking into consideration videos, by keeping in mind the expansion of Netflix into the gaming industry represents a similar move. Even though its first steps into this field were related to bonding organically together with video contents, it seems like Netflix

is expanding what probably will be a wider offer with the acquisition proposal of Night School Studio.

Europe, Middle West and Africa are at the beginning of the creation of cross-media platforms. The majority of the most important deals are still pushing towards consolidating in a single sector. In the video industry, the merger among Groupe TF1 and Groupe M6 has been supported by investments plan in live streaming and subscription to video on demand. Lastly, these agreements are going to extend and move not only in the direction of digital future of their belonging sector, but even towards other new media frameworks. In 2021, Bertelsmann decided to unite its television and publishing divisions, Mediengruppe RTL Deutschland and Gruner + Jahr, in Germany, to support the expansion of its streaming platform, RTL +, over video in a diversified portfolio of digital contents.

Asking the right questions

Whichever is the geographical area where it is located, the trend towards bigger platforms able to offer to consumers a suite with a wide range of experiences, both if it is considered a mega-platform and if it is considered a single consolidated industry. When regions get to the mega-platform phase, however, executives have to go through scale deals, that have usually guided the growth of the sectors, to scope deals that will guide and give new breath to the future growth with higher probabilities. As a matter of fact, it has to be recognized that these types of operations and deals require a different methodology and framework compared to scale acquisitions in a already existing activity,

Thus, it is necessary to consider an important issue: from the point of view of the brand and equity of the consumer, is it the firm actually a credible seller of this new service?

Hence, it is a key factor, to invest in trying to comprehend clearly the needs of consumers in the region: the client base and the target acquisition goals availability. What is the offer that relate to what segment of consumers? For instance, consumers of the gaming services of a firm won't necessarily need the same offer of the ones subscribed to Netflix.

Is the firm credible for offering this new service?

It is fundamental in this sense to understand what are the enabling factors (rather than just bundling), to provide a cross-sectorial experience. If the offer entails video and music, what is the

integration that will serve perfectly consumer's needs? Are the recommendations equivalent for any of them? Furthermore, it needs to be taken into consideration the chance of changing the operating model, to allow cross-spillover and a much deeper necessary integration.

Some managing teams don't have the adequate experience to switch from video to music for example. Thus, evaluating the capabilities for technological expansion is a key step to analyze. Especially if the firm is not equipped appropriately to acquire a firm in a big reach operation and to merge it without a solution of continuity. They need the preparation that could come from a joint venture or a partnership.

The motivation and trust of financial markets it's another key element. If the profile of the new potential consumers is different from the profile of the core service consumers than there is the risk of reducing the multiples: it may cause destruction of value.

In conclusion, a solid strategy can be defined when it can recognize even when to not seal a deal that might not be successful or appropriate. Hence, instead of rushing towards this kind of operations, such as mergers and acquisitions, the best solution might be to considers partnerships or joint ventures as a first step towards the direction of the construction of a mega-platform. Lastly, resorting to M&A deals has to be finalized to enhance the strengths points of a firm a not to cause a huge flop.

2.7 CSDDD: Corporate Sustainability Due Diligence Directive

On 24 March 2024, the European Parliament has adopted the definitive version of the Corporate Sustainability Due Diligence Directive (CSDDD)[94]. It occurred following the publication of the proposal of the European's Parliament and the European's Counsel Directive related to due diligence obligations of firms related to sustainable objectives. The text received 374 votes in favor, 235 contrary votes and 19 abstentions, thus obliging firms and related suppliers and corporations' upstream and downstream partners (thus both suppliers and distributors) to the prevention, and attenuation of different activities that will be introduced in the following paragraphs, that have a negative impact on the firm's image. In particular, this directive has provided further guidance to the (EU) 2019/1937 old directive. Starting from the date when this directive is going to be

[94] CSDDD: ok dal Parlamento UE al testo definitivo della direttiva sulla due diligence - ESG News

published on the European Official gazette, member states will have at their disposal a period of two years for the transposition of the text in the national law.

What is the main goal of this directive?

The principal objective of the CSDDD, is from a certain extent, to increase the responsibility of firms for the negative impacts, both to an environmental level, and referred to social aspects and human rights, in order to guarantee coherency to societies for what is concerning obligations coming from EU existing initiatives and proposed in corporate social responsibilities themes.
On the other hand, the goal of the directive is to improve the access to legal remedies for subjects interested in negative impacts of the firm's behavior on human rights and environmental themes.

First of all, the core object of the CSDDD entails obligations related to negative impacts on human rights and environmental themes. Being those effects either effective or potential, incumbent on firms in the environment of their activities, of the activities of their subsidiaries, of the supply value chain with whom the society have some consolidated business affairs and lastly considering the responsibilities in the violations of those obligations.
Anyways, the present directive cannot be adduced to the reduction of the level of care regarding human, environmental or climate rights foreseen by the internal law of Member States at the moment of its adoption.
As a second point, addressed subjects of those obligations will be societies constituted in accordance to the internal laws of Member States satisfying one of the following conditions:

I. Having on average more than 500 employees and a net global profitability of more than 150 million euros in the last financial year for which the balance sheet has been drafted
II. Even without reaching minimum limits related to letter a), having had, on average, more than 250 employees and a net margin globally of more than 40 million of euros in the last financial year for which it has been drafted the balance sheet, though having at least the 50% of that net turnover being generated in one of more than one of these following sectors:
    i) Fabrication, leathers and related products;
    ii) Agriculture, forestry, fishing, cattle, lumber, food and beverage
    iii) Extraction of mineral resources independently from the location where they have; been extracted, manufactured mineral nonmetallic products and metallic products.

The Directive will be applied then, even on firms constituted in accordance with the regulations of a third party country, satisfying one of these following conditions:

I. Having generated a net margin of more than 150 million of euros in the European Union in last financial year's previous year;
II. Having generated a net margin of more than 40 million of euros but not higher to 150 million of euros in the European Union in the last financial year's previous year. At least, 50% of the net margin of the global corporation though, should be generated in one or more than one of the sectors show previously in point number two.

Anyways, the application of the obligation of the Directive, will occur progressively:

- Starting from 2027: firms with more than 5.000 employees and a net margin of 1.500 million euros;
- Starting from 2028: firms with more than 3.000 employees and a net margin of 900 million of euros;
- Starting from 2029: all the other firms that should be recipient of the directive's potential targets.

Speaking of the obligations foreseen by the CSDDD, all recipient firms must include the due diligence obligations and arrange a due diligence politics. The latter foresees all the following elements:

a) Description of the approach of the societies submitting to the due diligence obligations, even in the long-term;
b) Conduct code that illustrates regulations and principles to whose employees and subsidiaries of the firm have to abide;
c) Description of the disposed procedures for the due diligence's obligation, including measures adopted to verify the respect of a code of conduct and extend its application to the consolidated business relationships.

Member states must then vigil over the update of the due diligence policy by firms with an annual cadency.

A second obligation disciplined by the Directive, entails the identification and evaluation of human rights negative impacts and environmental potential and real negative impact. For instance, it might be related to child labor, labor exploitation, pollution, deforestation and damages to ecosystems. These obligations imply the adoption of adequate measures to the execution of a deep evaluation of operations aiming at identifying general areas where it is most probable to encounter the highest negative impact.
Another obligation is for firms to carry on an efficient involvement of interested parties through transparent and efficient consultation. Interested parties are the employees of the firm, employees of the controlled firms, labor unions and consumers.
Firms will then have to adopt all the necessary measures in order to prevent potential negative impacts on human rights and environmental issues. These prevention measures disciplined and ruled in the Directive are:

I. Set up and carry on an operational prevention plan that entails reasonable, precise due dates to intervene and qualitative and quantitative indexes to assess progresses that have been reached;
II. Asking commercial partners with whom it has a direct business relation, assurances and contractual warranties related to the respect of conduct codes of the firm;
III. Offer a targeted support, proportioned to the PMI taken into account, with whom it has a consolidated business affair, whenever the conduct code is not supported in a business affair, or the operational prevention plan might generate a negative impact for the economic sustainability.

Lastly, it is foreseen a verification obligation, monitoring and evaluation of the efficiency of the adopted measures. Firms must carry on periodic evaluation of the *due diligence* measures for their operations and within the supply value chain. This process is useful to evaluate the implementation, efficiency of identification, prevention, mitigation, termination, and minimization systems of the negative impacts. Evaluations should be based on qualitative and quantitative indexes and information coming from the interested parties, accounting the policy conformed to the dispositions of the CSRD (EU) Directive.

In conclusion, recipient firms of the obligations foreseen by the CSDDD will be responsible for the damages caused on people and environment, whenever they are not going to respect, intentionally

of for being negligent, their *due diligence* obligations regarding the mitigation and prevention of negative impacts.

3. Quantitative analysis

In this chapter it is going to be studied the potential impacts of the ESG combined score in the sustainable value creation process occurring in mergers and acquisition practices. To be more specific the hypothesis and the research question are willing to analyze:

H1: Does combined ESG score variation before and after the acquisition influences the acquiring firm's stock price and ROA in the Media and Entertainment industry?

In the paragraphs below, starting from the literature review, it is then going to be explained how the data has been gathered, what the methodology has been and lastly the result deriving from the analysis made.

3.1 Literature Review

How to improve the economic sustainability and the creation of sustainable value through sustainable business models is one of the main corporate issues nowadays. Sustainable issues have been gaining an incredible increasing interest for both entities directly involved in the protection of the environment and utilities corporations, those making legislation related to these themes, but it has been including even those activities not directly involved but still having interests in making an effort to invest in them and exploit the new opportunities coming up (Abbasi and Nilsson 2016[95]; Rao et al., 2015).

[95] Abbasi M, Nilsson F (2016) Developing environmentally sustainable logistics: Exploring themes and challenges from a logistics service providers' perspective. Transpo Res Part D 46: 273–283.

Over the last years, the value of environmental management[96], especially in the last decades, has been constantly growing. As a matter of fact, the rapid climate change and the consequences that it brought, the numerous scandals coming from corporations' decisions and accidents, have pushed firms in the whole world to improve different dimensions of their performances. Thus, following a certain thinking process shared by many, by taking care and improving sustainable practices and making an environmental effort, a firm is able to consequently have its image influenced positively. As it is known, improving the firm's image can lead to various improvements, starting from the creation of moral capital and creating value in general (A. Salvi, F. Petruzzella, A. Giakoumelou, 2018[97]). These elements might be useful in terms of reduction of reflections and fines that stakeholders could pretend from the firm whenever some of their behavior could cause negative effects in terms of moral and ethical decision making (Godfrey 2005[98]). To this extent, the referring picture of the stakeholder's theory seems useful to decode the relationship between sustainable practices and the performances of an operation of acquisition.
Indeed, following this theory a firm is a complex network of stakeholders whose interests should be satisfied integrally in order to consider its scope and objective reached (Pitman, Freeman, 1984[99]).

Following what Freeman said, further on (Bettinazzi & Zollo, 2017[100]) it has been observed that stakeholders' opinion within a firm might influence the decision-making process, especially considering these types of decisions, which are of a certain reach might having an influence for the firm in its totality. As commonly known, mergers and acquisitions have a great impact on firms' performances post conclusion of the operation. This is the idea at the bottom of this research. The goal as a matter of fact is to evaluate if sustainable indexes, having an influence on firms' images, are drivers for the value creation, and particularly the sustainable value creation measured in post-performances indexes. In this case though, the acquisition of a firm is going specifically to influence both performances of acquiring firms, which is going to be measured through specific indexes, and their image in terms of ESG score, which generally is strictly under control by stakeholders due to the trends mentioned before.

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[96] *Green M&A Deals and Bidders' Value Creation.pdf

[97] F. Petruzzella, A. Salvi, A. Giakoumelou, 2017, THE IMPACT OF NATIONAL CULTURE ON CORPORATE ENVIRONMENTAL PERFORMANCE: How much does your origin say about how green you are?

[98] The Relationship Between Corporate Philanthropy And Shareholder Wealth: A Risk Management Perspective, Godfrey 2005

[99] Strategic management: a stakeholder approach; 1984, Pitman, Freeman

[100] Bettinazzi, Zollo, 2017, Stakeholder Orientation and Acquisition Performance

Unfortunately, factors that are able to explain post-performance acquisitions are still not clear due to the various differences characterizing the relationships between stakeholders and firms and consequently how the priors influence firm's performances. Moreover, due to the absence of a standardization among the ESG scores, there is uncertainty regarding how by using one of them instead of another can make this assessment of the post-performance value creation vary, once observed the existence of this direct relationship of course.

Mergers and acquisitions and the analysis of the consequences they carry on with themselves have always been an interesting topic of study for the literature starting from the seventies. Nowadays it is still a central topic for corporations' financials and strategic management (Bettinazzi & Zollo, 2017; Zollo & Meier, 2008[101]), due to the magnitude of these operations and the influence they have on the market. It has been declared that there is not a factor or a structural equation able to capture post performances of mergers and acquisitions as a proxy that could be used with no adaptation due to the multifaced nature of these types of operations.
Lots of studies have been taken on these themes, and many of them analyze the effects of mergers and acquisitions on post performances indexes of targets and acquiring firms. In general, as observed by the existing literature, M&A operations generate value for a firm, thus clearly having a positive effect. To be more precise, in the literature it is clear how mergers and acquisitions will have positive effects on the target firm since acquiring firms will have to pay, or generally will offer, an higher price for the acquisition of the target's firm shares. This occurs because, they will have to buy the majority of the shares, or the majority of shares having control powers, to have the decision-making power and a control over the targeted acquired firm (Jensen & Ruback, 1983). Differently from the first one, it does not exist a uniformed opinion on the reflections of M&A operations on the acquiring firm. To be more specific, it is still not known its influence and impact on the stock price of a firm (King et al., 2004; Papadakis & Thanos, 2010; Zollo & Meier, 2008).

According to some authors, the creation of value is generated because of the increase in the dimension and consequent consolidation of the target firm within the acquiring one. The success of public offers, to be more specific, lead to the creation of value through the implementation of synergies and optimal allocation of resources among participating firms. This process usually is considered an improvement of the activities of the acquiring firm, and consequently its yields, which of course is the result expected and desired when the decision standing behind the operation

[101] Zollo; Meier; 2008, What is M&A performance?

was made. In particular, the advantage is measured and observed when the acquiring firm transfers its resources in a single location, that's the moment when the improvement in the performance is measured (Barney, 1991; Capron & Pistre, 2002). It might sound obvious but if the two firms remained separated and operated without integrating the two cultures, resources, and strategy, the synergies weren't going to be exploited to their fullest. Nevertheless, the majority of the studies in this field suggest that the destruction of value is the most frequent result, in this type of analysis of cases of M&A activities, for acquiring companies (Jensen, 1991; Capron & Pistre, 2002).

At this point, literature on firm's performances after an operation of this type is quite wide, what is missing is strictly the consensus on effects of this operations on the performances of firms (Papadakis & Thanos, 2010). In many studies, the performances have been defined as an amount of value generated by the acquisition and that will be reflected positively on the acquirer, as a result of this activity. It is a topic considered full of elements that have to be considered together, thus it is a complex system. For this exact reason, it is hard to find mutual elements, among the authors, to use in the analysis as standards in order then to declare a sort of unanimity concerning the analyzed topics and variables. As a matter of fact, there are multiple variables which need to be specified, that could have a moderating effect in this direct relation among the acquisition activity and the performances that come immediately after that. In general, it is possible to say that there is a need of a more detailed, integrated, and additional analysis, trying to find a more structured and uniform path (Zollo & Meier, 2008).

There are many indexes of performance that academics have been using, throughout the time, to study the effects of activities such as mergers and acquisitions on financial results of corporations, The main ones that have been used are both measures stemming from the market, for instance Tobin's Q or shares yields, and accounting ones such as Return On Assets (ROA), Return On Equity (ROE), or Return On Sales (ROS). Sometimes they provide opposed or conflicting results, so it is important to analyze them separately at first to understand the rationale behind them and then look at the bigger picture (Bettinazzi & Zollo, 2017; Zollo & Meier, 2008).

Although, the great amount of scientific research, that already have been led around these topics, at the moment there are quite a few studies strictly around how M&A activities are influenced by

environmental responsible operations of mergers and acquisitions, since it is a reality considered quite new (Chan & Walter, 2014[102]; Eisenbach et al., 2011[103]; Lin & Wei, 2006; Yoo et al., 2011[104]).

The concept of corporations' ethics has been analyzed in various fields of social sciences, as in the management of information, marketing and the management of human resources. On the other hand, its impact is not still clear among researchers and professionals as said above. Among the studies made, the most relevant, entails the topics above mentioned, they are mainly referred to conceptual issues around the ethical rationale behind M&A activities carried out. To go further in detail, in this field, the topic that has been mainly analyzed by authors is the "greenium" (green premium) that acquiring firms are willing to pay to acquire or merge a firm that is mainly involved in green activities as a core activity or that in general has a great green score. Thus, it is possibly a powerful influence in this sense for the acquiring firm. This premium is usually obtained by the difference between offering price and the market price of the target firm (Chan & Walter, 2014). Firms that are considered to be stronger, resilient and most promising in terms of creation of value, following the regulations standards explained in the first chapter, are the ones carrying out ESG activities and thus having an higher score in this field. As said before, having a high score in terms of ESG standards it is valuable to the stakeholders and potential investors, this relation is going to create value for them in the market as just explained.
Empirical evidence confirms this link. Hence, firms that manage properly the activities and initiatives in this field, and that are dedicated even into communicating them to the public, will have a positive and most probably higher yield and profitability than firms which are not engaged in this direction and do not put enough effort in managing environmental, social and governance practices (Jo & Na, 2012). Still, there have been even less research and studies related to the impact of green deals on post-performances effects on the acquiring firms.

As underlined by Mirvis (2011)[105], acquirers might gain advantages if there is going to be a cultural integration in the long-term perspective that will allow the exploitation of all the possible synergies among the acquiring and targeted firm. Taking this for granted, mergers and acquisitions considered "green" might have an influence over ratings of the acquiring firms who are willing to increase their effort in that direction and increase their corporate social responsibility through external links and

[102] P. Chan, T. Walker; 2014, Investment performance of "environmentally-friendly" firms and their initial public offers and seasoned equity offers
[103] Eisenbach, S., Ettenhuber, C., Schiereck, D., & Flotow, P. (2011). Beginning consolidation in the renewable energy industry and bidders' M&A – success. Technology and Investment, 2, 81-91.
[104] Yoo, K., Lee, Y., & Choi, H. (2011). Effects of M&A in the Renewable Energy Sector: An Event Study Analysis. Department of Energy System Engineering, Seoul National University
[105] Mirvis 2011, Merge Ahead: A research Agenda to Increase Merger and Acquisition Success

interactions. It has been observed a positive link between the effort in Corporate Social Responsibility and the greenium consequently generated and perceived from targeted firms' stock price in an operation that could be considered "green" (Gomes & Marsat, 2017[106]).
Moreover, there is a PwC's study of 2012, that confirms this relation, providing support through quantitative proves that CSR is an added value. Furthermore, even performances RSI aspects from the targeted firm deeply influence the evaluation of the acquiring company.
There is a positive relationship that has been found between sustainable efforts of the targeted firm, over topics such as job places' safety, justice and safety of employees before and after the operation of merger and acquisition. The explanation might be because firms with an higher CSR effectiveness and efficiency are able to create an higher goodwill. The latter is useful whenever negative events could affect the firm under different profiles like its image but even more practically its performances. This dynamic could prevent any damage to the performances and avoid an increase in the risk for a firm, preserving its overall value for shareholders and stakeholders in line with the CSR theory.
This concept is once again confirmed by Bettinazzi & Zollo (2017), since they found out there is a positive relation between firms oriented towards stakeholders and the results reflecting on the indexes of a firm after an M&A activity. The goal of this research is to study if, in the medium range, they can offer additional information already present in literature, compared to the normal merger and acquisition deal, regarding the improvement of the value creation for the return on assets of acquiring firms in green deals. This index is quite sensitive to distortions, in the financial lever or the contractual power caused by acquisition, being dependent on accounting dynamics (Barkema & Schijven, 2008[107]).

To explore the impact that these types of operations have on the performance of the acquiring firm after the deal, it could be analyzed directly the sustainability of the targeted firm, still following Bettinazzi & Zollo (2017), who find support in the positive relationship between stakeholders and the acquisition's success. The same for Lin & Wei (2006), who underline the centrality of firm's ethical issues as an assessment of the acquisition's performances. Moreover, the totality of the researchers all agrees on ROA's trustworthiness as a proxy for profitability in this field of research (Cording et al., 2010; King et al., 2004; Papadakis & Thanos[108], 2010; Zollo & Meier, 2008).

[106] M. Gomes, S. Marsat Does CSR impact premiums in M&A transactions? Financ. Res. Lett., 26 (2018), pp. 71-80
[107] Barkema, H., & Schijven, M. (2008). Toward unlocking the full potential of acquisitions: the role of organizational restructuring. Academy of Management Journal, 51, 696-722.
[108] Papadakis, Ioannis C. Thanos 2010, Measuring the Performance of Acquisitions: An Empirical Investigation Using Multiple Criteria;

To provide a clear bigger picture, it might be useful to provide an overview of what literature have been studying for single industries. Starting from the main involved industry in terms of mergers and acquisitions operations let's introduce the "Utilties". "Becker Blease et al; Berry; Bartunek et al.) It has been found out that there are high yields and returns for acquiring firm's shareholders of a big dimension, negative yields and returns for small entities and significant returns and yields for combined entities of a dimension that could be defined of medium size. Abnormal returns have been observed even from cross-border transaction corporations of the automotive sector (Mentz & Schiereck, 2008[109]). Deals made in the high-tech industry, on the other hand, tend to have a negative impact on the returns of acquiring companies. The last even is explained probably by the perception of the markets that bidding firms are offering a price, compensating a greenium, which is way higher than their expectations (22).

Let's now introduce some evidence regarding the private companies. The majority of the studies on mergers and acquisitions are mainly focused on public targets, even though the 80% of the deals entails the inclusion of a private firm or a controlled entity of a private firm (23). There are different relevant proofs of the fact that the organizational structure of the target plays a fundamental role in consequences measured after the completion of the deals.
It has been measured, against any logical expectation, that acquisition or mergers made by acquiring firms listed in stock exchanges markets, have a return on different indexes of performance which is not as positive as private companies deals. The latter, obtain returns which are considered to be positive abnormal returns, usually included in a range going from 1,3% to 2,1% (23-28). This phenomenon could have different reasonings and explanations. First of all, acquisitions are not driven by the need of increasing the size and dimension of firms or prestige moved by managerial strategical decisions or incentives (25). As a matter of fact, the property of private firms is almost always divided in few shareholders or investors. Furthermore, acquiring firms are usually, as a practice in this type and size of deals, eager to pay to the seller with stocks of the new-born firm. Hence, the seller, or the small number of sellers, will find themselves having a strong and consolidated number of the firm. In this situation, especially for a smaller seller who is willing to reduce its responsibilities by dividing the risk with other investors, is going to easily accept this type of offer. The reason is because they will have a solid control over the new-born firm, after the

[109] M. Mentz and D. Schiereck, "Cross-Border Mergers and the cross-border effect: the case of the automotive supply industry, 2008

merger, because of the high number of stocks, usually voting stocks, in their possession.
Finally, they will be having a strong influence on the decision-making process, an high value possession coming from the stocks obtained, less risks and responsibilities.
This is even more relevant when the acquiring company is too week to grow or even more drastically to continue its own activity.

Subsidiaries, single divisions, and other operating assets have other evidence coming with their management. The present literature has been studied the and examining the case of the single divisions' dismission, integral unit that would be able to operate just by themselves as separate entities and other operating activities (Hite et al, Sichermann & Pettway). In those circumstances, it has been registered a positive abnormal return both for the seller and the acquirer. Acquirers of controlled entities usually obtain yields and returns which are higher than the case of private companies and small entities (Fuller et. al, Moeller et al[110]). A common reasoning is that sellers increase their activities' concentration and that revenues coming from selling could be invested in more profitable projects at their disposal. These advantages could be convincing for targets to sell their entity attracted by the economical profit. Rather than the organizational structure of the target, even acquirers' size has an influence on determining if the operation will be successful or not (Moeller et al).

Generally speaking, smaller dimensions acquirers obtain significantly higher returns from acquisitions and mergers' operations compared to bigger acquirers. This might be explained by the higher free from any bound cash flows that encourage the discretional expenses and the construction of an empire. In smaller firms it is way more frequent that the owners and management would not be separated, this situation reduces agency costs.
Dimensions of the target compared to the acquirer's tend to solicit higher and abnormal returns. From a certain point of view, the target has to be sufficiently big to provide a potential synergy and positively influence acquirers' shareholders. On the other hand, it has to be highlighted the downside of a bigger firm, which is the complexity of firms of this size, leading to a more complicated integration process. Around this topic, literature's results are quite ambiguous. In a study made on banking mergers, there's been reported abnormal returns higher for smaller acquirers

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[110] S. B. Moeller, F. P. Schlingemann and R. M. Stulz, "Firm Size and the Gains from Acquisitions," Journal of Financial Economics, Vol. 73, 2004, pp. 201-2

(Beitel et al.). Focusing on private and controlled targets, there have been found higher abnormal return for smaller targets' acquirers.

In any of these cases though, the potential of the value creation more elevated, seems to be compensating difficulties in the integration of an higher target. Implications, especially when considering transnational and cross-boarder acquisitions, of the geographic diversification and diversities effects on the acquirers' return, have been considered in different mergers and acquisitions studies. The effort put in those deals, allows the entrance in new markets and possible growth opportunities. On the other hand, at the same time scope acquisitions and possible synergies require a much more harder integration and risks in the successful results and returns of such an operation.

General evidence suggest that acquirers gain more advantages through national acquisition in comparison to transnational ones, which as said before are way more complicated. Of course, this is just a general statement that has to be considered case by case on the context surrounding a firm in relation to their strategy and the market where they operate (competition).

	ESG				Research entity		Dependent Variable			Impact from acquirer's
	Enviroment	Social	Governance	ESG Overall	Target	Acquirer	ROA	Stock price	Other	acquirer's ESG
Salvi et al. (2018)				✓	✓		✓			
Arouri et al. (2019)	✓	✓	✓	✓	✓	✓			✓	
Deng et al (2013)				✓	✓	✓	✓			
Liang et al. (2017)			✓			✓	✓			
Tampakoudis & Anagnostopoulou (2020)				✓	✓	✓	✓		✓	
NG and Rezaee (2015)	✓	✓	✓	✓					✓	
Manocha and Srau (2020)	✓					✓			✓	
Feng (2021)	✓	✓	✓	✓	✓	✓	✓	✓		✓
This research				✓		✓	✓	✓		?

Fig. 34

Overall, these are the main reference studies found in the literature over these topics regarding the sustainable value creation registered in acquiring firms post-acquisition performances. This research is mainly focused on analyzing if there has been registered an impact in some of the top performing firms operating in the Media and Entertainment industry.

3.2 Sample selection

The data that has been used for this research was taken from the Refinitiv Database. firms have been selected starting from the Sustainalytics list of the top 100 firms having the higher ESG combined score in the media and entertainment industry. Then it has been conducted research in the individual websites of this important corporations, looking for press releases disclosing and reporting information about mergers and acquisitions practices since 2000. This range has been then reduced, having as a starting date more recent acquisitions due to the absence of some of those firms' ESG combined score. As a matter of fact, it is known that these frameworks are slowing

acquiring a mandatory obligation while before they were just voluntary. Moreover, some firms might have used other frameworks not provided by the Refinitiv database, thus it has been necessary to make some adjustments over the selected acquisition activities before the definitive version of the dataset.
Some firms have been eliminated from the dataset even due to the absence of financial information that have been used both for the calculation of the delta of the stock price, but mainly for the absence of financial information needed for the control variables used in the multiple regression analyses. An example is the absence experienced in the transaction cost occurred by the acquiring firm which has not always been disclosed publicly by firms.

Overall, 30 acquisition practices have been selected from different geographical areas, all listed on the NYSE.

Here is an explanation of both the dependent variables taken into account and the independent variables.

The dependent variable:

- Delta stock price of the acquiring firm: this is the variation registered in the stock price of the acquiring firm. The period range considered is of four months, starting from the other two variables explained here below. The purpose of the research is to analyze if this variation is positively or negatively influenced by the "Delta variation in the combined ESG score" due to the sustainable value creation object of the research itself.
- Stock price of the acquiring firm 3 months before the date of the acquisition.
- Stock price of the acquiring firm 1 month after the date of the acquisition.

The independent variables taken into account are:

- Acquisition date, used as a reference starting point from were to take all the other data regarding the other variables.

- Transaction cost: transaction cost has been taken into account as a measurement of the size of the acquiring firm, in terms of possibilities of investment and capabilities in managing such an activity. Lastly it is a useful parameter for comparison between the different firms.

- Natural logarithm of the transaction cost: it is a useful tool since the transaction cost information by itself is not linear, which is required when performing a multiple regression function or a linear regression in general to transform an exponential curve and function into a linear one.

- ROA at the date of the acquisition: used as a financial benchmark for the financial performances additional to an economic benchmark used in the case of the transaction cost variable.

- Delta ROA 1 year before the acquisition: financial control variable useful to assess the impact of the acquisition on the accounting standards measuring the yields of a firm related to resources used for the prosecution of the economic activity. A firm having negative impact on the ROA after an acquisition could be identifying a negative overall impact of post-performance. The ROA at the moment of the acquisition has been used as a meter of calculation for this Delta and the following ones. In this case to the ROA at the moment of the acquisition was subtracted the ROA 1 year before the activity.

- Delta ROA 2 years after the acquisition: this extended period of the Delta of a financial accounting metrics has been considered useful to evaluate the impact of the performance in the medium term as it has been found in the literature. It is another relevant financial control variable to assess the impact of such an activity on the performance of the acquiring firm. Here the ROA at the moment of the acquisition was the subtracting element in the calculation of the Delta.

- Delta ROA 3 years after the acquisition: in this third instance of the calculation of the Delta of the ROA, it has been considered a longer period to verify if in a longer term there might be other evaluations of the impact of such an activity on the financial performance of the acquiring firm. Even here the ROA at the moment of the acquisition was the subtracting element in the calculation of the Delta.

- Leverage: it is a variable having of course a purpose of financial control variable. In such an operation usually, a firm undergoes the use of a high level of indebtedness that has an influence for the overall stability of the financial status. This debt has to be paid having an

influence on the overall performances of a firm, even on the other financial control variables here used.

- Total assets at the date of the acquisition: it works as another accounting variable of the firm to measure its size and another driver together with the transaction costs of the overall acquisition.

- Natural logarithm of the total assets at the date of the acquisition: once again it is a tool used to process a series of data that is not linear to make them unified and able to be compared among each other, overall used when recurring to a linear regression model. Hence, it is used as a financial control variable due to its assessment capability.

- Acquiring firm combined ESG score 1 year before the acquisition: used to understand the possible rationale behind the selection of specific targets for the acquiring firm, especially because it has been analyzed the sustainable value creation.

- Acquiring firm combined ESG score 1 year after the acquisition: it has been used to understand if there has been an effect on the combined ESG score of a firm after the consolidation of the acquisition.

- Delta of the combined ESG score: tool used to finally assess the specific variation occurring for the acquiring firm in its ESG combined score. It is the most important independent variable being the central variable considered responsible for having an influence over the dependent variable. As a matter of fact, it is at the bottom of this research the attempt of assessing if acquiring firms' ESG combined score variation have influenced or not the variation in the stock price due to a sustainable value creation rationale.

3.3 Methodology

This research aims at the analysis of the potential influence of the variation of the ESG combined score of an acquiring firm, after a merger and acquisition performance, on the variation of the stock

price of the acquiring firm. It is an attempt to assess the value created by the sustainable impact of the target firm, which once integrated into the acquiring firm could negatively or positively reflect on the acquiring firm environmental, social and governance performance perception from the market. It has been studied already in the literature by different authors the referring one from which the variables have been chosen for this purpose are the ones of Arouri et al. (2019), who studied the regression of the impact of the target ESG score, and other controlling variables on the change of the acquiring firm post-performance indexes. Another reference for the selected variables was X. Feng[111] (2021) analysis where it was analyzed the range period of 3 months before the acquisition date and 1 month after the acquisition for the evaluation of the variation in the stock price of the acquiring firm, registering a positive effect of the coefficient of the independent variable being the ESG delta, impacting the dependent variable of the stock price delta variation. Arouri was more focused on the uncertainty while Feng on the impact itself. These were the two principle inspiring references which than were aligned together with the other references mentioned in the figure of the literature review above.

This research aims at assessing the impact of the ESG combined score variation of the acquiring firm post-performance on the dependent variable being the variation in the stock price of the acquiring firm. In particular, this analysis focuses on a specific industry and the evidence found related to the performances of mergers and acquisitions: the Media and Entertainment industry. For this purpose, 30 target firms have been selected and the relevant information taken to fill the variables identified in the previous chapters. The acquiring firms are among the 100 top performing firms worldwide, just to make some names starting from Sony Corporation to Discovery Communications, News Corporation and Disney were some of them.

Let’s now go through the equation of the multiple regression that has been run:

Delta variation of the stock price = $ß_0$ + $ß_1$ * Delta ESG + $ß_2$ * Natural logarithm of total assets+ $ß_3$ * debt leverage + $ß_4$ * Natural logarithm of the deal value + $ß_5$ * ROA at the moment of the acquisition + $ß_6$ * Delta ROA 1 year before acquisition + $ß_7$ * Delta ROA 2 year before acquisition + $ß_8$ * Delta ROA 3 year before acquisition

[111] The role of ESG in acquirers’ performance change after M&A deals (Xuan Feng 2021

Here the first beta represents the main dependent variable, while from the beta 2 variable they are all financial control variables that have been used for different reasons. As explained in the data collection, the debt leverage has been used to assess the capital stability, the financial power which can be used even in terms of size variable. Then the various ROA indexes have been used to assess the financial stability and performances over the short, medium and long-term period. Lastly, the natural logarithm of the deal value, together with the natural logarithm of the total assets, have been mainly used to assess and to work as a dimension variable and to help the assessment of the intensity and dimension of the acquisitions among the various performances.

Once collected all the necessary data it has been run the analysis and then managerial insights have been provided to analyze the possible consequences coming from the results obtained.

3.4 Analysis

Research Question: Is the stock price of an acquiring firm influenced by the variation of the ESG combined score post-performance?

To answer our research question, it has to be run a multiple regression.
To run it, the chosen dependent variable is “Delta stock price”, and as independent variables in order “Delta ESG combined score”, and other independent variables having the function of control variables “Natural logarithm of total assets” of the acquiring firm at the moment of the acquisition, “Natural logarithm of the deal value”; “ROA of the acquiring firm at the moment of the acquisition”; “Delta ROA 1 year before the acquisition”, difference between the ROA of the acquiring firm at the moment of the acquisition and one year before; Delta ROA two years after the acquisition”, difference between the ROA of the acquiring firm two years after the acquisition and the moment of the acquisition; “Delta ROA three years after the acquisition”, difference between the ROA of the acquiring firm three years after the acquisition and at the moment of the acquisition; “Leverage” as the ratio between the debt leverage on the total capital of the acquiring firm.

The regression model is the sequent: Delta of the stock price of the acquiring firm = $ß_0$ + $ß_1$ * Delta of the combined ESG score + $ß_2$ * Natural logarithm of total assets + $ß_3$ * Leverage + $ß_4$ * Natural

logarithm of the deal value + $ß_5$ * ROA at the moment of the acquisition + $ß_6$ * Delta ROA 1 year before acquisition + $ß_7$ * Delta ROA 2 year before acquisition + $ß_8$ * Delta ROA 3 year before acquisition

To see whether my $ß_0 \neq 0$, $ß_1 \neq 0$, $ß_2 \neq 0$, $ß_3 \neq 0$, $ß_4 \neq 0$, $ß_5 \neq 0$, I check the "coefficient table" (*table 3.4*) and set six other hypothesis:

- $H_0: ß_0 = 0$ $H_0: ß_1 = 0$ $H_0: ß_2 = 0$ $H_0: ß_3 = 0$ $H_0: ß_4 = 0$ $H_0: ß_5 = 0$ $H_0: ß_6 = 0$ $H_0: ß_7 = 0$ $H_0: ß_8 = 0$
- $H_1: ß_0 \neq 0$ $H_1: ß_1 \neq 0$ $H_1: ß_2 \neq 0$ $H_1: ß_3 \neq 0$ $H_1: ß_4 \neq 0$ $H_1: ß_5 \neq 0$ $H_1: ß_6 \neq 0$ $H_1: ß_7 \neq 0$ $H_1: ß_8 \neq 0$

$ß_0$ p value = 0,548→ I can accept the null hypothesis and reject the alternative one → $H_0: ß_0 = 0$

$ß_1$ p value = 0,457→ I can accept the null hypothesis and reject the alternative one → $H_0: ß_1 = 0$

$ß_2$ p value = 0,391→ → I can accept the null hypothesis and reject the alternative one → $H_0: ß_2 = 0$

$ß_3$ p value = 0,636 → I accept the null hypothesis and reject the alternative one → $H_0: ß_3 = 0$

$ß_4$ p value = 0,799 → I can reject the null hypothesis and accept the alternative one → $H_0: ß_4 = 0$

$ß_5$ p value = 0,058 → I can reject the null hypothesis and accept the alternative one → $H_1: ß_5 \neq 0$

$ß_6$ p value = 0,239 → I can accept the null hypothesis and reject the alternative one → $H_0: ß_6 = 0$

$ß_7$ p value = 0,232 → I can accept the null hypothesis and reject the alternative one → $H_0: ß_7 = 0$

$ß_8$ p value = 0,193 → I can accept the null hypothesis and reject the alternative one → $H_0: ß_8 = 0$

Now that I know the statistically significant ß coefficients, I must check whether they affect positively or negatively my revenues.

From the coefficient table:

$ß_5 = 0,770 \rightarrow ß_5 > 0$ (0,770 > 0) positive relation

As observed, there are no other significant relationships, thus there is no need to check the sign of the relation between the other independent variables and the dependent variable.

Table 4

Coefficienti[a]

Modello		Coefficienti non standardizzati B	Coefficienti non standardizzati Errore standard	Coefficienti standardizzati Beta	t	Sign.	95,0% Intervallo di confidenza per B Limite inferiore	95,0% Intervallo di confidenza per B Limite superiore	Statistiche di collinearità Tolleranza	Statistiche di collinearità VIF
1	(Costante)	-22,366	36,649		-,610	,548	-98,581	53,850		
	Delta ESG combined score	-,047	,062	-,156	-,758	,457	-,177	,082	,747	1,340
	LNTotal_Assets	1,208	1,379	,165	,876	,391	-1,660	4,076	,895	1,117
	Leverage	-,056	,117	-,100	-,480	,636	-,298	,186	,738	1,355
	Natural_Logarithm of deal value	-,353	1,367	-,056	-,258	,799	-3,197	2,491	,669	1,494
	ROA at the moment of acquisition	,770	,384	,417	2,004	,058	-,029	1,569	,733	1,364
	Delta ROA 1 year beforte acquisition	,041	,034	,239	1,212	,239	-,030	,112	,817	1,224
	DeltaROA 2 years after acquisition	,011	,009	,247	1,231	,232	-,007	,029	,787	1,270
	DeltaROA 3 years after acquisition	-,009	,006	-,266	-1,345	,193	-,022	,005	,813	1,229

a. Variabile dipendente: Delta stock price

Now it can be set the final regression model:

Delta stock price of the acquiring firm = -22,366 + 770 * ROA at the moment of the acquisition

Before giving managerial insight, with R^2 (*table 4*) I can say how robust is my regression model.

The ANOVA table (*table 5*) was analyzed to check the validity of the regression model.

ANOVA[a]

Modello		Somma dei quadrati	gl	Media quadratica	F	Sign.
1	Regressione	1740,028	8	217,504	1,314	,290[b]
	Residuo	3475,576	21	165,504		
	Totale	5215,604	29			

a. Variabile dipendente: Delta stock price

b. Predittori: (costante), DeltaROA 3 years after acquisition, Delta ROA 1 year beforte acquisition, LNTotal_Assets, ROA at the moment of acquisition, DeltaROA 2 years after acquisition, Delta ESG combined score, Leverage, Natural_Logarithm of deal value

Table 5

As a matter of fact, as it can be seen from the ANOVA table, the error that is made by rejecting the null hypothesis b = 0 is too high, for this reason it can be said that there is not enough statistical

significance for this analysis of the multiple regression. As a consequence, it can be accepted the null hypothesis, which says that there is no direct influence between the variation of the stock price of an acquiring firm and the variation post-performance of the ESG combined score.

Lastly, to see if there was enough solidity to confirm this research as reliable, it needs to be checked the R – squared. As it is shown in the summary of the model here below, the r – squared is of 0,386. It means that it is solid for the 39% which .

Riepilogo del modello

Modello	R	R-quadrato	R-quadrato adattato	Errore std. della stima
1	,621[a]	,386	,062	12,98697%

a. Predittori: (costante), LNTotal_Assets, DeltaROA 2 years after acquisition, Delta ROA 1 year beforte acquisition, Delta ESG combined score, ROA at the moment of acquisition, Leverage, DeltaROA 3 years after acquisition, Natural_Logarithm of deal value

Table 6

MANAGERIAL INSIGHT

It emerges from the analysis of the multiple regression model, that the variation of the stock price does not depend on the variation of the ESG combined score after the acquisition. As it has been observed, the table of the multiple regression's coefficients states the absence of significance for all the variables, including the financial control variables. The only coefficient significant for the variation in the stock price of the acquiring firm is the ROA of the acquiring firm at the moment of the acquisition since it is one of the indexes mainly observed in the practices of M&A post-performance evaluation and it is mainly included in the same period of the calculated stock price variation. The other ROA indexes are not significant probably because the variation of the stock price has been calculated for a period prior to the effects of the acquisition on the ROA indexes: in fact, the Delta stock price was calculated for a range going from 3 months before the acquisition to 1 month after the acquisition, while the Delta ROA was the difference from 1 year before the acquisition to the ROA at the moment of the acquisition; difference from 2 years after the acquisition and the value of the index at the moment of the acquisition; difference from 3 years after the acquisition and the value of the index at the moment of the acquisition.

The financial control variables have not been found significant either, contrary from what has been suggested by the literature. Hence, the debt leverage calculated on the total capital of a firm, the natural logarithm of the total assets at the moment of the acquisition, the natural logarithm of the deal value of the transaction and all the ROA's indexes, as said before, were all not significant.

The overall analysis could be considered robust, due to the R – squared value of 39%, sufficiently high to declare the analysis valid. As a matter of fact, as it can be seen from *Fig. 35* the obtained R – squared value is totally on the high average of the R – squared of the sample of articles analyzed from the scientific literature. It is quite high considering that the independent variable, the stock price variation of the acquiring firm, depends on countless microeconomic and macroeconomic, exogenous and endogenous factors and variables that could not possibly be considered in this research to means limits.

As said before, it is expected that practices such as mergers and acquisitions will increase more than they already have been used in this industry, due to the future development of mega platforms able to satisfy needs of customers in a more integrated way of the offering. It is observed in the trends of this industry over the years, and it is expected to increase in the future.

Authors	R^2	
	Max	Min
Salvi et al. 2018	0,13	0,06
Arouri et al. (2019)	0,28	0,16
Deng et al (2013)	0,167	0,032
Liang et al. (2017)	0,928	0,126
Tampakoudis & Anagnostopoulou (2020)	0,428	0,174
NG and Rezaee (2015)	0,137	0,134
Manocha and Srau (2020)	n.d	n.d
Feng (2021)	0,42	0,38

Fig. 35

Overall, all the above information was then confirmed by the ANOVA table, stating that there was not enough statistical significance to reject the null hypothesis and for that reason it is necessary to elaborate a similar study with further information completing the solidity and robustness of this regression. It might be necessary to align the periods of the calculation of the stock price variation before and after the acquisition together with the calculation of the ESG combined score variation and the other control variables, contrary on what has been observed in the literature.

Conclusion

Evidence from the Media and Entertainment industry provide enough robustness, at 39%, to support the theory that the variation of the ESG combined score of a firm has not a significant influence over the variation of the stock price of price of the acquiring firm, post-performance. The only significant relationship with the ESG combined score variation is with the ROA of the acquiring firm at the moment of the acquisition.

Furthermore, it is possible to declare that the period range of the variation for the stock price of the acquiring firm, being different from the period range of the variation in the ESG combined score might have caused a misalignment of the two variables, thus compromising in a sort of way the results of this analysis. It has been followed a criterion already experienced in the literature which provided evidence of a verified influence of the variation of the combined ESG score on the variation of the stock price of the acquiring firm post-acquisition.

This is probably the main reason causing the absence of any type of influence registered in the significance of the dependent variable and the main independent variable of this multiple regression analysis. Even the control variables did not find any significant relevance, exception made for the ROA of the acquiring firm at the moment of the acquisition which might be explained due to the relevance of the accounting financial indexes as traditional measurements for stakeholders to assess the success of particular acquisition performances. As a matter of fact, it has been observed how the sustainable value creation and the sustainable business modeling are still not defined and consequently recognized equally due to the absence of a standardization. Hence, this leads to less relevance attributed to sustainable indexes and focus mainly on what are the traditional indexes observed by stakeholders and potential investors, which in general influence the perception of the corporate image on the market and then the value perceived by the market related to the firm.

This context depends of course on the novelty that these elements have been representing. Together with the introduction of legislation and the creation of a legislative framework, both national and international, it has been registered an absence of uniformity over the introduce standards. As a matter of fact, there are multiple standards and evaluating corporations providing different scores, each one of these scores have different drivers. This situation doesn't allow any type of comparison due to the absence of a standardization of the measurement through which the scores are provided. As a consequence, it is important to create unified standards, that might come from the merger among the already operating corporations providing this scoring standards, to finally allow these evaluations to be recognized equally from all the actors of the market. This recognition is needed to

introduce in the market new indexes recognized worldwide, that could drive the change in the markets because of another element of measurement evaluated by stakeholders and investors as bounding in the moment of the decision-making process of the investment. This interest has to be prioritized starting from potential stakeholders and shareholders to then drive firms to follow such a need, in a way that is going to revolutionize the market and the structure of business models. Firms should be able to recognize the potential opportunities of this switch towards sustainable value creation and sustainable business models, following the trends, they have to understand how to move in a way to be perceived ahead of the rest of the market but with the right timing. In this way, lots of firms that were dominated by the leaders of the markets, if they move strategically, understanding how to involve stakeholders and potential investors interests in the business model, they will be able to have a lever that is going to secure their competitive advantage in the sustainable resources, social and governance management market additionally or even not to another core activity. Hence, it is a great opportunity that could create lots of different paths and drivers to take securing a possible competitive advantage and overturning the power balance that has been stable, especially in the energy and utilities market, over the years due to fixed dynamics of securing the necessary resources, often related to great capital potentialities.

Despite the results coming from the quantitative analysis, both the literature and the upcoming trends have registered different perceptions. Firs of all, throughout the last years, it has been registered an increase in the revenues. It can be attributed to the switch towards the integrated platforms newly introduced after the pandemic. The latter changed different business models switching them to a more digital structure of the offered products and services. Just to make an example, the already damaged sector of cinemas has been further damaged to the wide offer of platforms like Netflix. Additionally, even the e-commerce has foreseen an incredible increase that boosted up the revenues of the whole sector, for those providing this service.

Coming back to the M&A trends, as a matter of fact, it has been identified how the big firms in terms of size and share of the market, have begun a process of transformation towards the mega platforms' business model. It is a trend present in all the continents started by WeChat in the Asian region, and it has been followed by United States and then the Europe has been catching up, while there is still a gap in Africa.

Hence, acquisitions have been regularly performed by the biggest firms worldwide in different sectors of this industry, trying to satisfy the needs of the consumers of having multiple services satisfied by a single product where it is possible to find everything.

For this trend it is going to be implemented the profiling of users, both with and without the use of the artificial intelligence which is going to prominently be populating the market sooner or later. For this reason, even privacy regulations are going to be needing an update together with the legislation uniformity that is going to be needed for the standardization of ESG scoring standards and their worldwide recognition. This aggregation will definitely influence the concentration of the market which will increase, causing the raising of the entry barriers in the market. On the other hand, due to the introduction both of the generative artificial intelligence, and foreseeing an increase in the perceived relevance of the sustainable requirements, there are multiple opportunities for the firms, being risks for the bigger firms aiming at the integration of their activities in a single mega-platform. Therefore, there are some ideas of how the market could possibly behave due to the already explained trends, but on the other hand there is still a lot of uncertainty because of the possible development and exploitation of new technologies and the existence of multiple opportunities that could change the industry of the Media and Entertainment.

To sum-up, in the next coming future, it is expected that these industry will foresee an increase in the use of mergers and acquisitions practices and activities, to integrate within their already existing offering, a diversified and more integrated offering of the multiple services: streaming movies services, music streaming, video streaming, chatting platforms together with social media platforms, e-commerce all bundled up in a single mega-platform.

Environmental, social, governance practices legislation will acquire more relevance due to the goals and objectives of the European Union Agenda and the worldwide sustainable goals that lately are becoming more sensible topics for consumers which will drive through the demand the switch of the corporations' offering. It will create a lot of opportunities, which then require the control through the legislation and the creation of a standardized set of rules and regulations recognized worldwide. At that point this process will verify all the opportunities in the market and stimulate the creation of sustainable value creation through the formulation of sustainable business models. It is forecasted that the switch towards sustainable energies will overcome the old habits and uses of most of the carbon print fossil resources, causing the switch towards new business models eventually for the majority of the firms. It is still not possible to assess the rate of this switch and the intensity, to state that these new renewable resources will cause the failure of old carbon print fossil fuels. Surely, it will give space to the increase in the width of the communities that will be satisfied in terms of interest rates, or ethical advantages (social and governance) as stakeholders,

where in this category are going to be included way more elements and actors than the traditional definition that still has to be redefined and identified to its fullest.

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