

Non-profit and hybrid organizations as multi-sided platforms: insights from the analysis of sustainability models

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Abstract

Purpose – This study investigates the sustainability models of non-profit and hybrid organizations, which aim to balance economic, social and environmental objectives. The research introduces the Sustainability Model Canvas to analyze these organizations and identify common patterns, unique characteristics and managerial insights to balance the triple bottom line.

Design/methodology/approach – The research utilizes the Sustainability Model Canvas to examine the sustainability models of 200 non-profit and hybrid organizations. Data were collected from secondary sources, including articles, reports and websites. The analysis was conducted using the activity system theoretical framework, which helped to identify design elements and themes within the business models of the studied organizations.

Findings – The study reveals four primary sustainability model patterns: donated income, earned income, public income and auto-generated income. An additional mixed approach pattern is identified, combining elements from the four primary patterns. The research highlights the parallels between these sustainability models and multi-sided platform business models, offering managerial suggestions for leveraging these patterns to achieve sustainability.

Research limitations/implications – The study is based on secondary data, which may limit the depth of insights compared to primary data collection. At the same time, the chance to consider hybrid organization through multi-sided platform lenses provides relevant contributions to both the literature streams.

Practical implications – The identified sustainability model patterns and managerial suggestions can serve as blueprints for non-profit and hybrid organizations aiming to design or innovate their sustainability models. The Sustainability Model Canvas offers a practical tool for organizations to visualize and balance their triple bottom line objectives.

Social implications – The research underscores the importance of integrating social and environmental considerations into business models, promoting a holistic approach to sustainability that can lead to broader social and environmental benefits.

Originality/value – This research contributes to the business model literature by extending the focus beyond traditional profit-oriented organizations to include non-profit and hybrid organizations. The introduction of the Sustainability Model Canvas provides a new tool for designing and analyzing sustainability-oriented business models. The study also suggests considering sustainability models as multi-sided platforms, offering new insights for both academic and practical applications.

Keywords Business model, Sustainability, Canvas, Two-sided platform, Multi-sided platforms, Non-profit

Paper type Research paper



1. Introduction

Over recent decades, sustainability has emerged as a pivotal concept in the realm of management, garnering significant attention from both scholars and practitioners (Behnam and Cagliano, 2016). The term “sustainability” originates from the notion of “the ability to be maintained at a certain rate or level” and has been aptly applied across various contexts and fields, ranging from supply chain management (Seuring and Muller, 2008), environmental impact (Kleindorfer *et al.*, 2005), to social implications and quality of life (McKenzie, 2004), among others.

The multifaceted aspects of sustainability have been encapsulated within the triple bottom line approach, illustrating that sustainable firms strive towards three distinct objectives. Firstly, the utilization of natural resources should be evaluated from an emissions and pollution standpoint, thereby attributing an environmental dimension to sustainability (Kleindorfer *et al.*, 2005). Secondly, the human aspect must be considered, advocating for the health and quality of life of employees and all stakeholders involved, thus adding a social dimension to sustainability (McKenzie, 2004). Lastly, businesses should aim to achieve a balance between costs and revenues, underscoring the economic dimension of sustainability (Elkington, 1997; Rounaghi *et al.*, 2021). The sustainability concept was initially designed to supplement the profit orientation by emphasizing the growing importance of corporate social responsibility. It sought to promote the adoption of sustainability within traditionally profit-oriented firms, suggesting a dichotomy between “for-profit” and “non-profit” organizations. However, this dichotomy has diminished in recent years due to the rising prominence of hybrid organizations (Doherty *et al.*, 2014), which are defined as companies that concurrently pursue profit and sustainability goals, typically related to a social dimension (Santos *et al.*, 2015). These are referred to as “hybrid for-profit” organizations, as they strive towards an economic goal while also considering other bottom lines, hence their “hybrid” nature. Trends such as social entrepreneurship (Acs *et al.*, 2013) support this shift, indicating that the definition of “value” is broadening for many firms, integrating the three dimensions of sustainability in terms of profit, people and planet (Schaltegger and Wagner, 2011).

Companies with a sustainability orientation increasingly need to adopt an entrepreneurial approach similarly to traditional businesses to successfully achieve their social or environmental goals while maintaining economic viability (Weerawardena *et al.*, 2010; Dana *et al.*, 2021). Scholars have underscored the need for these companies to develop tailored models and strategies (Anheier, 2000), urging sustainability-oriented businesses to clearly delineate their mission and objectives to secure a competitive position (Forehand, 2000; McDonald, 2007). This is due to the heightened exposure that non-profit face in terms of intensifying market forces (Eikenberry and Kluver, 2004).

In essence, also non-profit and hybrid organizations must find a clear competitive advantage to remain relevant and viable in the market (Dart, 2004; Ferris and Graddy, 1999; Goerke, 2003; Jaskyte, 2004; Sullivan Mort *et al.*, 2003). From an economic sustainability standpoint, the focus should primarily be the business model, the mechanism through which the company creates and captures value while balancing all business elements (Girotra and Netessine, 2013; Yang *et al.*, 2017). However, non-profit and hybrid organizations should also consider the social and environmental impact, i.e. a more holistic sustainability perspective (Perrini and Tencati, 2006; Peraltra *et al.*, 2019).

With few exceptions (e.g. Ab Samad *et al.*, 2023) the Business Model literature is typically profit-oriented. This study explores the unique characteristics of non-profit organizations and hybrid organizations in terms of their Sustainability models, i.e. business models that also integrate social and environmental considerations (Elkington, 1997; Doherty *et al.*, 2014). Specifically, it aims to examine these organizations’ sustainability patterns, identifying common patterns, unique characteristics and managerial suggestions to balance the three competing bottom lines. In doing so, we initially introduce the literature on Business Models,

followed by the introduction of the Sustainability Model Canvas as the theoretical framework for this research. This will form the foundation for analyzing the organizations in the empirical sample to identify common patterns in business model and value proposition design. The findings will then be discussed, using the multi-sided platform literature as a reference point to interpret the results and provide actionable insights for scholars studying sustainability-oriented business models and professionals working with non-profit organizations and hybrid organizations.

2. Literature review

The field of Business Model literature has seen substantial growth over the past decade, becoming a prominent topic in strategy, entrepreneurship and innovation (Massa *et al.*, 2017). This surge began at the turn of the century, primarily due to the proliferation of digital businesses and the internet (Amit and Zott, 2001). Early definitions of a business model varied, with Stewart and Zhao (2000) viewing it as a statement, Applegate (2001) as a description, and Tucci (2001) as a method. This illustrates the transition from traditional strategic tools and concepts to the more comprehensive “business model”. Amit and Zott (2001) integrated these different perspectives, introducing the business model as a conceptual tool. However, for many years, the business model was often studied without a clear and explicit definition (Zott *et al.*, 2011).

Over time, the business model has become one of the most relevant and studied concepts in management due to its direct link with a firm’s competitive advantage (Chirstensen, 2001; Casadesus-Masanell and Ricart, 2010). Primarily, the business model is seen as the optimal way to transition from value creation to value capture, unlocking the potential of innovative ideas (e.g. Chesbrough and Roenbloom, 2002; Björkdahl, 2009). Furthermore, business models themselves have become a subject of innovation (Mitchell and Coles, 2003; Trimi and Berbegal-Mirabent, 2012; Ghezzi *et al.*, 2013, 2015), particularly as technologies have become more accessible and the business model has become a significant means of distinguishing oneself in the market and seeking efficiency in novel ways (Rayna and Striukova, 2016).

In this context, Business Model Design and Business Model Innovation have become significant keywords in both academic and professional fields, investigating the representation of business models, typically through ontologies (Zott and Amit, 2007, 2010; Pigneur and Werthner, 2009).

Over the years, various “components” of the business model have emerged, from value, revenue and logistics streams (Mahadevan, 2000), to considerations of customer value and scope (Tucci, 2001). Some emphasize the need to consider the value chain and profit potential (Chesbrough and Roenbloom, 2002), while others use different labels for similar classifications (e.g. Stewart and Zhao, 2000; Alt and Zimmermann, 2001; Bonaccorsi *et al.*, 2006; Brousseau and Penard, 2007). The Business Model Canvas, conceived by Osterwalder and Pigneur (2010), encapsulates and represents the majority of these “components”. It is the most widely used tool for designing business models and has been adopted extensively by both practitioners and academics, serving as the theoretical framework for many studies (e.g. Adrodegari *et al.*, 2017; Daly, 2017; Bertels *et al.*, 2015; Toro-Jarrín *et al.*, 2016; Cosenza, 2017).

The Business Model Canvas is structured around four main pillars – Offering, Customer Interface, Infrastructure Management and Financial aspects – which are further divided into nine building blocks (Value Proposition, Target Customer, Distribution Channel, Relationship, Key Partners, Key Resources, Cost Structure and Revenue Streams).

A more detailed description of the Business Model Canvas is presented in the following paragraph, in which we also introduce the Sustainability Model Canvas. We also introduce four sustainability model patterns that mirror the business model patterns introduced in the for-profit literature. Business model patterns are business models that can be recognized in

many different organizations, i.e. “are business models with similar characteristics, similar arrangements of business model Building Blocks, or similar behaviors” (Osterwalder and Pigneur, 2010). Examples of for-profit business model patterns are long tail, multi-sided platform, free and open (Osterwalder and Pigneur, 2010).

In particular, multi-sided platform business models are very relevant for our research. Indeed, the early studies in the field of two-sided markets were originally aimed at understanding how free products could exist (Parket and Van Alstyne, 2005), introducing the idea of subsidization. In that perspective, non-transactional or orthogonal models emerged as the conceptualization of adv-based business models, where one customer sustains the system for all the other users (Filistrucchi *et al.*, 2014; Trabucchi *et al.*, 2017, 2023).

Over the decades, the term “platform” has assumed various meanings. In recent literature, an accepted classification for multi-sided platforms points out two main defining characteristics: the presence of at least two mutually dependent customers (the sides) and the presence of cross-side network externalities that link the value perceived by one set of customers to the presence of the other side (Trabucchi and Buganza, 2022). In particular, transactional platforms, like Airbnb or Uber, are organizations that aim to create a one-to-one connection between the two sides, enabling a direct transaction, where the platform works as a friction fighter (Tauscher and Laudien, 2018). Orthogonal platforms, working in a Client-as-a-Target or Client-as-a-Source approach, emerged as a value sustaining mechanisms by adding a second side in the system that pays to advertise something to the first side or exploits data generated by the first side (Trabucchi *et al.*, 2017; Trabucchi and Buganza, 2022).

Both typologies could be coherent with the Triple Bottom Line approach and, more broadly, with sustainability, given their intrinsic nature of friction fighters (Evans and Schamalansee, 2016a, b) or with the ability to find alternative ways to sustain a business (Parker and Van Alstyne, 2005). Moreover, recent studies explore platforms as a business model coherent with circular economy efforts (Blackburn *et al.*, 2023; Ritala, 2023). Nevertheless, there have not been analyses of how these models could enhance sustainability purposes.

The rising importance of the Triple Bottom Line approach and the emergence of hybrid organizations, as suggested in the introduction, have highlighted the need for “Sustainability Models” or “Business models for sustainability”, also referred to as “Sustainable business models” or “Sustainability business models” (Schaltegger *et al.*, 2016). This research stream primarily focuses on the role that business models can play in reimagining products or services, considering various perspectives (Hansen *et al.*, 2009; Hansen and Grosse-Dunker, 2012).

In this work, adapting the definition of Business Model introduced by Osterwalder and Pigneur (2010), we define a Sustainability Model as “a model that describes the rationale of how an organization creates, delivers, and *retains economic, social and environmental* value”.

Some authors have proposed business model representations (e.g. canvases) focused on non-profit organizations and sustainability (e.g. Joyce and Paquin, 2016; Sparviero, 2019; Cardeal *et al.*, 2020; Daou *et al.*, 2020; Landoni and Trabucchi, 2020; Sanderse *et al.*, 2020; López-Arceiz, 2024). However, these new models have significant limitations in theory (few citations in scholarly journals) or in practice (limited adoption). Indeed, many are not used because they have been designed in an over-complex way or far from the traditional way in which these models are normally used (e.g. the three layers of Joyce and Paquin, 2016). Others have been designed in an over-simplified way, failing to account for the specificities of non-profit and hybrid organizations (e.g. revenue sources in López-Arceiz *et al.*, 2024) and/or eliminating fundamental blocks (e.g. the key partners in Cardeal *et al.*, 2020). Others, especially when outside academia, have not published scientific papers and have not provided explanations about the methodology and data used for the development of their

Models. In addition, many did not provide examples and did not identify emerging, archetypical patterns.

Furthermore, researchers often have focused on specific aspects when studying sustainability and business models, such as circular economy (Daou *et al.*, 2020), specific industries (McIntosh *et al.*, 2011; Looock, 2012), low-income markets (Sánchez and Ricart, 2010; Yunus *et al.*, 2010), literature reviews (Preghenella and Battistella, 2021), or peculiarities of the business models of certain types of companies (e.g. Jolink and Niesten, 2015; Parrish, 2010).

Previous studies show that companies, start-ups and entrepreneurs that build business models with a focus on sustainability tend to integrate the social and environmental dimensions, in line with the triple bottom line approach (Schaltegger *et al.*, 2012). Some studies explain how the business model should consider the different layers of the triple bottom line, moving away from a purely economic vision to include social and environmental dimensions (Joyce and Paquin, 2016; Arenas *et al.*, 2020). Similarly, sustainable business models need to pay greater attention to the various stakeholders involved, adopting a people-centric perspective (Lemus Aguilar *et al.*, 2019; Sansone *et al.*, 2023).

The widespread popularity of the Business Model Canvas presents both an opportunity and a potential challenge for other canvases that may adopt a broader sustainability perspective, as many academics and professionals are well-versed in the original one. In this regard, we propose a Sustainability Model Canvas, building directly on the original work done by Osterwalder and Pigneur (2010).

This article aims to provide an in-depth presentation of this Sustainability Model Canvas and test it in real-world cases, to identify emerging patterns. Furthermore, we will introduce a parallelism with multi-sided platforms models and discuss, based on it, managerial suggestions for non-profit and hybrid organizations to leverage their sustainability models balancing the three competing bottom lines.

3. A theoretical proposal and research framework: the sustainability model canvas

Before presenting the Sustainability Model Canvas (Figure 1), we briefly outline each building block of the original Business Model Canvas because, as previously noted, we build on it and aim at keeping as many blocks unchanged as possible (see Figures 2–7).

The “Offering” pillar, which is central to the model, houses the “Value Propositions” building block. This block encompasses the products and services offered to the market, emphasizing the unique value provided to customers, which sets the company apart from its competitors.

The second pillar, “Customers”, encompasses all dimensions that target the market. “Customer Segments” are the various groups of customers, segmented based on their needs and attributes to ensure the right strategy is applied. Examples include mass market, niche market, or multi-sided platforms that cater to different customer groups. “Channels” refer to how the company delivers value to the customer segment, which could be direct, indirect, or both. The final building block in this section, “Customer Relationships”, pertains to the type of relationship the company aims to establish with the customer segment, ranging from personal assistance to self-service, automated service, or co-creation.

The third pillar, “Infrastructure”, encompasses all dimensions that the company needs to develop the Offering and reach the market. “Key Activities” are the crucial tasks that the company must perform to make the value proposition tangible. Similarly, “Key Resources” are the resources necessary to create value and perform the activities. These resources, which may be human, financial, physical, or intellectual, are considered assets of the organization. The third building block, “Key Partners”, includes all suppliers or partners that aid in optimizing operations and provide resources or activities that cannot be performed internally.

Key Partners Who are our Key Partners? Who are Key Suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?	Key Activities What Key Activities do our Value Propositions require? Key Resources What Key Resources do our Value Propositions require?	Triple Bottom Line Value Proposition What value do we deliver to the beneficiaries? (social impact or environmental impact) What value do we deliver to the customers or supporters? (economic impact)	Stakeholder Relationships What type of relationship does each of our Stakeholder Segments expect us to establish and maintain with them? Channels Through which Channels do our Stakeholder Segments want to be reached? How are we reaching them?	Stakeholder Segments For whom are we creating value and who is creating value for our organization?
Cost Structure What are the most important costs in our sustainability model?		Net Income Destination How are the profits used or distributed?	Revenue Streams For what value are our stakeholders willing to pay? For what do they currently pay?	
Social and Environmental Costs and Risks What are the most important costs or risks in our sustainability model from a social and environmental perspective?			Social and Environmental Benefits What are the positive impacts/benefits from a social and/or environmental perspective?	

Source(s): Authors' own creation/work

Figure 1.
Sustainability model canvas

Key Partners	Key Activities	Triple Bottom Line Value Proposition	Stakeholder Relationships	Stakeholder Segments
	Key Resources		Channels	
Cost Structure		Net Income Destination	Revenue Streams	
Social and Environmental Costs and Risks		Social and Environmental Benefits		

The diagram illustrates the flow of mission-related products and services. Red arrows indicate the following connections:

- A red arrow points from **Key Resources** to **Mission related products and services**.
- A red arrow points from **Mission related products and services** to **Beneficiaries** (under Stakeholder Segments).
- A red arrow points from **Mission related products and services** to **Channels**.
- A red arrow points from **Channels** to **Donors** (under Stakeholder Segments).
- A red arrow points from **Donors** to **Revenue Streams** (under Revenue Streams).
- A red arrow points from **Revenue Streams** to **Net Income Destination**.

Source(s): Authors' own creation/work

Figure 2.
Sustainability model canvas for contributed income

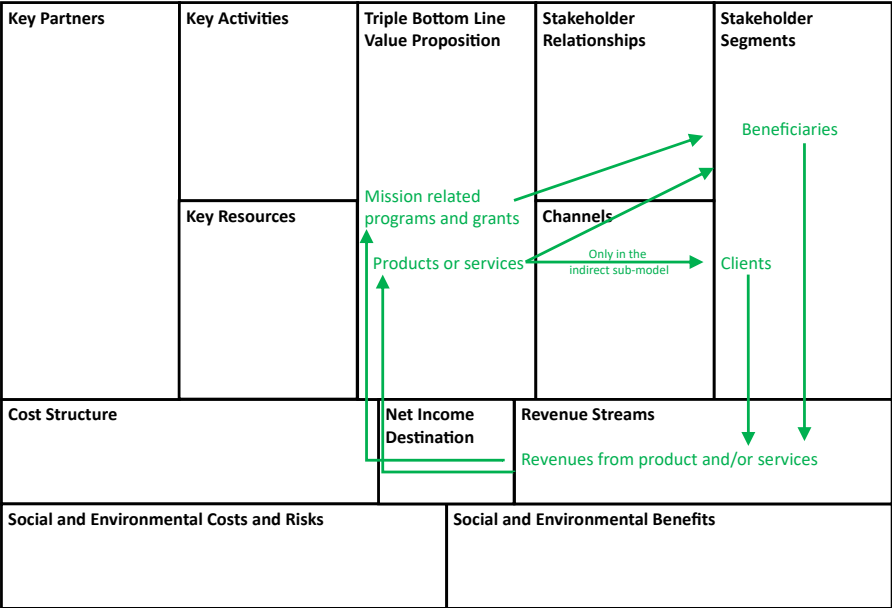


Figure 3.
Sustainability model
canvas for earned
income

Source(s): Authors' own creation/work

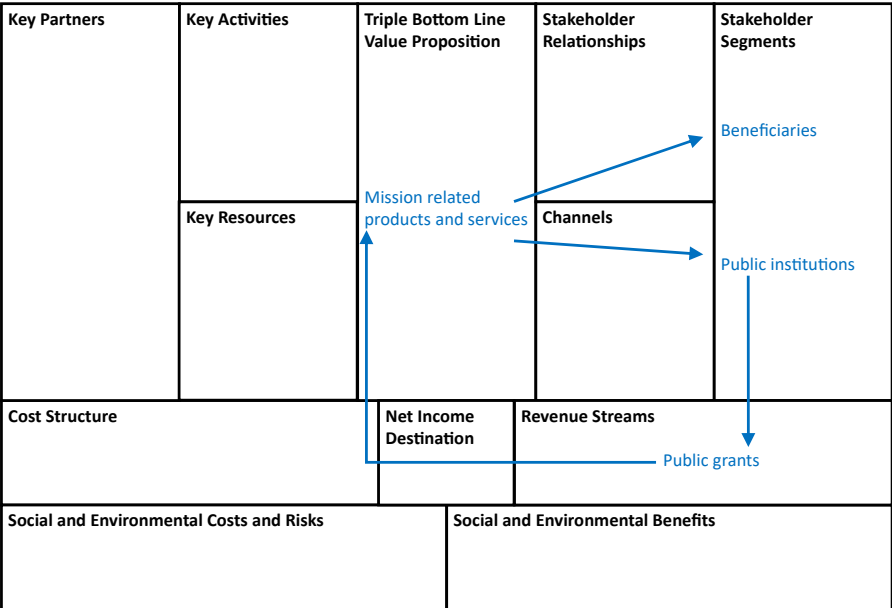


Figure 4.
Sustainability model
canvas for public
income

Source(s): Authors' own creation/work

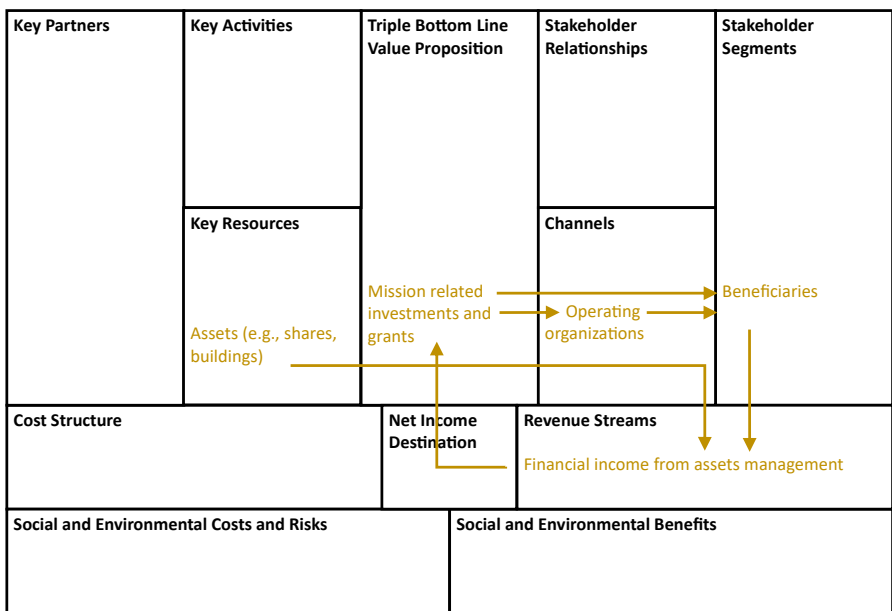


Figure 5.
Sustainability model
canvas for auto-
generated income

Source(s): Authors' own creation/work

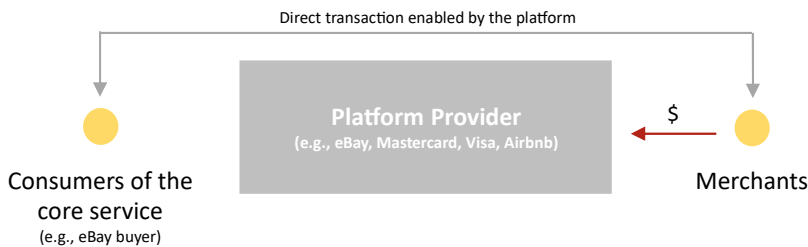


Figure 6.
Transactional two-
sided platform, from
Trabucchi *et al.*, (2017).

Source(s): Authors' own creation/work

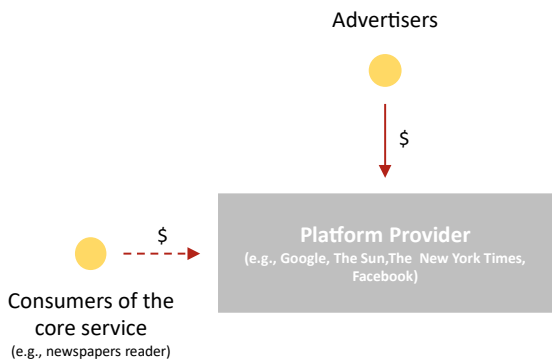


Figure 7.
Orthogonal two-sided
platform, from
Trabucchi *et al.*, (2017).

Source(s): Authors' own creation/work

The fourth and final pillar, “Finance”, pertains to the company’s financial structure and economic sustainability. It consists of two building blocks. The first, “Cost Structure”, describes the organization’s most significant financial expenses, typically highlighting fixed and variable costs and potential economies of scale or scope. The final building block, “Revenue Streams”, considers the income from each customer segment and the type of streams, such as the sale of physical goods, services, possible fees, or advertising.

This is the Business Model Canvas, which represents the dominant design for the Business Models of profit-oriented organizations. Building on this, we introduce the Sustainability Model Canvas [1]. The differences include the re-labeling of some building blocks to embrace the concept of triple bottom line and sustainability orientation, and the addition of three building blocks.

Following the same logic of the four pillars, we begin with the Offering. Given the hybrid approach in the dichotomy between non-profit and profit organizations, or more broadly the triple bottom line approach, the concept of “Value Proposition” requires further exploration. Hence, this building block becomes “Triple Bottom Line Value Proposition,” pushing toward a more comprehensive concept of value and prompting users of this canvas to consider the three dimensions of sustainability. This minor yet significant change impacts two of the building blocks in the second pillar: we replace “Customers” with “Stakeholders Segments” and “Customer Relationships” with “Stakeholder Relationships,” encouraging users to adopt a broader perspective.

The final changes pertain to the last pillar, “Financials.” Here, the two original building blocks remain the same, but three new blocks are added.

The first is “Net Income Destination,” which clarifies the final destination of potential profits. This is not obvious in the case of non-profit and hybrid organizations. The net income may be distributed to the shareholders as in traditional for-profit organizations, but there could also be a pre-determined cap to this distribution (low-profit organizations) or no distribution at all, as for non-profit organizations. In this latter case all the profits are invested in the organization, used to add or extend the value propositions, or used to benefit more or new beneficiaries.

The final additions aim to highlight the overall impact of the business. This pillar, in the traditional Business Model Canvas, tends to highlight the potential impact (and therefore benefit) from a profit perspective. However, a non-profit or hybrid organization aims to have results that go beyond profit. By adding “Social and Environmental Costs and Risks” and “Social and Environmental Benefits”, users of the model can balance costs and benefits from an environmental and social perspective, just as they do with the economic dimensions.

This study aims to analyze the sustainability models of non-profit and hybrid organizations, particularly considering these firms’ ability to manage multiple goals simultaneously.

4. Data and method

This research is structured in a two-step process. The initial phase involves applying the Sustainability Model Canvas to non-profit and hybrid organizations, while the subsequent phase presents a more detailed analysis of the models and an analysis of the common patterns emerging from these models.

The sample for the first phase is derived from rankings and databases of non-profit and hybrid organizations. We commenced with existing lists (The Global Journal, Top [Non-Profit.com](#), Charity Navigator, Charity Watch, Great Non-Profits) and selected the rankings provided by The Global Journal due to its annual and rigorous selection process. The final sample comprises rankings published in 2012, 2013 and 2015, resulting in a total of 151

companies. Additionally, 49 well-known hybrid organizations were included, bringing the total to 200 non-profit and hybrid organizations.

Each organization was examined through secondary sources, including articles, papers, reports and various media (websites, social media, etc.). By utilizing these secondary sources, we aimed to assess the business model of each organization using the Sustainability Model Canvas, in search of emerging patterns.

To investigate the various dimensions of the business model, we utilized the activity system theoretical framework developed by [Zott and Amit \(2010\)](#) as a guide in our coding process. Previous research in entrepreneurship has employed this activity system framework to study new organizations ([Alaassar et al., 2021](#); [Pauwels et al., 2016](#)). Previous papers proved the framework's effectiveness in pinpointing the essential elements of novel organizations and examining their operational dynamics. Rooted in [Vygotsky and Cole's \(1978\)](#) activity theory, the activity system framework serves as a conceptual toolkit for identifying, analyzing and describing two key parameters: design elements and design themes. Design elements encompass the structural aspects that define a business model, including content (i.e. what activities should be conducted?), structure (i.e. how should these activities be interconnected and sequenced?) and governance (i.e. who should execute these activities and where?). Conversely, design themes refer to the four primary value drivers of a business model: novelty (i.e. introducing innovative content, structure, or governance), lock-in (i.e. incorporating elements to retain stakeholders in the business model), complementarities (i.e. combining activities to create additional value) and efficiency (i.e. reorganizing activities to minimize transaction costs). To analyze all the organizations in the sample, the information emerging for each building block of the canvas was examined and compared. Data were analyzed and compared using a data matrix, as recommended by [Miles and Huberman \(1994\)](#) for such objectives. The revenue information was then used to classify non-profit and hybrid organizations into various categories.

In the second phase of the research, the focus shifted to two of the building blocks added in the Sustainability Model Canvas: the Stakeholders Segments and the Triple Bottom Line value proposition, with the aim of studying the relationship between the two.

5. Results

Our analysis of the cases revealed four primary patterns, plus one additional pattern (a combination of the previous four), within the Sustainability Model Canvas:

- (1) Donated Income (Donor-based): In this model, the organization's primary financial support comes from voluntary donors. Donations can take various forms, such as money, voluntary work, or in-kind contributions.
- (2) Earned Income (Client-based): Here, the organization's main financial support comes from clients, who could either be the beneficiaries or any other market participants.
- (3) Public Income (State-based): In this model, the organization's primary financial support comes from public entities.
- (4) Auto-Generated Income (Asset-based): In this case, the organization's main financial flows come from assets owned by the organization. This could be a grant-making organization or an operating one.

Finally, we have identified a Mixed Approach: Some organizations leverage more than one of these patterns, with no single pattern accounting for more than 50% of the overall revenues. This means that companies in the previous clusters may have more than one income flow, but they belong to a specific cluster because that income constitutes more than 50% of the overall revenues.

These patterns distinguish themselves through the mechanisms by which they balance economic sustainability with other bottom line(s). For clarity, each model will be presented through a simplified scheme, and we will introduce possible sub-models if the data reveal significant differences within the same pattern/model.

5.1 *Donated Income*

The first and most diffused pattern that emerges from the analysis of non-profit and hybrid organizations through the Sustainability Model Canvas is the Donated Income model. In this model, the organizations rely on donations, i.e. direct contributions (which represent more than 50% of the revenues) from some of the stakeholders involved. These contributions can be monetary, labor, or in-kind donations.

The Social and Environmental Benefits created by these organizations pertain many different beneficiaries. Examples include the WWF, active in the field of wilderness preservation; Médecins Sans Frontiers (Doctors Without Borders) that provides humanitarian medical care, and the Wikimedia Foundation that provides the free encyclopedia Wikipedia, created over time by people who volunteer to write and update its contents. The social and environmental risk in these cases is the potential to focus more on the needs of donors and volunteers rather than beneficiaries. Therefore, it's important to constantly assess the impact on and the satisfaction of beneficiaries.

Three sub-models can be identified considering the different types of donations:

5.1.1 *Donated Income – monetary donations.* The first sub-model is based on monetary donations from various contributors, which could be individuals (big or small donors, alumni donations, etc.), corporate donations, or donations from non-profit organizations such as foundations.

5.1.2 *Donated Income – voluntary labor donations.* The second sub-model is based on voluntary labor donations from people who believe in the work of the organization and decide to offer their time to contribute to its vision.

5.1.3 *Donated Income – in-kind donations.* The third sub-model among the Contributed Income model is based on the resources that donors decide to give to the organization, in other words, it is based on in-kind donations.

Frequently, non-profit organizations look for and receive all these types of donations to improve their economic sustainability. However, the management of voluntary labor donations present significant challenges terms of organization and governance (e.g. [Farny et al., 2019](#)).

5.2 *Earned income*

The second pattern that emerges from the analysis of non-profit and hybrid organizations is the Earned Income model. In this model, the most adopted by hybrid organizations, the organizations rely mainly on the income they generate for their economic sustainability, even if they are mission-oriented.

The Social and Environmental Benefits created by these organizations are related to the usefulness of their product/services for the beneficiaries and/or the ability to provide the product/services at discounted prices to the beneficiaries. The social and environmental risk in these cases is connected to the commercial nature of the activities and the possibility of a drift toward a for-profit orientation.

A famous example of the adoption of this Sustainability model is the Grameen Bank founded by Nobel Prize winner Muhammad Yunus. Grameen Bank, a for-profit (hybrid) organization, has been the first to offer (modern) microcredit to the poorest people in Bangladesh.

Another example is Too Good To Go, a for-profit company, that adopts a multi-sided model to reduce food waste. It accomplishes this by connecting restaurants and shops that have products nearing the end of their shelf life to customers interested in these products at a discounted price.

There are two main sub-models in this case: the clients are the beneficiaries (direct model), or anyone can be a client (indirect model).

5.2.1 Earned income – direct. The first sub-model is sustained directly from the beneficiaries who act as clients of the organization. Generally, all Bottom of the pyramid businesses belong here, i.e. all those businesses that target the poorest markets in the world tailoring their products and services to serve those people.

5.2.2 Earned income – indirect. The second sub-model is based on a profit-oriented set of services. The profits are then used for generating grants or for initiatives and activities that have a positive impact from a social or environmental perspective.

5.3 Public Income

The third emerging pattern can be labeled Public Income and refers to all those organizations that are supported by funds coming from public entities. In this category, we have all the non-profit and hybrid organizations that are financed by public funds (grants or contracts) for at least 50% of their revenues.

The social and environmental benefits in these cases are guaranteed by the public institutions that should direct the funding only towards the most efficient and mission-driven organizations. However, there is the risk of a focus of these organizations on the relationship with the public institution (obtaining more funding) than on the impact on the beneficiaries. An example of this model is the Danish Refugee Council, an NGO that works on various humanitarian projects worldwide with a focus on helping refugees.

5.4 Auto-generated income

The final pattern identified in the analysis can be categorized as “Auto-Generated Income.” This label pertains to organizations, often foundations, which commence with substantial resources, leveraging them to sustain their operational costs. These resources are typically donated by one or more founders with a specific social or environmental mission (the fund destination).

Here the Social and Environmental benefits are clearly defined from the start and there are fewer risks of a drift of the mission because the organization is bounded by law to pursue the original mission. However, in these cases there can be a less than optimal use of the funds given the lack of control by external stakeholders like donors and clients. Examples included The Bill & Melinda Gates Foundation (USA) and the Wellcome Trust (United Kingdom).

There are two main sub-models in this case:

5.4.1 Auto-generated income – grant-making. In the first sub-model – Grant Making – the organization donates most of the revenues (higher than 50%) to third-party organizations through grants and scholarships.

5.4.2 Auto-generated income – operating. In the second sub-model – Operating – the organization uses the majority of the revenues directly for specific programs for the beneficiaries.

5.5 Mixed Approach

Finally, it is important to highlight that many of the non-profit and hybrid organizations that have been analyzed leverage more than one income type. In all the previous cases one income source was worth more than 50%, but there are cases in which there is not an income type

that emerges significantly more than the others. These cases adopt a “Mixed Approach” Sustainability Model, relying at the same time in relevant proportions on two or more of the previous models. An example are the Ivy league universities in the USA that have significant endowments (auto-generated income), receive donations from alumni, receive financial support from public institutions for their educational and research missions, and also have earned income from paying students.

5.6 Final insights from the empirical evidence

To conclude, while For-Profit organizations have a single focus on the “Earned Income” approach, non-profit and hybrid organizations also have additional revenue streams and models, such as donations (Donated Income), public contributions (Public Income) and returns from investments (Auto-Generated Income). For-profits can in some cases leverage these revenue streams, but not in a significant way and cannot base on them their sustainability. These additional revenues sources and sustaining mechanisms have an impact on their business model and on how they balance all the forces related to the multiple bottom lines.

Finally, we have found that in all Sustainability models a further specification is possible: the option of involving disadvantaged workers including person with disabilities, women, poor worker, ex-inmates and so on. This involvement is normally an additional “social” characteristic (i.e. the models that already have a significant social impact can add another type of social impact thanks to the inclusion of these disadvantaged workers). However, in one case the involvement of disadvantage workers is not an additional social impact but the main one (i.e. this is the social impact that transform an organization in a non-profit and hybrid organization). This model can be called “inclusive sustainability model” and is the case of some non-profit and hybrid organizations that involve disadvantaged people, such as for example restaurant or catering service involving only ex-inmates as employees or street magazines involving only vulnerable people as distributors, and companies with a “fair trade” business model.

6. Discussion: a multi-sided platforms perspective

This study aimed to identify potential patterns within the Sustainability Model Canvas, and revealed four distinct models, along with their respective sub-models, that demonstrate how non-profit and hybrid organizations can balance their objectives and maintain sustainability. The modifications inherent in the Sustainability Model Canvas, as compared to the Business Model Canvas, provide intriguing insights into the unique business models of these firms.

A key feature of these organizations is the ability to address Stakeholder Segments, rather than focus solely on Customer Segments. For these organizations to achieve their triple sustainability, they must engage various stakeholder groups that are not solely driven by economic factors.

In other words, a traditional for-profit organization, operating on a linear value chain, must convince the market that its offerings are valuable and worth purchasing. The highlighted patterns indicate that this is insufficient for non-profit and hybrid organizations. The “users” or “beneficiaries” are necessary, but they alone cannot sustain the entire model. Sometimes they are irrelevant from the business perspective because they cannot pay for the products or services received (e.g. endangered animals, poor, children, etc.). In some instances, there is a need for individuals or organizations who, appreciating the overall value proposition offered by the organization (i.e. their positive environmental and/or social impact), are willing to donate labor, resources or at least accept higher investment risks. Non-profit and hybrid organizations need to be appealing and valuable from multiple perspectives

and stakeholders. This ties back to the modification in the Sustainability Model Canvas to consider a “Triple Bottom Line Value Proposition” rather than a simple “Value Proposition”.

Interestingly, from a business model perspective, this characteristic is not unique to non-profit and hybrid organizations, but has significant parallels in platform literature. Multi-sided platforms encounter similar dynamics. As already seen, a two-sided platform is a business that requires two different types of customers simultaneously, generating indirect network externalities (Rochet and Tirole, 2003). A well-known example is credit cards, which need to onboard cardholders and merchants simultaneously.

This parallels excellently with the non-profit and hybrid organizations we are discussing, where another stakeholder group often subsidizes the end users (beneficiaries). Over the past decade, the popularity of two-sided platforms has skyrocketed in the management world, largely due to the success of startups that rely on this business model such as Airbnb and Uber. This is primarily related to the proliferation of digital opportunities (Täuscher and Laudien, 2018; Hein *et al.*, 2019; Trabucchi and Buganza, 2019).

From a managerial perspective, the opportunity to study these types of businesses, rather than from a purely economic standpoint, reveals many unique aspects of this model. These organizations deviate from the traditional linear value chain, relying on a complex system of value creation and capture where all “sides” contribute (Amit and Han, 2017). These findings may be mirrored and exploited for non-profit and hybrid organizations.

The starting point of a two-sided platform is to combat market frictions (Evans and Schamalansee, 2016a, b): they aim to assist two sets of customers who are searching for each other (such as hosts and travelers on Airbnb) to find each other smoothly. The matchmaking between the two sides is usually just the beginning of a much more complex value proposition. During the diffusion and evolution of a two-sided platform, the company needs to give significant attention to the value it is proposing to each side (Clauss *et al.*, 2019). In particular, the company needs to consider that, during the launch phase, the focus needs to constantly shift from one side to the other, aiming to bring all of them onboard and design meaningful value propositions for all parties involved (Muzellec *et al.*, 2015).

Finally, two-sided platforms often need to undergo a significant evolution of their business model to reach an economic equilibrium, balancing various revenue sources, before achieving economic sustainability (Trabucchi and Buganza, 2019). In this process, the opportunity to transform the two-sided platform into a multi-sided platform (Hagiu and Wright, 2015), in some cases involving Orthogonal sides, plays a crucial role. Orthogonal players are customers that provide revenue sources to sustain the platform, even if they do not have a direct transaction with the end-users, for example, advertisers in a newspaper (Filistrucchi *et al.*, 2014). They subsidize the system, usually with the goal of reaching the first side or exploiting the critical mass of users reached by the platform (Trabucchi *et al.*, 2017, 2023).

All these features of the business models of multi-sided platforms can be mirrored in the dynamics of non-profit and hybrid organizations. These organizations act as the platform provider, creating a common ground for bringing together the various “stakeholder segments” highlighted in the previous cases. The first side, which is usually the demand side in two-sided platforms (Täuscher and Laudien, 2018), is represented here by the end-users – the beneficiaries - of the service offered. They are the ones benefiting from the organization’s core service.

Due to their sustainability focus, non-profit and hybrid organizations don’t view the “demand” side solely as a source of revenue. Therefore, other “sides” frequently need to be involved to ensure the system’s sustainability.

For instance “transactional sides” can be donors providing monetary, in-kind or labor donations. “Orthogonal” sides may join in sustaining the overall system even if not with a

direct transaction towards the end-users (for example, the impact-oriented shareholders of Grameen Bank).

In particular, the first emerging pattern - Contributed Income - may have a strong parallelism with the transactional two-sided platforms (Täuscher and Laudien, 2018; Trabucchi and Baganza, 2019), with the “demand” and “supply” sides substituted by the beneficiaries and the contributors. Coherently with this parallelism, also the externalities typical of this model seem to exist, since the number of contributors increases the value received by the beneficiaries and vice-versa. The other models - Earned Income, Public Income and Auto-Generated Income - are close to the structure of an “Orthogonal” two-sided platform (Filistrucchi *et al.*, 2014; Trabucchi *et al.*, 2017). The first side is still represented by the beneficiaries that receive a free service or do not pay it “completely” being subsidized by the presence of the second set of players. Coherently with the literature focusing on this kind of players, we may label these actors as “Impact investors” (e.g. Roundy *et al.*, 2017), different groups of stakeholders (from the managers of the foundations to the shareholders willing to accept lower returns for a social impact) that pay to sustain the impact of the non-profit and hybrid organizations.

This analysis is interesting also for the literature on two-sided platforms, that can see in this system, a different strategy than the Client-as-a-Target or Client-as-a-Source that tend to exploit in different ways the first side (Trabucchi *et al.*, 2017). These parallelisms are summarized in Figure 8, where the two models are represented together, since both transactional and Orthogonal platforms can co-exist in multi-sided platforms (Trabucchi and Baganza, 2019), and - as mentioned in the result section above - the highlighted patterns in the sustainability model canvas can co-exist within the same organization.

These parallelisms between multi-sided business models and the sustainable business models of non-profit and hybrid organizations have some implications for theory and practice. From an academic perspective, it offers a link between these two streams of literature, offering the chance to cross-fertilize both of them. In particular, so far, two-sided platforms have been linked to sustainability in two main ways: taking a sharing economy perspective (Trabucchi *et al.*, 2019) or a circular economy one (Urbinati *et al.*, 2017). In both cases, two-sided platforms are the mean through which non-profit and hybrid organizations

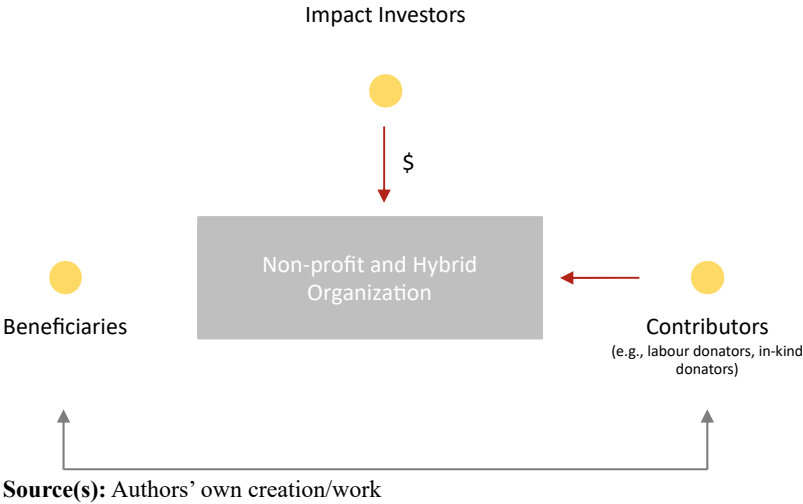


Figure 8.
Non-profit and hybrid
organizations as
platforms

are operationalized. Nevertheless, this study suggests that the link may be much deeper. In particular, the lenses of two or multi-sided platforms may be used to consider the various stakeholders that need to be involved in these organizations, pushing to better analyze and understand the relationships among them. The vast literature on two-sided platforms may then become a rich knowledge body to be exploited, taking a sustainability perspective. From a managerial perspective, this study may help innovators or entrepreneurs of non-profit and hybrid organizations to combine the Sustainability Model Canvas with the platform view. This pushes towards the visualization of the various stakeholder segments and, therefore, towards the design of (coherent) multiple value propositions that may build one on the others. In this perspective, some recommendations may be given to the managers of non-profit and hybrid organizations informed by the two and multi-sided platform literature:

- (1) Two or multi-sided platforms are frictions fighters on the market, getting together different “customers” that look for each other (Evans and Schmalensee, 2016a,b). Similarly, non-profit and hybrid organizations bring together stakeholders that search for some help (beneficiaries) and other that aim at helping (contributors or impact investors); in this perspective a role of the managers of non-profit and hybrid organizations is in reducing the frictions between these stakeholders.
- (2) Two or multi-sided platforms need to be designed with a clear understanding of all the sides involved and a clear value proposition for each of them (Muzellec *et al.*, 2015). Similarly, non-profit and hybrid organizations may benefit from a clear understanding of all the stakeholders involved and the value they see in the organization.
- (3) Two or multi-sided platforms go through challenging times in the early phases, facing difficulties in bringing onboard the two sides at the same time (Caillaud and Jullien, 2003; Trabucchi, 2020). Similarly, non-profit and hybrid organizations need to convince all the necessary stakeholders to onboard at the same time for the organization to start successfully.
- (4) Two or multi-sided platforms may have different kinds of players involved, on top of the demand side, being transactional or Orthogonal players (Filistrucchi *et al.*, 2014; Trabucchi *et al.*, 2017). Similarly, non-profit and hybrid organizations may rely on contributors (in a transactional perspective) or impact investors (in a Orthogonal perspective).
- (5) Two or multi-sided platforms need to be flexible and rely on their modular structure to evolve over time, searching for different revenues sources and exploiting the critical mass of users on the platform (Trabucchi and Buganza, 2019). Similarly, non-profit and hybrid organizations need to consider their Sustainability model a living entity, considering opportunities to include new stakeholders over time, to increase the overall value exchanged in the organization.

7. Conclusions

The majority of business model literature has primarily focused on traditional profit-oriented organizations, those that strive to maximize their economic bottom line (e.g. Amit and Zott, 2001; Zott *et al.*, 2011). However, a significant number of organizations aim for a triple bottom line, simultaneously pursuing economic, social and environmental sustainability (e.g. Elkington, 1997; Rounaghi *et al.*, 2021) and increasingly, Hybrid organizations are emerging that despite being formally for-profit organizations share with the non-profit ones an impact-first approach (e.g. Schaltegger and Wagner, 2011; Doherty *et al.*, 2014; Santos *et al.*, 2015).

In this research, we have studied the unique aspects of non-profit and hybrid organizations in terms of their Sustainability models, which are business models that also incorporate social and environmental considerations. To facilitate the visualization, the design and the study of these models, we have introduced the Sustainability Model Canvas. This model overcomes some of the limits of previously introduced models (e.g. [Joyce and Paquin, 2016](#); [Sparviero, 2019](#); [Cardeal et al., 2020](#); [Daou et al., 2020](#)) that have not been successful in theory (few citations in scholarly journals) or in practice (limited adoption) for instance because of their over-complex, over-simplified or too specific design.

Furthermore, this tool has been employed to analyze the sustainability models of 200 non-profit and hybrid organizations with the aim of identifying common patterns, unique characteristics and managerial suggestions to manage the three competing bottom lines. As a result of the analysis, four primary Sustainability model patterns, plus one additional pattern (a combination of the previous four), have been highlighted.

From a managerial perspective, these patterns and the related examples can be useful blueprints and inspiration for non-profit and hybrid organizations willing to design or innovate their sustainability models.

In terms of future research, these patterns can also be the basis for further theoretical developments, because we have highlighted some sub-patterns, but more can be analyzed, and new patterns can emerge from subsequent analyses.

Moving to the theoretical contributions, besides the enlargement of the business model literature beyond the focus on for-profit organizations, we have introduced and discussed a parallelism between the identified Sustainability model patterns and the Multi-sided platforms business model.

Exploring previous literature on multi-sided platforms, the topic of sustainability has been explored as the possible focus of specific platforms that rely on sharing economy ([Tan et al., 2022](#)) or circular economy paradigms ([Franzò and Urbinati, 2023](#)). Recent contributions point out that platforms can also be the key to fostering important social impact ([Logue and Grimes, 2022](#)) and be a huge ally in dealing with grand challenges ([Ritala, 2023](#)). Still, all these early studies linking platforms and sustainability at large tend to put at the center the platform initiative as a key to reaching a sustainability-related goal. This research, though, opens a different scenario. Multi-sided platform business model can support non-profit or hybrid organizations by supporting the emerged patterns by considering multiple sets of stakeholders as the “sides” of a multi-sided platform. In other words, platforms may not be the business itself, as considered in previous articles (e.g. [Tan et al., 2022](#); [Logue and Grimes, 2022](#); [Ritala, 2023](#); [Franzò and Urbinati, 2023](#)) but become a tool to support the design of a non-profit or hybrid organization business model, applying a platform thinking perspective ([Trabucchi and Buganza, 2022](#)).

This last result is exploratory in nature, with all the due limitations. However, it can also open up avenues for future research at the intersection between platforms and sustainability.

Note

1. We presented a first version in 2020 ([Landoni and Trabucchi, 2020](#)).

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