Non-financial resources to enhance companies' profitability: a stakeholder perspective

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Abstract

Purpose – This study aims to investigate the impact of stakeholders' nonfinancial resources (NFRs) on companies' profitability, filling a significant gap in the literature regarding the role of NFRs in value creation.

Design/methodology/approach – Data from 76 organizations from 2017 to 2019 were collected and analyzed. Four primary NFRs and their key value drivers were identified, representing core elements that support different dimensions of a company's performance. Statistical tests examined the relationship between stakeholders' NFRs and financial performance measures.

Findings – When analyzed collectively and individually, the results reveal a significant positive influence of stakeholders' NFRs on a firm's profitability. Higher importance assigned to NFRs correlates with a higher return on sales.

Originality/value – This study contributes to the literature by empirically bridging the gap between stakeholder theory and the resource-based view, addressing the intersection of these perspectives. It also provides novel insights into how stakeholders' NFRs impact profitability, offering valuable implications for research and managerial practice. It suggests that managers should integrate nonfinancial measures of NFRs within their performance measurement system to manage better and sustain companies' value-creation process.

Keywords Nonfinancial resources, Resource-based view, Stakeholder theory, Profitability, Performance management system

Paper type Research paper

1. Introduction

According to the resource-based view (RBV) of the firm, companies develop strategies differently, leading to distinct sustainable competitive advantages due to variations in their resource and capability mix (Barney, 1991; Penrose, 1959; Wernerfelt, 1984). While existing research within the RBV literature has primarily focused on the impact of financial capital

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on companies' profitability, yielding positive findings (Bertoni *et al.*, 2011; Carney and Gedajlovic, 2002), the value creation of companies is equally, if not more, influenced by nonfinancial resources (NFRs) (Ittner and Larcker, 2003; Parker, 2012). NFRs, such as technological, knowledge and human resources, play a fundamental role in strategic management, even from the companies' inception (Quas *et al.*, 2021; Riepe and Uhl, 2020). For instance, intellectual capital, which underlies companies' strategies (Abatecola and Cristofaro, 2020), has been extensively acknowledged and found to drive the value creation process and subsequent profitability (D'Amato, 2021; Tiwari, 2021).

Despite a substantial and rapidly expanding body of strategic management literature recognizing the strategic potential of NFRs (Hristov *et al.*, 2022b; Kaplan and Norton, 2005; Parker, 2012), there remains a significant gap in understanding how NFRs influence companies' value creation (Choi and Wang, 2009; Lovallo *et al.*, 2021), even in reputable journals such as *Management Research Review* (Cricelli *et al.*, 2014; Wasiuzzaman, 2019). When examined, the role of NFRs on companies' profitability is often overshadowed by studies on other strategic topics or discussed in a general sense. For example, Prieto and Revilla (2006) discovered a link between learning capability and nonfinancial performance, which then mediates financial performance based on data from 111 Spanish companies. However, recent developments in the RBV highlight the need for a closer integration with stakeholder theory. Scholars have advocated for a detailed examination of people and their cooperation to achieve a more nuanced understanding of strategic management at the intersection of stakeholder theory and RBV (Freeman *et al.*, 2021, p. 1,760). This integration entails considering all stakeholders in the RBV model of rent appropriation (Barney, 2018; Roberts, 1992) and exploring stakeholders as resources that contribute to competitive advantage (Litz, 1996).

Unfortunately, the lack of suitable methods and approaches for measuring nonfinancial performance and the excessive focus by managers and researchers on financial performance have hindered contributions to the literature. These criticisms likely stem from decision-makers skepticism regarding the impact of NFRs on financial performance (Ferreira and Otley, 2009). Given these considerations, we aim to shed light on the role of stakeholders' NFRs by addressing the following research question:

RQ1. How do stakeholders' nonfinancial resources affect companies' profitability?

When considered collectively, our underlying hypothesis is that stakeholders' NFRs positively influence a company's profitability.

We collected data from 76 organizations from 2017 to 2019 to test this hypothesis. We identified four primary NFRs – shared organizational culture (OC), employees' motivation (MOT), organizational integration (OI) and stakeholders' perception (SPS) – along with their key value drivers, which are crucial for a company's profitability (Hristov *et al.*, 2022a). These key value drivers represent core elements that support and facilitate the implementation of specific dimensions of a company's performance. We examined the impact of all four primary NFRs and their key value drivers on financial performance measures through statistical tests. The results demonstrate that stakeholders' NFRs significantly influence a firm's profitability, both when analyzed collectively and individually. Notably, assigning higher importance to NFRs correlates with a higher return on sales (ROS).

This study contributes to the literature by empirically addressing the intersection of stakeholder theory and RBV, thereby bridging the gap between these two perspectives recently advocated by prominent scholars (Freeman *et al.*, 2021; Gibson *et al.*, 2021).

Moreover, this study provides valuable insights into how stakeholders' NFRs impact a company's profitability, opening avenues for future research. Consequently, this work establishes suitable nonfinancial measures for key stakeholders' NFRs. It suggests that managers integrate them into their performance measurement systems (PMS) to enhance the management and sustainability of companies' value creation processes. This recommendation complements existing tools, such as the Balanced Scorecard by Kaplan and Norton (1996), which are already designed to measure nonfinancial aspects of firms.

In summary, this paper significantly contributes to understanding the strategic role of NFRs and impact on companies' profitability, addressing crucial gaps in the literature and providing actionable insights for practitioners.

2. Theory and hypothesis development

2.1 Resource-based-view and stakeholder theory: theoretical premises and their confluence

Both the RBV and stakeholder theories emerged in the field of strategic management during the mid-1980s, aiming to understand the leadership and management of for-profit business firms. According to RBV scholars, companies require a bundle of valuable, rare, imperfectly imitable and nonsubstitutable (VRIN) resources to implement value-creating strategies that are difficult to replicate by other firms, thereby building sustained competitive advantage (Barney, 1991; Peteraf, 1993). Financial resources, such as cash and active loans, differ from NFRs, including technological, knowledge and human resources, which possess VRIN characteristics and are typically converted from financial resources (Greene and Brown, 1997; Lovallo *et al.*, 2021). Extensive literature has demonstrated the positive impact of financial resources on company performance, although contextual factors may occasionally limit their effects (Deb *et al.*, 2017). As a result, managers have often associated performance with financial elements analyzed through financial reporting and managerial accounting, primarily due to their familiarity with financial measures and short-term orientation (Kaplan and Norton, 2005).

However, RBV theory predicts NFRs as the critical factors for firm success (Amit and Schoemaker, 1993; Conner, 2002), and contributions within this stream have highlighted the significance of human and social resources as sources of competitive advantage for ventures (Davidsson and Honig, 2003; Bosma *et al.*, 2004). Consequently, NFRs are frequently linked to a firm's stakeholders (Bhatt and Joshi, 2022; Harrington *et al.*, 2016). This alignment with stakeholder theory suggests that a firm's capacity to generate sustainable wealth and long-term value is determined by its relationships with critical stakeholders, including shareholders, employees, customers, suppliers, governments, local communities and environmental interest groups (Post *et al.*, 2002). Stakeholder theory emphasizes that value creation is embedded in the relational contributions between a central organization and its stakeholders (Nicoletti *et al.*, 2021; Matthews *et al.*, 2019; Kumar *et al.*, 2016; Donaldson and Preston, 1995; Freeman, 1984). Notably, a business's performance is influenced by customers and various stakeholders, as illustrated by Porter's (1985) five environmental forces model and Kaplan and Norton (1996) balanced scorecard. However, despite stakeholder theory's early influence on the development of strategic management, scholars do not use it widely to explain competitive advantage (Harrison *et al.*, 2007).

To address this gap, Freeman *et al.* (2021) recently identified four broad areas for facilitating the convergence of RBV and stakeholder theory: normativity, sustainability, people and cooperation. Regarding normativity, the authors argue that social norms, shared values and beliefs provide the context for initial agreements and the adjudication of social contracts when breaches occur. Regarding sustainability, they contend that sustainable competitive advantage cannot be achieved without sustainable stakeholder relationships.

Sustainability, in this context, refers to the extent to which a firm considers the interests of its stakeholding communities (Litz, 1996). In the third category, people are viewed not merely as resources but as stakeholders who bring resources and make decisions concerning them. This emphasizes that individuals are ends in themselves rather than means. For instance, top managers should not be considered key resources *per se* but should be recognized for their skills and abilities. Finally, Freeman *et al.* (2021) assert that one of the managerial goals is to build sustainable cooperative advantage by fostering cooperative elements in a firm's economic relationships, underscoring the importance of cooperation in bridging RBV and stakeholder theory.

2.2 Nonfinancial resources and companies' performance

Financial capital, including shareholders' capital, cash balances, loans and bank overdrafts, is typically transformed into NFRs relevant to a firm's strategy. One example is when an established company allocates a portion of its annual budget to upgrade its technological infrastructure. However, converting financial resources into NFRs can also occur more implicitly and less obviously. For instance, a company may invest financial capital in redesigning recruitment processes to foster a more diverse workplace environment. While the strategic literature acknowledges the importance of financial resources, the study of NFRs within the RBV framework remains limited and fragmented.

Recent literature, such as the work of Hristov and Appolloni (2021), has identified four pivotal NFRs that contribute to a company's profitability and can be linked to stakeholders. These NFRs are as follows:

- shared OC (CC);
- MOT;
- SPS; and
- OI.

These NFRs can be logically associated with the normativity (i), people (ii) and (iii) and cooperation (iv) elements highlighted by Freeman *et al.* (2021), thus bridging the gap between RBV and stakeholder theory.

These four NFRs play a central role in the value creation process and, consequently, in a company's profitability. Please refer to Table 1 for further details.

First, CC refers to shared values, beliefs, assumptions and practices that guide and influence the actions of all team members within a company. Recent literature, such as the works of Cimini (2021) and Hussain *et al.* (2018), emphasizes the significant impact of CC on companies' performance. Hristov *et al.* (2022b) specifically highlight cultural barriers as critical factors that hinder the incorporation of NFRs into corporate strategy. A meta-analytic review conducted by Hartnell *et al.* (2011) found that cultures focused on cohesion, participation and communication, such as clan and adhocracy cultures, are positively associated with job satisfaction, organizational commitment, subjective profit and subjective performance.

Various drivers have been identified in the existing literature for measuring OC as an NFR. Co-working (Hristov *et al.*, 2022b), learning and growth (Kaplan and Norton, 2005), leadership and soft skills (Fry and Slocum, 2008), as well as strategic alignment, are considered key drivers of OC (Berry *et al.*, 2009; Malmi and Brown, 2008). A significant body of literature suggests that implementing a strategy aimed at building a strong OC has the potential to influence the choices and behaviors of individuals (Hofstede, 1984). OC impacts MOT and managers' ability to manage relevant information, rationalize decisions and

Nonfinancial resources	Description	Key value drivers	Main literature
Employees' motivation	Enthusiasm, energy level and commitment that an employee brings to the organization on a daily basis	Job reward	Gallus and Frey (2016)
		Career prospects	Belenzon and Schankerman (2015)
		Safety in the workplace	Flammer and Luo (2017), Giannakis *et al.* (2020); Lisi (2018), Boreham *et al.* (2016)
		Flexibility	Manzoor (2012)
Stakeholders' perception	The perceived degree of concern, by stakeholders, toward a company's strategy and attitude	Partnership	Buysse and Verbeke (2003), Harrison and St. John (1996)
		Loyalty	Freeman (1984)
		Networking	Ackermann and Eden (2011), Porter and Kramer (2006)
		State of employee relations	Hristov and Appolloni (2021), McWilliams and Siegel (2001)
Organizational integration	The extent to which distinct and interdependent agents rapidly and adequately respond and/or adapt to each other while pursuing common organizational goals	Innovation	Hristov *et al.* (2022c); Loureiro *et al.* (2020), Palermo *et al.* (2017)
		Skills	Hristov *et al.* (2022c); Khan *et al.* (2016), Fry and Slocum (2008)
		Recruiting	Hristov *et al.* (2022c); Palermo *et al.* (2017)
		Information system	Hristov *et al.* (2022c); Hubbard (2009), Fry and Slocum (2008)
		Monitoring	Hristov *et al.* (2022c); Hubbard (2009)
Shared organizational culture	Shared values, beliefs, assumptions and practices that guide and inform the actions of all team members	Co-working	Hristov *et al.* (2022b); Lisi (2018)
		Learning and growth	Hristov *et al.* (2022c); Searcy (2012), Hussain *et al.* (2018); Berry *et al.* (2009), Kaplan and Norton (2005)
		Leadership and soft skills	Hristov *et al.* (2022c); Hussain *et al.* (2018), Fry and Slocum (2008)
		Strategic Alignment	Hristov *et al.* (2022c); Malmi and Brown (2008)

Source: Authors own creation

Table 1. Investigated nonfinancial resources

exercise discretion. This, in turn, enhances the overall efficiency and effectiveness of the company's system. By promoting the involvement of human capital in developing a sustainable plan and creating an environment where employees feel safe to express themselves, share information and contribute their ideas, the company can reap numerous benefits. These benefits include optimizing production, integrating different resources and ultimately impacting the company's performance (Ferreira and Otley, 2009; Chenhall, 2003). Internal and external cultural behavior involving various actors in the value-creation

process at the business and social levels presents a persistent challenge for managers and scholars (Searcy, 2012). Managing the cultural dynamics within an organization and across its external stakeholders remains an ongoing area of concern and exploration. Second, MOT, which refers to the enthusiasm, energy level and commitment that employees bring to the organization daily, has consistently been found to have a positive influence on companies' performance (Bhatt and Joshi, 2022; Boreham *et al.*, 2016; Giannakis *et al.*, 2020). Researchers have often explored different facets of motivation, such as job rewards (Gallus and Frey, 2016), career prospects (Belenzon and Schankerman, 2015), workplace safety (Giannakis *et al.*, 2020; Lisi, 2018; Flammer and Luo, 2017) and flexibility (Manzoor, 2012). Conversely, Ricciardi *et al.* (2020) argued that antisocial behaviors can hurt firms' performance, including opportunism, conflicts and extrinsic limitations on data management capabilities. Creating a suitable workplace environment, implementing an effective reward system and adopting a flexible approach to employees' needs can stimulate the efficiency of the production process. This, in turn, directly impacts employees' productivity and the company's overall profitability (Parker, 2012).

Third, OI refers to the degree to which distinct and interdependent components within an organization can swiftly and effectively respond and adapt to one another while pursuing common organizational goals (Fry and Slocum, 2008; Palermo *et al.*, 2017). OI, closely related to the concept of "cooperation" in Freeman *et al.* (2021) framework, plays a crucial role in mitigating internal and organizational conflicts, which can harm the formulation and implementation of strategies. To foster OI, various drivers are used, including continuous innovation (Loureiro *et al.*, 2020), monitoring (Hubbard, 2009), skills improvement (Khan *et al.*, 2016), information systems (Hristov and Appolloni, 2021; Fry and Slocum, 2008) and efficient recruiting processes (Palermo *et al.*, 2017).

OI also serves as a means to achieve governance and cultural performance by aligning with the corporate strategy, which directly impacts SPS (Robson and Ezzamel, 2022; McWilliams and Siegel, 2001) and the company's profitability. For instance, research conducted by Swink and Schoenherr (2015), analyzing 115 top executives over three years, revealed that internal integration primarily contributes to profitability by driving process efficiencies. These efficiencies significantly reduce sales, general and administrative costs for firms with extensive process spans (Koufteros *et al.*, 2005).

Fourth, in recent decades, management scholars have extensively explored the role of stakeholder factors in firms' performance (Cornell and Shapiro, 1987; Koh *et al.*, 2007; Mitchell *et al.*, 1997; Unterhitzenberger *et al.*, 2020). Stakeholder theory emphasizes the significance of SPS, which refers to stakeholders' perceived level of concern toward a company's strategy and attitude as a nonfinancial asset that companies can leverage (Litz, 1996). According to stakeholder theory, to maximize long-term wealth and value creation, managers should develop and implement a structured system for managing stakeholders' expectations (Donaldson and Preston, 1995; Guerci *et al.*, 2016). Integrating SPS into the strategy is believed to positively affect economic and financial performance (Clarkson, 1995; Donaldson and Preston, 1995; Freeman, 1984; Jones, 1995). The theory suggests that satisfying various stakeholder groups is instrumental in generating performance (Freeman and Evan, 1990; Jones, 1995). Analyzing the existing management literature reveals that several determinants are involved when developing a strategy to increase stakeholder engagement at a strategic level. High SPS, characterized by partnership (Buysse and Verbeke, 2003; Harrison and St. John, 1996), loyalty (Choi and Wang, 2009), networking (Ackermann and Eden, 2011) and the state of employee relations (Hristov and Appolloni, 2021), potentially plays a significant role in the value creation process of firms and acts as a

driver supporting their performance (Cervelló-Royo *et al.*, 2020; Martínez Hernández *et al.*, 2021).

Based on these premises, this study proposes an integrative bundle of the four stakeholders' NFRs described above:

(1) OC;
(2) MOT;
(3) OI; and
(4) SPS.

These NFRs are the main drivers of a company's profitability (Merchant and Van der Stede, 2006). Consequently, the fundamental hypothesis underlying this study is as follows:

H1. Stakeholders' nonfinancial resources, seen jointly, positively influence the company's profitability.

3. Research methodology

To investigate the impact of stakeholders' NFRs on companies' profitability, the authors outlined a three-step process:

(1) The first step involved developing a strategy to establish a set of key performance indicators (KPIs) that reflect the stakeholders' NFRs (Section 3.1).
(2) The second step focused on identifying a sample of firms with available KPIs. This allowed the collection of profitability indexes and other accounting variables for the period under investigation, specifically from 2017 to 2019 (Section 3.2).
(3) The third step entailed defining a suitable protocol for testing the research hypothesis (Section 3.3).

By implementing this systematic approach, the authors sought to gain insights into the impact of stakeholders' NFRs on companies' profitability, thereby contributing to our understanding of the relationship between NFRs and financial performance.

3.1 The definition of the key performance indicators oriented to express the stakeholders' NFRs

The main concern in this study revolved around the development of nonfinancial KPIs and the potential subjective bias involved in collecting nonfinancial accounting information. To address this concern, the authors decided to construct a structured set of KPIs based on the level of implementation of key value drivers associated with each dimension of stakeholders' NFRs within the organization. Four metrics were developed to represent the dimensions of stakeholders' NFRs, namely, OC, MOT, OI and SPS.

Survey research using questionnaires was chosen as the data collection method due to its simplicity and concise format, making it feasible to collect data from busy participants who may not have the time or willingness to engage in lengthy or complex procedures. Questionnaires are commonly used in organizational research as a standard method for data collection (Dai *et al.*, 2019; Evans *et al.*, 2015; Hristov *et al.*, 2022b), whereas open-ended questions or personal interviews are often impractical (Dane, 1990).

The questionnaire comprised two sections, with 18 questions (Appendix), and respondents were asked to provide their answers based on the reference years of 2017, 2018 and 2019. To ensure the validity of the questionnaire, an independent accounting professor not involved in the research validated it. Managers also had the opportunity to suggest

additional dimensions, but no relevant dimensions were identified beyond those already analyzed in the literature.

The first section of the questionnaire collected demographic information, which aided in filtering the results and establishing direct contact with the interviewees to understand their work ecosystems. The answers to this section were not coded for analysis but served an exploratory purpose. The second section focused on respondents' evaluations of the four stakeholders' NFRs. The key drivers associated with the NFRs were derived directly from the relevant literature in strategic management, including the framework provided by Hristov *et al.* (2022c, 2022d) and other authors' findings (Gallus and Frey, 2016; Belenzon and Schankerman, 2015; Giannakis *et al.*, 2020; Lisi, 2018; Flammer and Luo, 2017; Manzoor, 2012). The questionnaire also explored discrepancies or integration in managerial practices based on the identified drivers.

The questionnaire structure was guided by the research question and aimed to generate nonfinancial KPIs for each dimension of stakeholders' NFRs, measured on a seven-point Likert-type scale. Respondents were asked to rate the level of implementation of key value drivers for each dimension in their organization, explaining their choice. The coherence between the explanation and the attributed score was analyzed, and no significant changes were made. The KPI for each dimension was calculated as the simple average of the drivers identified in the questionnaire, avoiding the introduction of discretion in assigning weights to the assessment. The questionnaire was distributed on November 30, 2022, and respondents had until June 30, 2023, to answer and submit their responses.

3.2 Sample selection and data collection

The questionnaire was distributed to managers belonging to firms that met two criteria:

(1) having more than 100 employees, as these firms typically develop corporate strategies oriented toward stakeholder engagement at a business level (Lisi, 2018); and

(2) having a Web page or e-mail address for contact purposes.

The survey questionnaire was e-mailed twice to 524 firms across different industries using this approach. Following Dillman's (2011) recommendations, participants were informed about the study two days before the first mailing, providing general information about the survey and instructions to access the Web platform for completing the questionnaire. To encourage participation, anonymity of the information provided was assured. Some respondents requested further information on the context and aim of the research, which was delivered via email or phone.

A total of 276 questionnaires were completed, resulting in a response rate of 47.52%, considered positive for survey-based studies in management accounting (Chapman and Kihn, 2009; Hair *et al.*, 2014). Of these returned questionnaires, 37 were excluded due to multiple missing values on dependent variables or data inaccuracy (Hair *et al.*, 2014). Additional filters were applied from the remaining 239 usable responses to enhance data quality. Specifically, only managers with more than five years of experience in management control and a PMS at the senior or middle manager level were considered, as self-reported by the respondents.

Table 2 summarizes the sample selection strategy, which resulted in a final sample of 76 firms for which the four KPIs expressing the stakeholders' NFRs (i.e. OC, MOT, OI and SPS) were assessed based on the responses from the usable questionnaires. We sent the questionnaire twice to increase the number of responses and, in turn, the reliability of the research results. We received 47 answers at the end of the first submission and 29 additional

Strategy			No. of collected answers	No. of observations (2017–2019)
Panel (a) Sample selection strategy				
Listed entities from AIDA database			524	
Questionnaires returned			276	
Sample after discarded questionnaires			97	
Final sample after the filters adopted			*76*	*228*
of which: answers received at the end of the first submission			*47*	*141*
Strategy	*No. of firms*	*FYO*	*%*	*Cumulative frequency*
Panel (b) Industry classification				
Manufacturing	31	93	41	41
Transportation	6	18	8	49
Pharmaceuticals	7	21	9	58
Service	13	39	17	75
Other	19	57	25	100
Total	76	228	100	

Notes: Panel (a) describes the sample selection strategy. We initially collected 249 answers to the questionnaire we sent. After discarding the answers with multiple missing values and adopting filters in terms of job and number of years of experience, we netted the sample of 76 organizations with a total of 228 observations in the period analyzed (2017–2019). Panel (b) discloses the industries of the entities belonging to the final sample. Panel (b) also reports the number of firms and the firm-year observations (FYO), for each industry, the percentage compared to the total number of FYO, and the cumulative frequency
Source: Authors own creation

Table 2.
Search strategy and industry classification

answers at the end of the second submission. According to Krejcie and Morgan (1970), moving from a population of 524 entities and a confidence level of 95%, a sample size of 76 organizations ensures a maximum margin of error (degree of accuracy) of 10.37%. More specifically, moving from 47 to 76 organizations has allowed a reduction of 4% of such maximum margin of error.

For the entities within the sample, the Analisi Informatizzata delle Aziende Italiane (AIDA) Bureau Van Dijk database was used to obtain two profitability indicators and several other accounting variables. The first indicator is the ROS, whereas the second is the return on assets (ROA). These profitability indexes were observed for 2017–2019 for the firms included in the sample. As a widely used performance measure, ROS has been extensively studied in the literature, as referenced in Coleman (2007) and Davis and Kay (1990). In the sensitivity analysis, this study also used ROA to test the robustness of the findings obtained in the primary analysis based on ROS. Like ROS, ROA has been used in numerous empirical studies, such as Kim and Henderson (2015) and Zajac *et al.* (2000), to examine a company's profitability.

3.3 The econometric model

To test the hypothesis that stakeholders' NFRs, seen jointly, positively influence the company's profitability, this paper has used linear regression models to regress a profitability measure on a synthesized measure of NFRs and other control variables.

The specification used is as follows:

$$\pi_{it} = \beta_0 + \beta_1 \text{NFRscore}_{it} + \beta_2 \text{stdTA}_{it} + \beta_2 \text{L}_{it} + \beta_{t-1} \text{fixed effects} + \varepsilon \quad (1)$$

Where:

π_{it} is a measure of the firm's profitability.

$NFRscore_{it}$ is an aggregate score that synthesizes the different metrics that, according to our theoretical framework, belong to NFRs.$stdTA_{it}$ is the standardized total asset that controls for the size of the entities included in the sample.

L_{it} is a dummy variable for the presence in the sample analyzed of loss firms. It is equal to 1 if the profit of the year is negative and 0 otherwise.

fixed effects are dummy variables that control for the time and the firm effects.

ε is the error term.

The subscript i and t refer to firms and years.

The dependent variable π_{it} is the industry-adjusted ROS and ROA. Industry-adjusted profitability measures are computed as the difference between the ROS and ROA downloaded from the AIDA database and the industry median value of ROA calculated for each year (Lovallo *et al.*, 2020).

The independent variable $NFRscore_{it}$ has been estimated using a factor analysis (FA), moving from the four KPIs oriented to express the stakeholders' NFRs. For each firm and year 2017–2019, the values of the different KPSs are available. FA is a valuable technique for data reduction purposes that is considered one of the simplest and most robust ways of making such dimensionality reduction. It explicitly assumes the existence of latent factors underlying the observed data. Moving from a set of intercorrelated variables, FA eliminates the redundant information expressed by the correlation coefficients between two or more variables and summarizes them in fewer variables. In this paper, the FA has purged the latent information represented by the correlation coefficients between the four KPIs oriented to express the stakeholders' NFRs.

For the control variables, this paper has considered the potential influence of other factors on the relationships under investigation. The total assets have been collected and standardized for size to control the dimension of the analyzed entities (Dang *et al.*, 2018). To avoid that loss firms might bias research findings, a dummy has been included between the explicative variables (Mitra and Hossain, 2009).

For the fixed effects, the Hausman (1978) test suggests that they avoid that invariant omitted factors might bias research results.

Table 3 lists the variables used to test our hypothesis, including a short description.

The research hypothesis of this paper is verified if the regression coefficient β_1 of $NFRscore_{it}$ is positive and statistically significant at 5%. In this case, the nonfinancial dimension system positively influences the company's profitability.

To test the robustness of our findings, in a first sensitivity analysis, this paper has used ROA instead of ROS as a measure of profitability measure. In a second sensitivity analysis, the regression parameters have been estimated using the single KPIs instead of the aggregate score ($NFRscore_{it}$). In a third (and last) sensitivity analysis, the regression model was reestimated using the subsample of 47 organizations (i.e. 141 observations) received at the end of its first submission. Therefore, in this test, we have yet to consider the 29 additional questionnaires received with the second submission that we implemented to increase the sample size and the reliability of results. This test aims to compare results achieved by using samples of different sizes. To do so, we have tested the mean difference between regression coefficients of the variables $NFRscore_{it}$ estimated considering the 47 organizations belonging to the subsample and the 76 organizations belonging to the full sample. We have added to equation (1) a new variable, i.e. the interaction term between $NFRscore_{it}$ and the dummy that identifies firms belonging to the subsample, to compare the $NFRscore_{it}$ coefficients estimated by considering the subsample with that estimated by considering the full sample. We expect to find the regression coefficient of such interaction

Variable	Description	Type
Industry-adjusted ROS	Accounting data. It is calculated by the difference between the profitability measure downloaded from the AIDA database and the median value of the ratio calculated for each sector and year analyzed	Dependent variable (main analysis)
Industry-adjusted ROA	Accounting data. It is calculated by the difference between the profitability measure downloaded from the AIDA database and the median value of the ratio calculated for each sector and year analyzed	Dependent variable (sensitivity analysis)
NFRscore	Aggregate score of the nonfinancial KPIs built (MOT index, SPS, OI index, CC index)	Independent variable (main analysis)
MOT	An average of the score attributed by the managers (from 1 to 7) on each of the key value drivers underlining employees' motivation (job reward, career prospects, safety in the workplace and flexibility)	Independent variable (sensitivity analysis)
SPS	An average of the score attributed by the managers (from 1 to 7) on each of the key value drivers underlining stakeholders' perception (partnership, loyalty, networking and state of employee relations)	Independent variable (sensitivity analysis)
OI	An average of the score attributed by the stakeholders (from 1 to 7) on each of the key value drivers underlining organizational integration (innovation, skills, recruiting, information system and monitoring)	Independent variable (sensitivity analysis)
CC	An average of the score attributed by the managers (from 1 to 7) on each of the key value drivers underlining organizational culture (co-working, strategic employee's involvement, social initiatives' participation and cultural integration)	Independent variable (sensitivity analysis)
stdTA	Standardized total assets	Control variable (main/ sensitivity analysis)
L	Dummy variable that controls for the presence in the sample analyzed of loss firms	Control variable (main/ sensitivity analysis)

Source: Authors own creation

Table 3. Main variables used in the model

term insignificant. This should suggest that results achieved by considering different samples are not statistically different from each other (i.e. the mean difference is zero), providing additional evidence on the robustness of findings achieved in our main analysis.

4. Results

4.1 Descriptive statistics

Table 4 provides the most common descriptive statistics of the variables used to test the research hypothesis of this paper, including those used to test the robustness of the findings.

The table reports the number of observations (FYO), the mean, the median, the standard deviation and the minimum and maximum variables. These provide exciting insights justifying specific methodological choices to test our research hypothesis. For instance, descriptive statistics of *TA* and *L* justify the presence between regressors of equation (1)

	No. of FYO	Mean	Standard deviation	Minimum	Maximum
ROS	228	+5.27	+8.62	-31.58	+47.19
ROA	228	+5.93	+6.91	−17.28	+35.92
Industry- adjusted ROS	228	0.47	8.42	−34.81	43.16
Industry-adjusted ROA	228	0.86	6.68	−22.84	30.36
CC	228	4.46	1.30	0.00	6.92
MOT	228	4.65	1.22	0.00	6.75
OI	228	4.50	1.20	0.00	6.80
SPS	228	4.63	1.24	0.00	6.50
TA	228	1.80e + 09	3.61e + 09	1.56e + 05	2.17e + 10
stdTA	228	0.00	1.00	−0.49	5.58
L	228	0.12	0.32	0.00	1.00
NI	228	5.62e + 07	2.07e + 08	−1.26e + 09	1.03e + 09
NFRscore	228	0.00	0.97	−3.82	+1.63

Notes: The table shows the number of firm-year observations (FYO), the mean, the median, the standard deviation and the minimum and the maximum values of variables used in this research to test the research hypothesis. Variable definitions: ROS is the return of sales (in %); ROA is the return of assets (in 5); CC is the cultural change index (theoretical range from 1 to 7); MOT is the motivational index (theoretical range from 1 to 7); OI is the organizational integration index (theoretical range from 1 to 7); SPS is the stakeholders' perception score (theoretical range from 1 to 7); TA is the total assets (in Euros); *L* is the total revenues (in Euros); and NI is the net income (in Euros); stdTA is the standardization of the total assets
Source: Authors own creation

Table 4.
Descriptive statistics

variables that control for the size and the company in the sample analyzed of loss firms. The aggregate score NFRs, whose means is 0.00 and whose standard deviation is 0.97, has been computed with an FA whose main descriptive statistics are summarized in Table 5.

Panel (a) suggests that only the first factor has a positive eigenvalue higher than 1 (i.e. 3.27), so, complying with the Kaiser criterion, only the first factor is retained. According to our findings, being equal to 1, the retained factor explains all the variance of the summarized variables. The factor loadings (i.e. correlations between the controlled factor and the

Factors	Eigenvalue	Difference	Proportion	Cumulative
Panel (a) Principal factors				
Factor 1	3.2654	3.27	1.03	1.03
Factor 2	–0.0015	0.04	–0.00	1.03
Factor 3	–0.0418	0.03	–0.01	1.02
Factor 4	–0.0700	–	–0.02	1.00
Variables		Factor1		Uniqueness
Panel (b) Factor loadings				
MOT		0.86		0.25
SP		0.94		0.12
OI		0.95		0.10
CC		0.86		0.25

Notes: Panel (a) tabulates the eigenvalues, the difference, the proportion and the cumulative values of the factors generated by the FA moving from the four KPSs. For the retained factor, Panel (b) tabulates the factor loadings of the four KPSs and their uniqueness
Source: Authors own creation

Table 5.
Statistics of our factor analysis

summarized variables), tabulated in panel b), are very high, suggesting that all the variables contribute to defining the factor's dimensionality. Also, the low uniqueness values (i.e. the variance of the single summarized variable not shared with the other ones) provide evidence of the high relevance of the variable in the factor model. All these findings have led this paper to predict and assume the first factor of our aggregate score NFRs. Table 6 shows the pairwise correlation coefficients of the variables whose descriptive statistics have been provided in the previous tables, with evidence of coefficients different from zero at 1%, 5% and 10% significance levels.

4.2 Findings

Findings validate the hypothesis that the four stakeholders' NFRs positively affect the firm's profitability. Table 7 and Figure 1 show the results, regressing the industry-adjusted ROS on the *NFRscore* and other control variables. The regression coefficient of the aggregate score is positive (i.e. +1.47) and statistically significant (i.e. $p < 0.05$). Also, the control variables' regression coefficients are statistically significant (i.e. the size at 10% and the variable *L* at 1%). The low values of the VIF, not tabulated, should suggest that the regression estimates are not biased by multicollinearity.

To develop a reliable statistical model, a robustness test is required, considering that, according to authoritative doctrine (Berger *et al.*, 2005), a robustness analysis should be implemented. Such analysis aims to confirm/confute the statistical results obtained with the previous model. In the first test, this paper uses an alternate measure of a company's profitability and, in particular, instead of ROS, it considers the industry-adjusted ROA. The results are tabulated in Table 8.

The findings validate those of the primary analysis. In particular, by using ROA to measure a firm's profitability, results confirm the hypothesis that the four stakeholders' NFRs positively affect the firm's profitability. Also, by using a different profitability measure, the regression coefficient of the aggregate score is positive (i.e. +0.97) and statistically significant (i.e. $p < 0.05$).

Once it is verified that using a different measure of profitability does not bias the conclusions of this paper, the second test investigates the relationship between the industry-adjusted ROS and the single stakeholders' NFRs (i.e. MOT, OI, CG and SPS). To do so, this paper reran equation (1) using such variables instead of the aggregate score *NFRScore*. Table 9 shows the research findings using different panels for each variable analyzed.

Results in Table 9 suggest that the single variables, which belong to the four stakeholders' NFRs according to our theoretical framework, are statistically significant at the traditional level of 5% and 10% with positive regression coefficients. Those that are significant at the traditional level are OI and SPS. This sensitivity validates the primary analysis findings but shows that the single dimensions of NFRs have different capabilities to positively affect the company's profitability.

In the third test, we reestimated our regression model by considering the subsample with 47 organizations (i.e. 141 observations) instead of the full sample with 76 organizations (i.e. 228 observations) adopted in the main analysis. The results of this last sensitivity analysis are shown in Table 10.

Results validate those of the main analysis achieved by referencing the full sample. Testing the mean difference between the regression coefficients of $NFRscore_{it}$ (i.e. subsample vs full sample), we find them not statistically significant (p-value = 0.88). This provides additional evidence that results are robust to the extent that those achieved by having as reference samples with different sizes are not statistically different from each other.

Table 6.
Correlation coefficients

	Industry-adjusted ROS	*Industry-adjusted ROA*	NFRs	MOT	OI	CC	SPS	TA	L	NI	stdTA
Industry-adjusted ROS	1.00										
Industry-adjusted ROA	0.62***	1.00									
NFRs	–0.04	–0.02	1.00								
MOT	–0.10	–0.06	0.89***	1.00							
OI	–0.03	–0.01	0.97***	0.81***	1.00						
CC	0.02	0.01	0.89***	0.74***	0.84***	1.00					
SPS	–0.04	–0.02	0.96***	0.83***	0.90***	0.80***	1.00				
TA	0.26***	–0.13**	0.03	–0.02	0.01	0.08	0.03	1.00			
L	–0.41***	–0.45***	–0.01	0.01	0.01	–0.01	–0.02	0.29***	1.00		
NI	0.52***	0.47***	0.13*	0.11*	0.10	0.12*	0.15**	0.04	–0.42***	1.00	
stdTA	0.26***	–0.13**	0.02	–0.02	0.01	0.08	0.04	1.00***	+0.29***	0.03	1.00

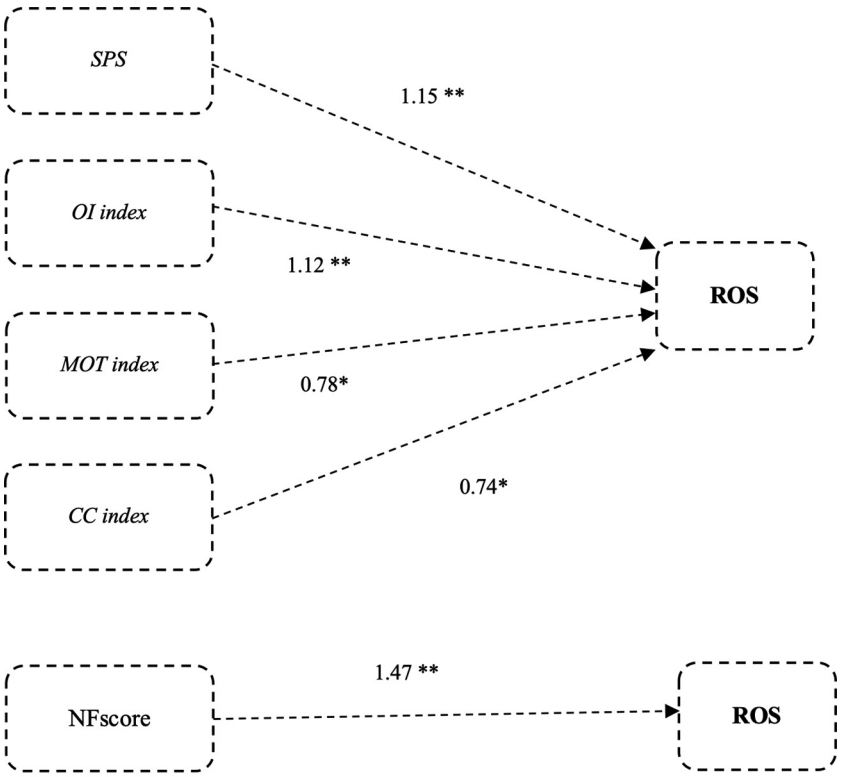
Notes: The table shows the linear correlation coefficients of variables; obs. = 228. (***) denotes correlation coefficients statistically significant at 1% level of significance; (**) denotes correlation coefficients statistically significant at 5% level of significance; correlation coefficients statistically significant at 10% level of significance

Source: Authors own creation

Variables	Coefficients	t-statistics	[95% confidence interval]
ROS/NFRSCORE	1.47	2.44**	0.29 to 2.65
ROS/L	–6.94	–5.90***	–9.25 to –4.63
ROS/stdTA	7.28	1.73*	–0.95 to 15.50
ROS/dy1	1.04	1.83*	–0.07 to 2.16
ROS/dy2	0.57	1.01	–0.53 to 1.69
Intercept	0.89	0.40	–3.46 to 5.24
No. of obs.	228		
R^2	84.59%		

Notes: Year is measured as a dummy variable distinguishing between 2017 (dy1) and 2018 (dy2). dy3 omitted to avoid perfect collinearity. (***) denotes regression coefficients statistically significant at 1% level; (**) denotes correlation coefficient statistically significant at 5% level
Source: Authors own creation

Table 7.
Regression analysis



Notes: *, ** and *** denote significance at the 0.1, 0.05 and 0.01 levels, ns denotes no significance
Source: Authors own creation

Figure 1.
(ROS) Theoretical model with significant path coefficients (obs. = 228)

Variables	Coefficients	t-statistics	[95% confidence interval]
ROA/NFRSCORE	0.97	2.03**	0.03 to 1.91
ROA/L	–4.12	–4.41*	–5.96 to –2.29
ROA/stdTA	–5.42	–1.62	–11.97 to 1.12
ROA/dy1	0.93	2.06**	0.04 to 1.82
ROA/dy2	–0.01	–0.03	–0.90 to 0.87
Intercept	–2.81	–1.59	–6.27 to 0.65
No. of obs.	228		
R^2	84.51%		

Table 8. Sensitivity analysis (1/3)

Notes: (**) denotes regression coefficients statistically significant at 5% level; (*) denotes correlation coefficient statistically significant at 10% level
Source: Authors own creation

5. Discussion

As Freeman *et al.* (2021) proposed, the RBV has emerged as a prominent paradigm in strategic management. However, the current form of RBV remains incomplete. Notably, a substantial body of management literature (Lovallo *et al.*, 2021; McGahan, 2021; Hristov and Appolloni, 2021; Harrison *et al.*, 2007) emphasizes the crucial role of NFRs in the value-creation process of companies, serving as resources that confer competitive advantage for both the firm and its stakeholders. It is evident that more than financial drivers are needed in explaining a company's performance. Therefore, this study takes a significant step toward understanding the role played by NFRs, particularly those related to stakeholders, at a strategic level. It statistically investigates how these NFRs, collectively and individually, influence a company's profitability.

The findings have important theoretical implications that warrant discussion. First, the results confirm the assumptions of previous studies that have examined stakeholders' NFRs individually (Boreham *et al.*, 2016; Giannakis *et al.*, 2020; Hristov and Appolloni, 2021; Koufteros *et al.*, 2005; Swink and Schoenherr, 2015). However, some of these studies did not establish a direct and transparent link with companies profitability, such as the relationship between OC and profitability (Berry *et al.*, 2009; Hartnell *et al.*, 2011; Malmi and Brown, 2008). Additionally, none of them empirically investigated the influence of SPSs. This study adds value by filling these gaps in the literature, highlighting the pivotal role of stakeholders in the organizational effectiveness of companies (Gibson *et al.*, 2021). This aspect has received limited attention. It demonstrates that stakeholders and their financial resources, mainly when considered as a bundle, positively impact a company's performance. Consequently, this study expands on the findings of Choi and Wang (2009) by considering a broader range of variables related to stakeholders' NFRs and their impact on firm performance.

Second, and connected to the first implication, this study contributes to bridging stakeholder theory and RBV, responding to the call made by prominent scholars (Barney, 2018; Freeman *et al.*, 2021; Gibson *et al.*, 2021). By demonstrating how stakeholders' NFRs influence a company's profitability, this research facilitates the reconciliation of these two streams of thought that have often operated in parallel. It offers a point of reflection and an opportunity for mutual learning. RBV should increasingly integrate stakeholders into the framework, challenging the primary assumption of people-as-labor and people-as-managers resources (Freeman *et al.*, 2021) and expanding the consideration of stakeholders' contributions. Notably, including SPSs of an NFR represents a novel contribution not previously explored in the research landscape.

Variables	Coefficients	t-statistics	[95% confidence interval]
Panel (a)			
ROS/MOT	0.78	1.82*	–0.06 to 1.61
ROS/L	–7.03	–5.95***	–9.35 to –4.17
ROS/stdTA	8.14	1.94	–0.06 to 16.34
ROS/dy1	0.90	1.59	–0.21 to 2.01
ROS/dy2	0.42	0.76	–0.68 to 1.53
Intercept	–2.49	–0.79	–8.64 to 5.99
No. of obs.	228		
R^2	84.41%		
Panel (b)			
ROS/OI	1.12	2.29**	0.16 to 2.08
ROS/L	–7.06	–6.01***	–9.37 to –4.76
ROS/stdTA	7.54	1.80*	–0.67 to 15.76
ROS/dy1	0.99	1.75*	–0.12 to 2.10
ROS/dy2	0.57	0.99	–0.55 to 2.10
Intercept	–4.34	–1.28	–10.99 to 2.32
No. of obs.	228		
R^2	84.54%		
Panel (c)			
ROS/CG	0.74	1.75*	–0.08 to 1.58
ROS/L	–6.97	5.88***	–9.30 to –4.65
ROS/stdTA	8.44	2.02**	0.27 to 16.62
ROS/dy1	0.91	1.60	–0.21 to 2.03
ROS/dy2	0.45	0.79	–0.66 to 1.56
Intercept	–1.27	–0.46	–6.66 to 4.11
No. of obs.	228		
R^2	84.40%		
Panel (d)			
ROS/SPS	1.15	2.52**	0.26 to 2.06
ROS/L	–6.84	–5.80***	–9.15 to –4.53
ROS/stdTA	6.85	1.62	–1.42 to 15.12
ROS/dy1	1.01	1.80*	–0.09 to 2.13
ROS/dy2	0.52	0.93	–0.58 to 1.62
Intercept	–4.69	–1.41	–11.19 to 1.81
No. of obs.	228		
R^2	84.62%		

Notes: (***) denotes regression coefficients statistically significant at 1% level; (**) denotes correlation coefficient statistically significant at 5% level; (*) denotes correlation coefficient statistically significant at 10% level
Source: Authors own creation

Table 9.
Sensitivity analysis (2/3)

Third, the results indicate that the investigated stakeholders' NFRs collectively and positively influence a company's profitability as a system. This provides new insights into corporate performance and holds significant implications for researchers in the field, opening avenues for further research on the drivers of company performance. Moreover, these findings align with the growing calls in the performance management literature to include nonfinancial measures (Hristov *et al.*, 2022c; Paloviita and Luoma-aho, 2010). In this study, the four primary stakeholders' NFRs are translated into specific measures. The CC index is fundamental in generating corporate awareness regarding the importance of managing NFRs. This dimension is closely linked to the MOT index because employees who fully understand the potential of an

Variables	Coefficients	t-statistics	[95% confidence interval]
ROS/NFRSCORE	1.46	2.40**	0.26 to 2.67
ROS/L	18.26	5.72***	11.95 to 24.58
ROS/stdTA	4.75	4.33***	2.57 to 6.91
ROS/dy1	1.51	0.22	–0.91 to 3.94
ROS/dy2	0.93	0.44	–1.45 to 3.31
Intercept	–11.87	–3.75***	–18.12 to 5.61
No. of obs.	141		
R^2	48.66%		
NFRSCORE (141 obs) – NFRSCORE (228 obs) = 0			*p*-value: 0.88

Table 10. Sensitivity analysis (3/3)

Note: (***) denotes regression coefficients statistically significant at 1% level; (**) denotes correlation coefficient statistically significant at 5% level
Source: Authors own creation

integrated approach are motivated to maximize their performance as part of a system. This process directly relates to OI and benefits the organization in terms of efficiency and productivity. As a result, SPS of the organization's financial structure and stability is positively enhanced, creating new opportunities for investment in training and skills development, thus restarting the cycle. Consequently, the *NFRscore* was developed to collectively consider these nonfinancial measures during the early stages of PMS implementation, leading to evident benefits for the company's profitability. This represents a significant advancement in the performance management literature.

In summary, this discussion highlights the study's theoretical implications, including confirming assumptions regarding stakeholders' NFRs, bridging stakeholder theory and RBV and understanding how stakeholders' NFRs collectively influence a company's profitability. These insights contribute to developing knowledge of company performance drivers and offer valuable implications for future research. Furthermore, this study underscores the importance of incorporating nonfinancial measures into performance management systems to manage and enhance a company's profitability effectively.

6. Implications

6.1 Implications for theory and practice

The results of this study demonstrate a positive influence of stakeholders' NFRs on companies' profitability, mainly when they are considered a collective bundle. This finding suggests that an effective corporate strategy focused on enhancing NFRs can yield significant returns in terms of profitability.

These results contribute empirically to the call for closer integration between RBV and stakeholders' theories (Barney *et al.*, 2021; Freeman *et al.*, 2021; Gibson *et al.*, 2021; McGahan, 2021), paving the way for a new theory that benefits from their synergy and promotes a deeper understanding of strategic management. The inclusion and combination of additional NFRs, particularly SPS and connection to profitability measures, represent notable advancements toward this desired goal. This constitutes the primary theoretical implication of the study.

The findings of this study have several practical implications for organizations aiming to enhance their profitability through effective management of stakeholders' NFRs.

First, organizations should recognize the importance of developing a CC that aligns with their strategic goals. Building a culture that promotes cohesion, participation and

communication can positively impact job satisfaction, organizational commitment, subjective profit and subjective performance. Therefore, organizations should invest in activities and initiatives that foster a positive and inclusive culture, such as team-building exercises, internal communication strategies and employee engagement programs. By nurturing a strong OC, organizations can enhance their performance and profitability.

Second, organizations should prioritize MOT as a crucial factor in driving performance and profitability. Creating a work environment that fosters enthusiasm, energy and commitment among employees can yield significant benefits. Organizations can achieve this by providing appropriate job rewards, career prospects, ensuring safety in the workplace and offering flexibility in work arrangements. By addressing employees' motivational needs, organizations can increase productivity, efficiency and profitability.

Third, OI plays a vital role in ensuring smooth coordination and cooperation among different organizational components. Organizations should establish mechanisms and practices that facilitate continuous innovation, effective monitoring, skills improvement and efficient information systems. Enhancing OI can improve process efficiencies and cost management, positively impacting profitability.

Fourth, organizations should consider SPS and manage their expectations effectively. By considering stakeholders' concerns and interests, organizations can build stronger relationships with their stakeholders, leading to increased trust, loyalty and support. This can be achieved through open communication channels, transparency in decision-making processes and proactive engagement with stakeholders. Positive stakeholder perception can enhance the company's reputation, attract investment opportunities' and positively influence profitability.

Organizations should recognize the strategic importance of stakeholders' NFRs and incorporate them into their management practices. By focusing on OC, MOT, OI and SPS, organizations can create a foundation for sustainable growth, competitive advantage and improved profitability.

6.2 Future research

The findings of this study provide a foundation for an extensive future research agenda that can advance our understanding of the strategic significance of stakeholders' NFRs and their impact on company performance.

First, future research should explore additional nonfinancial measures beyond the four primary stakeholders' NFRs examined in this study. Investigating dimensions such as environmental sustainability, social responsibility and innovation capabilities would provide a more comprehensive understanding of the nonfinancial drivers of performance. *Second*, conducting longitudinal analyses would offer insights into the dynamic nature of stakeholders' NFRs and their long-term impact on profitability. By examining how these relationships evolve, researchers can better understand the effects of managing stakeholders' resources. *Third*, there is a need to explore potential variations in the influence of stakeholders' NFRs across different sectors and geographical regions. Focusing on specific industries or areas with unique characteristics would shed light on whether the impact of NFRs differs based on contextual factors. *Fourth*, future studies should investigate mediating and moderating factors influencing the relationship between stakeholders' NFRs and profitability. Exploring variables such as OC as a mediator or firm size and market conditions as moderators would provide a more nuanced understanding of the underlying processes. *Fifth*, a comparative analysis that examines the influence of stakeholders' NFRs on profitability across different types of organizations, such as small and large firms or public and private enterprises, would contribute to a comprehensive

understanding of stakeholder-driven performance dynamics. *Sixth*, incorporating qualitative approaches, such as in-depth interviews or case studies, would complement the quantitative findings by offering rich insights into stakeholders' subjective experiences and perceptions and their impact on profitability. Finally, international perspectives should be considered to explore cross-cultural and institutional influences on stakeholders' NFRs and their effect on profitability. Comparative international studies would uncover country-specific factors that shape the relationship between stakeholders' NFRs and performance outcomes.

By addressing these future research directions, scholars can contribute to a more comprehensive understanding of the role and management of stakeholders' NFRs in driving company performance. This research agenda will not only enhance theoretical advancements but also provide practical implications for organizations seeking to unlock the full potential of their stakeholders and achieve sustained success in today's dynamic business environment.

6.3 Limitations

This study has certain limitations. *First*, despite the novelty and significant findings, the sample size of investigated companies is limited and the profitability measures are confined to ROS and ROA. Future studies can expand the sample size and explore additional profitability measures. Although the relatively small sample size can be justified by the qualitative nature of the information collected from respondents through surveys rather than relying solely on available databases, enlarging the sample and investigating various sectors or geographical regions would be beneficial. Different industries or geographical regions may exhibit varying reliance on NFRs compared to financial ones, such as the financial sector. This would enhance the generalizability of the findings and provide a more comprehensive understanding of the relationship between stakeholders' NFRs and profitability.

Second, the use of survey questionnaires introduces the possibility of response bias. Respondents' perceptions of stakeholders' NFRs may be influenced by their personal experiences, attitudes or biases, which can affect the accuracy and reliability of the collected data. This is also connected with a potential common method bias from relying on managers' self-reported data. Respondents may provide socially desirable responses or overstate the positive impact of stakeholders' NFRs on profitability. Future research could consider incorporating multiple perspectives, including those of other stakeholders such as employees, customers and suppliers, to provide a more comprehensive and balanced view of stakeholders' NFRs. Additionally, using different measurement approaches, such as objective performance metrics or external assessments, could further strengthen the validity and reliability of the nonfinancial KPIs used to capture stakeholders' NFRs.

Third, this study focuses on the influence of stakeholders' NFRs on profitability, but it does not explore the underlying mechanisms or mediating factors that explain this relationship. Future research could delve deeper into the specific mechanisms through which stakeholders' NFRs impact profitability, such as the role of OC, employee motivation or stakeholder engagement processes. Understanding these mediating factors would provide valuable insights into the underlying processes that drive the positive relationship between stakeholders' NFRs and profitability.

Fourth, the study focuses on a specific period (2017–2019), which may limit the generalizability of the findings. The business environment is dynamic, and the impact of stakeholders' NFRs on profitability may vary over time. Future research could adopt a

longitudinal design to investigate the long-term effects of stakeholders' NFRs on company performance and assess how these relationships evolve. This would provide a more nuanced understanding of the temporal dynamics and sustainability of the positive relationship between stakeholders' NFRs and profitability.

Despite these limitations, this study contributes to the growing literature on stakeholders' NFRs and their impact on company performance. By addressing these limitations and building upon the existing findings, future research can advance our understanding of how organizations can effectively leverage NFRs to drive sustainable success and create value for the firm and its stakeholders.

7. Conclusions

This study represents a significant advancement in understanding the strategic significance of stakeholders' NFRs and their impact on company performance. By shedding light on the positive influence of NFRs, especially when considered collectively, this research unveils the untapped potential that lies within organizations' stakeholder relationships. The findings of this study have important implications for both academia and practice. They highlight the need for organizations to adopt a holistic approach to strategic management that integrates financial and nonfinancial measures, with particular attention to stakeholders' NFRs. By recognizing the valuable contributions of stakeholders and leveraging their resources effectively, organizations can unlock a new level of competitiveness and drive sustained success. Looking ahead, this study paves the way for further exploration of the complex interplay between stakeholders' NFRs and company performance. By embracing the holistic nature of strategic management and actively harnessing stakeholders' NFRs, organizations can position themselves at the forefront of innovation, resilience and long-term profitability. The journey toward unlocking the full potential of stakeholders has just begun, and this study sets the stage for further exploration, offering a roadmap for organizations to navigate the path to sustained success in an increasingly competitive business landscape.

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Appendix. Nonfinancial measurement questionnaire

Section 1 – personal details of the respondent

(1) What is your current role in the company?

(2) How many years of experience do you have in the current role?

(3) How many years of experience do you have within the firm?

(4) Educational level

- High school
- Degree
- Master's degree
- PhD

(5) Gender

- Male
- Female

(6) How old are you?

(7) Can you specify the industry of your firm?

Section 2 – nonfinancial resources

(8) The main nonfinancial resources and related measures generated by the literature are (1) employees' motivation, (2) organizational culture, (3) organizational Integration and (4) stakeholders' perception. Do you maintain that these are appropriate to address the nonfinancial side of the company's performance? (for each nonfinancial resource, we provided an appendix with the related definition; see Table 1 of the paper).

(9) The main key value drivers of the motivational dimension generated by the literature analysis are: (1) job reward, (2) career prospects, (3) safety in the workplace and (4) flexibility. Do you relate that these are appropriate to address the motivational resource in the company's strategy?

(10) The main key value drivers of the organizational culture dimension generated by the literature analysis are: (1) co-working, (2) learning and growth, (3) leadership and soft skills and (4) strategic alignment. Do you maintain that these are

appropriate to address the organizational culture resource in the company's strategy?

(11) The main key value drivers of the organizational integration generated by the literature analysis are (1) innovation, (2) skills, (3) recruiting, (4) information systems and (5) monitoring. Do you maintain that these are appropriate to address the organizational integration dimension in the company's strategy?

(12) The key value drivers of the stakeholders' perceptions generated by the literature analysis are (1) partnership, (2) loyalty, (3) networking and (4) state of employee relations. Do you maintain that these are appropriate to address the stakeholders' perception of resource in the company's strategy?

Motivational dimension

(13) Indicate the level of implementation at a strategic level (planning and control) of each of the following value drivers underlining the motivational resource in your firm for 2019, 2018 and 2017 (1 = not implemented at all, 2 = very slightly implemented, 3 = slightly implemented, 4 = somewhat implemented, 5 = implemented, 6 = highly implemented, 7 = exceptionally implemented), justifying and explaining your option (for example "for *Job reward* the level is 3 (slightly implemented) because we adopt the following initiatives. . ."):

- Job reward
- Career prospects
- Safety in the workplace
- Flexibility

Organizational culture

(14) Indicate the level of implementation at a strategic level (planning and control) of each of the following value drivers underlining the organizational culture resource in your firm for 2019, 2018 and 2017 (1 = not implemented at all, 2 = very slightly implemented, 3 = slightly implemented, 4 = somewhat implemented, 5 = implemented, 6 = highly implemented, 7 = exceptionally implemented), justifying and explaining your option (for example "for *Co-working* the level is 5 (implemented), because we adopt the following initiatives. . ."):

- Co-working
- Learning and growth
- Leadership and soft skills
- Strategic alignment

Organizational integration

(15) Indicate the level of implementation at a strategic level (planning and control) of each of the following value drivers underlining the organizational integration resource in your firm for 2019, 2018 and 2017 (1 = not implemented at all, 2 = very slightly implemented, 3 = slightly implemented, 4 = somewhat implemented, 5 = implemented, 6 = highly implemented, 7 = exceptionally implemented), justifying and explaining your option (for example "for *Innovation* the level is 2 (very slightly implemented), because we adopt the following initiatives. . ."):

- Innovation
- Skills
- Recruiting

- Information system
- Monitoring

Stakeholders' perception

(16) Indicate the level of implementation at a strategic level (planning and control) of each of the following value drivers underlining the stakeholders' perception resource in your firm for 2019, 2018 and 2017 (1 = not implemented at all, 2 = very slightly implemented, 3 = slightly implemented, 4 = somewhat implemented, 5 = implemented, 6 = highly implemented, 7 = exceptionally implemented), justifying and explaining your option (for example "for *Partnership* the level is 7 (exceptionally implemented), because we adopt the following initiatives . . ."):

- Partnership
- Loyalty
- Networking
- State of employees relations.

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