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The impact of corporate strategy on capital structure: evidence from Italian listed firms

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ABSTRACT

The impact of corporate strategy decisions on capital structure has attracted substantial scholarly and managerial attention from decades, although leading to mixed and inconclusive results until now. While previous studies have focused on the effect brought about by a single strategy at a time, this study tries to reconcile the overall picture of the impact of strategic decisions on capital structure. Based on the Strategy Hierarchy Theory, we estimated the effect brought about by the three strategies determined at the corporate level: internationalization, diversification and integration. The results provide empirical evidence that the above-mentioned strategies impact firms' capital structure both simultaneously and independently. Integration and internationalization are negatively related with debt ratio while diversification is positively related with debt ratio. The findings of our paper contribute to enrich the strategy/capital-structure literature, and provide academics and managers a clearer understanding of the effect brought about by the corporate strategy on capital structure.

1. Introduction

Companies' capital structure decisions have captured the attention of academics and practitioners for decades, especially considering they can have a significant impact on firm profitability (Berger & Bonaccorsi di Patti, 2006; Chaganti & Damanpour, 1991; Jaisinghani & Kanjilal, 2017; Margaritis & Psillaki, 2010; King & Santor, 2008). Several aspects of firms have been analyzed as determinants of financing decisions, such as firms' size, asset structure, cash, profitability, age and risk (Bandyopadhyay & Barua, 2016; Cassar & Holmes, 2003; Chen, 2004; Dufour, Luu, & Teller, 2018; Hall, Hutchinson, & Michaelas, 2004; Khémiri & Noubbigh, 2018; Matemilola, Bany-Ariffin, Azman-Saini, & Nassir, 2018; Ozkan, 2001; Ramli, Latan, & Solovida, 2019; Ryen, Vasconcellos, & Kish, 1997; Williamson, 1988). In addition, some scholars started applying a behavioral perspective based on managerial decisions to understand companies' capital structure (Barton & Gordon, 1988; Kochhar & Hitt, 1998). However, while the corporate-strategy/organizational-structure relationship has been analyzed (Chandler & Alfred, 1962), the impact that corporate strategy has on firms' financial structure has not yet been properly explored.

Up until now, studies measuring the impact of corporate-strategy on the capital structure have found mixed results and the majority of them have focused on only one corporate-strategy dimension at a time, i.e., integration (Harrison, Love, & McMillan, 2004; Javorcik & Spatareanu, 2009), diversification (Chkir & Cosset, 2001; Jouida, 2018; Kochhar & Hitt, 1998; McMillan & Woodruff, 1999; Menéndez-Alonso, 2003; Singh, Davidson, & Suchard, 2003) or internationalization (Agmon & Lessard, 1981; Chkir & Cosset, 2003, 2001; Fatemi, 1988; Singh et al., 2003; Singh & Nejadmalayeri, 2004; Williamson, 1988). Moreover, the more the puzzle is pieced together, the more the results and research appear to be mixed and inconclusive, as highlighted by Rehman and Rehman (2011).

In addition to the above-mentioned considerations, digital technologies and innovation advancements are continuously changing firms' strategic choices (Dobusch & Kapeller, 2017). Furthermore, the recent globalization trend, financial crisis and changes in international regulations have reshaped the competitive landscape within which these choices are made. For all these reasons, the impact that corporate-strategy has on capital structure needs to be

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re-examined. Based on the Strategy Hierarchy Theory (Harrison, 2003), we focused on top-level corporate-strategy decisions, i.e., vertical integration, internationalization and diversification. In fact, decisions related to firms' financing also take place at this same managerial top-level (Harrison, 2003). In greater detail, here we assess the following research question: Do corporate-strategy decisions affect firms' capital structure?

The contribution of this study is to deepen the understanding of what has been defined as the behavioral theory of capital structure by Barton and Gordon (1988), by focusing on the impact brought about by corporate strategy on firms' level of debt. Indeed, as recently highlighted, there are still no convincing answers as to what the determinants of capital structure are (Jaisinghani & Kanjilal, 2017). While previous studies have considered several firm characteristics to be determinants of debt level, we argue that it is relevant to consider the strategic decisions that firms take at the managerial level, which is the same level at which capital structure decisions are taken (Harrison, 2003). In greater detail, instead of focusing on one aspect of corporate strategy at a time, we considered the three dimensions of corporate-strategy simultaneously and independently. In doing so, this research contributes to filling the existing gap regarding the impact of corporate strategy on capital-structure decisions, providing academics and managers a clearer understanding of the effect brought about by the capital structure on corporate strategy.

2. Material and methods

2.1. Sample and data selection

The sample of this research is composed of all the companies listed on the Italian Stock Exchange (MTA) during the 2012–2016 period. While previous studies have considered India, Malaysia, Indonesia and African countries when examining factors affecting capital structure decisions (Bandyopadhyay & Barua, 2016; Khémiri & Noubbigh, 2018; Ramli et al., 2019), we focused on the Italian context as it represents a relevant case study for conducting this research because of this financial market's suitability in terms of size, efficiency and diversity among firms (Gottardo & Maria Moisello, 2014). The Italian MTA segment includes companies across all the Industry Classification Benchmark (ICB) sector classification, consisting of 10 industries and 19 super-sectors. We excluded companies with missing data and companies operating in the Financial Industry, consisting of Banks, Insurance, Real Estate and Financial Services Companies (according to the Industry Classification Benchmark) because the business models they employ, which are different from other industries (Daskalakis & Psillaki, 2008; Lowe, Naughton, & Taylor, 1994; Rajan & Zingales, 1995; Singh et al., 2003), may be misleading in addressing the research question of this study. We obtained a final sample of 170 firms, representing 78.34% of the total population and a considerable percentage, i.e., 65.08%, of the total Italian market capitalization. Considering the years from 2012 to 2016 we built a panel data with more than six hundred observations. This sample size allows us to have more than ten observation per variable in our model, which has been shown to be optimal for examining the impact of the dependent variables on our dependent variable (Cappa, Rosso et al., 2019; Cappa, Laut, Nov, Giustiniano, & Porfiri, 2016; Cappa, Oriani, Pinelli, & De Massis, 2019; Nicolaou & Masoner, 2013; Wolf, Harrington, Clark, & Miller, 2013). We conducted a panel-data analysis of annual data, and the variables used in our model, as detailed in the following section, have been collected from the financial information provider Thomson Reuters Eikon database (2017 Release).

2.2. Variables

We proxied the firms' capital structure, which is the dependent variable in our regression, with the ratio "Total-Liabilities-to-Total-Assets" (TLTA in our model), representing the total debts used to finance firms' assets compared to the book value of them (Aivazian, Booth, Cleary, & Rotman, 2006; Alkhatib & Marji, 2012; Ferri & Jones, 1979; Ozkan, 2001). Then we calculated our three independent variables as follows.

Vertical integration measures the number of activities that are carried out inside firm boundaries. In our research, the magnitude of this strategy (named INTEG in our model) is measured as "Value-Added-to-Total-Sales" (Buzzell, 1983; Davies & Morris, 1995), where value added is defined as sales revenue minus cost of goods purchased. In greater detail, the more stages of production and distribution are combined within an enterprise – i.e., the more it is integrated – the higher the integration ratio is. This index is a continuous variable spanning from 0 to 1, where 1 indicates that a business is self-contained, i.e., there are not any outside purchases.

Diversification indicates the number of industries in which a company participates. To measure diversification, we used that specific number, in accordance with what has been done in previous studies (Berry, 1971; Nachum, 2004). The proxy used is a modified version of the Herfindahl index of industrial concentration, as it concerns the distribution of a firm's industrial activity rather than the distribution of sales among firms. Therefore, the diversification index (named DIV in our model) is a continuous variable ranging from 0, when the firm is active in a single industry, to 1, when it the firm is present in all of the 10 product segments identified in the market. In greater detail, the index is calculated as reported in the following formula, where $Sales_i$ are the sales for each segment and $Sales_{Total}$ are the comprehensive sales of the company:

$$DIV = 1 - \sum_{i}^{n} \left(\frac{Sales_i}{Sales_{Total}} \right)^2$$

Finally, internationalization is the tendency of companies to increase operations across national boundaries. Following what has been evidenced in previous research (Claessens, Demirgüç-Kunt, & Huizinga, 2001; Kwok & Reeb, 2000; Ramaswamy, Kroeck, & Renforth, 1996; Yeyati & Micco, 2007), to proxy this strategy (named INTERN in our model), we used the"Foreign-Assets-to-Total-Assets" ratio. This continuous variable is equal to 0 if the company has only domestic assets, while it equals 1 if its presence is established entirely abroad.

We have also controlled for several firm-specific factors that may affect the financial structure, as evidenced in previous studies (Barton & Gordon, 1988), with the aim of isolating the model from other influences. First, we controlled for firms' profitability. The Pecking Order theory (Frank & Goyal, 2003; Myers & Majluf, 1984) suggests that profitable firms tend to prefer internal financing, thus subordinating external funds, for two main reasons: economic convenience and reduction of information asymmetry. On the other hand, the Trade-Off theory suggests instead a positive correlation between profitability and the level of debt. More profitable companies would have more reasons to protect their earnings, seeking the benefits coming from a tax shield. Therefore, we took firms' profitability into account in our model, which has been proxied by the Return on Assets (named ROA in our model) (Barton & Gordon, 1988; Bettis, 1981; Demsetz & Lehn, 1985; García-Teruel & Martínez-Solano, 2005; Gorton & Rosen, 1995; Jaisinghani & Kanjilal, 2017; Jaisinghani, 2015; Mehran, 1995). The second variable we controlled for was the company size. In fact, big companies would carry less debt than smaller firms because they have lower transaction costs (Wald, 1999), and better access to capital mar-

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Table 1
Descriptive statistics.

Variables	Obs.	Mean	Std. Dev.	Min	Max
TLTA	672	0.6628	0.2525	0.1438	3.0245
INTEG	672	0.5591	0.2508	0.0364	1
DIV	672	0.48209	0.3070	0	1
INTERN	672	0.0659	0.1530	0	0.9452
PROFIT	672	0.0171	0.0911	−0.7949	0.5329
RISK	672	0.9251	0.6396	−4.44	2.43
LIQ	672	1.33537	0.6990	0.0439	6.0506
SIZE	672	13.3959	1.9136	8.2885	18.9235

kets (Attar & Amr, 2014). On the other hand, some academics have argued the opposite: big firms tend to hold more tangible assets used as collateral for bank loans, reflected in a greater indebtedness (Coleman et al., 2016). In addition, bigger firms usually have lower probability of default, affecting the ability to raise new debt. In fact, because their expected bankruptcy cost is lower, they have greater leverage compared to smaller competitors, entailing a positive correlation between size and capital structure (Rajan & Zingales, 1995). For the above mentioned reasons, we controlled for the size (named SIZE in our model) of the firm by taking the natural logarithm of the sales as done in previous studies (Daskalakis & Psillaki, 2008; Ozkan, 2001; Rajan & Zingales, 1995; Titman & Wessels, 1988). The risk position of a company is the third control factor considered. Riskiness of companies is usually described as the total ex-ante expected variation in firms' future earnings and is measured by the equity beta. Risk may affect the financial policy in a negative way, because the riskier firms are, the higher their earnings and cost volatility become. Hence, lenders are not only averse to lending to firms with high earning variability but even tend to charge them higher premiums. These factors are hypothesized to produce lower debt levels (Barton & Gordon, 1988), and companies with high beta tend to issue more equity than debt (Panno, 2003). Therefore, we controlled for the risk (named RISK in our model) with firms' beta, which has been evidenced as a reliable proxy for the sensitivity of the firm to market-wide risk factors (Ferri & Jones, 1979; Heinkel, 1982). Finally, we controlled for available liquidity, as it may have effects on capital-structure decisions (Anuar & Chin, 2016; Panno, 2003). Firms with higher liquidity ratios have more ability to meet their obligations and, therefore, they can carry more financial leverage. However, firms with enough liquid assets may use these assets to finance their investments (Panno, 2003), thus proving the exact opposite, i.e., a negative relationship between the firm's debt-to-equity and liquidity-debt ratio. For these reasons, we controlled for the "Current Ratio" (named LIQ in our model), computed as the ratio of current assets to current liabilities (Jaisinghani & Kanjilal, 2017; Jaisinghani, Batra, & Tandon, 2017).

Considering the above-mentioned independent and control variables taken at time t-1 we are going to estimate their effect on our dependent variable at time t through the following model:

$$TLTA_t = \alpha + \beta_1 INTEG_{t-1} + \beta_2 DIV_{t-1} + \beta_3 INTERN_{t-1} + \beta_4 PROFIT_{t-1} + \beta_5 RISK_{t-1} + \beta_6 LIQ_{t-1} + \beta_7 SIZE_{t-1} + \varepsilon$$

Table 3
Breush-Pagan test to test the efficacy of panel data with respect to a cross-sectional regression. Results show that panel date are more appropriate than a cross-sectional regression.

Estimated results	Var.	Sd = sqrt(var)
TLTA	672	0.6628
E	672	0.5591
U	672	0.4820
Test	VAR(U) = 0	
Chibar2(01)	689.62	
Liq	0.000	

Table 4
Hausman test to test the efficacy of panel data with random effects with respect to panel data with random effects. Results show that random effects are more appropriate than fixed effects.

Test	H0: difference in coefficients not systematic.
Chi2	3.89
Prob>Chi2	0.2738

3. Results

Descriptive statistics of our sample is reported in Table 1. Table 2 shows the correlation matrix of all the variables used in the regression. As we observe, the model does not exhibit the existence of multicollinearity because all the coefficients of our correlation matrix are lower than the threshold of 0.7 identified by previous studies (Dormann et al., 2013; Kervin, 1992; Lehmann, Gupta, & Steckel, 1997)). Moreover, to minimize endogeneity issues, the dependent variable is lagged one year (Jaisinghani et al., 2017; Mc Namara, Murro, & O'Donohoe, 2017). Our study employed a panel-data analysis, following the latest standards used for such methodology (Mc Namara et al., 2017). First, we conducted the Breusch-Pagan test to analyze whether panel data is a better estimation model for our study than a cross sectional regression. The outcomes of this analysis, reported in Table 3, evidence that panel is a better model to assess the impact brought about by our independent variables on our dependent variable. Since the panel data model can be estimated through a fixed-effects model or random-effects model (Jaisinghani, 2015), we conducted a Hausman test to evidence which is the most appropriate. The results, reported in Table 4, evidenced that the best model for our panel-data analysis is the random-effects model. We also checked whether we have heteroscedasticity problems in our sample with the Hall-Pagan test (Albulescu & Tămăşilă, 2016; Albulescu, Miclea, Suciu, & Tămăşilă, 2018; Pagan & Hall, 1983), whose results (reported in Table 5) evidence that our panel data is characterized by homoscedasticity. As a robustness check, we have also conducted a panel data random effect model with robust standard error option and the results hold.

Moreover we performed a test for the stationarity of our variable, which is a crucial step in dealing with panel regressions (Jaisinghani & Kanjilal, 2017, 2019). In greater detail, we conducted

Table 2
Correlations matrix.

	TLTA	INTEG	DIV	INTERN	PROFIT	RISK	LIQ	SIZE
TLTA	1							
INTEG	0.0134	1						
DIV	0.0715	−0.0354	1					
INTERN	−0.0785	−0.1504	−0.1006	1				
PROFIT	−0.4182	0.0098	−0.0214	−0.0143	1			
RISK	0.0456	−0.1069	0.0305	0.0767	−0.0447	1		
LIQ	−0.266	−0.0269	−0.0577	0.0188	0.192	0.0036	1	
SIZE	−0.0097	−0.0208	−0.0199	0.1858	0.1438	−0.0623	−0.0571	1

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Table 5
Hall-Pagan test to explore the presence of heteroscedasticity issues in the dataset. Results show that our panel data is characterized by homoscedasticity.

Test	H0: Panel homoscedasticity.
E2=Yh	*p*-value> $Chi^2 = 0.4131$
E2=Yh2	*p*-value> $Chi^2 = 0.4225$
E2=LYh2	*p*-value>$Chi^2 = 0.4064$

the Philips-Perron based Fisher test (PP-Fisher test) to check for the presence of a unit-root in our dataset. The results of this test, reported in Table 6, report that the presence of a unit-root is rejected at the 1% level of significance. Therefore, our dataset is stationary and fit for panel regression analysis (Jaisinghani & Kanjilal, 2019).

Five models in total are presented in Table 7. In Model 5, only the control variables are considered; in Models 4, 3 and 2, one dimension of corporate-strategy is considered at a time; while in Model 1 the full model with the simultaneous presence of the three independent variables is reported. In all the models the R^2 model is around 0.20, evidencing how the variables included in our model are able to explain 20% of the variation of our dependent variable, a considerable amount with respect to recent studies conducted with panel data (Jaisinghani, 2015; Mc Namara et al., 2017). The Chi-squared test is significant at 1% (Prob > $chi^2 = 0.000$), evidencing the validity of our models.

The outcomes of the panel data analysis indicate interesting and significant relationships between the financial structure (TLTA) and corporate strategies (INTEG, DIV, INTERN). Integration and internationalization strategies are negatively related to leverage exposure; diversification has instead a positive relationship with firms' debt ratio.

4. Discussion

There is growing recognition in the finance literature that factors concerned with the strategy of firms might be important in determining companies' capital structure. In fact, for decades, academics have studied the impact that strategic decisions may have on capital structure without forming a uniform view; the conclusions made up until now constitute a real puzzle (Barton & Gordon, 1988; Cassar & Holmes, 2003; Chen, 2004; Hall et al., 2004; Kochhar & Hitt, 1998; Ozkan, 2001; Rehman & Rehman, 2011; Ryen et al., 1997; Williamson, 1988).

Therefore, the primary aim of this research is to contribute to such stream of literature regarding the strategy/capital-structure relationship by considering all the strategies decided at the corporate level, i.e., vertical integration, diversification and internationalization, simultaneously and independently rather than one at a time, as has been done in previous studies (Agmon & Lessard, 1981; Barton & Gordon, 1988; Chkir & Cosset, 2003, 2001; Fatemi, 1988; Harrison et al., 2004; Kochhar & Hitt, 1998; McMillan & Woodruff, 1999; Menéndez-Alonso, 2003; Singh et al., 2003; Singh & Nejadmalayeri, 2004; Williamson, 1988). Results have proven the validity of the so-called "Behavioral theory of capital structure" by Barton and Gordon (1988), by pointing out that firms' corporate strategies have an impact on firms' capital structure even after controlling for relevant firm-specific factors that may influence companies' financial structures.

We have shown that an integration strategy is negatively related to firms' leverage, evidencing that with a higher level of integration there is a lower debt ratio. These results are consistent with the interpretation of Harrison et al. (2004), which have proved that more integrated companies are less dependent on credit markets and financial institutions, even if they are stronger financially and less constrained. Moreover, companies with higher levels of integration rely more on internal funds, i.e., internally generated, following the Pecking Order Theory (Frank & Goyal, 2003; Myers & Majluf, 1984). A possible interpretation is that integrated firms have greater productivity, more control over their activities (throughout the spectrum of their value chain) and general cost reduction, thus implying a decrease of total debt exposure, i.e., external funds.

In addition, a diversification strategy has a positive relationship with firms' capital structure, in line with what has been found by previous studies (Chkir & Cosset, 2001; Kochhar & Hitt, 1998; Singh et al., 2003). From a theoretical perspective, this positive relationship supports the Coinsurance Effect (Barton & Gordon, 1988; Heston & Rouwenhorst, 1994): diversification reduces the company's overall operating risk and consequently permits obtaining a higher level of debt capacity (Lewellen, 1971). Expanding the operations over many industries permits reaching a higher stability of cash flow and thus a reduction in the chances of bankruptcy, while achieving a higher sustainability of leverage (Williamson, 1988). In addition, stakeholders can affect the strategic decisions of managers to promote the use of debt as a disciplining tool, in accordance with the Agency Cost Theory. Under this view it is possible to limit the diversification decision when realized for opportunistic reasons (especially if they are unrelated to firms' interests), thus explaining the positive relationship between diversification and leverage exposure (La Rocca, La Rocca, Gerace, & Smark, 2009).

Moreover, our results show that internationalization also has a negative effect on capital structure. This result is in line with previous studies that have evidenced that multinational corporations have a lower debt ratio due to higher cost of debt (Chen, Cheng, He, & Kim, 1997; Chen, 2004; Doukas & Pantzalis, 2003). These higher costs are related to the cultural, economic and institutional differences between the parent and the subsidiaries, which make access to debt more difficult (Fatemi, 1988). Therefore, debt providers ask for higher guarantees to finance the geographically dispersed firms, and offer debt at higher costs, thus resulting in a lower level of debt for internationalized companies (Wright, Madura, & Wiant, 2002).

Table 6
Philips-Perron based Fisher test (PP-Fisher test) to check for the presence of a unit-root in our dataset. H0, i.e., the hypothesis that the panel is stationary, is rejected at 1% level of significance.

	p-value for Tlta	*p*-value for INTEG	*p*-value for DIV	*p*-value for INTERN
Inverse chi-squared	0.000	0.000	0.000	0.000
Inverse normal	0.000	0.000	0.000	0.000
Inverse logit t	0.000	0.000	0.000	0.000
Modified inv. Chi-squared	0.000	0.000	0.000	0.000
PROFIT	0.000	0.000	0.000	0.000
RISK	0.000	0.000	0.000	0.000
LIQ	0.000	0.000	0.000	0.000
SIZE	0.000	0.000	0.000	0.000
Number of Panels	153	153	153	153
Average Number of Panels	4.67	4.67	4.67	4.67
Newey-West Lags	10	10	10	10

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Table 7
Panel Data (Random Effect) Regression Results with Total-Liabilities/Total-Assets as dependent variable. Standard Errors are reported in brackets.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
INTEG	−0.1076***	−0.0947**			
	(0.0401)	(0.0398)			
DIV	0.0443*		0.0382		
	(0.0245)		(0.0243)		
INTERN	−0.0934*			−0.0973*	
	(0.0564)			(0.0565)	
PROFIT	−0.9132***	−0.8973***	−0.9124***	−0.9109***	−0.9038***
	(0.0762)	(0.0762)	(0.0766)	(0.0766)	(0.0765)
RISK	0.0104	0.0111	0.0101	0.0117	0.0111
	(0.0104)	(0.0127)	(0.0127)	(0.0127)	(0.0127)
LIQ	−0.0357***	−0.0351***	−0.0378***	−0.0378***	−0.0374***
	(0.0111)	(0.0112)	(0.0112)	(0.0112)	(0.0112)
SIZE	0.0044	0.0026	0.0040	0.0046	0.0034
	(0.0080)	(0.0079)	(0.0079)	(0.0079)	(0.0079)
INTERCEPT	0.7008***	0.7307***	0.6453***	0.6607***	0.6703***
	(0.1145)	(0.1141)	(0.1119)	(0.1104)	(0.1107)
Num. Obs.	672	672	672	672	672
R^2	0.2168	0.2100	0.2122	0.1976	0.1960
Degrees of Freedom	7	5	5	5	4
Prob > Chi^2	0.0000	0.0000	0.0000	0.0000	0.0000

Notes: * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Finally, considering the effects brought about by the control variables in our model, we found that profitability and liquidity have significant effects on firm capital structure. First, profitability has a negative impact on firms' leverage, in accordance with the Pecking Order theory (Frank & Goyal, 2003; Myers & Majluf, 1984), wihch suggests that profitable firms tend to prefer internal financing, thus subordinating external funds. Second, in line with previous studies (Panno, 2003), we found that liquidity negatively affects the amount of debt issued by companies, because of a diminished need of financial resources.

5. Conclusions

Considering that capital structure can be a crucial driver of firm performance (Berger & Bonaccorsi di Patti, 2006; Chaganti & Damanpour, 1991; Jaisinghani & Kanjilal, 2017; King & Santor, 2008; Margaritis & Psillaki, 2010), several studies have searched for determinants of firms' debt level. In particular, while previous research has focused on analyzing the effects brought about by firms characteristics (Bandyopadhyay & Barua, 2016; Cassar & Holmes, 2003; Chen, 2004; Dufour et al., 2018; Hall et al., 2004; Khémiri & Noubbigh, 2018; Matemilola et al., 2018; Ozkan, 2001; Ramli et al., 2019; Ryen et al., 1997; Williamson, 1988), this research responds to the call for further studies regarding the strategy/capital-structure dilemma (Barton & Gordon, 1988; Menéndez-Alonso, 2003). Moreover, while previous studies considered the impact brought about by one aspect of corporate strategy at a time (Agmon & Lessard, 1981; Chkir & Cosset, 2003, 2001; Fatemi, 1988; Harrison et al., 2004; Javorcik & Spatareanu, 2009; Jouida, 2018; Kochhar & Hitt, 1998; McMillan & Woodruff, 1999; Menéndez-Alonso, 2003; Singh et al., 2003; Singh & Nejadmalayeri, 2004; Williamson, 1988), this research considers the simultaneous effects of the three strategies taken at the corporate level. In addition, as corporate decisions are transformed by the emergent digital economy, globalization, financial crisis and regulations (Khanagha, Volberda, & Oshri, 2014), the need for a re-examination of the relationship between corporate strategy and capital structure is even stronger nowadays.

To this end, we used panel-data analysis on 170 Italian companies listed in the Italian Stock Exchange over the 2012–2016 period, and, grounding on the Strategy Hierarchy Theory (Harrison, 2003), we analyzed the effects brought about by vertical integration, diversification and internationalization, considered simultaneously and independently. In greater detail, the outcomes of this research evidenced that integrated and internationalized firms tend to have lower external financial exposure (i.e., negatively related to debt amount), while diversification strategies lead to higher debt ratios. Therefore, by providing the contemporaneous effects that each corporate-strategy decision has on firms' capital structure, this study contributes to a better understanding of the impact that strategy has on financing decisions, reconciling the mixed results of previous studies (Agmon & Lessard, 1981; Chkir & Cosset, 2003, 2001; Fatemi, 1988; Harrison et al., 2004; Javorcik & Spatareanu, 2009; Kochhar & Hitt, 1998; McMillan & Woodruff, 1999; Menéndez-Alonso, 2003; Rehman & Rehman, 2011; Singh et al., 2003; Singh & Nejadmalayeri, 2004; Williamson, 1988). In so doing, we support the behavioral perspective of capital structure that connects strategy to capital-structure decisions, as proposed by Barton and Gordon (1988).

Moreover, these results may also be relevant for companies seeking to align their capital structure with that of their peers, according to their corporate strategic decisions. Indeed, this research sheds light on trends and habits of competitors that may be useful for managerial decisions.

This study is not exempt from limitations that also pave the way for future research directions. First, this study has focused on Italian firms, which is a relevant context in which to conduct this research because of this financial market's suitability in terms of size, efficiency and diversity among firms (Gottardo & Maria Moisello, 2014), but future studies should further validate our results in other countries and geographical areas. Moreover, the sample of this size was composed of listed firms, which may impact the effect brought about by corporate strategy on capital structure. In fact, listed companies may be endowed with different resources than those of private firms (Acharya & Zhaoxia, 2017; Durand & Vargas, 2003). Furthermore, although we have used for our analyses variables that have already been validated by previous studies to proxy the above-mentioned corporate strategy, future research can use additional indices to further validate the results of this study. In addition, future studies should extend the analyses conducted in this research also to private firms, to increase the generalizability of our results or to evidence eventual differences among the typologies of firms.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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