Innovation Gene: The relationship between financial performance and communicating innovation in mission statement

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Abstract

Mission statement is important to companies, especially as a strategic communication tool with stakeholders. Innovation is also important to companies and has its implications on performance. This study examines the relationship between financial performance and explicitly communicating innovation in mission statement. The study uses a quantitative approach with logistic regression to test empirical hypotheses related to revenues, profits, change in assets and market value, and their relationship with explicitly communicating innovation in mission statements. The conclusion is that among all the financial performance indicators considered, only market value represents a strong and significant result, indicating a positive relationship with explicitly communicating innovation.

Key words: Innovation, financial performance, mission statement, communication, Fortune 500, revenues, profits, assets, market value.
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1. Introduction

Many companies have adopted mission statement as a strategic tool, mostly due to the broad support of academics and practitioners to the impact generated within the organization when the mission statement is explicitly formulated, illustrating the uniqueness and identity both internally and externally for the company (Alegre et al. 2018).

The mission statement has been present in literature for quite some time. On one hand, several studies have focused on the relationship between mission statement and company performance. According to David et al. (2014), these studies concluded that there is a weak positive relationship between mission statements and measures of financial and organizational performance. Overall, the management literature suggests that the relationship between mission statements and performance is quite weak, according to Desmidt, Prinzie, & Decramer, (2011).

Other articles have also discussed the relationship between innovation and firm performance. For example, in a study conducted by Bockova et al. (2016), it was concluded that there is a link between the long-term financial performance of investigated companies and their investment into innovation. Moreover, they found that innovation over the long-term influence the ability of the company to succeed in the post-crisis period. A similar study conducted by Gunday et al. (2011) concluded that there is a positive effect of innovation on firm performance in manufacturing industries.

Our review of the extant literature revealed that there is little attention to how companies communicate innovation in their mission statements and whether there is a relationship between key performance metrics and this innovation communication. This is problematic because on one hand, while innovation is one of the values that reflects corporate identity, culture, strategic commitment, how it defines and realize itself and its directions (Self-concept as referred to by David (1989)), This identity, culture, direction, and commitments are often represented within the mission statements of these firms. On the other hand, there is no clear empirical evidence on the existence of a relationship between financial performance and the communication of this significant value in mission statements to the extent that we can neither confirm nor deny that
companies who tend more to communicate innovation in mission statements will have better financial performance.

Based on our review of the extant literature about the importance of both mission statement as a tool of strategic communication and its effect on firm performance, and the importance of innovation as a value to different stakeholders groups as well as its effect on firm performance, a pivotal question as well as a plausible expectation arose: an expectation that innovation be communicated to stakeholders through mission statements, and a question investigating a possible relationship between communicating innovation in mission statement and firm performance that can be captured on both directions. First direction, the effect of communicating innovation in mission statement on firm performance which has already been discussed in previous literature (See Zhang et al., 2018), and second, the effect of firm performance on mission statement in terms of communicating this innovation as an important value to different stakeholders within the context of the mission statement.

In line with this review, Zhang et al. (2015) note that innovation-related terms like "innovation, invention, revolutionary, and creative" are often included within mission statements, and that literature has given significant attention to the antecedents of innovation within firms. However, and despite that the mission statements of many multinational companies have innovation-related words, little attention was given to the relationship between innovation-oriented mission statement and performance.

This study aims to contribute to the literature and lessen this research gap by investigating what type of effect has the financial performance on explicitly communicating innovation in mission statement. Accordingly, our research question is:

**What is the relationship between financial performance and explicitly communicating innovation in mission statement?**
The research relies on an extensive collection of public data of companies on the *Fortune 500* list. We collect the data from the publicly available mission statements on companies’ official websites.

In order to answer the research question, the study applies quantitative analysis using logistic regression, analyzing the relationship between financial performance indicators and the explicit communication of innovation in mission statement available on the website of each company. The first step, to decide whether the company explicitly communicates innovation or not, one list of innovation related words has been identified before starting the quantitative analysis. Then, with the dichotomous output, we proceed to combine the mission statements output and the financial performance data in one spreadsheet.

Our study is structured as follows; the first section introduces the research question to give a general picture of the primary concern of the study and provides an explanation of the study purpose. The second section contains a literature review about the mission statement, innovation, and financial performance, which provides the theoretical framework for our hypotheses.

The third section presents the methodology, including the three components: research design, sample selection, and data collection. The nature of our research is explanatory with a quantitative analysis of the financial performance indicators and the communication of innovation in mission statements. The final section presents the results of the regression model with a critical view, followed by the discussion, limitations, a proposal for future research, and conclusion.
2. Theoretical framework

Peter Drucker (1973, as cited in David 1989, p. 90) note: "A business is not defined by its name, statutes, or articles of incorporation. It is defined by the business mission. Only a clear definition of the mission and purpose of the organization makes possible clear and realistic business objectives". In the early 1980s, managers and scholars have realized the need to formulate a mission statement for organizations, and since then, they have been giving significant attention to it (Alegre et al. 2018). Each organization has a different reason for existence, and this uniqueness should be communicated through a mission statement (David 1989).

2.1. Definition of mission statement

David (1989, p. 90) defines the mission statement as “an enduring statement of purpose that distinguishes one organization from other similar enterprises” and state that a mission statement is how an organization declares its “reason for being”. An effective mission statement distinguishes the firm among others of its type and states its uniqueness, in addition to identifying the scope of the business in the market and product terms (Pearce & David, 1987).

According to McGinnis (1981, as cited in David 1989), a mission statement should define the organization and its aspiration and provide distinction from other organizations. It should be balanced between being limited and broad, and it should serve as a framework for the organization’s activities evaluation. Furthermore, it should be expressed in a way that is widely understood.

A mission statement highlights the priorities, plans, structures and work assignments of the organization, and it is a vital tool to communicate with the employees and stakeholders (Moss et al. 2011).

Blair-Loy et al. (2011) note that firms may use different terms for a mission statement or its equivalent, such as ‘credo’, ‘core values’, ‘corporate philosophy’, ‘vision statement’, or ‘guiding
principles’. David (1989) also state that mission statement may be called with different names, such as “a creed statement, a statement of purpose, a statement of philosophy, a statement of beliefs, a statement of business principles”.

2.2. Importance of mission statement

Bartkus et al. (2006) note that scholars and practitioners have indicated the significance and value of a clear public mission statement. The mission gathers everyone in the organization for a common purpose and guides the efforts towards the organizational goals (McDonald 2007). Mission statement importance also comes from being an element of the corporate policy that is displayed to the stakeholders (Ingenhoff & Fuhrer 2010). The mission statement as a communication tool is also essential in forming the organizational culture (Babnik et al. 2014).

Furthermore, a well-prepared mission statement is widely agreed upon by scholars and practitioners as the first step in strategic management (David 1989). Jung and Pompper (2014) support this argument and note that formulating a mission statement and communicating it to stakeholders is vital for strategic management.

Mission statements can influence employee motivation and organizational performance, ethics, and values. Also, it can influence the relationship with stakeholders as a communication tool (Alegre et al. 2018). Values become a guiding factor for change once they are identified since value and culture are vital for implementing strategic change (Anderson & Jamison 2015). Desmidt et al. (2011) note that previous literature has indicated many benefits for formulating a mission statement, like stating the purpose and direction of the organization, guiding resource allocation, communicating effectively, and indicating the organizational values.

Most research in the literature assumes that a well-formulated mission statement should increase the ability of the firm to attain its goals, and that mission statement is essential for employee guidance and motivation which would reflect on performance (Blair-Loy et al. 2011). King and Cleland (1979, as cited in David 1989) recommend that mission statement be carefully formulated
by organizations for many reasons, like ensuring the agreement of the organization's purpose and serving as a focal point for that. Also, it provides a basis for resource allocation and contributes to the establishment of the climate within the organization. Furthermore, it facilitates the translation of goals into actions in a way that performance parameters can be evaluated and controlled.

Stallworth Williams (2008, p. 98) note that "successfully completing the mission statement process demonstrates that a firm can think reflectively, plan carefully, work collaboratively, and make informed decisions". The top management team, along with the board of directors, are responsible for formulating the mission statement, and it should be communicated so that it is understood by everyone within the organization (McDonald 2007). If a mission statement is vague, it may confuse and weaken the bond between employee's contributions and organizational goals (McDonald 2007).

2.3. Writing the mission statement

Aware of its role as a primary communication tool for strategic management, mission statement writing proficiency, instrumentality and rhetorical craft received considerable attention in the extant literature.

2.3.1. Wording and language

David et al. (2014) note that the writing (language and wording) of the mission statement, to a great extent, impact its effectiveness as a strategic management tool. For example, if the statement is focusing on the customer target group, it will direct the attention of employees including marketing, salespersons and even managers to be dedicated to providing ideal services to the customer which eventually results in the establishment of loyalty towards the firm's products and services.
Consequently, as Stallworth Williams (2008) note, many tools and materials have been offered to help firms writing and drafting an ideal mission statement, with merely similar and standard advised components, even if the labels are to somewhat different.

### 2.3.2. Rhetorical style

A different perspective has been proposed by Zhang, Garrett and Liang (2015), when they studied the effect of rhetorical style (including three components: clarity, focus, and activist tone) of the innovation-oriented mission statement on innovation performance, rather than examining the relationship between its components and company performance, arguing this has already been established in previous studies (see Bart, 1998; Pearce and David, 1987; Stallworth Williams 2008).

The study (Zhang et al. 2015, p. 12) concludes that “from the strategic perspective, mission statement which reflects the goal and vision of the company has direct influence on innovation performance” and “Overall, the results suggest that innovation-oriented mission statement should be particularly valuable to firms when the mission statement is clear, focus and with activist tone, and also promising for future research in other industries.”

David (1989) agrees that mission statements should also be subject to regular revision and scrutinization, and if written with a high craft at its earlier versions, it will require less frequent changes and tend to stand longer over time.

### 2.4. Components and contents

The exact number of mission statement components and the ideal components that should be included has varied. Bart (1997, 2002) notes that around 25 different components can be used in the writing of mission statement, and for a more specific type of mission statements called product innovation charts (PICs), which are mission statement tailored for launching new products, there can be as many as 35 components. The author also notes that not all mission statements are created
equal or contain the same components, and now, there might be components which are more valuable and essential to include than others.

While Pearce and David (1987) analyzed the mission statements of the top Fortune 500 list, Stallworth Williams (2008) analyzed the mission statement components of the top Fortune 1000 list, merely following similar steps in comparing the highest performing and lowest performing ones. Stallworth Williams (2008, p. 116) note: "Likewise, both studies found that higher-performing firms included the location, customers, and products or services components more often than did lower-performing firms, but the differences were not statistically significant in either case. In contrast, the significant differences found in this study for the survival and employee components were not found in the 1987 study, but these components were found to be positively associated with performance in research conducted by Bart (1997)”. Moreover, the higher-performing companies focused more on values of integrity, respect, responsibility, and citizenship than did the lower-performing firms.

On the other hand, David et al. (2014) and Bartkus et al. (2006) state that there is an agreement among academicians and practitioners that the ideal mission statement should contain nine components which are: customers, products or services, markets, technology, concern for survival, growth, and profitability, philosophy, self-concept, concern for public image, and concern for employees.

2.5. Relationship of the mission statement and its components to company performance

The relationship between mission statement components and firm performance has received considerable attention in the extant literature. However, research results were frequently mixed and sometimes inconclusive, most of the reasons attributed to the presence of external factors which play the role of the mediator in this relationship and act as catalyst or inhibitor that is greatly influencing this relationship. This is consistent with the results of Sufi and Lyons (2003) and I. Williams Jr et al. (2014) who agree that this relationship is inconsistent, and for a mission statement
to successfully affect financial performance, other several mediating elements should be thoroughly studied, including commitment to mission, the degree to which the organization aligns its internal structure, policies, and procedures as well as top management commitment.

In support of this assumption, David et al. (2014) refer to a meta-analysis of 20 years of empirical research on mission statements conducted by Desmidt et al. (2011) which conclude the existence of but a small positive relationship between mission statements and financial performance.

However, the authors noted that the exact magnitude of the relationship is influenced by operationalization decisions which put the mission statement and its goals in the practical focus. Nonetheless, individual components of mission statements have been examined, and results were both exciting and surprising, some of these components and their relationship to company performance will be highlighted in the next subsections.

### 2.5.1. Corporate philosophy, self-concept, and public image

According to Jung and Pompper (2014) and Bartkus et al. (2006), a leading study was conducted by Pearce and David (1987) to analyze and compare the content and components of mission statements of higher performing Fortune 500 firms with lower-performing ones, and eight key components were extracted (philosophy, self-concept, public image, customer/market, product/service, geographic domain, technology, and concern for survival). The study concludes that higher-performing firms have significantly more components of corporate philosophy, self-concept and public image as compared to lower-performing firms while nearly all of the corporate statements included the concern for survival. These results give a reflection about what for higher-performing companies use mission statements. A purpose that is elicited by the need to frequently communicate, unite and crowd all internal and external stakeholders around the firm’s targets, directions and strategies, as well as to be a communication tool to deliver on-time messages in response to significant interests, events or shakes that affect the firm.
2.5.2. Stakeholders

While Sufi and Lyons (2003) suggest that a good mission statement can serve as a useful tool for corporate communication when used to deliver a messages of assurance to all stakeholders (primary stakeholders like investors, employees, customers, shareholders, and suppliers or additional stakeholders such as a community, government or trade association), Bartkus et al. (2006) argue that the results of studies searching for a significant relationship between the stakeholders mentioned in mission statements and objective measures of firm performance are inconclusive, supporting this opinion by Bart (1997) study that looked at several stakeholder groups (customers, employees, suppliers, society, shareholders).

Bart (1997) study suggests that there is a significant but negative relationship between including one stakeholder group in the mission (as compared to not identifying any stakeholders) and financial performance. Nevertheless, only the employee stakeholder group had a significant positive relationship to performance.

Bartkus et al. (2006) also conclude that the more successful firms are likely to mention the stakeholder groups “employees” and “society”, and that the component “values/philosophy” was also associated with higher performance. Nevertheless, the significance of the positive relationship with performance was weak. At the same time, the study indicates that the "customer" group was not related to performance but more likely as a "public relations formality" that is not necessarily reflecting the commitment to meeting customer needs or achieve customers satisfaction. This is contradicting Germain and Cooper's (1990) conclusion that firms with a customer-focused mission statement were more likely to be able to apply quantitative measure that tracks customer service performance, and survey customer satisfaction and loyalty, which eventually will be reflected on the financial performance. Their study also concludes that financial objectives, industry, geographic scope, core competency, future orientation, and motivational phrases were not significantly related to performance.
2.5.3. Concern for survival, business definition, financial objectives, and firm’s values

Bartkus et al. (2006) summarize what was highlighted in previous literature by Bart (1998, 1997) which investigated 25 mission statement components and found that defining business in the mission statement had a negative relationship with the return on sales. Moreover, and interestingly, a significant negative relationship to performance was noted on mentioning the firm's financial objectives in their mission statement. However, the same study concludes that including firm's values and purpose was significantly related to higher financial performance. Conclusively and according to Bart (1998), a significant positive relationship to financial performance was noted when firm's mission statements identified the firm's values and beliefs, defined their purpose(s), included no financial goals and were also relatively short.

Overall, Sufi and Lyons (2003, p. 7) conclude that “firms with better mission statements do not necessarily perform better. However, as the literature suggests, there is a strong indirect influence of the mission statements on the business performance”.

2.6. Relationship of innovation to company performance

Innovation inside companies is commonly known as a marketing tool to show the customers the constant development of new ideas of products and services. Many companies are building new product and service concepts in order to solve problems or make life easier for customers. McDonald (2007) states that innovation is one of the main factors for success among companies. Reinforcing the importance of these economic groups to keep changing their processes and services at the same pace of the market changes in order to decrease their chances of failure.

Besides, when corporations capture the concept of innovation, this can vary from company to another, keeping this dynamic during the development of innovation process, resulting in boosting financial and organizational performance (Staub, 2016). Moreover, innovation is seen as a powerful tool for fostering internal competition. Staub (2016) notes that the model of constant
innovation is the main pillar of corporate structure. Hence, corporations are willing more to adopt innovation policies among employees to set up innovation as a mindset for the business.

Different companies start their internal process promoting innovation as a corporate strategy, or more clearly, corporate entrepreneurship strategy as result of external factors. According to Zahra (1983), environmental munificence and hostility created by technological changes create disturbance for mainstream companies. Understanding as a way to increase their performance in order to meet the new trends of the market. Therefore, companies will start thinking in different ways of approaching new business opportunities and renewal activities that are crucial to increase performance among the industries (Zahra, 1983). As a result, innovation as a corporate strategy is a part of the policy when it comes to facing constant market challenges, including new competitors or technologies.

Many studies have been looking at correlations between innovation and company performance (Staub, 2016 & Zahra, 1983). Studies about a positive correlation between innovation and company performance are addressed by Klingenberg (2013) and Zhang et al. (2018). Moreover, other studies remark that the application of new management styles or processes as a result of the continuous innovation can affect the company in an organizational perspective (Matsuo, 2006 as cited in Zhang et al., 2018), and also the financial aspects of it (Klingenberg, 2013).

Finally, from the perspective of the managers in charge of delivering financial and organizational results to the upper management, it is essential to focus on new types of organizational practices that are based on innovation in order to improve financial performance (Cámison & Villar-López, 2014). Additionally, to implement a state of innovation that benefits the company performance, it is crucial to rely first on the hierarchy of the management to accelerate the implementation of the managerial innovation structure (Damanpour, 1987).
2.7. Innovation in mission statement

Blair-Loy et al. (2011) note that two main research branches emerged regarding the mission statement importance. The first branch focused on the relationship between the mission statement and performance of the firm, especially financially. The second branch examined to what extent the content of the mission statement is translated into actions within firms.

Literature has given significant attention to the antecedents of innovation within firms. However, and despite that mission statements of many multinational companies have innovation-related words, little attention was given to the relationship between innovation performance and a mission statement (Zhang et al. 2015). While few authors highlighted the relationship between innovation-oriented mission and innovation performance, their studies were not on a broad scale but had a particular interest either in a certain industry or a sector within a specific country. For instance, Zhang et al. (2015) study was conducted on a sample of high-tech companies in China, and the results showed that mission statement has a positive effect on innovation performance, especially when the mission statement included innovation-related terms.

Zhang et al. (2015) note that innovation-related terms like "innovation, invention, revolutionary, and creative" are often included within mission statements. However, it is surprising that innovation neither captures sufficient attention in the literature in terms of how it is communicated, formulated or expressed within those statements nor it has been sufficiently examined as a unique element to be considered in the context of the instrumentality of writing a mission statement. Furthermore, little is known in regard to the relationship between innovation-oriented mission statement and firm performance.
2.8. Relationship of innovation-oriented mission statement to company performance

Firms that have improved their levels of time-to-market of new products and services have clear new product mission statements (Bart, 2002). Thus, companies having in their mission statement the challenge of delivering new products results in an enhancing of organizational performance, using innovative ideas that are materialized in financial results or positive revenues. Consequently, company performance can be perceived as financial and organizational performance, giving the possibility to compare among all the companies having a ranking sorted by revenue, assets management or market capitalization.

Innovation is a crucial component of the mission statement because the guidance for the innovative initiatives are going to be more supported if the ideas are related to the mission statement (McDonald, 2007). Thus, the relationship of innovation-oriented mission statements and idea development will experience less push-back from other coworkers inside the company (McDonald, 2007). Having, as a result, the creation of an environment where everyone embraces failures and encourages cross-sectional work because new ideas related to the mission statement will be seen as joint projects rather than personal ones, boosting innovation within the company (McDonald, 2007).

In the particular case of the mission statements of tech companies, Zhang et al. (2018) suggest that words related to innovation should be included in order to improve and encourage innovativeness, resulting in better products and services offered. The authors highlight the importance of innovation inside very competitive industries like technology, where every year there is a change in trends and new challenges to solve. Besides, to keep the company performance, innovation play a central role in boosting financial and organizational results, supported by managers at every level (Damanpour, 1987).
2.9. **Relationship of mission statement to other factors**

Researching the importance of mission statements and their relationship with company performance, and how innovation is embedded helping to materialize a better communication, literature indicates a relationship of mission statement and other factors as presented in the following paragraphs.

Bart (1998) notes that mission statements that include organizational values tend to improve the general performance of firms where this particular way of communication. It was evidencing an increase in the return on sales and the influence on employee behavior. This could be significantly greater because of the incorporation of words that represent the company and in consequence, all the workers.

Studying the relationship between mission statements and the implementation of organizational practices during a specific period, Blair-Loy et al. (2011) state that mission statements that include goals and values are capable to positively influence following actions necessary for the company.

Bartkus & Glassman (2008) study the relationship between mission statements and stakeholder management. The authors highlight that mission statements are communicating words that can be interpreted as commitments to stakeholders, also ways of communicating and share how managers conceive the company, because mission statements are usually publicly available. The study concludes that firms communicating stakeholders’ concerns in their mission statements rather than innovation are more likely to solve those issues in a practical environment.

2.10. **Hypotheses**

Literature has indicated the importance of mission statements in many aspects, including being a communication tool of company values, both externally and internally. Furthermore, literature has highlighted the importance of innovation and its relationship to financial and organizational performance. Accordingly, and since both mission statement and innovation are essential for
companies and their stakeholders, we can expect that firms will communicate innovation in their mission statements.

Revenues are a result of successful branding and marketing in a way that addresses the interests of customers. It is known recently that the selections of the customers have changed significantly from the desire to acquire traditional products to the acquisition of the more recent and the most innovative products. To address the interests of those customers, firms will need to brand themselves as innovative and use its mission statement as an effective communication tool for that purpose.

Also, many companies have integrated its stakeholders within the production process following the co-creation concept where the internal and external stakeholders and on top of them, customers, become an integrated part of the innovation process and new products design and development (Boier, 2013). Giving it more priority to be addressing their interests and selections. Thus, we developed the following hypothesis:

**H1: There is a positive relationship between revenues and communicating innovation in the mission statement.**

Our second hypothesis is that there is a positive relationship between profits and explicitly communicating innovation in mission statement. To our understanding, as companies start to generate more profits, this would increase companies tendency to communicate innovation activities and to develop innovative strategies that lead eventually to new products, better processes or even entirely new business directions. It is also based upon plausible anticipation that this resulting state of innovation may become a valuable asset that is important to be captured and communicated to serve the public image of the firm and be reflected upon its brand and style to be described as an "Innovative company". As a result, we have developed the following hypothesis:

**H2: There is a positive relationship between profits and communicating innovation in the mission statement.**
As stated by Cámison et al. (2014), managers need to adopt innovation in their general policy as part of their skill set in order to obtain a better financial performance. Thus, the best way of communicating and share innovation is by using mission statements, which are very often available and public. Additionally, Bart (2002) suggests that companies with innovation-oriented mission statement have as a result an improvement in their financial performance. As there is a shortage of empirical research regarding the relationship between financial performance and communication of innovation. Consequently, we decided to choose first, the change in assets managed by the company as an indicator of financial performance. As stated in the literature review, every increase or decrease in assets, which can mean cash and other assets, will impact the company's organization, reflecting in its strategy. Moreover, as we present mission statement as part of the company's strategy, it is important to analyze the effect of the inclusion of innovation as a change in the strategy. As a result, we have developed the third hypotheses as follows:

**H3: There is a positive relationship between change in assets and communicating innovation in the mission statement.**

The last hypothesis looks at market value of the company. As a result of the analysis in the literature review, it suggests that there is a relationship between the market value and the communication of innovation in mission statement. The literature indicates that organizations rely on their valuation from the market to change strategies and corporate guidelines. The change in strategies is also in line with the image of the company and how it is perceived by shareholders and investors. One way of expressing strategy is that companies would communicate innovation in their mission statement. Furthermore, market value of a company can be influenced by new products or services increasing or decreasing their valuation. Hence, we have developed the following hypothesis:

**H4: There is a positive relationship between market value and communicating innovation in the mission statement.**
3. Methodology

3.1. Research design

This empirical study draws upon a large sample of mission statements on official company websites available online, which are the ones that belong to the Fortune 500 list, where all the firms are ranked by total yearly revenue.

Firstly, finding a section where the mission statement was presented is difficult because nowadays, companies are using different ways of communicating their mission statements, and in different places within the website. Companies are communicating innovation in different ways, and in various website’s sections as a way to show the corporate culture based on constant innovation. Thus, it is vital to capture also the words related to innovation to reflect the original innovation-oriented mission statements construction in all the firms (Zhang et al., 2018).

Secondly, analyzing mission statements offers access to a significant amount of quantitative data that reflects the mindset of the company related to products, services, and their stakeholders, and also reflecting their performance. The present study is based on a deductive approach with four hypotheses derived from the existing literature. Moreover, for the reliability of the data, companies’ official websites were the source of mission statements included in this study. In addition, having companies from 22 business sectors results in a representative sample.

Finally, the process of coding the data was systematically performed over the duration of the research to assure reliability. The initial step was to identify the list of words which explicitly communicate innovation in all the mission statements collected. The data was given numerical codes or numbers, which facilitated and minimized errors. Then, Microsoft Excel was used to arrange and structure all the information concerning to the mission statements and financial indicators.

The next important thing to mention in the research design is the utilization of a quantitative approach. The logistic regression model allows us to analyze the impact of each of our independent
variables in the binary output, giving to the study the tools to analyze the likelihood of the success scenario under specific settings of the independent variables.

We analyze the final structured dataset looking for outliers, and after reviewing the continuous independent variables, we conclude that because of the distribution and the number of outliers, we need to apply transformations of the main variables included in the study, in order to build a better model. Consequently, using logarithm, we obtain continuous variables without outliers and discontinuity. The transformation process consists of applying logarithms directly into each variable to change the data distribution from highly skewed to a less skewed one. Helping us to test each hypothesis with structured data that follows a consistent pattern. This approach is adopted mainly because within the top 100 Fortune companies there are significant differences in each tier. Looking at revenues, for example, the difference between the first and second rank is almost double (first 500k US$ millions and second 244k US$ millions).

3.1.1. Dependent variable

The dependent variable is related to different independent variables that affect or influence the outcome. For this study, the dependent variable measures whether the company is communicating innovation in its mission statement. The importance of developing innovation-oriented mission statements and evaluating the relationship with financial performance is a crucial factor for every company seeking growth (Bart, 2002). Consequently, to capture the behavior of innovation-oriented mission statements, our dependent variable will be dichotomous resulting in two scenarios: the company communicates innovation explicitly in its mission statement (1) or does not communicate innovation explicitly (0).

We have provided as many details as we can in describing and explaining the steps of our research. Also, to avoid observer bias and error in the process of deciding whether the company is explicitly communicating innovation or not, we have identified a list of words which are associated with explicitly communicating innovation. Then, if the text of the mission statement or its equivalent contained one or more of these words, we considered that the company does explicitly
communicate innovation. If no words from this list were found in the text, we considered that the company does not explicitly communicate innovation. The list of words is as follows:

- Innovation.
- Innovative.
- Innovating.
- Innovate.
- Innovators.
- Invent.
- Breakthroughs.
- Entrepreneurial.
- Creative.
- Ideas.
- Ingenuity.
- New ways.
- New products.

### 3.1.2. Independent variable

The creation of independent variables will be related to the performance of the company seen from the perspective of revenues, profits, change in assets and market value. All these variables are measured in real numbers, including positive and negative inputs within the sample.

First, the variable revenues indicates the income generated in 2018 in US$ millions and has all positive values greater than zero. The label to identify it in the statistic software will be revenues.

Second, the independent variable profits includes positive and negative values representing the profits of each company made in 2018 and measured in US$ millions. The label to identify it in the statistic software will be profits.
Third, the variable *change in assets* indicates the change in the level of the financial assets of the company from 2017 to 2018 for each firm, measured in percentage. The label to identify it in the statistic software will be *changeassets*.

Finally, *market value* represents the valuation of each firm in 2018, showing only positive real numbers in US$ millions. The label to identify it in the statistic software will be *marketvalue*.

### 3.1.3. Control variables

We considered five control variables, which are the sectors, to examine if these influence the communication and perception of innovation within large firms.

Type of sector: Five dummy variables accounted for whether the company belongs to different sectors (Energy, Financial, Health Care, Retailing and Technology). The use of the five dummies makes it possible to examine whether the chances of innovation in mission statements are influenced by the sector that the company belongs to. These five sectors are representing 54.2% of the sample analyzed.

### 3.2. Sample selection

Our first step was to find companies that do have the required information available to the public. The information includes the following: a mission statement that is available on the company's official website, and public information about the company's financial performance, which includes revenues, profits, change in assets, and market value.

Accordingly, we found out that high performing companies are more suitable as a sample for our study due to the availability of public data, compared to small and medium-sized companies for example, where similar data is more difficult to obtain, especially with the time constraint associated with our study.
As a result, and in order to address our research question and the four hypotheses, we chose the companies listed on the 2018 *Fortune 500* list, which was the latest list available at the time of sample selection. The list ranks the top performing companies in terms of revenues, and it also includes financial performance information, including profits, assets, market value, and more.

Another reason of choosing the *Fortune 500* list is that it includes the most successful companies in terms of revenues, which makes the study more interesting in terms of explaining the relationship between financial performance and explicitly communicating innovation in mission statements of these companies.

### 3.2.1. Inclusion and exclusion criteria

The inclusion and exclusion criteria that we use is as follows:

**Inclusion:**

Companies’ websites that have one of the following examples and names or similar are included in our sample:

- Mission statement.
- Our values/ Core values.
- Our DNA.
- Our principles/ Guiding principles.
- Statement of beliefs.
- Vision statement if it served as both mission and vision statement.
- Clear definition of the company and its purpose of existence within the "About" page and its subcategories.
- Specific statements that represent a mission statement, like: "We are here to", "Our purpose is", "We exist to", "Our reason of being is", "We are on a mission to", "We are all united to", "We try to", "Our goal is", "We aspire to be", "What we care about is".
- Latest annual report or code of business conduct that includes any of the above mentioned.
Exclusion:

- The mission statement or its equivalent is not found on the company’s official website.
- The company’s website is out of service during the time of data collection.

3.3. Data Collection

For the data collection, which took place during April 2019, we visited all official websites of the companies on *Fortune 500* list and surfed for the mission statement. To be as much comprehensive as possible, we included all names and derivatives of a mission statement, and relevant statements that can serve as a mission statement when no mission statement was found; we scouted for statements that are used repeatedly and reflect mission of the company. Statements like these start with: "We are here to", "Our purpose is", "We exist to", "Our reason of being is", "We are on a mission to", "We are all united to", "We try to", "Our goal is", "We aspire to be", "What we care about is".

In a different approach, Pearce & David (1987) also sent surveys to the whole firms within the *Fortune 500* list and sorted their research results upon the surveys returned by 218 out of the 500 firms. Other researchers like Stallworth William (2008) e-mailed or phoned the corporation when neither a mission statement nor an equivalent could be located on a corporation’s Website. We chose to exclude this approach due to the time limitations of our study.

During our data collection process, we had to take into account that using a mission statement as a communication tool has subsequently more dynamic nature in terms of writing and presentation. It was and still subject to change and continuous improvement, which was clearly observed while surfing companies' websites. This dynamic nature of mission statement, in turn, led us to adopt a comprehensive approach during the collection process, while at the same time setting a clear set of inclusion and exclusion criteria.

We also found it presented in many different places within the firms’ websites including: “home page”, “about”, “Who we are”, “Our company”, “investor relations”, “careers”, or even the “FAQ” page. It was also found on different firms’ reports and files including: “Annual reports”, “statements of principles”, “code of conduct” and “our credo”.

Regarding the data collection of the financial performance information, like revenues, profits and market value, we have referred to 2018 Fortune 500 list website, where this information was available for the listed companies. For change in assets, we referred to Fortune 500 lists of 2018 and 2017, locating the assets in each year to calculate the change for each company.

### 3.4. Description of the regression model

Using maximum likelihood estimation, logistic regression predicts the probability of an event to occur (Sallis & Sharma, 2009). In our study, the event refers to explicitly communicating innovation in mission statements. We require models which fit the data well and deliver accurate predictions. Hence, we use the following logistic regression model to test our hypotheses:

\[
\text{logit}(\pi) = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \text{error}
\]
Where:
Logit ($\pi$) = Explicitly communicating innovation in the mission statement. The dependent variable is related to different independent variables that affect or influence the outcome. For this study, the dependent variable measures whether the company is explicitly communicating innovation in its mission statement or not. Accordingly, the result is dichotomous, resulting in two scenarios, the company explicitly communicates innovation in its mission statement (1), or they do not explicitly communicate innovation (0).

\[ X_1 = \text{Revenues}. \]
\[ X_2 = \text{Profits}. \]
\[ X_3 = \text{Change in assets}. \]
\[ X_4 = \text{Market value}. \]

Control variables:
Type of sector
\[ X_5 = \text{Energy sector (0=non-energy firm, 1=energy firm)}. \]
\[ X_6 = \text{Financial sector (0=non-financial firm, 1=financial firm)}. \]
\[ X_7 = \text{Health Care sector (0=non-health care firm, 1=health care firm)}. \]
\[ X_8 = \text{Retailing sector (0=non-retailing firm, 1=retailing firm)}. \]
\[ X_9 = \text{Technology sector (0=non-tech firm, 1=tech firm)}. \]
4. Results

4.1. Descriptive data

The total number of companies in the database is 480. Out of these companies, 276 are considered that they are explicitly communicating innovation in their mission statements, and 204 do not explicitly communicate it.

The following table provides information about the percentage of companies that explicitly communicate innovation in each of the largest five sectors within the sample:

Table 1 Percentage of companies communicating innovation explicitly by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of companies</th>
<th>Number of companies that explicitly communicate innovation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>38</td>
<td>30</td>
<td>78,9%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>40</td>
<td>31</td>
<td>77,5%</td>
</tr>
<tr>
<td>Energy</td>
<td>56</td>
<td>27</td>
<td>48,2%</td>
</tr>
<tr>
<td>Financial</td>
<td>81</td>
<td>34</td>
<td>42,0%</td>
</tr>
<tr>
<td>Retailing</td>
<td>45</td>
<td>12</td>
<td>26,7%</td>
</tr>
</tbody>
</table>

The average revenues for the group was 24,618 US$ millions with a minimum value of 5,428 US$ millions and a maximum of 500,343 US$ millions. In the case of the profits, a minimum value represented losses of 6,798 US$ millions, with an average of 1,872 US$ millions and a maximum profits of 30,101 US$ millions. For the variable change in assets, there is an average value of 7.68% with a maximum number in the dataset of 68.51% leading by the Household products sector. Among the most valuable American companies, the average market value is 41,560 US$ millions reaching a maximum number of 719,124 US$ millions according to the final sample of 480 companies. Reviewing the control variables, there are two crucial aspects to be mentioned, the leading sector is Financial grouping 81 companies followed by Energy with 56 firms.
Table 2 Descriptive statistics for all variables considered in the regression model

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication innovation</td>
<td>480</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.58</td>
<td>0.495</td>
</tr>
<tr>
<td>Revenues US$ millions</td>
<td>480</td>
<td>494,914.1</td>
<td>5,428.9</td>
<td>500,343.0</td>
<td>24,618.51</td>
<td>38,788.06</td>
</tr>
<tr>
<td>Profits US$ millions</td>
<td>480</td>
<td>36,899.0</td>
<td>-6,798.0</td>
<td>30,101.0</td>
<td>1,872.60</td>
<td>3,830.51</td>
</tr>
<tr>
<td>Change in assets 2017 – 2018 (percentage %)</td>
<td>480</td>
<td>183.19</td>
<td>-83.19</td>
<td>68.51*</td>
<td>7.68</td>
<td>19.61</td>
</tr>
<tr>
<td>Market Value US$ millions</td>
<td>480</td>
<td>719,124.0</td>
<td>39.0**</td>
<td>719,124.0</td>
<td>41,560.15</td>
<td>78,160.80</td>
</tr>
<tr>
<td>Energy sector</td>
<td>480</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.12</td>
<td>0.321</td>
</tr>
<tr>
<td>Financial sector</td>
<td>480</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.17</td>
<td>0.375</td>
</tr>
<tr>
<td>Health Care sector</td>
<td>480</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.08</td>
<td>0.277</td>
</tr>
<tr>
<td>Retailing sector</td>
<td>480</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.09</td>
<td>0.292</td>
</tr>
<tr>
<td>Technology sector</td>
<td>480</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.08</td>
<td>0.270</td>
</tr>
</tbody>
</table>

*Maximum value excluding companies with no records of assets in 2017.

**Minimum value without considering “0”.
4.2. Presentation of the results in the regression model

As a first step, we checked if the assumptions for the logistic regression are held. Starting with the dependent variable that should be measured with a dichotomous scale. In our model, we are using binary output related to the explicit communication of innovation in mission statements, giving a value of 1 if they explicitly communicate and 0 if they do not. The second assumption is that the model has to have one or more independent variables, which can be either continuous or categorical. For our model, we are considering four continuous variables and five categorical ones. In the case of the continuous variables selected, we have revenues, profits, change in assets and market value. The categorical variables are dummy variables representing which sector the company belongs. Third, there should be independence of observations, and the dependent variable should have mutually and exclusive categories. For this assumption, the dependent variable which is explicit communication of innovation in mission statements can only belong to one category, and the final sample (480) is considering all the cases where the company chose to communicate (1) or not (0) leaving no space for missing values. The final assumption is that there needs to be a linear relationship between any continuous independent variable and the logit transformation of the independent variable. The transformation of the variables into logarithms helped us to verify this assumption.

Using the methodology to present results developed by Sallis and Sharma (2009), we start by comparing models including only the control variables (1st Regression Model) and the other one including our main variables as well: revenues, profits, change in assets, and market value (2nd Regression Model). First, as shown in Table 2, by comparing the -2 log likelihood ratios we found that the model including all the variables (control and metric) had a lower value, indicating better model fit since the model is catching all the sample. In the other hand, the 1st Regression Model has a higher value of -2 log likelihood because it is only capturing only the effect of the control variables: Energy sector, Financial sector, Healthcare sector, Retailing sector and Technology sector. Next, a good model fit is indicated by an insignificant Hosmer-Lemeshow $\chi^2$ statistic. In Table 2, we see that this is the case for both models (significant when p<0.05). Last, using a $\chi^2$ difference test between model $\chi^2$ statistics, we find that there are no significant differences between both models, as it is shown in Table 2. Our conclusion for this case is that the 2nd
Regression Model, including the control and metric variables, is the best option to test our hypotheses and is fitting better the sample.

Table 3 Comparing the Models

<table>
<thead>
<tr>
<th></th>
<th>1st Regression Model (only control variables)</th>
<th>2nd Regression Model (control and metric variables)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2 log likelihood</td>
<td>607.809</td>
<td>420.062</td>
</tr>
<tr>
<td>Hosmer-Lemeshow χ²</td>
<td>0.000 (df=4; p=1.000)</td>
<td>7.922 (df=8; p=.441)</td>
</tr>
<tr>
<td>Model χ²</td>
<td>46.771 (df=5; p=.000)</td>
<td>47.368 (df=9; p=.000)</td>
</tr>
<tr>
<td>Model χ² difference test:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.771 - 47.368 = -0.597; df: 9-5 =4</td>
<td></td>
</tr>
<tr>
<td>χ² cutoff at α=.05 (df=1) is 3.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.597 &lt; 3.84, thus the difference is not significant</td>
<td></td>
</tr>
</tbody>
</table>
The hit rate measures the classification accuracy compared with naive and random models. The naive model is simply the accuracy if all observations were placed into the largest group in the sample, which in this case is 58.8%, which is the group of companies that explicitly communicate innovation. The goal of logistic regression, however, is to place members into the correct group accurately. This means that, against the odds, it places members in the smaller group as well. Referring to Table 3, the present model performs very well. The "No explicit communication of innovation" hit rate is 44.4%, and the "Explicit communication of innovation" hit rate is 86.2%, exceeding either base model. This means that our model far exceeds random chance in predicting if a company will explicitly communicate innovation in its mission statement.

The Wald statistic indicates the significance of each estimated coefficient, providing tests for specific hypotheses. The 2nd Regression model coefficients shown in Table 4 are all significant (Sig. (p)<.05), except for Health Care sector, the Technology sector, Log10Revenues, Log10Profits, and Log10ChangeAssets, for the last three variables, we are representing revenues, profits and change in assets transformed into logarithm distribution respectively. The variable

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>No explicit communication of innovation</th>
<th>Explicit communication of innovation</th>
<th>Percentage correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No explicit communication of innovation</td>
<td>63</td>
<td>79</td>
<td>44.4%</td>
<td></td>
</tr>
<tr>
<td>Explicit communication of innovation</td>
<td>28</td>
<td>175</td>
<td>86.2%</td>
<td></td>
</tr>
<tr>
<td>Overall percentage</td>
<td></td>
<td></td>
<td></td>
<td>69.0%</td>
</tr>
</tbody>
</table>
Log10MarketValue, representing the market value for each company in 2018, which is significant at $\alpha = 0.05$. However, Log10Revenues, Log10Profits and Log10ChangeAssets are not significant neither at $\alpha = 0.05$ nor at $\alpha = 0.1$.

Table 5 Regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>1st Regression Model</th>
<th>2nd Regression Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Std. Err</td>
</tr>
<tr>
<td>Energy sector</td>
<td>-0.671*</td>
<td>0.302</td>
</tr>
<tr>
<td></td>
<td>[0.027]</td>
<td></td>
</tr>
<tr>
<td>Financial sector</td>
<td>-0.923*</td>
<td>0.266</td>
</tr>
<tr>
<td></td>
<td>[0.001]</td>
<td></td>
</tr>
<tr>
<td>Health Care sector</td>
<td>0.638</td>
<td>0.404</td>
</tr>
<tr>
<td></td>
<td>[0.115]</td>
<td></td>
</tr>
<tr>
<td>Retailing sector</td>
<td>-1.611*</td>
<td>0.365</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td></td>
</tr>
<tr>
<td>Technology sector</td>
<td>0.723**</td>
<td>0.422</td>
</tr>
<tr>
<td></td>
<td>[0.087]</td>
<td></td>
</tr>
<tr>
<td>Log10Revenues</td>
<td>0.196</td>
<td>0.398</td>
</tr>
<tr>
<td></td>
<td>[0.622]</td>
<td></td>
</tr>
<tr>
<td>Log10Profits</td>
<td>-0.564</td>
<td>0.391</td>
</tr>
<tr>
<td></td>
<td>[0.149]</td>
<td></td>
</tr>
<tr>
<td>Log10ChangeAssets</td>
<td>-0.213</td>
<td>0.237</td>
</tr>
<tr>
<td></td>
<td>[0.370]</td>
<td></td>
</tr>
<tr>
<td>Log10MarketValue</td>
<td>1.254*</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>[0.002]</td>
<td></td>
</tr>
</tbody>
</table>
4.3. Hypotheses testing and interpretation

In our first hypothesis, we assumed that there is a positive relationship between revenues and explicitly communicating innovation in mission statements. Looking at the empirical results in the regression model, we have a positive relationship as well, even though the significance level is greater than 0.05. It is possible to interpret the result as follows, for every increase of 1 million US$ in revenues, it is 21.7% more likely for the company to explicitly communicate innovation in their mission statements. As a conclusion, hypothesis H1 is not supported by the model since the relationship is statistically insignificant.

Secondly, we expected that there is a positive relationship between the level of profits and explicitly communicating innovation in mission statement. However, the results suggest a negative relationship. Although the critical cutoff value of $\alpha=0.1$ is inferior to the actual significance value. Nevertheless, since the beta coefficient is negative, every additional increasing of 1 million US$ in profits, it is 43.1% less likely for companies to explicitly communicate innovation in their mission statements. In conclusion, the hypothesis H2 is not supported by the model since the relationship is statistically insignificant.

Moving forward to understand the influence of the change of assets managed in every firm. The variable $\text{Log10ChangeAssets}$ is statistically not significant among the main variables as well, giving us a negative beta value of -0.213 and an odds ratio of 0.808. Nevertheless, we can interpret as follows, for every additional increasing of 1% in change in assets managed it is 19.2% less likely for companies to explicitly communicate innovation in their mission statements. Thus, our hypothesis H3 is not supported since the relationship is statistically insignificant.

The last hypothesis was related to market value, stating that the most valuable companies do explicitly communicate innovation in their mission statements. The variable $\text{Log10MarketValue}$
is the strongest and only statistically significant variable among the others, having a positive beta of 1.254 and with an odds ratio of 3.503. Results suggest that for every 1 million US$ increase in market value, it is 250.3% more likely for companies to explicitly communicate innovation in their mission statements. Consequently, the hypothesis H4 is supported, and the empirical data matches the theory, with a significance level of 0.002 considering a cutoff of $\alpha=0.01$.

Regarding the control variables considered in our final logistic model. It is possible to suggest the following interpretations. Among all the three control variables, the most reliable predictor was the Retailing sector with an odds ratio of 0.228, stating if the company belong to the Retailing sector. Hence, companies in this sector are 77.2% less likely to communicate innovation in their mission statements. The same results were found for companies belonging to the Energy and Financial sector, where are 59.4% and 46.6% less likely to explicitly communicate innovation in their mission statements, respectively.
5. Discussion

The purpose of this study was to examine the relationship between different financial performance indicators with explicitly communicating innovation in mission statements.

Starting by discussing the variable revenues, the statistically insignificant relationship between revenues and explicit communication of innovation in mission statements is reflected in the empirical model.

This can be explained by the intended lack of renewal of some mission statements from a managerial point of view, which contradicts the concurring direction of staining the mission statements, with a more dynamic nature. This actually was observed in our data collection and it is also in line with Stallworth Williams (2008) findings that there is a noticeable increase in the length and sophistication of the mission statements recently compared to the earlier versions, and that this happens more frequently when these statements are illustrated on the firms' official websites.

In sum, while many companies tended to renew, modify, update and expand their mission statements, other companies found it more suitable to keep the statue of the original mission statement unchanged, uniting the stakeholders under a flag of a few, resonant and straightforward words. Alternatively, a different segment or division within the firm's website can be dedicated to addressing the innovation as a value and as a process, separately and in details. In some cases, we found the company chose to list in detail its innovation activities within its CSR (Corporate Social Responsibility) annual report as well as separately with each segment of its rich portfolio of businesses while kept unchanged its original mission statement.

A plausible explanation is also the "motivation for change". It is still a matter of argument in the literature whether companies lean to innovate in response to risks or opportunities, and whether companies innovate when revenue drops occur. However, one point of view suggests that when companies are at financial risks, the motivation for change and innovation can be elicited to overcome the current financial drops and the need to reunite all efforts under one purpose becomes
a matter of importance, while financially stable companies may feel more confident and unwilling to change since the current communication and management tools give their desired outcome.

Our model revealed a negative relationship between the profits and explicitly communicating innovation in mission statement. Despite the fact that the relationship is statistically insignificant, it can be logically understood.

To our understanding, as companies start to pile up more profits, this might increase companies tendency to invest more in supporting innovation activities and develop innovative strategies that lead eventually to new products, better processes or even new business directions. Consequently, the anticipated result is more sales and profits, which seems like a gradual upward spiral and natural movement. However, the result may also be explained in the way that there is a difference between communicating innovation as a value in mission statements and the actual innovation of the firm. Our observation during the data collection process supported this explanation to some extent, as frequently, we found companies that are known to be innovative or have an innovation-supporting scheme while their mission statements are not representing or reflecting this innovation.

In line with the previous two variables, change in assets had a statistically insignificant negative relationship. Reflecting that in every increase experienced by the company in terms of assets, it is less likely to explicitly communicate innovation in its mission statement. The negative result can be explained as part of the behavior of every company that increase its assets, which can mean also increase in cash availability. This effect is not rewarding or a critical matter when it comes to including the innovative mindset using its mission statement as a communication tool.

The most important finding of our study is the unveiled significant positive relationship between market value of the firm and explicitly communicating innovation in mission statement. This relationship suggests that companies with a higher market value are more likely to communicate innovation explicitly in their mission statement. To discuss this result, we need first to understand what market value reflects, who are the beneficiaries, and what specific factors determine it.
Generally, a firm’s market value is an effective indicator of investors’ perceptions about the firm business and its position in the market, both in the current time and within certain years in the future. It is also dynamic and fluctuating in nature as it depends on many factors, from physical operating conditions to economic climate to the dynamics of demand and supply. Market value is also dependent on numerous other factors, such as the sector in which the company operates, its profitability, debt load and the broad market environment. The market value directly reflects upon the stock price of the firm (Chen, 2019).

As previously discussed, innovation is one of the important values to different stakeholders, including customers and investors. Boier (2013, p. 1) states that “Recognized as an effective opportunity for innovation, value co-creation allows the company to use relationships with customers and other stakeholders during the generating process, to create a space for mutual learning, co-creation and co-design, in which the stakeholders become an integrated part of the innovation and design process not only as a simple informants”. Consequently, a plausible explanation that the state of innovation becomes a valuable asset that is important to be captured and highlighted in the firm mission statement to serve its public image and reflect upon its brand and style to be described as an "Innovative company". It would also send messages of assurance to all stakeholders that the company is well positioned and well-performing both currently and in the future by keeping itself focused on continuous innovation, improvement and adding new products to its stream. This message of “We are doing good now and, in the future,” is directly reflected on the stock price of the firm, especially when other economic factors and atmospheres are changing or unstable.

Regarding the control variables, companies that belong to energy, financial and retailing sector are about 70 to 80 % less likely to communicate innovation in their mission statement. This finding is not entirely surprising. In regard to the companies within the energy sector, despite the considerable notion of innovation comes when the field of discussion is renewable energy activities, and investments, the main activities and core businesses remain concrete with less frequent changes on the long-run. Activities like energy transport services, drilling and refining, are the major ones rather than devising or manufacturing activities that require more innovation and renewal. Moreover, financial and retailing sector. A plausible explanation could be since these
companies are more customer-centric than others. They communicate their customers and other stakeholders more frequently through their products, discounts, and portfolio of offerings.

In a nutshell, innovation may be one of the main contributors to these companies' market value, and that these companies do have the "innovation gene", where innovation is present in everything they do, including expressing themselves, which translates in explicitly communicating innovation in the mission statement.

One of our observations also was the dynamic nature of the mission statement and factors that affected that nature. In our guess, this dynamic nature can be a response to the full range of stakeholders that the companies needed to address coupled with the growing need to address each of them separately. in this case, the limited statement is not sufficient to fulfil the purpose. We also found some new highlighted values and trends such as sustainability, diversity, and inclusion that in the past did not have as much attention with a growing need to include and consider while addressing stakeholders and as a part that reflects the firm public image. Regarding the presentation of the mission statement, we have also noted a significantly professional use of colors, pictures and creative styling/design, and even presenting in short videos.

5.1. Limitations of the study

In this section, we highlight the limitations associated with our study. The first limitation is regarding the sample we chose. Our study is about communicating innovation by high performing companies listed on 2018 Fortune 500 only. For example, companies that are not listed on Fortune 500, or small and medium-sized companies are not included in our sample.

The second limitation is that our study examines specific indicators of financial performance, which are revenues, profits, change in assets, and market value. In addition, these indicators are measured in one year only, which might differ from the long-term financial performance. Also, the study examines only the latest mission statements available on the companies' websites. Previous versions of mission statements are not included in the study.
The third limitation is about our study's response variable, which is binary: either the company explicitly communicates innovation or not. So, the study does not measure the intensity of communicating innovation in mission statements. Also, our study focuses on explicit communication of innovation that is defined by a specific list of words related to innovation. Thus, our study does not examine implicit communication of innovation. Furthermore, this study focuses on and examines the communication of innovation, not the actual innovation of the company. A company might be innovative, but it may not explicitly communicate innovation in its mission statement.

Despite the fact that the aforementioned limitations can limit the ability to generalize the results, the newness of the addressed hypotheses gives this study an important value to lead future research for a more in-depth understanding of the interplay between financial performance and explicitly communicating innovation.

5.2. Future research

After the literature review of different topics such as mission statements, innovation, company performance and the relationship between these topics and other factors, there are many research opportunities and further possibilities to explore the impact of every component.

Bartkus, Glassman & McAfee (2006) study the reactiveness and proactiveness of the mission statements, where being reactive as a firm means to build a mission statement describing what the firm is doing now, while being proactive is more related to how the firm should be focusing on in the future. Hence, further research may understand and determine which type of mission statement is universal and include both aspects.

McDonald (2007) focuses on the mission statement itself, analyzing its importance in driving innovation in nonprofit hospitals. Therefore, one question to further research may be examining characteristics of mission statements in order to be clear and motivating in this sector.
Desmidt et al. (2011) note that induction of specific organizational benefits, where the particular characteristics of the mission statement are applied, which may have a positive impact on the organization. The future research may focus on the way how companies deliver, implement and communicate mission statements.

Our study is about explicitly communicating innovation within the mission statement and the relationship to the company's financial performance, in terms of revenues, profits, change in assets change, and market value. A research opportunity could be about studying the relationship of explicitly communicating innovation with organizational performance. Such a study can take several directions, depending on which aspects of the performance are chosen. Another opportunity of research could be about studying the communication of a different element within the mission statement and the relationship with company financial performance.

Another opportunity could be about studying communicating innovation within the mission statement and the relationship with the actual innovation. However, unlike revenue, which can be accurately measured, and the companies can be ranked, innovation is more difficult to be measured or ranked. However, some approaches may be followed to indicate the innovation of the company, like number of patents, for example. Also, there are lists that rank companies based on their innovation, and those lists may be considered for data collection if they were considered reliable.

Regarding the observation about the dynamic nature of mission statements, more dedicated and comprehensive research regarding this dynamic nature, causes, and factors affecting it is highly suggested for future studies. A time-related study can also be valuable to explore that change over time and compare the recent and old versions.

Finally, and based on the limitations of our study, a research opportunity can be about communicating innovation in the mission statements of small and medium-sized companies, or companies that are not listed on Fortune 500 for example.
6. Conclusion

The purpose of this study was to investigate the relationship between financial performance and explicitly communicating innovation in their mission statements considering different financial performance indicators. The results suggest a strong positive relationship between market value and explicitly communication of innovation in mission statements. On the other hand, the variables revenues, profits and change in assets have a statistically insignificant relationship with explicitly communicating innovation.

Companies having high market value are more likely to explicitly communicate innovation. One of the possible reasons could be that these companies want to be perceived as innovative hubs, and give the impression of focusing on new markets, products and services to their customers, as well as sending a message of trust that the firm is moving in the right direction now and in the future. It is possible now to see how the most valuable companies portray themselves as innovation-driven organizations.
References


### Appendix A SPSS output 1st Regression Model

#### Variables in the Equation

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Appendix B SPSS output 2nd Regression Model

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